United States Environmental Protection Agency | Solid Waste and Emergency Response (OS-343) | EPA/530-R-97-004F December 1996

EPA

RCRA Permit Policy Compendium

Volume 6

9444.1987 - 9457.1996

Identification and Listing of Hazardous Waste (Part 261)

- Lists of Hazardous Waste

Generator Standards (Part 262)

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ATK1/3590/07 kg

DISCLAIMER

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9444.1987(02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 27 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Ronald J. Drozdowski
Process and Environment Chemist
Moog Inc.
East Aurora, NY 14052

Dear Mr. Drozdowski:

I am responding to your letter dated December 9, 1986, identified as ME LTR #25-86, that requested our interpretation of the regulatory status of your coolant waste streams. Mr. Ed Abrams, of my staff, spoke to you on the telephone on Janaury 8, 1987, to clarify several points regarding the management of your waste streams containing 1,1,1,-trichloroethane (111-TCE).

Mr. Abrams determined that you segregate your vapor degreasing operation wastes from your machining coolant wastes. While both wastes contain 111-TCE, only the spent degreasing solvent is a listed hazardous waste (F001) at this time. Your coolant wastes are not interpreted as EPA Hazardous Wastes F001 under the Federal hazardous waste program at this time because the coolant is not being used as a solvent, nor has it been mixed with a spent solvent. However, the coolants would be considered hazardous if they exhibit one or more of the characteristics of hazardous waste.

You should also be aware that the Office of Solid Waste is presently working on a toxicity characteristic which is likely to establish levels of 111-TCE in waste extracts that will cause them to be characteristically hazardous if the concentrations of 111-TCE are exceeded. (See enclosure for proposed rule.) These wastes will have a "D" classification. Thus, although your coolant wastes may not currently be subject to the RCRA Subtitle C regulations, they may be defined as hazardous in the fut[redacted]

If your coolant wastes are currently not subject to Subtitle C regulations, you will not need a RCRA permit to dewater and thereby reduce the quantity of the coolant waste for disposal. However, I strongly recommend that you consult with your State and local authorities regarding your intended treatment of coolant wastes.

I hope I have answered your inquiries satisfactorily. If you have additional questions, you may telephone Mr. Abrams at 202-382-4787.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1987(03)

JAN 27 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Tom Sauer
General Electric Company
1 Newmann Way
Mail Drop N123
Cincinatti, OH 45215

Dear Mr. Sauer:

This letter is in response to your Janaury 13 telephone conversation with David Topping of my staff. Specifically, you requested a written interpretation as to whether electrochemical machining operations are within the scope of EPA Hazardous Waste No. F006.

As stated in the December 2, 1986 Interpretive Rule (51 FR 43350), the F006 listing includes wastewater treatment sludges from chemical etching and milling. The listing Background Document for F006 refers to the Development Document for Existing Source Pretreatment Standards for the Electroplating Category, August 1979, for details on specific processes. The latter document states that "chemical etching and milling" includes the specific processes of "...chemical milling, chemical etching, bright dipping, electropolishing, and electrochemical machining." Wastewater treatment sludges from electrochemical machining operations are, therefore, EPA Hazardous Waste No. F006.

Should you have any further questions regarding this interpretation, please contact me at (202)475-8551.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 28 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Steven H. White
Tricil Environmental Services, Inc.
Talbott Tower, Suite 510
131 North Ludlow
Dayton, OH 45402

Dear Mr. White:

This letter is in response to your January 5, 1987 inquiry concerning the scope of EPA Hazardous Waste No. F006. Specifically, you requested an interpretation as to the status of wastewater treatment sludges that result from a waterfall curtain used in electrostatic painting operations.

Wastewater treatment sludges from electrostatic painting operations are not included in the F006 listing. Thus, the waste would only be considered hazardous if it: (1) exhibits a hazardous waste characteristic (e.g., ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity) or (2) is mixed with a hazardous waste (e.g., F019 from pre-painting conversion coating operations on aluminum).

Should you have any further questions regarding this interpretation, please contact me, or David Topping of my staff, at (202)475-8551.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

9444.1987(05)

FEB 2 1987

Mr. F. David Bowes
President
Finish Engineering Co.
921 Greengarden Road
Erie, Pennsylvaina 16501-1591

Dear Mr. Bowes:

This is in response to your letter of November 25, 1986, regarding the regulatory status of still bottoms generated from the reclamation of listed solvents. As we indicated in our previous letter, EPA encourages the recycling of hazardous wastes and we are currently evaluating this activity to determine whether other changes to the regulations may be appropriate. In addition, we are also re-evaluating the existing listings to better define them. In particular, we expect to re-propose the current listings and set concentration levels in the listings which would define when the wastes contain levels of toxic constituents which would cause them to be defined as hazardous. If a waste that meets the listing description contains levels of the toxic contaminant below the level set when we relist wastes, the waste would no longer be considered a listed hazardous waste. Although this effort is technically complex and, therefore, may take several years to complete, we believe the "relisting effort" addresses your concern directly.

In the shorter term, if you wish to remove your particular still bottoms from regulation, you will need to submit a delisting petition pursuant to 40 CFR 260.20 and 260.22. These sections outline the process for submitting a petition to delist your wastes and the showing that must be made as part of the petition process. However, you should be aware that if your solvent still bottom wastes are classified as EPA Hazardous Waste No. F003, and if this waste no longer exhibits any of the hazardous waste characteristics after it has been mixed with another solid waste, your waste is no longer considered hazardous under Subtitle C of the Federal hazardous waste rules (i.e., the still bottoms would not need to be delisted under the Federal hazardous waste rules). See 40 CFR 261.3(a)(2)(iii).

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Please feel free to call Mr. Matthew A. Straus at (202) 475-8551 if you have any further questions; if you have any specific questions regarding delisting, please contact Mr. Myles Morse at (202) 382-4782.

Sincerely,

Marcia Williams, Director
Office of Solid Waste

UNITED S[illegible]TES ENVIRONMENTAL PROTECTION AGENCY

9444.1987(06)

FEB 5 1987

Mr. Paul E. Crosser
Manufacturing Research Engineer
HON Industries
414 East Third Street
Muscatine, Iowa 52761

Dear Mr. Crosser:

I am responding to your letter dated January 15, 1987 requesting an interpretation of the land disposal restriction regulations as applied to a paint sludge waste. According to your letter, this waste is created in a water-wall spray booth which prevents oversprayed paint particles from being discharged to the atmosphere.

I concur with your interpretation that this waste is a manufacturing process waste based on the description of a manufacturing process waste on page 40697 of FR 51, published on November 7, 1986.

In regard to your request for a copy of the "BDAT Background Document for F001-F005 Spent Solvents", this three-volume set (identified as PB-87-120-259) can be purchased from NTIS, 5285 Port Royal Rd., Springfield, VA 22161. Their telephone number is (703) 487-4650. The cost for the set is $63.00. Also, these documents are available for viewing at any EPA regional library.

I hope this information is helpful. If you have additional questions, you may call Ed Abrams of my staff at (202) 382-4787.

Sincerely,

/s/

Robert M. Scarberry
Chief, Listing Section

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 6 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

John Skoufis
Laboratory Manager
Anscott Chemical Industries, Inc.
26 Hanes Drive
Wayne, NJ 07470

Dear Mr. Skoufis:

In reference to your letter of December 22, 1986, and your telephone conversations on Friday, January 16, 1987 and Wednesday, February 18, 1987 with Mr. Ed Abrams of my staff, I am responding with my clarification on the hazardousness of typical drycleaning industry waste streams.

As I understand your process, a typical drycleaning facility generates three aqueous wastes that are contaminated with small quantities of perchloroethylene (PCE). These wastes are generated from the following three sources:

1. Condensation from PCE recovery during the normal drying cycle of fabrics in the drycleaning machine.
2. Condensation from the distillation recovery of PCE.
3. Condensation from the steam stripping of PCE from filter cartridges.

The spent solvent listings apply only to wastes that are generated when the solvents are used for their solvent properties (i.e., to solubilize or mobilize another constituent) and can no longer be used or reused without reclamation; the spent solvent listing does not apply to process wastes that may become contaminated with the solvents during processing or manufacturing. Thus, waste No. 1 above is not a listed waste under RCRA and would not be subject to Subtitle C regulations, unless the wastewater exhibited any of the hazardous waste characteristics defined under 40 CFR 261.21-261.24 (ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity). [Please note that on June 13, 1986, the Agency proposed, among other things, to set a concentration of 0.1 mg/L as the regulatory level for PCE. Should this rule be finalized as proposed, waste No. 1 would exhibit the hazardous characteristic of organic toxicity if the level of PCE exceeded 0.1 mg/L as measured by the toxicity characteristic leaching procedure. (See 51 FR 21648.)]

However, waste Nos. 2 and 3 above are hazardous wastes pursuant to 40 CFR 261.3(c)(2)(i) because they are residues derived from the treatment of F002 hazardous wastes (solvent recovery residues and residues from the steam stripping of filter cartridges, both containing PCE). Therefore, these wastes must be managed in accordance with the RCRA hazardous waste regulations.

If you require additional information, please feel free to call Mr. Ed Abrams at (202) 382-4787.

Sincerely,

Matthew A. Straus
Waste Characterization Branch

MAR 16 1987

Mr. Thomas Wackerman
Environmental Scientist
Applied Scientist & Technology, Inc.
Post Office Box 1328
Ann Arbor, Michigan 48106

Dear Mr. Wackerman:

This letter responds to your January 14, 1987, correspondence requesting the regulatory status of lime treated spent pickle liquor wastes placed on the north property of the Chem-Met Services, Inc. facility in Wyandotte, Michigan. The wastes in question were generated from non-iron and steel facilities.

On May 28, 1986, the Agency promulgated a final rule (51 FR 19320) narrowing the scope of the listing for spent pickle liquor wastes (EPA Hazardous Waste No. K062) to apply only to wastes generated by steel finishing operations that produce iron and steel. However, in promulgating this rule an error was made in the language of the listing. The Agency had intended the listing to apply to all facilities within the iron and steel industry, not to only facilities that "produce" iron or steel. Furthermore, the language was not consistent with a June 5, 1984, final rule (49 FR 23284) which excludes sludge from the lime treatment of spent pickle liquor wastes generated by facilities within the iron and steel industry from the "derived-from" rule in 40 CFR 261.3(c)(2)(i). Therefore, in a September 22, 1986, correction notice (51 FR 33612) the Agency amended the listing to apply only to wastes generated by facilities within the iron and steel industry (SIC codes 331 and 332). Thus, pickle liquor wastes from industries not in the iron and steel industrial classifications are hazardous only if they exhibit one or more of the characteristics of hazardous wastes (i.e., ignitability, corrosivity, reactivity, and EP toxicity).

Because the spent pickle liquor wastes received by Chem-Met for solidification were not generated by facilities within the iron and steel industry, these wastes are not covered under the K062 listing. These wastes are hazardous wastes only if they exhibit one or more of the characteristics of hazardous wastes. Since spent pickle liquor is generally corrosive and usually contains high concentrations of chromium and lead, the pickle liquor wastes when received by Chem-Met for

treatment probably exhibited the characteristics of corrosivity and EP toxicity and, as such, were hazardous wastes. However, according to the provisions in 40 CFR 261.3(d)(1), if treatment of a characteristic hazardous waste results in a treatment residual that no longer exhibits any of the characteristics then the treatment residual is not a hazardous waste. Hence, the waste on Chem-Met's north property resulting from lime treatment of spent pickle liquor wastes is not a hazardous waste if it no longer exhibits a characteristic of hazardous wastes. As such, it can be disposed of in a Subtitle D sanitary landfill.

I hope this letter adequately addresses your concerns. If you have any further questions, you can contact me at (202) 382-4770.

Sincerely,

Jacqueline W. Sales, Chief
Regulation Development Section

9444.1987(09)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 26 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. A. Allen Hill
Executive Office of the President
Council on Environmental Quality
722 Jackson Place, N.W.
Washington, D.C. 20503

Dear Mr. Hill:

Thank you for your February 27, 1987, letter concerning wastes generated at Continental Can Company's LaCrosse and Milwaukee plants.

The Agency previously determined that the can washer sludges meet the definition of the Environmental Protection Agency (EPA) Hazardous Waste No. F019-- wastewater treatment sludges from the chemical conversion coating of aluminum. This determination is based upon the belief that the process used in the can washer system (zirconium phosphatizing) is a chemical conversion coating process. In fact, Continental Can Company itself identified the waste from a similar can washer system at their Olympia, Washington plant as F019 in a delisting petition submitted to the Agency pursuant to 40 CFR §§260.20 and 260.22.

Mr. Richard Torrito of Continental Can Company stated in his February 5, 1987, letter that the can washer sludges had been incorrectly identified as F019. Specifically, Mr. Torrito claimed that zirconium phosphatizing is not a chemical conversion coating process. As a result of subsequent telephone conversations between Mr. Torrito and my staff, Continental Can Company has submitted a detailed description of their can washer process so that the Agency can make a determination as to the proper classification of the waste. Once this determination is made, the Agency will notify Continental Can Company of its decision.

If I can be of any further assistance, please feel free to call me.

Sincerely,

J. Winston Porter
Assistant Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 9 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

Mr. Joe Rader
Environmental Affairs
Consultant
P.O. Box 277
Dayton, OH 45401-0277

Dear Mr. Rader:

This letter is a response to your letter of March 13, 1987, in which you request an interpretation on what "used" and "unused" formulations mean as applied to the F027 listing.

In the regulations, the word "used" includes formulations that have been contacted with wood during wood preservation processes (pressure, vacuum, or non-pressure processes) or surface protection processes (antisapstain or sapstain control processes). The word "used" would apply to the material that remains in the process vessel after the wood has been treated, and not just to the material that adheres to the wood, as some people have interpreted the term.

Also, the formulations do not have to be spent (i.e., not capable of being used or reused without being reclaimed or recycled) to be classified as "used"; even after one treatment, a formulation is considered to be "used."

In your letter, you also ask if it were possible that one could open a container of unused pentachlorophenol formulation and dip a piece of wood into it for the purpose of claiming it as "used" and, thus, not the listed waste. In this case, the Agency would consider this to be sham use and the formulation would still be termed as the listed waste when discarded.

If you have any further questions, please feel free to contact Robert Scarberry of my staff; he can be reached at (202) 382-4761.

Sincerely,

Matthew R. Straus

Matthew Straus, Chief
Waste Characterization Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1987(11)

APR 14 1987

Mr. Kurt E. Whitman
Project Coordinator
GW Inc.
Post Office Box A
Saukville, Wisconsin 53080

Dear Mr. Whitman:

This letter responds to your request for clarification on the applicability of the F001 through F005 hazardous waste listings to four specific waste streams generated from the use of virgin chemical formulations and whether these wastes are subject to the November 7, 1986, land disposal restrictions final rule. I apologize for the long delay in responding to your correspondence.

Each of the scenarios presented in your letter is restated below and followed by an appropriate response which provides clarification on whether these wastes are covered by the spent solvent listings (i.e., EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005).

Example #1 - "A paint remover consisting of 55% Methylene Chloride, 15% Phenol and 30% Sodium Chromate. This material is an outdated, virgin product. GW, Inc., assigned a EPA hazardous waste of D002 only."

-- According to the above description, the waste stream is an outdated, virgin product and has not been utilized as a paint remover. As such, the solvent was not used for its solvent properties, and therefore, is not covered by the F001-F005 spent solvent listings. If this waste stream exhibits the characteristic of corrosivity, it would be appropriately classified under EPA Hazardous Waste Number D002.

The spent solvent listings include only those wastes generated as a result of a solvent being used for its solvent properties, that is, its ability to solubilize (dissolve) or mobilize other constituents (e.g., solvents used in degreasing, cleaning, fabric scouring; as diluents, extractants, reaction and synthesis media). Furthermore, the listing only applies to solvents that are considered spent (i.e., solvents that have been used and are no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed).

o U.S. GPO . 1985-467-853

Example #2 - "A paint stripper consisting of 15% Toluene, 35% Methylene Chloride, 10% Phenols, 20% Kerosene and 20% Paint Sludge. Analytical results show that this is an ignitable waste (D001)."

-- It appears, based on the information provided in your letter, that the virgin paint stripper was used for its solvent properties (i.e., to solubilize paint). The resultant waste stream probably constitutes a spent solvent mixture covered under the F001-F005 hazardous waste listings, however, this determination depends on the concentration of the F001-F005 constituents in the paint stripper before use (see the enclosed FEDERAL REGISTER notice for the solvent mixture rule). Since the waste stream contains greater than 10% of the solvents listed in F001, F002, F004 or F005, the virgin paint stripper also probably contained a total of 10% or more of these solvents. If so, this waste stream meets the criteria for an F001-F005 spent solvent mixture/blend and would be subject to the land disposal restrictions.

Example #3 - "Spent paint waste formulation of 30% Alkyd Enamel Resin, 15% Chromium and Lead Pigments, 20% Toluene, 5% Xylene and 30% unknown solids. The EPA hazardous waste codes for this sludge are D007, D008 and D001."

-- The spent solvent listings do not cover manufacturing process wastes contaminated with solvents when the solvents were used as reactants or ingredients in the formulation of commercial chemical products. Therefore, the waste solvent-based paint formulation described in your letter is not within the scope of the F001-F005 spent solvent listings.

Example #4 - "Spill Residue consisting of 85% Clay (Oil Zorb) and Dirt, and 15% 1,1,1 Trichloroethane. The EPA waste code is F002 for this waste stream."

-- Proper classification of this waste stream requires knowledge of the regulatory status of the 1,1,1-trichloroethane prior to its being spilled. If the 1,1,1-trichloroethane was a discarded commercial chemical product, manufacturing chemical intermediate, or off-specification commercial chemical product, the spill residue should be classified as U226. As such, this waste is not subject to the November 7, 1986 final rule.

If however, the 1,1,1-trichloroethane was a spent solvent prior to its being spilled, the entire waste stream would be classified as a listed spent solvent (EPA Hazardous Waste No. F002). In this case, the spill residue would be considered a hazardous waste because it contains an F002 solvent. This waste stream would be subject to the prohibitions on land disposal of spent solvent wastes.

I hope this information adequately addresses your concerns. Please feel free to contact William Fortune, of my staff at (202) 475-6715, if you have any further questions.

Sincerely,

Jacqueline W. Sales, Chief
Regulation Development Section

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 18 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

K. Seiler
State of Washington
Department of Ecology
7272 Cleanwater Lane, LU-11
Olympia, Washington 98504-6811

Dear Ms. Seiler:

I recently received your letter of February 26, 1987, in which you requested clarification as to whether excavated soils, contaminated with 2,4,5-T, Simazine, 2,4-D, Dicambia, and Bromacil, are F027 wastes. The site in question was a county public works yard where a pesticide product was mixed with water as a carrier, prior to application on the county roadsides. Contamination occurred from spillage of both unused and used pesticide solutions.

The F027 listing designates, as acute hazardous waste (H), formulations containing tri-, tetra-, or pentachlorphenol or discarded unused formulations containing compounds derived from these chlorophenols. Whether the contaminated soil contains a listed hazardous waste is dependent on: (a) whether the 2,4,5-T got onto the soil through the use of the chemical or by being discarded, and (b) whether the 2,4,5-T was in fact a discarded formulation as stated in Sec.261.31.

Soil, which is contaminated with unused 2,4,5-T, that had been discarded, would contain a listed hazardous waste, namely F027. This contaminated soil, which contains a hazardous waste, is therefore subject to the Subtitle C regulations.

Soils, which are contaminated with 2,4,5-T, as a function of its use, would not be considered to contain a hazardous waste. These contaminated soils may, however, be hazardous if they are excavated to be discarded, and if they meet the hazardous waste characteristics, i.e., if the EP leachate concentration exceeds the levels specified in Sec.261.24(b).

To my knowledge, there are currently no commercial treatment or disposal facilities permitted to accept listed dioxin wastes. You also questioned whether any treatment standards have been established for dioxin wastes. According to 40 CFR 264.343, incinerators burning hazardous wastes F020-F023, F026, and F027 must achieve a destruction and removal efficiency of 99.9999% for each principal organic hazardous constituent specified in its permit. Effective Nov. 8, 1988, these same wastes are restricted from land disposal if an extract of the waste or the treatment residual of the waste (using the Toxicity Characteristic Leaching Procedure (TCLP)) is equal to or greater than 1 ppb of dioxin.

Please feel free to call Doreen Sterling, of my staff, at 202-475-6775, if you have any further questions.

Sincerely,

Matthew Straus, Chief
Waste Characterization Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENC
WASHINGTON, D.C. 20460

MAY 5 1987

Mr. William C. Duncan
Vice President
Compliance Recycling Industries
8200 S. Akron, Suite 112
Englewood, CO 80112

OFFICE OF
SOLID WASTE AND EMERGENCY RESPON

Dear Mr. Duncan:

As requested in our telephone conversation on April 15, 1987, and in your letter of the same date, I am responding to your request for the Agency's interpretation (as it applies to RCRA regulations) of your process for the treatment of electroplating rinse water.

My understanding of your process is that only rinse water is fed to a tank near the electroplating line. The rinse water is then pumped through a filter to a "compliance module" that contains anionic and cationic ion exchange resins which remove metals, chromates, and cyanide. The water exiting the module is deionized and can be recycled back as rinse water, or sent to disposal. Also, you have determined that neither the treated rinse water nor the spent ion exchange resin exhibits any of the hazardous waste characteristics.

First, I must apologize if I misled you during our telephone conversation. I have discussed your process with others at the Agency, and have determined that your ion exchange resins (containing the cations and anions removed from the rinse water) and the filter from the transfer module fit the definition of a sludge (see 40 CFR 260.10). Therefore, the used resins and filter are F006 hazardous wastes, even if they do not exhibit any of the hazardous waste characteristics. Thus, it will be necessary for the electroplaters to comply with the generator requirements, including manifesting the shipment of these cannisters to your regeneration facility. Because your regeneration is a recycling activity, you will not require a permit, unless you store the cannisters for any length of time before you process them.

Also, any wastes generated during your ion exchange resin regeneration process would also be considered as F006 wastes via the derived-from rule, with the exception of the recovered metal that you sell as a product.

I hope that I have answered your questions satisfactorily. If you require additional information, please feel free to contact me at (202) 382-4787.

Sincerely,

Edvin F. Abrams
Chemical Engineer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 8 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Michael Sanderson, Chief
RCRA Branch
U.S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Dear Mr. Sanderson:

This letter is in response to your April 20, 1987 memo regarding certain wastes generated at Everco Industries' Ottumwa, Iowa plant. Specifically, you requested an interpretation as to whether wastewater treatment sludges generated at their plant meets the definition of EPA Hazardous Waste No. F006.

We have reviewed the description of Everco's processes and agree that the wastewater treatment sludge does not meet the definition of F006. The non-cyanide zinc plating process is specfically excluded from the listing as "zinc plating (segregated basis) on carbon steel." Likewise the coating processes, both before and after the process change, are not within the scope of the listing as explained in the December 2, 1986 Interpretive Rule. It is also noted that the cleaning and stripping operations are also specifically excluded from the listing as "cleaning/stripping associated with tin, zinc,, and aluminum plating on carbon steel." Thus, the waste would only be considered hazardous if it exhibits any of the Subpart C hazardous waste characteristics.

Should you have any questions regarding this interpretation, please contact me, or David Topping of my staff, at FTS 475-8551.

Sincerely,

Matthew A. Straus

Matthew A. Straus, Chief
Waste Characterization Branch

9444.1987(15)

UNITED STATES ENVIRONMENTAL PROTECTION AGE
WASHINGTON, D.C. 20460

MAY 18 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RES

Mr. Dennis M. Burchett
V.P. Regulatory Affairs
Clean Crop
419 18th Street
P.O. Box 1286
Greeley, Colorado 80632

Dear Mr. Burchett:

This is in response to your inquiry of April 21, 1987. From information in your letter and from your phone conversation of May 8, 1987, with Mike Petruska of my staff, we have concluded that your spent carbon contains the listed hazardous waste Phorate (P094). Therefore, the contaminated carbon is subject to the hazardous waste regulations. In particular, your company must comply with the hazardous waste generator requirements, including compliance with the manifest. See 40 CFR 261.6(b). In addition, the facility that regenerates the carbon must also comply with the appropriate hazardous waste rules. See 40 CFR 261.6(c)

The reasoning behind this determination is as follows:

- The packaging of the finished Phorate product releases Phorate to the air. In effect, Phorate is being "discarded;"

- EPA regulations at 40 CFR §261.33 identify certain commercial chemical products (among them Phorate) as hazardous waste when they are discarded;

- EPA continues to regulate a listed waste even when it is contained in another material, i.e., in this case the spent carbon.

The first point above, concerning the Phorate being discarded, is critical to your situation. Even though you capture the Phorate released to the air in carbon scrubbers and send the spent carbon for regeneration, the Phorate contained in the carbon is not recovered but rather is destroyed during carbon regeneration. This leads us to conclude that you are discarding Phorate. You

should note, however, that if you were reclaiming or reusing the Phorate, your regulatory situation would be different. In this case, the Phorate would not be solid waste, and so would not be hazardous waste. (See 40 CFR §261.2.)

If you have further questions in this area, contact Mike Petruska of my staff at (202) 382-4765.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

cc: Regional Hazardous Waste Branch Chiefs (Regions I-X)

MAY 20 1987

Ms. Karen S. Thirman
Solid and Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Dear Ms. Thirman:

I am responding to your letter of April 30, 1987, requesting the Agency's interpretation of the hazardous waste classification of an etching process waste. Specifically, you ask whether the process described in your letter generates a listed hazardous waste.

In reviewing your letter, we believe that the process described is considered to be a stripping process that employs cyanide chemicals, and the waste stream generated is EPA Hazardous Waste No. F009, "spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process". This point is substantiated in reviewing the listing background document for "Spent Waste Cyanide Solutions and Sludges", covering EPA Hazardous Waste Nos. F007, F008, and F009, where it specifically states (on page 7) that chemical etching is part of the listing.

If you require additional information, please feel free to contact Ed Abrams at (202) 382-4787.

Sincerely,

Matthew A. Straus
Chief, Waste Characterization Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1987(17)

MAY 20 1987

Mr. Stephen J. Evans
Environmental Engineer
Modine Manufacturing Company
1500 De Koven Avenue
Racine, Wisconsin 53401

Dear Mr. Evans:

This is in response to your letter of March 30, 1987, in which you request guidance as to the proper classification of waste paint sludge and whether these wastes are subject to the November 7, 1986, land disposal restrictions rule. Specifically, you referred to paint sludge waste resulting from painting operations where the paint has been thinned with petroleum naptha solvent. Furthermore, you indicated that the virgin petroleum naptha solvent contains certain solvent constituents that are also included under the F001-F005 spent solvent listings (e.g., xylene and toluene).

Each of the questions raised in your letter is restated below and followed by the appropriate response.

1. Can we continue to classify the paint sludge as a D007 waste or must we classify it as an F003 waste?

In order for a waste to meet the criteria of the spent solvent listings (i.e., EPA Hazardous Waste Nos. F001, F002, F003, F004, and F005), the waste must be generated as the result of a solvent being used for its "solvent" properties, that is, its ability to solubilize (dissolve) or mobilize other constituents (e.g., solvents used in degreasing, cleaning, fabric scouring; as diluents, extractants, reaction and synthesis media). Process wastes containing solvents where the solvent is an ingredient in the formulation of a product are not covered by the spent solvent listings. Thus, paints containing solvents as an ingredient are not covered under the solvent listings. In the painting process scenario you described, the addition of petroleum naptha solvent to a paint product constitutes the formulation of a modified paint product. The Agency does not recognize a distinction between paints that contain solvents and paint where solvents have been added.

Therefore, thinned paint (as described in your letter) that is later discarded as a waste or paint sludge resulting from the use of the thinned paint would not be covered under the F001-F005 spent solvent listings. If the extract from a representative sample of the paint sludge exceeds the maximum concentration of chromium for the characteristic of EP Toxicity (40 CFR 261.24), the waste would be appropriately classified under EPA Hazardous Waste Number D007.

2. If virgin xylene were used in lieu of petroleum naptha to thin the paint, is the paint sludge that results an F003 waste (>1% xylene by weight in paint sludge)?

Regardless of whether the solvent is virgin xylene or petroleum naptha, the solvents are used as ingredients in the formulation of the paint. As such, the resultant paint sludge would not meet the criteria for an F003 spent solvent waste (refer to the response to question No. 1).

3. If waste or reclaimed xylene were used in lieu of petroleum naptha to thin the paint, is the paint sludge that results an F003 waste (>1% xylene in paint sludge)?

No. The paint sludge that results would not be properly classified as an F003 spent solvent waste (refer to the response to question No. 1).

4. If xylene were used to clean the spray guns (the solvent/paint sprayed onto the water wall), would the paint sludge then become an F003 waste (>1% xylene in paint sludge)?

Using xylene to clean the spray guns constitutes use for its solvent properties because the xylene solubilizes (dissolves) other constituents (i.e., paint). As such, spent xylene that is generated from this cleaning practice would be covered by the spent solvent listings, specifically Hazardous Waste No. F003. Furthermore, in cases where the spent xylene that results from cleaning spray guns (an F003 waste) is mixed with paint sludge produced from the painting scenarios described under questions 1, 2, and 3, the resultant waste stream would be considered an F003 waste (in accordance with the "mixture rule", 40 CFR 261.3 (a)(2)(iv)).

5. If petroleum naptha and xylene were used to thin the paint (and the resulting mixture contained >10% xylene by volume), is the paint sludge that results an F003 waste?

As mentioned above, paint sludge resulting from the overspray of thinned paint does not meet the criteria for an F003 waste, since the solvents (in this case, petroleum naptha and xylene) are ingredients in the formulation of the paint. Thus, the solvent mixture rule does not apply (see 50 FR 53315, December 31, 1985).

6. If the paint sludge that results is properly classified as an F003 waste (because it contains >1% xylene), and it is processed using a distilling device that removes all of the solvent and water from the paint sludge, is the resulting 'cooked' sludge an F003 waste even though it no longer contains solvent? If so, can it be delisted? If the 'cooked' sludge meets the solvent treatment standard of 0.15 mg/l for xylene, can it be landfilled?

In accordance with the "derived from rule" (40 CFR 261.3(c)(2)), the residue from treatment of a hazardous waste remains a hazardous waste. Thus, assuming the waste stream is properly identified as an F003 spent solvent waste, the "cooked" sludge resulting from distillation of this material remains an F003 hazardous waste and is subject to the applicable land disposal prohibition requirements unless delisted according to the provisions, or rendered non-hazardous (see 40 CFR 261.3(a)(2)(iii)). It should be noted that the delisting procedures require that the petitions address all factors that may cause the waste to be hazardous, not only those for which the waste was originally listed.

Where restricted wastes and the concentrations of their associated hazardous constituents meet the applicable treatment standards, the wastes may be disposed of in a Subtitle C facility. Therefore, if the "cooked" sludge meets the treatment standard established for xylene and does not exceed the treatment standards for any other restricted waste constituents, it may be placed in a hazardous waste land disposal facility.

7. If the water wall and associated tank were removed and replaced with dry filters, and paint containing >10% by volume of xylene was applied to the product, would the waste paint filters be classified as an F003 waste? If the waste paint filters contained 0.15 mg/l xylene, would they be classified as an F003 waste?

The waste paint filters described in this scenario would not be properly classified as an F003 waste since the paint residuals would not constitute a spent solvent (refer to the response to question No. 1).

I hope this information adequately addresses your concerns. Please feel free to contact William Fortune, of my staff at (202) 475-6715, if you have any further questions.

Sincerely,

Jacqueline W. Sales, Chief

MAY 20 1987

Mr. Frank Czigler
Environmental Department
S & W Waste Inc.
115 Jacobus Avenue
South Kearny, New Jersey 07032

Dear Mr. Czigler:

This letter responds to your request for assistance on identifying whether certain solvents are covered under the F001 through F005 hazardous waste listings, and for clarification on the applicability of the land disposal restrictions final rule (51 FR 40572, November 7, 1986). I apologize for the delay in responding to your correspondence. After the new regulations were promulgated the Agency received numerous requests for guidance.

Each of the questions raised in your letter is restated below and followed by the appropriate response.

1. "Since the December 31, 1985 definition of the EPA waste types F001 through F005, the following solvents have been added to the listing but are not listed in table CCWE-CONSTITUENT IN WASTE EXTRACT (F.R./Vol.51, No. 216/11-7-86/Page 40642):

   1,1,2-Trichloroethane
   2-Ethoxyethanol
   2-Nitropropane
   Benzene

   If these solvents are to be included in the list of wastes restricted from land disposal, what maximum concentrations in waste extract are the treatment standards expressed as?"

-- The November 7, 1986 final rule does not include treatment standards for these four newly listed F001 through F005 spent solvents. Provisions under RCRA section 3004(g)(4) require the Agency to make a determination within 6 months whether to subject newly listed hazardous wastes to the land disposal prohibitions. However, the statute does not impose an automatic prohibition if the Agency misses the deadline. EPA expects to make land disposal restriction determinations

pertaining to these solvent wastes in association with the scheduled listed wastes (51 FR 19300, May 28, 1986).

2. "Are wastes generated by laboratories as a result of analytical and research work, where the listed solvents are used for their solvent properties, (e.g., solvents used in liquid chromatography, rinsing paraffin off tissue culture slides, in ion exchange columns, in layer separation, in distillation, as final step of organic synthesis, in re-crystallization, etc.) regulated?"

-- Yes. Under the approach promulgated in the final rule, F001-F005 listed solvents are subject to the land disposal restrictions. If an analytical or research laboratory generates these restricted wastes, the wastes must be managed in accordance with 40 CFR Part 268. In order for a solvent waste to be covered by the F001-F005 spent solvent listings the waste must be generated as a result of the solvent being used for its "solvent" properties, that is, its ability to solubilize (dissolve) or mobilize other constituents (e.g. solvents used in degreasing, cleaning, fabric scouring; as diluents, extractants, reaction and synthesis media). In the case of solvent mixtures, the mixture must contain, before use, a total of ten percent or more (by volume) of one or more of the solvents listed in F001, F002, F004, or F005. Wastes that meet these criteria are covered by the spent solvent listings and as such, are subject to the November 7, 1986 final rule.

3. "Are rags contaminated with listed solvents that were used for their solvent properties (e.g., in clean-up work) excluded from F001 through F005 listing and/or the November 8th regulations? This same question was posed to the RCRA-Hot Line, and the following answer was received:

"If the solvents are poured onto the surface to be cleaned, then the contaminated rags used in the clean-up fall into the F001 through F005 listing. If the solvents are poured onto the rags that are to be used in the clean-up, then the resultant dirty rags DO NOT fall into the F001 through F005 listing."

-- Technically, the interpretation of the regulations that you received from the RCRA Hotline is correct. The F001-F005 solvent listing includes certain halogenated and non-halogenated solvents when spent. A solvent is considered spent when it has been used and is no longer fit for use without being re-generated, reclaimed, or otherwise reprocessed. Therefore, when solvents are applied to a surface or machinery (and used for their solvent properties), then cleaned-off with rags, the solvents are spent and the contaminated rags are covered by the

F001-F005 listing. When solvents are applied directly to a rag prior to use, the solvent at that time is not spent and the rags are not covered by the spent solvent listing.

As a practical matter, however, in each of these scenarios, the contaminated rags would be basically identical in constituent make-up and would pose similar hazards. Furthermore, land disposal facilities (which are ultimately responsible for verifying that only wastes meeting the treatment standards are land disposed) would not be able to distinguish between rags used to cleanup spent solvents from other rags contaminated with solvent. As a result, these facilities may choose not to accept rags contaminated with solvents unless they meet the treatment standards. In light of these considerations, we recommend that any rags contaminated with listed solvents be managed as hazardous wastes.

4. "Are dry cleaning filters used to separate solid fines out of the F001 through F005 listed solvents exempted?"

-- No. If F001 through F005 listed solvents are treated using dry cleaning filters to separate out solid fines, the resultant waste filters are also F001-F005 hazardous waste. In accordance with the "derived from" rule (40 CFR 261.3(c)(2)(i)), any solid waste generated from treatment, storage, or disposal of a hazardous waste is a hazardous waste. Thus, used filters from the treatment of spent solvents is designated as an F001-F005 waste and is subject to the land disposal restrictions.

5. "Does the process of thinning a paint for its subsequent use in the painting of a surface remove the paint from a non-F001 through F005 category (as being a commercial product) to being an F001 through F005 waste (due to solvent having been used as a diluent) if a part of the thinned paint is later disposed of as a waste?"

-- Process wastes containing solvents where the solvent is an ingredient in the formulation of a product are not covered by the spent solvent listings. In this specific case, the addition of solvent to a paint product constitutes the formulation of a modified paint product. The Agency does not recognize a distinction between paints that contain solvents and paint where solvents have been added. Therefore, thinned paint (as described in the above case) that is later discarded as a waste would not be covered under the F001-F005 spent solvent listings.

6. "Need clarification regarding the F003 solvent listing:

(a) Are we to understand the phrase, "...All spent solvent mixtures/blends containing, before use, ONLY the above spent non-halogenated solvents..." as listed under the F003 hazardous waste number listing (In F.R./Vol.

50, No.251/Tuesday 12-31-85/Page 53319) to mean that the solvent mixture must consist (before use) 100% of one or more of the non-halogenated solvents (as listed in F.R. under F003 listing). In other words, if there is any non-F003 solvent, (i.e., ethanol, mineral spirits), or other contaminant (i.e., water, oil, etc.) in the solvent mixture/blend (before use), then the waste effluent of the process would not fall under the F003 listing."

-- In order for a waste to meet the criteria of an F003 spent solvent mixture/blend it must include, before use, only solvent constituents listed under the F003 hazardous waste code, or must contain, before use, one or more of the F003 non-halogenated solvents and a total of ten percent or more of solvent constituents covered under Hazardous Waste numbers F001, F002, F004, and F005. Therefore, as you correctly stated, if the solvent mixture/blend contains (before use) other solvents such as ethanol, or mineral spirits, the spent solvent would not be considered a listed waste, in particular an F003 waste. However, the Agency does not intend to exclude such mixture from regulation where non-F003 constituents are present as contaminants in the virgin products.

(b) "As we understand it, if a solvent mixture/blend is used for its solvent properties (e.g., in cleaning out a reactor) and it is made up (before use) of less than 10 percent F001, F002, F004, and F005 solvent constituents and greater than 90 percent but less than 100 percent F003 listed solvent(s), then the resultant waste does not fall into any of the F001 through F005 hazardous waste listing(s). Is the above a correctly interpreted example?"

-- Your interpretation of the solvent mixture provisions as they apply to the scenario described in the above question is correct. If a solvent mixture/blend (before use) contains F003 listed solvents and F001, F002, F004, and F005 solvent constituents, it would not constitute a listed hazardous waste (unless the total of all F001, F002, F004, and F005 constituents meet the ten percent threshold). Although such waste streams are not listed wastes, these solvents may be regulated under RCRA if they exhibit one or more of the characteristics of hazardous waste (i.e., corrosivity, ignitability, EP toxicity or reactivity).

(c) "An often asked question by our clients is described in the following example. Please indicate whether it exhibits a correct interpretation of the D001 characteristic waste type in light of the newly defined F003 listing.

A batch reactor vessel is used in a production process. After each batch, the reactor must be thoroughly cleaned out with pure xylene. As a resource recovery/ conservation measure, the clean-out effluent ("contaminated xylene") is regenerated by distillation. The

regenerated xylene is re-used as reactor cleaning stock; and the still bottoms residue must be disposed of as a hazardous waste, classified as EPA WASTE TYPE D001 according to the generator, since it exhibits characteristics of EPA-ignitability."

-- According to the information provided in your example, the xylene is used solely for the purpose of cleaning out the batch reactor vessel and is not a reactant or ingredient in a production process. As such, the pure xylene has been used for its solvent properties and would be considered an F003 spent solvent when it can no longer be used without further processing. Still bottoms generated from the distillation of the spent xylene also would be designated as an F003 solvent waste in accordance with the listing description, not as EPA Hazardous Waste No. D001.

7. "RCRA Hot-Line gave us the following example. Are they correct?"

(a) "A paint reactor is cleaned out between batches with 100 percent xylene. The resulting solution is pumped into a holding tank in which the solids settle out. According to the RCRA Hot-Line, the solids do not fall into any of the F001 through F005 waste listings because the xylene is still considered 100 percent technical grade and is to be re-used after the solids are removed. If the bottom sludge/solids are found to exhibit characteristics of EPA-ignitability would they be correctly classified as D001 waste? When is the xylene considered contaminated or spent? If it is considered contaminated after the first "wash out", and used for subsequent washes, should the resultant sludge be classified as an F001 through F005 listed waste or a D001 characteristic waste?"

-- The example described above is an incorrect interpretation of the F001-F005 spent solvent listing. Regardless of whether the bottom sludge/solids removed from the holding tank exhibit the characteristic of ignitability, such wastes would be incorrectly classified as EPA Hazardous Waste No. D001. The pure xylene would become "contaminated" when it comes in contact with the paint or other impurities. Therefore, the xylene would be considered contaminated after its use during the first "wash-out" of the paint reactor. As mentioned in earlier responses, such solvents would be considered spent when they are no longer used without being regenerated, reclaimed, or otherwise reprocessed. Thus, the contaminated xylene placed into the holding tank would constitute an F001-F005 "spent" solvent because the xylene is regenerated by allowing the solids to settle out. The bottom sludge/solids accumulated and removed from the settling unit also would constitute an F001-F005 listed waste based on the "derived from" rule (40 CFR 261.3(c)(2)(i)).

(b) "If the tank is washed with a mixture of 90 percent xylene 10 percent mineral spirits, is the resulting sludge an F001 through F005 listed waste?"

-- If the solvent mixture/blend used to clean out the paint reactor contained, before use, 90 percent xylene and 10 percent mineral spirits, the spent solvent waste would not meet the criteria of a listed hazardous waste (on the basis described above under question 6(a)). The resulting bottom sludge/solids would be correctly classified as a D001 hazardous waste if they exhibit the characteristic of ignitability.

8. "As specified in 40 CFR 261.32, "...solvent washes and sludges ..." resulting from ink formulation are properly classified as EPA waste type K086. Does this K086 classification hold true in light of the most recent definition of the F001 through F005 hazardous waste listings? If a waste meets both waste category requirements, that of a waste from a specific source and also that of an F001 through F005 - non specific source, which waste classification takes precedence?"

-- In cases where tubs and equipment used in ink formulation are washed by solvents, and the solvents used in the washes are included under the F001-F005 listings, the resultant solvent-wash wastes are considered hazardous wastes under the applicable spent solvent listings, as well as, the K086 listing (as indicated in the January 12, 1981, Background Document). Such wastes must be managed in accordance with the RCRA regulations applicable to both waste classifications. In consideration of the November 7, 1986, final rule, these solvent-wash wastes would be subject to the prohibitions and would be required to meet the applicable treatment standards prior to disposal in a Subtitle C facility.

I hope this information adequately addresses your concerns. Please feel free to contact William Fortune, of my staff at (202) 475-6715, if you have further questions on this matter.

Sincerely,

Jacqueline W. Sales, Chief
Regulation Development Section

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 22 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Edgar R. Santiago
Environmental & Safety Engineering
R.R. Donnelley & Sons Company
750 Warrenville Road
Lisle, IL 60532

Dear Mr. Santiago:

This letter is in response to your April 27, 1987 letter regarding the December 2, 1986 Interpretive Rule on EPA Hazardous Waste No. F006. Specifically, you requested an interpretation related to the inclusion of cleaning and stripping operations in that listing.

At line 10 of the first full paragraph on page 43351 of the Interpretive Rule, the F006 listing is said to include wastewater treatment sludges from "... cleaning and stripping when associated with electroplating operations (i.e., common and precious metals electroplating, anodizing, and chemical etching and milling).

In your letter, you imply that certain printing industry processes are not included in the F006 listing because they were exempted from the Effluent Guidelines Divisions' requirements for pretreatment standards for the electroplating point source category. We disagree with your interpretation. Neither the F006 listing background document, nor the August 1979 Development Document for Existing Source Pretreatment Standards for the Electroplating Point Soruce Category referenced therein, exclude the printing industry from the definition of electroplating operations. That is, while the Office of Water may have elected not to require the printing industry to meet the electroplating pretreatment standards, that action does not exclude from the F006 listing any electroplating wastewater treatment sludges that may be generated by the printing industry.

Finally, you inquired as to the status of EPA's action on the trivalent vs. hexavalent chromium issue. Comments were received on this issue in the Agency's proposed Organic Toxicity Characteristic

(see 51 FR 21648, June 13, 1986). This issue will be addressed as part of that rulemaking.

Should you have any questions regarding this interpretation, please contact me, or David Topping of my staff, at (202) 475-8551.

Sincerely,

Matthew A. Straus, Chief
Waste Charactization Branch

MAY 26 [redacted]

Zelda Curtiss
Pennsylvania Department of
Environmental Resources
Office of Chief Counsel
1303 Highland Building
121 South Highland Avenue
Pittsburgh, PA 15206-3988

Dear Ms. Curtiss:

After careful review of your letter of April 24 and the supporting documentation in Don Zimmer's letter of May 7, we agree with your determination on Witco's API Separator Sludge. The waste is not generated at a facility encompassed by the original listing. Thus, it is not K051.

Nevertheless, it is important to keep in mind that some of the wastes generated by the facility may meet one, or more, of the hazardous waste characteristics. Additionally, for future reference, I also should clarify the types of facilities which we consider to be included in the listing.

The petroleum refineries encompassed by the existing listing are not restricted to facilities that process crude oil. Generally, the refineries covered are all facilities in SIC 2911 who perform distillation of crude oil and/or unfinished petroleum derivatives. Witco does not distill the neutral distillates and does not produce motor or heating fuels. Consequently, they are not in the listed industry.

Hopefully, this letter will serve to clarify the scope of the refinery listings. Do not hesitate to contact Ben Smith of my staff at (202) 382-4791, if you require any additional information.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

cc: Dir., WMD, Regions I-X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 24 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Richard Torrito
Continental Can Company, Inc.
800 Connecticut Avenue
P.O. Box 5410
Norwalk, CT 06856

Dear Mr. Torrito:

This letter is in response to your February 5, 1987 inquiry regarding the regulatory status of certain wastes generated at Continental Can Company's La Crosse and Milwaukee, Wisconsin plants. Specifically, you requested an interpretation as to whether the sludge generated from wastewater treatment processes associated with the can washers at these plants is a hazardous waste within the definition of EPA Hazardous Waste No. F019--wastewater treatment sludges from the chemical conversion coating of aluminum.

We have carefully reviewed the attachment to your February 5 letter (i.e., the January 9, 1987 letter from Lester Steinbrecher of Amchem Products to you), as well as Mr. Steinbrecher's February 27, 1987 letter to David Topping of the Waste Characterization Branch. In those letters, it was asserted that the use of Amchem's surface conditioners for the treatment of two-piece aluminum cans does not constitute a chemical conversion coating process. We disagree with that interpretation for the reasons explained below.

In the background listing document for F019, conversion coatings are described as "processes (that) apply a coating to the previously deposited or basis metal for increased corrosion protection, lubricity, preparation of the surface for additional coatings or formulation of a special surface appearance. This manufacturing operation includes chromating, phosphating, metal coloring, and immersion plating." The Agency believes that the use of a zirconium phosphating process to inhibit corrosion of the aluminum surface is within the scope of this definition.

Several of the statements in the Amchem letters indicate that the process is not chemical conversion coating because the process does not impart a crystalline coating. While the listing background document does refer to crystalline phosphate coatings, it was not the Agency's intention to restrict the listing to apply only to crystalline coatings. Further, the broader definition (to include both crystalline and amorphous coatings) is supported by other (non-EPA) definitions of conversion coating.

For example, Chemical and Process Technology Encyclopedia (McGraw-Hill, 1974) states that "conversion coatings are formed chemically by causing the surface of the metal to be "converted" into a tightly adherent amorphous or crystalline coating part or all of which consists of an oxidized form of the substrate metal." Also, in Standard B 374-80, ASTM defines conversion coating as "a process produced by chemical or electrical treatment of a metallic surface that gives a superficial layer containing a compound of the metal." Thus, ASTM does not restrict the definition to crystalline coatings.

The fact that the can washing process is within the commonly understood definition of chemical conversion coating is also supported by the identification of that process as chemical conversion coating in Continental Can Company's delisting petition for the Olympia, Washington plant. In that petition, the fourth stage of the can washing process is described as follows: "The function of Stage 4 is to apply a chemical conversion coating to the can which inhibits corrosion, brightens the can surface, and provides an improved base for the application of organic coating lacquers." Also, the zirconium phosphating process is described as chemical converison coating in a rulemaking petition filed jointly by Reynolds Metals Company and Miller Brewing Company. (That petition, recently withdrawn, was to modify the F019 listing to exclude sludges from "...the phosphate conversion coating of two-piece aluminum beverage cans.")

Finally, in a telephone conversation with Matthew Straus of the Waste Characterization Branch, you cited the Office of Water's November 17, 1983 regulation related to the can-making industry (see 48 FR 52,399). In that regulation, it was stated that the sludges from the pretreatment standards was believed to be

nonhazardous. That statement refers to sludges that have been treated. That is, it was the Agency's opinion that the wastewater treatment sludge could be treated to render them nonhazardous (i.e., the treated sludge could likely be delisted).

For these reasons, we have concluded that the wastewater treatment sludges associated with the can washers at the La Crosse and Milwaukee plants meet the definition of EPA Hazardous Waste No. F019. Should you have any questions regarding this interpretation, please contact Mr. Matthew Straus, Chief, Waste Characterization Branch at (202) 475-8551.

Sincerely,

Marcia Williams
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1987(23)

JUN 30 1987

Mr. Robert Williams
General Motors Corporation
Fisher Guide Division
200 Georgesville Road
Columbus, OH 43228-0512

Dear Mr. Williams:

The Assistance Branch has reviewed your letter dated February 27, 1987 regarding the EPA's clarification of the scope of EPA Hazardous Waste No. F006. This waste was the subject of your delisting petition #0177. We acknowledge your description of the major processes at your plant, including:

1. Zinc plating on carbon steel on a segregated basis
2. Mechanical or electroless zinc plating
3. Sulfuric acid anodizing on aluminum
4. Phosphating on steel.

Both zinc plating on carbon steel on a segregated basis and sulfuric acid anodizing of aluminum were listed as exemptions from the original F006 listing in November 1981. On December 2, 1986, a clarification of the F006 listing was published (51 FR 43350-43351) which specifically exempted electroless zinc plating and phosphating on steel. Therefore, we believe that your wastewater treatment sludge is not included in the scope of EPA Hazardous Waste No. F006.

Although your wastewater treatment sludge is not an EPA listed waste, you are still required to determine whether the waste exhibits any of the characteristics of hazardous wastes as defined by 40 CFR §261.21-261.24.

Please contact Mr. Scott Maid, of my staff, at (202) 382-4783 if you have any questions.

Sincerely,

/s/ Signed

Suzanne Rudzinski, Chief
Assistance Branch

cc: Alan Debus, Reg. V
William Muno, Reg. V
Matthew Straus, HQ

JUL 2 1987

MEMORANDUM

SUBJECT: Clarification of Federal Policy Regarding Dioxin Disposal

FROM: Marcia Williams, Director
Office of Solid Waste
Original signed by Marcia E. Williams

TO: Conrad Simon, Director
Air and Waste Management Division
Region II

In your memo dated May 20, 1987, you requested our assistance in developing a definitive statement to address certain public concerns over EPA's regulation of dioxin-containing wastes. Specifically, you requested our assistance in drafting a proposed response to a letter from New York State Senator John Daly.

First, I would like to clarify the Federal regulations with regard to the disposal of dioxin and dioxin-contaminated material. On January 14, 1985 (50 FR 1978), EPA amended the regulations for hazardous waste management under RCRA by listing as acute hazardous wastes, process wastes from the manufacturing use of tetra- penta-, or hexachlorobenzenes under alkaline conditions; wastes from the production and manufacturing use of tri-, tetra,- and pentachlorophenols and their chlorophenoxy derivatives; and discarded unused formulations containing compounds derived from these chlorophenols. Also listed were wastes that are generated in the course of a manufacturing process performed on equipment previously used for such operations, except where the equipment was used only for the manufacture or formulation of pentachlorophenols or its derivatives. In addition, soils contaminated with these wastes are also regulated.

Under 40 CFR 261.31 of RCRA the dioxin-containing wastes are brought under Subtitle C control through the listing of specific processes which generate dioxin, it is incorrect to imply that toxicity is not considered in the listing process.

The basis for listing these wastes can be summarized as follows:

- The contaminants of concern in these wastes are chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs), tri-, tetra-, and pentachlorophenols, and the chlorophenoxy derivatives of these chlorophenols.

- The toxicants of concern are likely to be present in the listed wastes at concentrations many orders of magnitude greater than the levels of concern in terms of human health. For example, analysis of distillation bottoms from manufacturing processes making or using trichlorophenols can contain several hundred ppm TCDDs, filter aids may contain up to 6000 ppm TCDDs, and cooling pond muds were shown to contain as much as 1200 ppm CDDs.

- The contaminants of concern are not only present in these wastes in significant concentrations but are capable of migrating from waste matrices and reaching environmental receptors in potentially dangerous concentrations, particularly as a result of water run-off or wind dispersion of contaminated particles. These wastes have been associated with some of the most serious hazardous waste damage incidents known, among them Love Canal and Times Beach.

We, therefore, believe that the most hazardous dioxin-containing waste streams are covered by these listings. Although the Agency recognized at the time this rule was promulgated that there were other wastes which contained or may have contained dioxins, (i.e., chlorinated benzenes, dichlorophenol process wastes, fly ash and emission control dust from low temperature combustion of chlorophenols, and presently unlisted residues from wood preserving) not enough data were available to support rule-making. For example, the Agency did not have data with regard to the concentration of dioxins in such wastes and the likelihood of the waste posing a threat to human health or the environment. Although these wastes are not required to be managed in accordance with the special management standards promulgated under RCRA, these wastes are most likely toxic and should be carefully managed. For example, these wastes can be safely managed by high temperature incineration.

Since then, the Agency has collected some of this additional information. This information, for example, has been used by EPA to support a draft proposed rule, which is currently under Agency review, to list residues generated from the use of chlorophenolic formulations in wood preserving and surface treating operations.

The Agency also is continuing to investigate a number of dioxin issues. For instance, the Water Office is exploring the formation of dioxins from the pulp and paper industry's bleached kraft process. The Agency is also developing a new exposure assessment that may be used to enhance our understanding of the risks associated with dioxin.

It should also be noted that the listing process is only one mechanism by which the Agency has control of problems posed by dioxin. Facilities, which have submitted a Part B permit application or are subject to interim status are now subject to the new corrective action provisions (Sec. 3004(u)). This requires that all permit applicants must: identify all solid waste management units at the facility; identify any releases of hazardous wastes or hazardous constituents that have occurred or are occurring from those units; take appropriate corrective measures to clean up releases; and demonstrate financial assurance for those corrective measures.

Furthermore, dioxin and dioxin-contaminated soil are also subject to clean-up under CERCLA as remedial action if the site is on the National Priority List or as emergency response if there is a need to abate a significant threat to public health and welfare or the environment. To date, the Agency has taken removal action if the Agency for Toxic Substances and Disease Registry (ATSDR) issues a health advisory for the site. ATSDR has traditionally viewed 1 ppb as a level of concern for residential settings. However, under the remedial program, the long-term threats posed by each site are evaluated and pathways of exposure are considered. Based on differing site conditions, EPA may consider other action levels. The Agency expects to select the remedy for five remedial sites this summer. Thus, the Agency is in the process of formulating a policy for setting trigger and clean-up levels in response to these anticipated site clean-ups.

Finally, the requirements governing the disposal of listed dioxin wastes (F020-F023, and F026-F028) in landfills are set forth at 40 CFR 264.317. Effective November 8, 1988, the dioxin-containing wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F020F023, F026, and F027 are prohibited from land disposal if they do not meet the treatment standards specified at 40 CFR 268.41.

Please feel free to contact me if you have any further questions.

UNITED STATES ENVIRONMENTAL PROTECTION AGEI
WASHINGTON, D.C. 20460

JUL 6 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPO

Mr. Gerald J. Wurtsmith
Federal Screw Works
Romulus Division
34846 Goddard Road
Romulus, MI 48174

Dear Mr. Wurtsmith:

This letter is in response to your June 16, 1987, inquiry regarding wastes generated at Federal Screw Works' Romulus, Michigan plant. Specifically, you requested an interpretation as to whether the sludge (filter cake) generated from treatment of the rinse waters meets the definition of EPA Hazardous Waste No. F006.

Your understanding is correct that the U.S. EPA no longer considers wastewater treatment sludge from zinc phosphating on steel to be within the scope of the F006 listing. (See enclosed notice detailing our basis for this reinterpretation.) Since your manufacturing operations contain a pickling process, however, you should be aware that spent pickle liquor from facilities within SIC Codes 331 and 332 is listed as EPA Hazardous Waste No. K062. If your facility is included within these SIC Codes and spent pickle liquor is introduced into the wastewater treatment system, the sludge may meet the definition of K062. In addition, you should also be aware that the Michigan Department of Natural Resources (DNR) hazardous waste program may be more stringent than the Federal program. Therefore, you will need to contact the state to see how they would classify your filter cake.

Should you have any questions regarding this interpretation, please contact me at (202) 475-8551.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

Enclosure

JUL 13 1987

Mr. James Boggs
Wickes Mechanical Components
P.O. Box 999
Southfield, MI 48037

Dear Mr. Boggs:

As you were informed during your conversation with Mr. Howard of SAIC on July 1, 1987, some questions have arisen regarding the classification of your petitioned waste as a listed waste under EPA Hazardous Waste No. F006. Under the Agency's reinterpretation of the F006 listing (see 51 FR 43350), wastewater treatment sludge from electroplating operations involving chemical etching are considered to be hazardous. Your petition discusses bright dipping operations that occur at the facility. Bright dipping is defined as a chemical etching operation (see EPA 440/1-79/003: Development Document for Existing Source Pretreatment Standards for the Electroplating Point Source Category) and thus the petitioned waste appears to be a listed hazardous waste.

In order to clarify the regulatory status of your petitioned waste, we will need more information about your bright dipping operations. Please describe the the physical and chemical processes that occur during bright dipping, the properties and characteristics you are trying to achieve during bright dipping, and the specific equipment used for the bright dipping. This information should be provided for each of your bright dipping options; yellow dichromate, bright chrome dip, and bright dip.

Once we have received this information, we will be able to determine whether your facility is still regulated as a generator of F006 waste. If it is determined that you are still regulated, another request will be sent detailing the information required to complete the review of your petition. If you have any questions please contact me at (202) 382-4783 or Mr. Howard at (703) 734-3171.

Sincerely,

Scott J. Maid
Environmental Protection Specialist
Variance Section

cc: Allen Debus, Region V
Bill Miner, Region V

9444.1987(29)

June 19, 1987

Ms. Kathie Roos
Chemical Engineer
3738 Harrison Avenue
P.O. Box 4168
Butte, Montana 59702

Dear Ms. Roos:

This is in response to your letter of May 21, 1987, in which you sought to bring to my attention inconsistencies and problems your firm has encountered in helping your clients find appropriate disposal options for various types of pentachlorophenol wastes. You describe several categories of wastes (i.e., bottom sludge cleaned out of dip tanks, PCP-contaminated dirt, PCP-contaminated sorbent pillows and PCP-impregnated posts, poles, and railroad ties) for which different disposal guidance was provided by EPA Headquarters, Regional, and State Program personnel as well as waste management firms.

In particular, you ask the Agency's position on whether any of the waste categories described in your letter meet the listing description of Hazardous Waste Nos. F021, F027, or K001. At the present time, the K001 listing includes those sludges that are generated from treatment of wastewaters produced from wood preserving processes using pentachlorophenol or creosote; the F021 listing includes those wastes generated from PCP manufacturing; and the F027 listing includes unused formulations of PCP (i.e., the F027 listing does not include those formulations which are used, such as those which have been contacted with wood curing wood preservation processes (pressure, vacuum, or non-pressure processes) or surface protection processes (antisapstain or sapstain control processes). The word "used" would apply to the material that remains in the process vessel after the wood has been treated.

Pentachlorophenol which is impregnated in treated wood (e.g., posts, poles, and railroad ties), as mentioned in your letter also does not meet the F027 description for unused formulation. Also, dirt contaminated with PCP would not meet the listing description, unless the contamination were the result of a spill of unused PCP. In addition, the bottom sludge cleaned out of dip tanks does not meet the K001 listing description. Therefore, none of these wastes, except as indicated, are currently listed hazardous wastes. As a result, these wastes are not subject to the land restrictions program that was promulgated on November 8, 1986 (see enclosure). With respect to the PCP-contaminated sorbent pillows additional information would be needed (i.e., the ways in which they are used, whether they are part of the wastewater treatment system, etc.) before an answer could be provided on its regulatory status.

This has been retyped from the original document.

While these wastes are not listed at this time, the Agency is currently developing regulations for wood preservation and surface protection residuals which may list these additional wastes as hazardous. Until that time, however, I agree with you that good practice requires that these wastes be managed in a responsible manner (i.e., as though they were hazardous under RCRA).

Finally, you should be aware that the States may have a regulatory program that is more stringent than the Federal program (i.e., the State hazardous waste program may consider these wastes as hazardous under State law). Therefore, you will have to contact the various States where your clients are located to determine how these wastes should be handled under State law.

Thank you for your interest and concern in this area. Please feel free to contact Mr. Robert Scarberry at (202) 382-4769 if you [have] any further questions.

Sincerely,

Marcia Williams
Director
Office of Solid Waste

Enclosure

cc: Solid waste Management Branch Chiefs (Regions I-X)

This has been retyped from the original document.

JUL 21 1987

Mr. James Charley
Environmental Engineer
New United Motor Manufacturing
45500 Fremont Boulevard
Fremont, California 94538

Dear Mr. Charley:

This is in response to your letter of June 1, 1987, in which you request confirmation of the proper classification of used "paint thinner" and whether such solvent wastes are subject to the November 7, 1986, land disposal restrictions final rule. Specifically, you referred to a solvent blend called "paint thinner" which before use contains 80 percent xylene, 9 percent toluene, and 11 percent glycol ethers.

In your letter, concurrence is requested with respect to three specific questions. These questions are restated below and followed by the appropriate response.

1. "Are we correct in classifying this waste as a D001 rather than as a F003 or F005 waste?"

-- Although this solvent is used for its solvent properties, it would not be correctly classified as an F001-F005 spent solvent. In order for the waste to meet the criteria of a spent solvent mixture/blend, the solvent must include, before use, a total of ten percent or more of solvent constituents covered under Hazardous Waste numbers F001, F002, F004, and F005. Where a solvent mixture/blend (before use) contains an F003 listed solvent (i.e., xylene) and F001, F002, F004, and F005 solvent constituents, it would not constitute a listed hazardous waste unless the total of all F001, F002, F004 and F005 constituents meet the ten percent threshold. Since the concentration of toluene (an F005 listed solvent) in the solvent blend, before use, is only 9 percent, the resultant waste stream would not constitute an F001-F005 spent solvent mixture/blend. The waste "paint thinner" would be correctly classified as a D001 hazardous waste if it exhibits the characteristic of ignitability.

U.S. GPO 1985-467-853

2. "Are we correct in stating that this waste is not restricted under the November 8, 1986 final rule on land disposal?"

-- The hazardous wastes prohibited from land disposal effective November 8, 1986, include the F001-F005 spent solvents and certain dioxin-containing wastes. Since the "paint thinner" waste addressed in your letter does not constitute a waste covered by the spent solvent listings, you are correct in asserting that this waste would not be subject to the November 7, 1986 final rule (51 FR 40572). If this waste stream exhibits one or more of the characteristics of hazardous waste (i.e., ignitability), it will be subject to the land disposal restrictions when the Agency promulgates treatment standards for characteristic wastes by the May 1990, statutory deadline.

3. "If this waste is restricted, are there any variances provided? Specifically:

a) Soil contaminated with this waste.
b) Shop rags contaminated with this waste."

The waste described above is not restricted from land disposal. However, if it were a restricted waste (i.e., an F001-F005 spent solvent), the only applicable variances are the following: 1) a 24-month statutory exemption (i.e., until November 8, 1988) from the land disposal prohibitions for solvent-containing soils generated from Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions and Resource Conservation and Recovery Act (RCRA) corrective actions; 2) solvent-water mixtures, solvent-containing sludges or solids, or solvent contaminated soils (non-CERCLA or RCRA corrective action) which contain less than 1% total F001-F005 solvent constituents; or 3) solvent-containing wastes from small quantity generators of 100-1000 kg/month. Soil and shop rags contaminated with solvents are only subject to a 2-year nationwide variance if they meet at least one of the above criteria.

I hope this information adequately addresses your concerns. Please feel free to contact William Fortune, of my staff at (202) 475-6715, if you have any further questions.

Sincerely,

Stephen R. Weil, Chief
Land Disposal Restrictions Branch

JUL 28 1987

Ms. Shirlee Schiffman, Chief
Bureau of Hazardous Waste Regulation
and Classification
State of New Jersey
Department of Environmental Protection
401 East State Street
Trenton, NY 08625

Dear Ms. Schiffman:

This is in response to your letter of June 10, 1987, in which you requested our interpretation on several issues involving electroplating rinsewaters. Specifically, you requested confirmation of your conclusions drawn as a result of your telephone conversations with Mr. David Topping, of my staff. In addition, you requested our answers to five specific questions relating to the hazardous waste/non-hazardous waste status of used ion exchange resins that were used to treat electroplating rinsewaters.

First, I would like to respond to the two questions you discussed with Mr. David Topping. In particular, I agree with your conclusions that: 1) rinsewaters from electroplating operations were not meant to be included in the F009 listing (spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process), and 2) residual droplets of stripping, cleaning, or electroplating solutions present on the metal would not make the rinsewaters hazardous by the "mixture rule" when the metal parts are rinsed off. In the first case, rinsewaters are not considered spent stripping or cleaning bath solutions; in the second case, trace amounts of plating bath solutions that are carried over to rinse tanks are not considered to be a solid waste mixing with another solid waste. These materials are in use and are not wastes until they are spent and removed from the process. The remaining questions will be answered in the same order that they are presented in your letter:

1. Your first question asks "can a wastewater treatment system which only is treating a non-hazardous electroplating waste (such as rinsewaters) produce an F006 listed hazardous waste?" The answer to this question is yes; the sludge from the treatment of electroplating wastewater contains toxic metals at concentration many times higher than their concentration in the wastewaters themselves. It should also be noted that although electroplating rinsewaters are not specifically listed

CONCURRENCES

in 40 CFR 261 Subpart D, they may exhibit a hazardous waste characteristic (EP toxicity) under 40 CFR 261 Subpart C for certain toxic metals.

2. Your second question asks "would an ion exchange canister which has been used to capture metals and cyanide from non-hazardous electroplating rinsewaters only, be considered to contain wastewater treatment sludges from electroplating operations (EPA Hazardous Waste No. F006)?" The answer to this question also is yes. Section 260.10 of 40 CFR defines sludges as "any solid, semi-solid, or liquid waste generated from a municpal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or effluent from a wastewater treatment plant." Thus, any residuals generated from treatment of wastewaters from electroplating operations for pollution control would be considered an F006 listed waste.

3. Your third question asks "is the ion exchange resin, which is similar in function to activated carbon (i.e., used to remove pollutants from wastewaters), considered a 'sludge' in this situation? Once again, the answer is yes for the same reason given above.

4. Your fourth question asks "do rinsewaters from electroplating operations fall within the scope of any listed hazardous wastes?" The answer to this question is no; electroplating rinsewaters are not a listed hazardous waste under 40 CFR 261, Subpart D. However, as I indicated earlier, electroplating rinsewaters may exhibit a hazardous waste characteristic under 40 CFR 261, Subpart C.

5. Your fifth question asks "does the 'mixture rule apply to rinsewaters from electroplating operations due to the presence of 'residual droplets' of stripping, cleaning, or electroplating solutions?" This question was answered previously.

If you have further questions relating to this subject, please feel free to call Mr. Edwin F. Abrams at (202) 382-4767.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

JUL 29 1987

Mr. Sirmans
Raymark Industrial Division
1204 Darlington Avenue
Crawfordsville, Indiana 47933

Dear Mr. Sirmans:

After our review of Raymark's delisting petition (#0627) submitted to the Agency on August 16, 1985, and of additional information supplied in support of the petition, the Variances Section has established that Raymark's waste does not meet the corrected listing description for K062 wastes published on September 22, 1986 (51 FR 33612), which amended the K062 listing promulgated on May 28, 1986 (51 FR 19320). The listing now refers to "pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332)." Since you have identified your etching processes as being classified under SIC Codes 3465 and 3449, your waste pickle liquor is not a listed hazardous waste and may be managed as a solid waste under Subtitle D regulations. Your petition is, therefore, mooted, and we have closed your file. Please be reminded that your waste must still be tested periodically to verify that it does not demonstrate any of the characteristics of hazardous waste.

Should you have any questions regarding our evaluation, please contact Scott Maid, of my staff, at (202) 382-4783.

Sincerely,

Myles Morse, Chief
Variances Section

cc: Allen Debus, EPA Reg. V
William Muno, EPA Reg. V
Karl Bremer, EPA Reg. V

AUG 7 1987

Mr. William S. Harer
CHEM-CLEAR
992 Old Eagle School Road
Suite 915
Wayne, PA 19087

Dear Mr. Harer:

This is response to your letter of May 12, 1987, in which you requested an interpretation regarding the regulatory status of a waste generated by one of your clients. Specifically, the waste in question is generated by caustic rinsing metal parts that have been cleaned with a solvent containing over 10%, by volume, trichloroethylene.

The Agency does not consider small amounts of solvent carried over on the metal parts from solvent degreasing to meet the listing description of a spent solvent. Therefore, if any solvent is carried over into the caustic rinse water, the mixture rule would not be applicable. Thus, the caustic rinse water would only be a hazardous waste if it exhibits one of the hazardous waste characteristics [ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity]. Since your caustic rinse water does not exhibit any of the hazardous waste characteristics, as was demonstrated by your client's analytical results, the caustic rinse water would not appear to be a hazardous waste under the Federal hazardous waste regulations. However, you should be aware that the State's hazardous waste regulations may be more stringent than the federal hazardous waste rules. Therefore, you should contact a representative from the State to determine the waste's regulatory status under the State's hazardous waste program.

If you require additional information, please contact Ed Abrams at (202) 382-4787.

Sincerely,

Matthew A. Straus
Chief, Waste Characterization Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1987(33)

AUG 25 1987

Mr. William S. Harer
CHEM-CLEAR
992 Old Eagle School Road
Suite 915
Wayne, PA 19087

Dear Mr. Harer:

I am responding to your letter of May 12, 1987, requesting an interpretation regarding the regulatory status of a waste generated by one of your clients. Specifically, your client requested a ruling on a waste that is generated by caustic rinsing metal parts that had been cleaned with a solvent containing over 10%, by volume, trichloroethylene.

The Agency does not consider small amounts of solvent carried over on the metal parts from solvent degreasing to meet the listing description of a spent solvent. Therefore, if any solvent is carried over into the caustic rinse water, the mixture rule would not be applicable. Thus, the caustic rinse would only be a hazardous waste if it exhibited one of the hazardous waste characteristics [ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity]. Since your caustic rinse water does not exhibit any of the hazardous waste characteristics, as was demonstrated by your client's analytical results, the caustic rinse water would not be considered a hazardous waste under the Federal hazardous waste regulations.

If you require additional information, please contact Ed Abrams at (202) 382-4787.

Sincerely,

Matthew A. Straus
Chief, Waste Characterization Branch

CHEM-CLEAR®

SUITE 915 • 992 OLD EAGLE SCHOOL ROAD • WAYNE, PENNSYLVANIA 19087 • (215) 687-8990

May 12, 1987

Mr. Matthew Stauss
Branch Chief
WH-562B 461 M St. SW
Washington, DC 20460

Dear Mr. Stauss:

ChemClear is a hazardous waste treatment firm. A customer contacted ChemClear for guidance regarding waste characterization, which I referred to Bob Scarberry of your staff.

According to the customer, metal parts are degreased in a solvent mixture that is over 10% by volume trichloroethylene. Following degreasing, the parts are dried to evaporate the solvent and then rinsed in an agitated caustic bath (pH < 12.5) to remove metal shavings. The customer requested a ruling as to whether or not the caustic rinse is hazardous waste. Analytical results show that the caustic rinse is not characteristically hazardous. Mr. Scarberry indicated that if the solvent is evaporated prior to the caustic rinse, then the waste rinse water is not a listed waste. ChemClear would like to receive confirmation of that ruling.

If you have any further questions regarding the wastestream, please do not hesitate to contact me.

Sincerely,

William S. Harer

William S. Harer
Environmental Engineer

WSH/dmp

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 7 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

MEMORANDUM

SUBJECT: Disposal of Wastes from the Environmental Chemistry Laboratory in Bay St. Louis, Mississippi

FROM: Marcia E. Williams, Director
Office of Solid Waste (WH-562)

TO: Allen L. Jennings, Director
Benefits and Use Division (TS-768-C)

This is in response to your July 1, 1987, memorandum in which you requested our reaction and guidance on your plans to dispose of wastes generated by the Office of Pesticide Program's Environmental Chemistry Laboratory (ECL), located in Bay St. Louis, Mississippi. ECL analyzes environmental samples for trace levels (ppm, ppb) of pesticides, herbicides, and related compounds, and ultra trace levels (ppt) of chlorinated dioxins. You presently have fifteen 35-gallon drums of miscellaneous laboratory wastes contaminated with low levels of dioxin and the equivalent of another seventy-five 35-gallon drums of environmental samples; these drums are currently being stored in freezers and other storage areas at ECL.

As a result of your July 24 meeting with my staff, it is my understanding that the wastes in question are not the listed dioxin-containing wastes under RCRA (40 CFR 261.31) and as such are not subject to the special management requirements for the listed dioxin wastes. These wastes, however, are likely to contain low levels of dioxins and as such should be managed with care. High temperature incineration is an appropriate means of disposal. We, therefore, encourage you to proceed with your proposal to send your laboratory wastes to ThermalKEM for incineration at their interim status fixed hearth, dual chamber, high temperature unit in Rock Hill, South Carolina.

If you have and further questions, please feel free to contact me.

UNITED STATES ENVIRONMENTAL PROTECTION A
WASHINGTON, D.C. 20460

AUG 17 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

MEMORANDUM

SUBJECT: Listing Program's decision on Chevron Chemical Company's waste from Tower 201 in their polystyrene production process in Marietta, Ohio.

FROM: Matthew A. Straus RMS for M.A.S.

TO: Steve Hirsch

On July 28, you met with Barry Millman (Dynamac), my staff, and me, to discuss Region V's request for assistance in determining whether Chevron Chemical Company generates an F005 waste in Tower 201 in their polystyrene production process in Marietta, Ohio. I assigned Chuck Lawhead with the task of gathering the information necessary to enable us to make a decision. On August 4, he submitted to me a summary of the arguments relevant to the issue, as we defined it in the meeting mentioned above. (See attached memo). The decision at which we arrived is outlined below. If you have any questions or comments, please submit them to me by August 26. We intend to write George Hamper (Region V) to inform him of our decision.

Listing Program's Decision on the Chevron Issue:
The Listing Program has decided that toluene is used as a solvent in Chevron Chemical Company's polystyrene production process and, therefore, that waste from Tower 201 is the listed hazardous waste, F005, still bottoms from the recovery of spent toluene. This decision was made, based on the following information:

1. In a document submitted by Squire, Sanders, and Dempsey on behalf of Chevron, it was stated that the toluene is "added as a diluent" in the process. The toluene is also used as a carrier, or diluent, for the additives which are used in the process.

2. Both styrene and toluene are recovered in Tower 201; they are separated from the tars in this column. Therefore, the waste generated at this point in the process qualify as still bottoms from the recovery of spent toluene, an F005 waste.

3. The closed loop recycling process exemption does not apply to this process.

4. Chevron made several arguments that have not been addressed by this decision. We feel that the (3) determinations above resolve the issue by themselves.

Support for the decision:

1. Peter Oxenbol of Chevron Chemical Company commented that the term "diluent" had been used by them before they realized that it carried such a weighty connotation (i.e., use as a diluent constitutes use as a solvent.) He suggested that a different word or description could be used which would not be as sensitve as the work "diluent". The definition of the word "diluent", however, is quite clear, and it was chosen previously as an accurate description of the role that toluene plays in the reaction. Chevron wishes to use a different word now, but toluene's function will not be changed by doing so.

2. Of the feed that enters Tower 201, roughtly 83% is unreacted styrene and 4% is toluene and they are both separated, together, from the tars in the column. Toluene may not be the major component in the feed stream to the column, but it is nonetheless being recovered at this point in the separated from the styrene.

3. The Federal Register excerpt on the closed loop recycling process reads as follows: "It should be noted that, under today's rule, although secondary materials stored in closed-loop reclamation processes that fit within the exclusion of §261.4(a)(8) are not solid waste, wastes from their management are solid wastes. Thus, still bottoms from solvent reclamaton in a no exclusion applies for another reason, and can be hazardous wastes if they are identified or listed. In this regard, the Agency notes that many still bottoms from solvent reclamation are listed wastes, as are the residual spent solvents themselves (Hazardous Wastes F001-005)." (51 FR 25443)

4. Chevron's other arguments, that toluene is present in the waste in the in only de minimis quantities, that toluene "is an essential ingredient in the process from a kinetic standpoint", etc., became moot points because it was decided that the waste was the listed waste, F005.

Attachments: (1)

UNITED STATES ENVIRONMENTAL PROTECTION A

9444.1987(37)

Dr. R.I. Barnhart, Ph.D.
Technical Manager
American Chrome and Chemicals, Inc.
Buddy Lawrence Drive
P.O. Box 9912
Corpus Christi, TX 78469

Dear Mr. Barnhart:

This letter is in response to your July 13, 1987 inquiry regarding the status of the K006 wastes and the on-site disposal unit containing these wastes at your Corpus Christi facility. As mentioned in your letter, these wastes received a temporary exclusion on May 25, 1982. Based on our evaluation of the information submitted in support of your petition, however, the temporary exclusion for this waste was revoked and a final exclusion denied on November 14, 1986 (51 FR 41320-41321) with an effective date of May 14, 1987.

The State of Texas has been authorized by EPA to administer and enforce a hazardous waste management program pursuant to Section 3006 of RCRA, 42 U.S.C. §6926. In light of the State's authority, the future status of this disposal unit should be determined by the Texas Water Commission. This will ensure that the use of the unit will be commensurate with ongoing and planned waste management requirements at the facility. In a similar manner, if this unit is to close in the future, all closure requirements should be determined by the Commission.

I hope this explanation has addressed all of your concerns regarding the status of your petitioned wastes and the on-site disposal unit in which they are contained. Should you have any further questions concerning the Federal regulatory compliance for the petitioned waste, please feel free to contact Suzanne Rudzinski of the Office of Solid Waste at (202)382-4206.

Sincerely,

Marcia Williams
Director
Office of Solid Waste

cc: Allyn Davis, Region VI Div. Dir.
Lee Haze, Region VI Delisting Contact
Sam Becker, Region VI RCRA Enforcement Contact
Randy Brown, Region VI RCRA Branch Chief
Bill Honker, Region VI Permits Section

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
AUGUST 1987

8. Definition of Solid Waste and Reclamation

A distributor of a U-listed commercial chemical product finds that the product is no longer saleable (for example, it is past is shelf life). If the distributor ships it back to the manufacturer for reclamation, the material is not a solid waste under 40 CFR 261.2 because listed commercial chemical products are not solid wastes when reclaimed. However, in many cases the manufacturer will not know whether the material can be reclaimed until a sample is analyzed. Could the distributor ship the entire lot back to the manufacturer, while not knowing whether the material was a solid waste?

Yes. The distributor can ship the entire lot back to the manufacturer, while not knowing whether the material was a solid waste. There are no provisions in the RCRA regulations restricting shipments of commercial chemical products. Technically, it remains a commercial chemical product until such time as they are discarded or intended to be discarded (Section 261.2 and Section 261.33). This decision is made by the manufacturer. The U-listed commercial chemical product would still be shipped pursuant to applicable DOT and U.S. Postal Service regulations. It would not need to be manifested as a hazardous waste.

9444.1987(38)

September 1, 1987

MEMORANDUM

SUBJECT: Regulatory Interpretation

FROM: Marcia E. Williams, Director (WH-562)
Office of Solid Waste

TO: Judy Kertcher, Acting Director
Solid Waste Branch, Region V

Our office has reviewed the information you provided in your July 29th memo, in which you requested an interpretation of 40 CFR 261, as it applies to a still bottom waste generated during the production of polystyrene at the Chevron Chemical Company, Marietta, OH. We have decided that toluene is used as a solvent in the process; therefore, the tower 201 still bottoms are a F005 hazardous waste that is generated during the recovery of spent toluene.

The following information was used to make our decision and to address the concerns outlined in your memo.

1. In a document submitted by Squire, Sanders, and Dempsey on behalf of Chevron, it was stated that the toluene is "added as a diluent" in the process. The toluene is also used as a carrier, or diluent, for the additives which are used in the process. The property of a RCRA solvent is the ability to solubilize, or to act as a diluent.

2. Both styrene and toluene are recovered in Tower 201; they are separated from the tars in this column. Therefore, the waste generated at this point in the process are still bottoms from the recovery of spent toluene, and F005 waste.

3. The closed loop recycling process exemption does not apply to this process. (See attached discussion)

4. Chevron made several arguments (e.g., the waste is not ignitable and, consequently, not hazardous; the waste does not contain toluene) that have not been addressed by this decision. We feel that the three determinations above resolve the issue of, whether the material in question is hazardous waste.

This has been retyped from the original document.

Additional discussion on items 1-4:

1. Peter Oxenbol of Chevron Chemical Company commented that the term "diluent" had been used by them before they realized that it has carried with it such a weighty connotation (that use as a diluent constitutes use as a solvent.) He suggested that a different word or description could be used which would not be as sensitive as the word "diluent". The definition of the word "diluent", however, is quite clear, and it was chosen previously as an accurate description of the role that toluene plays in the reaction. Chevron wishes to use a different word now, but toluene's function will not be changed by doing so.

2. Of the feed that enters Tower 201, roughly 83% is unreacted styrene and 4% is toluene. They are both separated, together, from the tars in the column. Toluene may not be the major component in the feed stream to the column, but it is nonetheless being recovered at this point in the separation from the styrene.

3. The Federal Register excerpt on the closed loop recycling process reads as follows: "It should be noted that, under today's rule, although secondary materials stored in closed-loop reclamation processes that fit within the exclusion of §261.4(a)(8) are not solid waste, wastes from their management are solid wastes. Thus, still bottoms from solvent reclamation, if an exclusion applies for another reason, can be hazardous wastes if they are identified or listed. In this regard, the Agency notes that many still bottoms from solvent reclamation are listed wastes, as are the residual spent solvents themselves (Hazardous Wastes F001-005)." (FR Vol. 51, No. 134, 25443).

4. Chevron's other arguments, that toluene is present in the waste in only de minimis quantities, and that toluene "is an essential ingredient in the process from a kinetic standpoint", etc., became moot points because it was decided that the waste was the listed waste, F005.

If you wish to discuss the above in further detail, please call Yvonne Garbe on FTS 4/5-66/9 of my staff.

This has been retyped from the original document.

SEP 2 1987

Mr. John S. Ramsey
Hazardous Waste Section
Bureau of Waste Management
Department of Health and Environment
Forbes Field, Topeka, KS 66620-0001

Dear Mr. Ramsey:

This is in response to your recent letter which requested a clarification of the definition of EPA Hazardous Waste F021, "Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives". In particular, you were concerned with the regulatory status of wastewater generated from this production process.

In a recent telephone conversation, I concurred with your interpretation that this exclusion applies only to wastewaters from hydrogen chloride purification. However, after researching the issue, I learned that no wastewater is generated from by-product HCl purification and that the Agency had intended the exclusion to apply to all process wastewaters.

I apologize for this hasty determination. As you indicated in your letter, an EPA memorandum dated March 29, 1985, also clarifies that the RCRA "Dioxin" listing specifically excludes all wastewaters resulting from the PCP manufacturing operations. I hope that my error has not inconvenienced you in any way.

If you require additional information, please feel free to contact me or Ed Abrams of my staff at (202) 382-4787.

Sincerely,

Robert M. Scarberry
Chief, Listing Section

9444.1987(40)

UNITED STATES ENVIRONMENTAL PROTECTION AGENC
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSI

SEP 9 1987

Mr. Alfred A. Levin
Manager
Toxics Substances Control
Velsicol Chemical Corporation
5600 River Road
Rosemont, IL 60018-5119

Dear Mr. Levin:

This is in response to your letter of July 16, 1987, regarding whether certain materials contaminated with the registered pesticides, chlordane and heptachlor would be considered hazardous wastes. As stated in your letter, professional pesticide applicators dilute the concentrated pesticides and apply them for use to control structural termites.

You describe three scenarios that result in the contamination of materials due to the accidental spilling or over-application of these pesticides. In the first scenario, the pesticide solution is applied around a home with a swimming pool. Water from the swimming pool moves through cracks in the pool's wall and enters the soil. Soil contaminants then move out of the soil into the pool. The pesticide was then discovered to have migrated into the pool. You want to know whether the water in the pool (when discarded) is a hazardous waste. As stated in 40 CFR 261(d)(1)(B), listed commercial chemical products are not wastes when applied to land if that is their normal manner of use. Since the contamination of the pool water resulted from the normal use of the pesticide as a product, rather than from its disposal, the pool water is not hazardous waste via the mixture rule.

In the second scenario, a professional applicator spills some of the pesticide outside on the grass (soil) away from the intended site of application, creating a very low-level contamination of the sod. He collects the contaminated soil and you wish to know whether it is a hazardous waste. The contaminated soil that is collected is a hazardous waste; disposal is defined at 40 CFR 260.10 to include spilling any solid or hazardous waste into or on any land. Under 40 CFR 261.33(d), hazardous

wastes are defined to include contaminated soil or debris resulting from the cleanup of a spill on any land of listed commercial chemical products, which includes chlordane and heptachlor. Thus, the contaminated soil is subject to regulation provided you exceed the small quantity generator limit (i.e., clean up more than 100 kg in a calendar month). If you clean up less than 100 kg per month, you are subject to the requirements in 40 CFR 261.5(f) (for heptachlor) or (g) for chlordane.

In the third scenario, a professional applicator either overapplies or spills the pesticide, resulting in a residue on the carpet or wallboard of a house. You want to know whether the contaminated carpet and wallboard, after they are removed, are hazardous wastes. Regardless whether it is spilled or overapplied, contaminated carpet or wallboard should be safely managed. Depending on the individual circumstances, sound management is required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) or RCRA. First, if the contaminated carpet or wallboard results from overapplication of the pesticide, the carpet or wallboard would not be a hazardous waste, since the contamination resulted from the use of the pesticide. This would be a violation of FIFRA, however, and the Agency could take proper action under FIFRA to ensure safe disposal. On the other hand, if the carpet or wallboard became contaminated as a result of spilling the pesticide, the carpet or wallboard (after they are removed) would be a hazardous waste, since this would be considered disposal of the pesticides. The cleanup of this debris would be covered by 40 CFR 261.33(d), as discussed above for the second scenario.

In response to your inquiry into the possibility of a delisting of the dilute wastes generated by professional applicators, we believe it is most appropriate to evaluate these materials on a spill-specific basis. These materials can vary in hazardous constituent concentrations, waste volumes, and exposure scenarios. Consequently, we believe it is inappropriate to promulgate a generic exclusion for spill residues and related materials.

You also requested the Agency's advice as to what information, in addition to the requirements discussed in the Delisting Guidance Document, would be useful for the evaluation of petitions to delist dilute solutions or minimum concentrations of chlordane and heptchlor. One requirement which is not listed in the current

guidance document is that four quarters of ground water monitoring data from a compliant system under Subpart F must be submitted by the petitioner for any on-site land-based management unit. Other available data which you submit will be considered, but be aware that the current Agency policy is that delisting is waste-specific, and site-specific factors (i.e., intended management, local hydrogeologic attenuation properties) are generally not considered.

If you have additional questions, please feel free to call Ms. Wanda LeBleu-Biswas, of my staff, at (202) 382-7392.

Sincerely yours,

Marcia E. Williams
Director
Office of Solid Waste

SEP 15 1987

Ms. Sharon Hillmer
Regulatory Coordinator
Colonial Printing Ink Corporation
180 East Union Avenue
East Rutherford, New Jersey 07073

Dear Ms. Hillmer:

This responds to your August 4, 1987, letter requesting clarification of the EPA Hazardous Waste Number for your waste from ink formulation. You are uncertain whether the spent solvents contained in the waste stream are included under the K086 listing, or also must be designated as an F001-F005 spent solvent.

As stated in an earlier phone conversation, there is no question that your waste meets the description for EPA Hazardous Waste Number K086 pursuant to 40 CFR 261.32. However, as the background document for the K086 listing (entitled "Background Document Resource Conservation and Recovery Act Subtitle C Identification and Listing of Hazardous Waste") states, ". . . if these solvents are used in ink formulation and are disposed of, they are considered hazardous wastes under the earlier listing as well as the present listing." Therefore, should your waste also meet the description for the F001-F005 spent solvent wastes, your waste must be designated as one (or more) of the F001-F005 hazardous wastes, as well as being designated as K086.

Absent the K086 listing, most wastes from ink formulation would be listed only as F001-F005 spent solvents, though not necessarily (not all K086 wastes contain the listed spent solvents, and therefore, would not be listed as such). However, the solvent listings do not address the constituents of concern in the ink formulation wastes (i.e., lead and hexavalent chromium). Therefore, the K086 listing is required to address these constituents of concern, and the F-listing is required to address the spent solvents when appropriate.

In our initial discussions on the proper designation for your wastes, the assumption was that the K086 waste also contained spent F005 solvent constituents. If this was the case, both

the K086 and F005 designations would be required. However, upon further investigation, it was ascertained that the solvent of concern is a mixture of cyclohexanone (an F003 solvent) and a naphtha solvent.

A solvent mixture containing cyclohexanone would be designated as F003 when spent only if, before use, the mixture contains only the solvents listed under F003, or a total of 10% or more (by volume) of the solvents included under the F001, F002, F004, and F005 listings. Because the cyclohexanone used in your process is mixed with only a non F001-F005 solvent, the waste cannot be designated as an F003.

Therefore, your waste would only be designated as K086, without a designation for the solvent constituents. The solvent designation is not included because the solvent, before use, does not meet the criteria for the F003 listing (not because the solvents are included in the K086 listing).

I hope this has clarified the classification of your waste. Should you have any questions or need further information, please feel free to call me at (202) 382-4805.

Sincerely,

Mitch Kidwell
Environmental Protection Specialist

SEP 28 1987

Jill M. Blundon
Koppers Company, Inc.
Legal Services
436 Seventh Ave.
Pittsburgh, PA 15219

Dear Ms. Blundon:

In your July 10, 1987 letter, you request written confirmation of the regulatory status under the Resource Conservation and Recovery Act of several substances containing chloropnenolic compounds.

First, you request clarification of the regulatory status of the commercial product Noxtane®, a formulation that is sold by Koppers as an anti-staining material for lumber (surface protection agent). My staff has confirmed in conversations with you that pentachloropnenol is the sole active ingredient of this formulation. Discarded unused formulations of pentachloropnenol, such as Noxtane® are listed hazardous wastes under Part 261.31 of the Code of Federal Regulations, namely EPA Hazardous waste no. F027 (Discarded unused formulations containing tri-, tetra-, or pentachloropnenol, or discarded unused formulations containing compounds derived from these chloropnenols).

Second, you request clarification of the regulatory status of wood chips and sawdust derived from wood which has been treated with pentachloropnenol (Noxtane®). These wood chip and sawdust waste are not currently listed as hazardous waste under either Part 261.31 or 261.32. Therefore, these wastes would be designated as hazardous under RCRA only if they exhibited one or more of the characteristics under Subpart C of Part 261.

You should be aware that the Office of Solid Waste is currently considering listing as hazardous a number of wastes from processes which use chlorophenolic compounds to prevent the staining of wood including spent formulations as well as sawdust and planar shavings. Although these wastes are not currently listed as hazardous wastes, they do contain hazardous constituents and I recommend that you dispose of them in an environmentally safe manner.

Finally, you inquire whether wood chips and sawdust is prohibited under EPA regulations. Unless the materials exhibit a characteristic of hazardous waste, then there are no EPA regulations that prohibit their disposal or incineration.

If you have any questions, please contact Dr. Cate Jenkins of my staff at (202) 382-4786.

Sincerely,

Matthew A. Straus, Chief
Waste Characterization Branch

OCT 9 1987

Ms. Barbara E. Pace
Hogan & Hartson
Columbia Square
555 Thirteenth Street, NW
Washington, DC 20004-1109

Dear Ms. Pace:

This letter is a response to your August 19, 1987, letter in which you request an interpretation of 40 CFR Section 261.31 as it applies to the filter cake waste generated during the production of methyldopa at a Merck and Company facility. Based on a review of the process information that you have provided, we have determined that the filter cake waste described in your letter is not a listed spent solvent waste (F005) for the reason stated below.

The waste in question is generated as a result of filtering the product stream to remove iron. Although toluene is being used for its solvent properties, (i.e., to mobilize or solubilize the product), at this point in the process the toluene is not spent. Thus, the iron cake is neither a residual from the treatment of a spent solvent nor a mixture of a solid waste and a spent solvent, but rather a waste that is contaminated with toluene. Pursuant to the listing background document and the preamble to the Federal Register notice, the F001 through F005 solvent listings do not apply to process waste streams that are contaminated with solvents.

Please advise your client that our decision is based on the information provided in your letter and that deviations to the described process could result in a different interpretation. In addition, the generator is responsible for testing this waste to determine if the residual exhibits any RCRA hazardous characteristics (e.g., corrosivity, toxicity, reactivity, or ignitability) as defined in 40 CFR Subpart C.

If you wish to discuss this matter further, please call Yvonne Garbe at (202) 475-6679, or myself at (202) 475-8551.

Sincerely,

Robert Scarberry
Acting Branch Chief
Waste Characterization
Branch

cc: Yvonne Garbe, WCB

OCT 16 1987

Phillip G. Retallick, Director
Division of Air and Waste Management
Department of Natural Resources and
Environmental Control
State of Delaware
89 Kings Highway
P.O. Box 1401
Dover, Delaware 19903

Dear Mr. Retallick:

This is in response to your October 1, 1987 letter requesting EPA's interpretation of the RCRA Definition of Solid Waste as it applies to Standard Chlorine's proposed thermal oxidizer and hydrodechlorination processes. As you know, a panel of the District of Columbia U.S. Court of Appeals held (in a 2-1 decision) in American Mining Congress vs EPA, No. 85-1206 (D.C. Cir.), that EPA had exceeded its statutory authority in certain respects by including within its definition of solid waste certain types of materials not intended by Congress to be "discarded materials" under RCRA section 1004(27). We are still studying the court's opinion and we plan to issue an interpretation as to how the EPA regulations are affected by the ruling by about mid or late November. We cannot comment on how EPA regulations affecting Standard Chlorine's processes are affected by the court's ruling at this time.

Since Delaware has adopted under State law rules equivalent to EPA's, you have asked for an interpretation as to how Standard Chlorine would be regulated under EPA's January 4, 1985, rules, if the court's opinion did not exist. Based on the materials that you sent to Mike Petruska in August and September, we have reached the following conclusions:

(1) Standard Chlorine's "polychlor material" is the distillation bottoms from the production of chlorinated benzenes, and therefore, is a by-product that meets the listing description of hazardous waste No. K085. (We do not agree that these bottoms are a co-product, as Standard Chlorine claims.)

(2) The Agency considers both the thermal oxidizer and hydrodechlorination processes to be forms of reclamation. These processes are designed to recover materials/products (Muriatic Acid, chlorobenzenes, or benzenes) from a listed by-product; and under Section 261.2(c)(4), this constitutes reclamation.

(3) Pursuant to Section 261.2(c)(3), listed by-products that are reclaimed are solid wastes.

In summary, our interpretation under the January 4, 1985 rules would be that the polychlor material is a solid waste when reclaimed using either the thermal oxidizer or the hydrodechlorination process, and thus is a hazardous waste subject to regulation under Subtitle C of RCRA.

If you have further questions in this area, please feel free to continue to deal with Mike Petruska of my staff, at (202) 382-7729.

Sincerely,

/s/

Marcia E. Williams
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENC
WASHINGTON, D.C. 20460

SEP 23 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

Mr. Michael Mclaughlin
Vice President
SCS Engineers
11260 Roger Bacon Drive
Reston, VA 22090-5282

Dear Mr. Mclaughlin:

This is in response to your letter of September 1, 1987, to Matt Straus, concerning regulation of supernatant liquid resulting from treatment of spent pickle liquor (EPA waste K062).

In the situation you have described, the impoundment would be a regulated unit under RCRA if it stores any supernatant liquid from the lime-stabilization of waste pickle liquor. The supernatant forms during clarification of the lime-stabilized mixture. The preamble to the June 5, 1984 Federal Register (49 FR 23284) states that ". . . sludge from the treatment of spent pickle liquor (K062) is generated by a well known technique involving lime neutralization, flocculation, clarification, and, in most cases, dewatering of the resultant sludge.

According to Agency policy (see OSWER Directive number (9441.12184) attached), the exclusion under 40 CFR 261.3(c)(2)(ii) applies to the sludge generated from the treatment process, but not the supernatant liquid. Because Section 261.3(c)(2)(ii) does not address the supernatant portion arising from lime stabilization of waste pickle liquor, that liquid portion would be derived from K062, and thus a hazardous waste, per Section 261.3(c)(2)(i). A surface impoundment holding this supernatant portion would be subject to regulation under RCRA Subtitle C.

If you have further questions in this area, contact Mike Petruska of my staff at (202) 382-7729.

Sincerely,

Marcia Williams

Marcia E. Williams
Director
Office of Solid Waste

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENC
WASHINGTON, D.C. 20460

9444.1987(48)

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

OCT 23 1987

Kevin Mouser, R.P.S.
Hazard Materials Specialist
Bureau of Environmental Health
Department of Water Quality and
Hazardous Materials Management
Marion County Health Department
22 East Ohio Street
Indianapolis, IN 46204

Dear Mr. Mouser:

This is in response to your September 25, 1987, letter to Matt Straus concerning the dioxin-contaminated oils. This letter explains the regulatory requirements for the used oil in question, and then (as you requested) recommends additional management practices you may want to consider.

First, from the information you provided, the contaminated oil is not an EPA-listed hazardous waste, and would only be a hazardous waste under RCRA if it exhibits any of the hazardous characteristics. The only wastes listed as hazardous under RCRA due to the presence of dioxins are found in 40 CFR 261.31 under the hazardous waste numbers F020-23 and F026-28. Most of the listed dioxin wastes are manufacturing process wastes; the exception is F027, which covers discarded unused formulations containing tri-, tetra-, or pentachlorophenol or compounds derived from these chlorophenols. The waste in question is actually lubricating oil contaminated with TCDD. The contamination resulted from use of the TCDD as an analytical standard, rather than from mixing of the oil with TCDD that is intended for discard. Therefore, the contaminated lubricating oil would not meet the F027 listing.

Second, please note that all used oils, whether they are hazardous by a characteristic or not, are subject to 40 CFR Part 266, Subpart F, if burned for energy recovery (or made into a fuel). If you decide to manage the oil in some other manner, however, no EPA regulations apply. You should check with the appropriate State agency to determine if State regulations apply.

Finally, you asked for storage and disposal recommendations. With regard to disposal, the most protective approach would be to ship the oil to a permitted hazardous waste incinerator. The regulations that EPA promulgated for small quantity hazardous waste generators, which are summarized in the enclosed handbook, contain recommended practices for storage. (The handbook also includes the address and phone number of the State regulatory agency in your area.)

If you have further questions in this area, please contact Mike Petruska at (202) 382-7729.

Sincerely

Marcia E. Williams
Director
Office of Solid Waste

Enclosure

OCT 26 1987

Ronald J. Senna
Director - Environmental Compliance
International Flavors and Fragrances, Inc.
800 Rose Lane
Union Beach, N.J. 07735

Dear Mr. Senna:

This is in response to your letter of September 25, 1987, concerning the regulatory status of your fragrance ingredients. Based on the information you provided and the subsequent phone conversation with our consultant, Geo/Resource Consultants, Inc., EPA's understanding of the waste generation process is that Acetone, ethyl acetate, and xylene solvents are periodically used to clean out the reactor vessel. The spent solvents generated from that cleaning operation are drummed and sent off site for proper management as F003 wastes. A light coating or residue consisting of fragrance oils and trace amounts of solvent remains on the walls of the vessel. IFF then washes the vessel out with soap and water. This waste washwater carrying the oil and solvent residue then flows to an oil/water separator for treatment.

Based on this scenario, the Agency's interpretation is that the solvent-contaminated washwater is not within the scope of the Hazardous Waste No. F003 listing for spent nonhalogenated solvent. The subject waste stream is generated from the washout of a reactor vessel containing residues of solvent and fragrance oils. Therefore, the waste is not a spent solvent, but a process wastewater contaminated with solvent constituents. This waste is very different from a solvent stream that has been used and as a result of contamination can no longer be used as a solvent without further processing (see Section 261.2(c)(1) and 50 FR 53316). It is not the Agency's intent to regulate water from washout of a reactor vessel as F003.

If the washwater sent to the oil/water separator is ignitable, it would be classified as a D001 hazardous waste, and would remain such for as long as it exhibits the ignitability characteristic. According to 40 CFR Section 261.3(c) and (d), any residues resulting from treatment of D001 are hazardous wastes only if they continue to exhibit a characteristic found under 40 CFR, Part 261, Subpart C.

If you have further questions in this area, please contact Michael Petruska of my staff at (202) 382-7729.

Sincerely,

/S/

Marcia E. Williams
Director, Office of
Solid Waste

cc: Kurt Whitford, N.J. DEP
Sam Ezekwo
EPA Region II
Air and Hazardous Waste Division

DEC - 4 1987

Mr. Joe Berkant
EMCO, Inc.
P.O. Box 2193
East Gadsden, Alabama 72401

Dear Mr. Berkant:

Based upon our review of your original delisting petition (#0583) and additional information submitted to our office, as well as information provided in conversations between Kenneth Layton, P.E. (Robison & Layton, Inc.) and Cecil Cross (SAIC), we have re-evaluated the processes at your plant with respect to EPA's recent clarification of the scope of EPA Hazardous Waste No. F006. On December 2, 1986, a redefinition of the F006 listing was published (see 51 FR 43350-43351) which exempted electroless plating processes, among others, from coverage as a listed hazardous waste. Since external currents are not used in association with coating processes at your facility, and none of the manufacturing processes described in your petition fall into the group of processes currently defined as electroplating processes, we conclude that your wastewater treatment sludge, as described in your petition, is not included within the scope of EPA Hazardous Waste No. F006. We, therefore, are closing your petition file.

Although your wastewater treatment sludge is not an EPA listed waste, you are still required to periodically determine whether the waste exhibits any of the hazardous waste characteristics defined by 40 C.F.R. Sections 261.21-261.24. In addition, future process changes, if any, could cause the waste to be classified as hazardous.

Please call me at (202) 382-4206 if you have any questions concerning our evaluation.

Sincerely,

Terrance Grogan, Chief
Variances Section

cc: Cecil Cross, SAIC
Tricia Herbert, EPA Region IV

December, 11, 1987 9444.1987(52)

Mr. Jordan Dern
Manager, Environmental Regulatory Programs
Koppers Company, Incorporated
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Dern:

The Permits and State Programs Division has reviewed your September 21, 1983 petition (#0528) requesting an exclusion from regulation for sludges, presently classified as EPA Hazardous Waste No. K035, generated at the Koppers' Follanabee, West Virginia facility. We will recommend to the Assistant Administrator for Solid Waste and Emergency Response that your petition be denied. There are two reasons for this recommendation: (1) groundwater monitoring data indicates that the subject units and waste may be contaminating groundwater; and (2) the waste has not been sufficiently characterized to demonstrate that it is non-hazardous. (Note: We have not previously requested some of the missing information because of (a) confusion created by the petition as to which wastes are treated in the system, and (b) the evolving requirements of the Delisting Program). The specific bases for our recommendation are further described below.

However, before further explaining our denial recommendation, let us first address your contentions that the waste to be delisted is not subject to regulation.

Your firm contended that its wastewater treatment system does not generate or treat a listed hazardous waste. Specifically, you argued that the waste is a sludge generated from the biological treatment of creosote production wastewaters and that the K035 listing (wastewater treatment sludges generated in the production of creosote) is not applicable to this waste because the listing background document does not include biological treatment sludges.

The Agency disagrees. The K035 listing background document specifically includes biological sludges:

> 2. Creosote Wastewater Treatment Sludge
>
> The wastewater treatment sludges that remain after biological treatments are also hazardous. The carcinogenic constituents of creosote, namely benzo(a)anthracene, benzo(b)fluoranthene, and benzo(a)pyrene, are specifically likely to be present in the treatment sludge since these constituents absorb to sediment at very high levels (App. B). Where treatment is incomplete, creosote (which is,

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however, somewhat amenable to biodegradation (App. B), is projected to be present in the sludge as well. If these sludges are placed in a leaking landfill, an unlined holding pond, or an improperly sited facility (i.e., as in an area with permeable soil), the waste constituents may be released."

For this reason, the Agency concludes that the wastewater treatment sludge generated at the Koppers' Follanabee, West Virginia facility is a listed hazardous waste K035.

In addition, your firm contends that the aeration basins are tanks, not surface impoundments, and are therefore exempt from regulation under 40 CFR 261.4(c). As explained in the attached October 11, 1985 letter from Stephen Wasserang (EPA Region III), EPA examined the structural details of the aeration units and found that the units do not meet the criteria for tanks. Therefore, the §261.4(c) exemption does not apply.

Because the units and waste are subject to Subtitle C regulations, we evaluated the merits of your delisting petition. As mentioned previously, our evaluation has resulted in our decision to recommend the denial of your firm's petition. The primary basis for this decision is that the submitted groundwater monitoring data indicates that the waste units may have contributed to groundwater contamination. Also, we are concerned about the adequacy of your ground-water monitoring system. Finally, you did not supply all of the data needed to fully characterize the waste in the treatment system. We address each of these concerns in more detail below.

It is EPA's policy not to exclude any waste until the petitioner demonstrates that it poses no past or present threat to the environment. For waste that has been treated, stored or disposed of in a land-based unit, EPA will investigate the potential for ground-water contamination. Our policy is to request four consecutive quarters of groundwater monitoring data from a groundwater monitoring system meeting the requirements in the 40 CFR 265, Subpart F. These data must show no exceedance of regulatory standards.

We reviewed the data that Koppers submitted and concluded that two of the monitoring systems (wells in the R-A and R-B series) were not adequate to monitor ground-water quality in the uppermost aquifer underlying the aeration units because they were installed in shallow fill materials that are typically dry. The R-C series wells which are downgradient of the units and the upgradient A-115 well, although not fully complying with the Subpart F requirements, can be used to sample the uppermost aquifer. Koppers submitted two quarters of data from these wells. Data from the downgradient wells showed concentrations exceeding background levels for the following hazardous constituents, which are among those we would expect to find in

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K035 waste: cadmium, barium, phenanthrene, benzo(a)-pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, anthracene, chryzene, benzo(b)fluoranthene and phenol. In all cases, concentration levels at the downgradient wells exceeded the levels of regulatory concerns that EPA uses to evaluate delisting petitions. In some cases wells at the background (upgradient) well also exceeded these delisting levels. Moreover, the downgradient wells also showed higher concentrations of TOC, pH, and specific conductants, three of the four general indicators of ground-water contamination measured under the Subpart F monitoring requirements. Appendix I presents these data in greater detail.

We discussed the need for data on ground-water contamination with representatives of Koppers in 1986. At that time, we focused primarily on a CERCLA action that addressed ground-water problems at a different part of the facility. We were concerned that releases from the wastewater treatment units might be contributing to that problem. In response to our letter of March 1986, Koppers submitted information intended to show that the wastewater treatment units were not contributing to the ground-water contamination subject to the CERCLA response. We have serious questions about this demonstration. More significantly, that demonstration provides no basis for us to conclude that the wastewater units are not contributing to the contamination closer to the units at the three R-C series wells. Because samples from these wells contained a large number of constituents frequently found in K035 waste, and because the wells are located downgradient of the units, we have tentatively concluded that the units are contributing to the contamination at those wells. Accordingly, we must recommend that the Agency deny your petition.

Furthermore, as mentioned briefly above, none of the wells in the vicinity of the aeration units fully complies with the monitoring standards in Part 265, Subpart F. For example, two of the monitoring systems (the initial R series and the RR series) were installed in fill materials that are typically dry, and have been determined to be inadequate for monitoring groundwater quality in the uppermost aquifer underlying the aeration units. EPA's current delisting policy also requires us to recommend denial of your petition on this basis.

Finally, we must again recommend denial because your petition does not fully characterize the wastes in the wastewater treatment units. Without a complete understanding of the composition and nature of these wastes we <u>can not exclude</u> these wastes or associated treatment units from regulation under the 40 CFR Parts 262 through 268 and 270. Each of these deficiencies discussed below.

First, Koppers requested that the waste in all units of the wastewater treatment systems (i.e., 2 aeration basins and 1

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clarifier) be delisted. Among other things, delisting procedures require that the petitioner (1) properly sample and characterize the waste in all units seeking delisting; and (2) analyze the waste for factors (including constituents other than those for which the waste was listed) which may cause the waste to be hazardous. The Koppers petition is significantly deficient in both these areas.

Koppers provided sampling data only for the waste in the clarifier. We do not consider the samples taken from the clarifier to be representative of the waste that accumulated in the two aeration basins because potentially hazardous organic residues (that may be more dense than the wastewater) may be settling out in the aeration basins. This may cause the waste in the aeration basins to be substantially different from the clarifier wastes. Therefore, the Agency has no basis to decline the uncharacterized aeration basins.

Second, submitted data indicate that material other than K035 waste was added to the wastewater treatment system. Your firm added contaminated groundwater removed from other locations at the facility (as requested under CERCLA) to the wastewater treatment system before the units were sampled, but failed to clearly document the source or contents of the added groundwater. This information is essential under EPA's definition of "hazardous waste." Mixtures of listed hazardous wastes, such as K035 and another solid or hazardous waste, are hazardous wastes. See 40 CFR §261.3(b)(2) ("the mixture rule"). EPA would need to evaluate all of the constituents in the resulting mixture before granting a delisting petition. To succeed, your petition would have to demonstrate that the ground water that you added to the units contained no wastes. Even if you could show that the ground-water contained no RCRA wastes, you would need to perform a full Appendix VIII analysis if you wanted to demonstrate that any of the constituents found in the samples from the R-C series wells originated in the contaminated ground-water from the CERCLA action rather than the K035 waste.

Third, the constituent analyses you conducted were limited to the constituents for which the waste was originally listed. However, available data indicate that other processes at your facility use pyridine, picoline, cyclohaxane, or naphthalene. It is not clear whether constituents from these processes may end in the petitioned wastewater. Further, contaminated groundwater containing these and/or other constituents has been added to the wastewater treatment system. Consequently, your petition should have included an evaluation of the aeration basin wastes (including the volume of previously generated waste) and the clarifier wastes for the total concentrations of the following constituents as well as for other constituents that may be present from these process waters and/or contaminated groundwater:

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acenaphthylene	2-methoxy-4-methylphenol
arsenic	dibenze(a,h)anthracene
barium	ethyl benzene
benzene	fluoranthene
benzo(a)anthracene	indeno(1,2,3-c,d)pyrene
benzo(a)pyrene	lead
benzo(b)fluoranthene	mercury
benzo (2-chloroisopropyl)ether	napthalene
cadmium	nickel
chrysene	phenol
chromium	picoline
cyanide	pyridine
cyclohexane	silver
creosote	selenium
2,4-dimethyl phenol	toluene

Fourth, a petitioner must also provide data indicating the waste to be delisted would not be hazardous based on any characteristics of the waste. You failed to provide such data despite our requests for it. The aeration basin wastes should have been analyzed for corrosivity (pH), ignitability, reactivity, and EP toxicity.

Finally, submitted data indicate that mercury, although not expected to be present in K035 waste, is present in the waste. This fact further supports the Agency's position concerning the inadequacy of the waste characterization and analytical data you provided. Specifically, we are concerned with the source of this metal contaminant. The summary EP toxicity data submitted on November 17, 1986 showed that the mercury concentration in the March 12, 1986 sample, when subjected to the VRS model, exceeded the regulatory level of concern (i.e., National Primary Drinking Water Regulation for Mercury).

We recognize that we have not previously requested that you submit some of these missing data (e.g., aeration basin waste characterization data). As we explained above, however, your groundwater monitoring data and the status of your groundwater monitoring well network provide independent grounds for denying your petition. Therefore, even if you had supplied the missing data, and if it had allowed us to predict that no constituents in the waste exceeded a level of regulatory concern, we would have recommended denying your petition. The missing data, although potentially useful, is therefore not needed to support our decision.

For all of the above reasons, we consider the waste to be hazardous and subject to regulation under 40 CFR Part 262 through 264 and to the permitting standards of 40 CFR Part 270. Accordingly, we will recommend to the Assistant Administrator that a denial action will be published in the Federal Register.

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It is our practice to give petitioners the option of withdrawing their petition to avoid publication of a negative finding in the Federal Register. If you prefer this option, you must send us a letter withdrawing your petition and indicating that the petitioned waste is considered hazardous and will be managed as such. If you send such a letter, it should be forwarded to me within two weeks of the date of receipt of today's correspondence. If you choose not to withdraw your petition, a denial decision will be published in the Federal Register. You and other interested parties will be able to submit comments if you disagree with the Agency's decision.

If you have any questions regarding our decision, please contact Mr. Scott Maid of my staff at (202) 382-4783.

Sincerely yours,

Bruce R. Weddle, Director
Permits and State Programs Division

cc: Bob Greaves, Region III
Sharon Feldstein, Region III (Superfund)

This has been retyped from the original document.

Mr. Verrill M. Norwood, Jr. 9444.1987(53)
Director, Environmental Affairs
Olin Chemicals Group
P.O. Box 248
Lower River Road
Charleston, Tennessee 37310

Dear Mr. Norwood

This letter is in response to your June 3, 1987 letter, concerning your petition (#0381) to delist the pyridine still bottoms (EPA Hazardous Waste No. F005) generated from the Thermolin 101 process at your Lake Charles, Louisiana facility.

On May 25, 1987, we informed you of our intention to deny your delisting petition on the basis of predicted levels of pyridine, at the compliance-point, that exceed the regulatory standard for pyridine. On June 3, 1987, we received your letter withdrawing your petition. Your basis for withdrawal was the belief that the Agency's F005 listing is not appropriate for your waste. Specifically, you stated that pyridine is used as a catalyst and not as a solvent in your process and you contended, therefore, that the residue generated during reclamation does not constitute an F005 waste. Based on the information received to date, however, we believe that pyridine functions as a solvent in your process and that your recovery wastes are therefore accurately listed under EPA Hazardous Waste No. F005. The waste, therefore, should be considered hazardous and is subject to regulation under 40 C.F.R. Parts 262 through 265 and to the permitting standards of 40 C.F.R. Part 270.

Since you have withdrawn your delisting petition, my office will not investigate this topic any further. However, since the waste is hazardous, we are forwarding our files to appropriate Region VI officials.

In the future, if you decide to submit a new delisting petition to the Agency, in addition to the information requested in the letter of May 26, 1987, you must provide the following information.

- A complete description of the Thermolin 101 process.
- A description of all process equipment involved in the Thermolin 101 process, including complete schematic diagrams.
- A list of all materials used in the process and their functions.

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- o A complete description of all reactions involved in the process. This should include a description of the most likely chemical mechanisms of the reactions.

- o Molar amounts (mass or volumetric amounts are also acceptable) of all materials used and generated in the process (including intermediates). Include a rationale for use of specific ratios of raw materials used in the process.

If you have any questions regarding this matter, please contact Scott Maid, or my staff at (202) 382-4783.

Sincerely,

Bruce R. Weddle, Director
Permits and State Programs Division

cc: Lee Haze, EPA Region VI
Bonny Romo, EPA Region VI
Bill Taylor, EPA Region VI
Bill Honker, EPA Region VI
Jim Anderson, Olin
Henry Huppert, SAIC

This has been retyped from the original document.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1987(55)

DEC 28 1987

Mr. R.F. Weimer
Union Carbide Corporation
Linde Division
P.O. Box 44
Tonawanda, New York 14151-0044

Dear Mr. Weimer:

We have received your letter expressing your intention to withdraw your delisting petition (#0435) for wastewater treatment sludge generated at your Tonawanda plant. Following your conversation with Carolyn Bosserman of Science Applications International Corporation, we were informed that contrary to the process description in your original petition ("cleaning, etching, and passivation of carbon steel, stainless steel, and aluminum"), your plant does not perform etching of either carbon steel or stainless steel, but only pickles these metals. We understand that your plant performs etching of aluminum, but aluminum etching is exempted from the listing for EPA Hazardous Waste No. F006 and your petition for this waste is therefore moot. Furthermore, we understand that the spent pickle liquor (EPA Hazardous Waste No. K062) generated when the pickling baths are periodically disposed is sent off-site to a licensed hazardous waste facility and does not enter the wastewater treatment plant.

Please be advised that the decision to moot your petition is based on the assumption that you will continue to segregate the spent pickling bath solutions from the petitioned waste. Should this situation change and cause the waste to include EPA Hazardous Waste No. K062, or any other listed hazardous waste, it is Union Carbide's responsibility to notify the State of New York accordingly and manage the waste as hazardous.

If you have any further comments or questions, please call Scott Maid, of my staff, at (202) 382-4783.

Sincerely,

Terry Grogan, Chief
Variances Section

cc: James Moran, NYDEC
~~John Gorman, EPA Region II~~ CONCUR
~~Carolyn Bosserman, SAIC~~

JAN 11 1988

Mr. John H. Lovgren, Jr.
Environmental Engineer
Leach and Garner Company
Attleboro, MA 02703

Dear Mr. Lovgren:

This is a response to your November 17, 1987, letter to me regarding the regulatory classification of certain metal finishing sludges. Your letter describes a number of processes used in metal finishing, including pickling, tumbling, burnishing, heat treating and contact cooling. In addition, during a recent phone conversation you provided my staff with further details regarding the generation of several different wastestreams and sludges. Our decisions on the regulatory status of these residuals are discussed below.

On December 2, 1986, the Environmental Protection Agency (EPA) clarified the scope of the F006 listing (See Federal Register 43350); this clarification narrowed the scope of EPA Hazardous Waste No. F006 to include only wastewater treatment sludges from common and precious metals electroplating, anodizing, chemical etching and milling and stripping when associated with these processes.

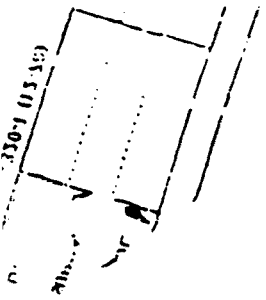
In addition, the F006 listing applies only to the sludge generated from treatment of wastewaters associated with electroplating operations. Wastes resulting from treatment of spent baths and solutions that are not wastewaters would not be considered F006. However, sometimes these spent baths become mixed with wastewaters from electroplating operations; in these cases the sludges from treatment of the mixture would be F006. Also, depending on their composition, the spent baths and wastes derived from their treatment may meet the listing descriptions of other EPA hazardous wastes in 40 CFR 261.31 or exhibit one or more of the characteristics of hazardous waste defined in 40 CFR 261.21 through 261.24.

One wastestream you described is a spent solution from metal burnishing and polishing that contains soaps and metals. In the process, small pieces of metal are tumbled with rocks and soap to smooth the metal pieces. Under the Clean Water Act, the spent tumbling solution must be treated to remove the metals and soap before discharge. As you have described this mechanical burnishing and polishing process, it is not an electroplating, anodizing, chemical etching and milling, or chemical etching and milling, or cleaning and stripping associated with these processes. Therefore, the metal hydroxide waste derived from treatment of the spent burnishing and polishing solution would not meet the F006 listing. If, however, the waste solution is mixed with "electroplating" wastewaters, the wastewater treatment sludge would be F006.

Another waste that you described was sludge from lime neutralization of a spent pickling bath. The pickling bath is used to remove oxide scale from precious metals and does not meet the definition of the K062 listing. In addition, this spent bath is neutralized, the resulting sludge would not be F006. If the metal is subsequently rinsed, however, and this pickling process is a cleaning or stripping operation associated with an electroplating process, then sludge from treatment of the rinsewater would meet the F006 listing.

A third process that you described (the manufacture of gold beads) also generates a spent bath. In this process, nitric acid is used to etch out the copper base metal in a gold bead. (The bead is moulded from gold-plated copper tubing.) Treatment of the spent nitric acid bath produces a metal hydroxide waste. The spent acid is not a wastewater; thus, waste derived from direct treatment of the acid would not be F006. However, sludge from the treatment of wastewater associated with the etching process could be defined as F006.

You also inquired about the status of sludge generated from the treatment of contact cooling water. If the contact cooling water is used only for cooling and is not, for example, also used as a rinsewater in an electroplating, anodizing, chemical etching and milling, or associated cleaning stripping operation, then the treatment sludge would not be F006. If, however, the cooling water is combined with other electroplating related wastewaters for treatment, the resulting sludge would meet the F006 listing.



I hope this answers your questions. If you require additional information, please contact Ed Abrams of my staff at (202) 382-4787.

Sincerely,

Marcia E. Williams
Director
Office of Solid Waste

TECHNOLOGY DIVISION
ATTLEBORO, MASSACHUSETTS 02703

November 17, 1987

Ms. Marsha Williams
Director of Solid Waste
Environmental Protection Agency
WH562, 401 M Street SW
Washington, DC 20460

Dear Ms. Williams:

This letter is being submitted as a request for clarification of the F006 listing for hazardous waste from non-specific sources.

I represent the Leach & Garner Company which is in the precious metal product industry. Our operations range from producing intermediate precious metal products for further processing by our customers to the the production of electrical contacts. These operations require a substantial amount of metal finishing operations such as pickling, tumbling, burnishing, heat treating and contact cooling. As a result of treating the effluent or wastewater, we generate a variety of metal hydroxide filter cakes and sludges. Two of the five operations which generate the wastewater sludges are involved with electroplating. One of the operations generates its sludges by chemically treating burnishing and tumbling solutions which contain soaps and metals. The sludge generated during this process has been tested for EP toxicity and has passed.

I have reviewed documentation from the Federal Register dated December 2, 1986 which refers me to the Effluent Guidelines for pretreatment standards for the electroplating point source category.

I would appreciate your interpretation as to the proper classification of our metal finishing sludges. If you require any further information regarding this request, please feel free to contact me at 617-222-7400, ext. 390.

Sincerely,

John H. Lovgren, Jr.
Environmental Engineer

JHL:bb

RECEIVED
11/24/87

JAN 20 1988

J. Carter S. Gray
Secretary/Counsel
Earth Industrial Waste Management, Inc.
3536 Fite Road
Millington, Tennessee 38053

Dear Mr. Gray:

This is in response to your letter of November 30, 1987, to Michael Petruska concerning classification of your solvent wastes.

The waste you describe appears to be a mixture of several commercial chemical products that are listed in 40 CFR Section 261.33(f). In addition, you also indicate that at times the solvent mixture would exhibit the ignitability characteristic -- referred to in your letter as D001. If the commercial chemical products flushed from the line are intended for reclamation (i.e., solvent distillation), they would not be wastes under the hazardous waste regulations and, thus, would not be subject to any Federal regulation, including labelling requirements. If however, the line flushings are intended for discard, they are hazardous wastes provided they contain a U-listed commercial chemical product or exhibit a characteristic.

With respect to your specific concern, the Agency recognizes that generators may have difficulty identifying and manifesting the waste as a result of this multiple U-waste classification. One possible means of reducing the generator's burden is to segregate the wastestreams as they are generated, and thus limit the number of different wastes in each drum. For example, chlorinated solvents could be segregated from non-chlorinated solvents, and solvents that are hazardous only due to their flash point (ignitability) should be segregated from those that are listed as hazardous due to their toxicity.

With respect to proper identification of the multiple U-listing wastes on the manifest, the generator should seek guidance from the regulating State agency. The National Uniform Hazardous Waste Manifest (EPA Form 8700-22, codified at 40 CFR Part 262, Appendix) includes a continuation sheet (EPA Form 8700-22A) for multiple waste shipments. Some states, however, prefer the generator to simply use more than one manifest for multiple waste shipments; either approach is acceptable to EPA.

If you have further questions, please continue to deal with Michael Petruska at (202) 475-8551.

Sincerely,

Marcia E. Williams
Director
Office of Solid Waste

FEB 11 1988

Mr. A. J. Heinze
AJH Environmental Consulting, Inc.
843 Claymont Drive
Ballwin, MO 63011

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Dear Mr. Heinze:

This is in response to your November 7, 1987, letter to Michael Petruska concerning the regulatory status of spent pipeline filter cartridges. The status of the cartridges depends on whether the solvents that pass through the filters meet one of the listing descriptions at 40 CFR Part 261, Subpart D.

If the solvent in question has been used and otherwise meets one of the "F" listings in Section 261.31, then the filters are hazardous waste under the "derived from" rule in Section 261.3(c)(2)(i). The filters would be hazardous waste unless a delisting is granted by EPA under Section 260.22.

If the solvent contained in the filter is a discarded commercial chemical product listed in Section 261.33(e) and (f), then the filters are contaminated with, or contain, a hazardous waste and must be handled as hazardous waste until it no longer contains the hazardous constituent.

From the information you have provided, it appears that your client has filters in both categories. As such, the filters are subject to the regulations at 40 CFR Part 261-268, Part 270, and the notification requirements of RCRA Section 3010.

If you have further questions, please continue to deal with Michael Petruska at (202) 475-8551.

Sincerely,

/S/ J O Rumm

Marcia E. Williams
Director,
Office of Solid Waste

NITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460

JAN 26 1988

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: New Jersey Zinc Company

FROM: Marcia E. Williams, Director
Office of Solid Waste (WH-562)

TO: Robert E. Greaves, Chief
Waste Management Branch (3HW30)

This is in response to your memo dated November 3, 1987, in which you requested that the Office of Solid Waste (OSW) provide assistance on a number of regulatory issues surrounding the New Jersey Zinc Company site in Palmerton, PA.

AMC v. EPA.

A Federal Register notice (attached) interpreting the AMC decision was signed by the Administrator December 31, 1987. Our reading of the AMC opinion is that the New Jersey Zinc Company's operation is not affected by the AMC opinion, i.e., it still involves solid waste management (at least up until it is burned in an industrial furnace) and the company must still obtain a RCRA permit for their K061 storage pile. Further, we do not think the opinion affects EPA's speculative accumulation provisions at all. (You should note, however, that the speculative accumulation provision determines when certain secondary materials are solid wastes; it does not distinguish between storage and disposal. "Disposal" is defined in the regulations at Section 260.10.)

The last of your first set of questions concerned partially reclaimed zinc oxide that requires further reclamation. Normally, a partially reclaimed solid waste remains a solid waste as long as it must still be reclaimed before use, and the Section 261.3(c)(2)(i) "derived-from" rule would make the partially reclaimed material a hazardous waste. As I understand the situation at New Jersey Zinc, the partially reclaimed zinc

oxide is both a solid and a hazardous waste. However, as is discussed below in the context of the Waelz Kiln residue, if New Jersey Zinc were to change their process so that the only hazardous waste they were to burn in the kiln was K061, the residues from that kiln may then not be hazardous waste.

Regulatory Status of Waelz Kiln Residue

The regulatory status of the kiln residue (and the partially reclaimed zinc oxide) depends on the type of feed to the kiln. As I understand the process currently employed at New Jersey Zinc, I concur with Sam Rotenberg's assessment that the residue is a hazardous waste via the derived-from rule, and further, that the residue has been a hazardous waste since 1980. The following are the factors upon which this determination is based.

- The kiln residue is not exempt under RCRA Section 3001(b)(3)(A)(ii) because the K061 feedstock is a waste from the primary steelmaking industry. Steelmaking constitutes an alloying process, which the Agency has determined not to be "processing of ores or minerals." Waste produced by reclamation of other minerals from non-Bevill waste is not itself a Bevill Waste.

- The "indigenous secondary material" discussions that have appeared in the Federal Register over the last 3 years (see 50 FR 630-1, January 4, 1985; 50 FR 49167, November 29, 1985; and 52 FR 16989-91, May 6, 1987) are not applicable to this unit because I understand that F006 and F019 are introduced to the furnace -- these wastes are certainly not indigenous to a zinc smelting process.[1/]

1/ Your letter also stated that K062 is added to the furnace. We would not view K062 as indigenous to zinc smelting either, but as I understand it, what is actually introduced to the furnace is sludge from lime stabilization from waste pickle liquor that is exempt from the derived-from rule under Section 261.3(c)(2)(ii). Therefore, introducing this exempt sludge into the furnace does not affect the regulatory status of the kiln residue.

You should note that New Jersey Zinc might be able to change the status of the kiln dust by ceasing to add any hazardous waste but K061 to the kiln. Under the May 6, 1987 proposal (52 FR 16990), K061 would be considered indigenous to a zinc smelting operation because K061 is generated in furnaces used in primary steel production (i.e., both are forms of metal smelting). If this rule is finalized as proposed, then the derived-from rule will no longer apply to residue from smelting of K061. Of course, if New Jersey Zinc continues to add F006 and F019 to the kiln, the kiln residue would continue to be hazardous no matter what is decided concerning K061. In fact, as a final point, the introduction of F006 and F019 to the kiln calls into question the kiln's status as a reclamation device. (See 50 FR 630-1, January 4, 1985.) That is, the F006 and F019 wastewater treatment sludges are not ordinarily associated with zinc smelting, and these wastes may contain Appendix VIII constituents different than normal zinc smelter feed materials. (Id.) The kiln, as it is currently operated, may be more properly classified as a hazardous waste incinerator as opposed to a reclamation furnace.

Regulating Exempted Waste Under RCRA Corrective Action

Your second set of questions concerned the applicability of RCRA Section 3004(u) corrective action authority to releases from exempt units. The units you asked about are:

1. Bevill exempt;
2. Pre-RCRA inactive units, and
3. AMC opinion exemptions.

(1) The question about units containing Bevill wastes was settled recently when EPA issued the second HSWA Codification Rule, signed by the Administrator on November 16, 1987. EPA determined that the RCRA Section 3001(b)(3) exemptions (i.e., those established for "Bevill wastes") do not extend to Section 3004(u). This decision is explained fully in the preamble of the second Codification Rule. (See FR 45790, December 3, 1987.)

(2) Releases from pre-RCRA inactive units are certainly within the authority of RCRA Section 3004(u). 40 CFR Section 264.101 provides that an owner or operator of a facility seeking a RCRA permit must institute correction action for releases from units at the facility, "...regardless of the time at which waste was placed in such unit."

(3) Releases from units excluded from RCRA jurisdiction under the AMC opinion, should there be such exclusions, would be handled the same as other product or process releases. That is, the unit holding the product is not a SWMU, but areas contaminated by "routine and systematic discharges" from the unit are SWMUs.

If you have further questions in these areas, contact Michael Petruska of my staff at FTS 475-9868.

Attachment

MAR 11 1988

MEMORANDUM

SUBJECT: Refractory Wastes at U.S. EPA Combustion Research Facility

FROM: Jeffery D. Denit, Acting Director
Office of Solid Waste (WH-562)

TO: Sam Becker, Chief
Hazardous Waste Compliance Branch (6H-C)

This is in response to your memorandum to Robert Scarberry dated December 22, 1987, regarding the regulatory status of refractory waste at EPA's Combustion Research Facility (CRF). Solid waste that is generated from the treatment of a hazardous waste is a hazardous waste if it: (1) contains a listed waste, (2) is derived from a listed waste, or (3) exhibits a characteristic of a hazardous waste. See 40 CFR 261.3(c) and (d).

According to 40 CFR 261.3(c)(2)(i) "any solid waste generated from the treatment, storage or disposal of a hazardous waste... is a hazardous waste." EPA interprets this provision to mean that the "derived from" waste carries the same EPA Hazardous Waste designation as the original waste. (See 50 FR 37338 (Sep. 12, 1985); 50 FR 1995 n. 26 (Jan. 14, 1985); cf. 50 FR 619 n. 7 (Jan. 4, 1985)). This is important because apparently dioxin-containing waste (F020) was burned at the facility; and F020 is subject to special requirements in 40 CFR 264.317. (As you suggested, residue resulting from the treatment of many different listed wastes should be handled as the most restricted of the listed wastes.)

As related to us by Johannes Lee of CRF and Jerry Truitt of your staff, the wastes generated from the rotary kiln incinerator at CRF during the time that the dioxin waste (F020) was incinerated are the following: (1) removed refractory material, (2) dismantled pieces of the former scrubber system, (3) departiculate air filters, (4) scrubber wastewater, (5) soil contaminated with scrubber

wastewater, and (6) ash. Based on the following assessment, we have determined that all of these wastes are acute hazardous (H) wastes, or contain acute hazardous wastes, and are thus, subject to the special requirements of 40 CFR 264.317.

The wastes listed above which are hazardous because they were "derived from" waste are: (1) departiculate air filters, (2) scrubber wastewater, and (3) ash. These wastes may be delisted under Section 260.22: otherwise they must be managed as dioxin-containing hazardous waste (i.e., under Section 264.317, as well as other applicable requirements).

With regard to materials that are contaminated with listed waste, and thereby contain hazardous waste (i.e., hazardous constituents from the waste), EPA has determined that such materials must be managed as hazardous waste for as long as they contain any of the listed waste. (You should note that for contaminated materials, a formal delisting is not necessary; rather, the generator of the contaminated material must manage the material as hazardous waste, or must be able to demonstrate that the material has been decontaminated so that it no longer contains any listed waste.) Following the same logic as cited above for "derived-from" waste, material contaminated by a listed waste carries the same designation as the most restricted listed waste that it contains, i.e., in this case, EPA Hazardous Waste No. F020.

The wastes listed above that are designated as contaminated materials include: (1) refractory material, (2) dismantled pieces of the former scrubber system, and (3) soil contaminated with scrubber wastewater. These wastes must be treated as acute hazardous (H) wastes, unless and until they are decontaminated and no longer contain the listed waste (i.e., F020).1/ A detailed description of decontamination procedures should be a part of the facility's closure plan as described in Section 264.112(b)(4) and Section 264.112(e)

1/ If the material is decontaminated so it no longer contains F020, but it still contains constituents from other listed wastes, the material would be managed as nonacute hazardous waste.

All hazardous waste generated at the CRF must be managed in accordance with Section 262.34 or under the facility's permit. If on-site storage of hazardous waste for time periods greater than 90 days is necessary, and is not addressed in the permit, then the permit must be modified to address the on-site storage of these wastes.

Please feel free to call Emily Roth, of my staff, if you have any further questions; her telephone number is FTS 382-4777.

MAR 31 1988

Mr. Michael J. Fox, Manager
Chemical Engineering Services
Aptech
Post Office Box 3440
Sunnyvale, CA 94088-3440

Dear Mr. Fox:

This is in response to your letter of March 9, 1988, in which you seek written confirmation of an opinion given you by the RCRA/Superfund Hotline concerning solvent/mixture blends.

The information you were given is correct. A spent solvent mixture/blend that contains, before use, a total of less than ten percent of the solvents listed in the F001, F002, F004, or F005 categories would not be considered a listed hazardous waste. (See 40 CFR 261.31 and 50 FR 53315-20.) The situation which you describe in your letter falls within the realm of the above regulation, so the clarification you were given by the Hotline is correct. However, if the waste exhibits the characteristics of corrosivity, ignitability, reactivity, or extraction procedure (EP) toxicity (40 CFR 261.20-261.24) the spent solvent/mixture blend would be considered a characteristic hazardous waste.

It should be noted that state regulations may be more stringent. Therefore, please contact your state environmental authorities to find out what their regulatory requirements are.

Thank you for your inquiry. If you have any further questions, please call the RCRA/Superfund Hotline at (800)424-9346 or (202)382-3000.

Sincerely,

Matthew A. Straus
Acting Director
Characterization and
Asseessment Division

April 7, 1988 9444.1988(07)

MEMORANDUM

SUBJECT: Regulatory Interpretation Assistance Request Determination for Viability of "F-Waste" Electroplating (F007-F009) Listings at Lewis Industries, Inc.

FROM: Sylvia K. Lowrance, Director (WH-562)
Office of Solid Waste

TO: David A. Wagoner, Director
Waste Management Division, Region VII

This is in response to your memorandum dated December 31, 1987 in which you request guidance as to whether rinsewaters that are generated by electroplating operations are regulated as hazardous wastes under RCRA. Specifically, you describe the electroplating process at Lewis Industries, Inc., located in Kansas City, MO, and inquire if the rinsewaters generated by their operations might be listed hazardous wastes according to 40 CFR 261.31. As your analysis of the listing background document to 40 CFR 261.31 correctly indicates, rinsewaters from electroplating operations are not within the scope of the F007, F008, or F009 hazardous waste listings. Rather, these rinsewaters would only be considered hazardous under these specific listings if the F007, F008, or F009 is deliberately mixed with the rinsewaters from electroplating operations. (See 40 CFR 261.3(b)(2).)

During the plating process, rinsewaters may be contaminated with cyanides carried over from plating or cleaning bath solutions. The mixture rule applies when a hazardous waste is mixed with a solid waste. (See 40 CFR 261.3(a)(2)(iv).) The rinsewaters are not a solid waste when they become contaminated; therefore, these rinsewaters would not be hazardous waste due to the mixture rule. In addition, based on the available data that you submitted, the rinsewaters do not exhibit any of the characteristics of hazardous waste set forth in 40 CFR 261 Subpart C. Therefore, the rinsewaters generated by Lewis Industries, Inc., would not be designated as a hazardous waste under RCRA. Please feel free to contact Mr. Ed Abrams at FTS 382-4787 if you or your staff have any further questions.

This has been retyped from the original document.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

APRIL 88

4. Spent Solvent Listings

The owner of a metal working facility uses a cutting oil to cool and lubricate metals during a drilling process. The cutting oil, before use, consists of eighty percent (80%) 1,1,1,trichloroethane and twenty percent (20%) lubricating oil. When spent, this fluid is sent for disposal. Would this material meet the F002 listing found in Section 261.31?

Yes, Section 261.31 of 40 CFR describes the requirements for listing spent solvents. These requirements were codified in the December 31, 1985 Federal Register. The December 31, 1985 FR explains that: "the spent solvent listings cover only those solvents that are used for their solvent properties — that is, to solubilize (dissolve) or mobilize other constituents." For example, solvents used in degreasing, cleaning, fabric scouring, as diluents, extractants, reaction and synthesis media, and similar uses are covered under the listing (when spent). A solvent is considered "spent" when it has been used and is no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed" (50 FR 53316). The 1,1,1, trichloroethane in this circumstance, is being used as a diluent for mobilizing the constituents in the lubricating oil and is therefore covered by the F002 listing in 40 CFR Section 261.31.

Source: Ron Josephson (202) 475-8551
Research: Steve Campbell

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 3 1988

MEMORANDUM

SUBJECT: Guidance on Chlordane and Heptachlor Pesticide Wastes

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste (WH-562B)

TO: Susan H. Wayland, Deputy Director,
Office of Pesticide Programs (TS-766C)

This is in response to your memorandum dated March 3, 1988, in which you request guidance on the regulatory status of chlordane and heptachlor pesticide waste under Subtitle C of the Resource Conservation and Recovery Act. My staff has researched the specific questions raised in your memorandum; our responses are given below.

QUESTION NO. 1: Are products containing either chlordane or heptachlor, or both chlordane and heptachlor covered by the "P" or "U" listings of 40 CFR 261.33 (e) and (f) respectively?

Commercial chemical products or manufacturing intermediates that contain any of the compounds listed in 40 CFR 261.33 (e) or 261.33 (f) are potential "P" or "U" wastes. For our purpose, commercial chemical products or manufacturing intermediates are defined as materials which contain either the pure or technical grade of the listed chemical, crude product, or a formulation in which the listed chemical is the sole active ingredient. Also included as potential "P" or "U" listed wastes are off-specification products which, if they met specification, would have the generic name included in either of these lists.

When two or more compounds listed in 261.33 are present as active ingredients in a formulation, the formulation is not a

intended for the product). Fillers, solvents, propellants, and other components with no pesticidal role are functionally inert with regard to pesticide formulations and are therefore not active ingredients. It is possible for a hazardous constituent from 261.33(e) or (f) to be a functionally inert component of a commercial chemical product, for example, a solvent carrier. In these cases, its presence does not prevent the formulation containing another "P" or "U" constituent as the sole active ingredient from being a "P" or "U" listed waste.

With regard to chlordane products that contain small amounts of heptachlor, these formulations are considered to contain only one active ingredient. It is our opinion that the small amounts of heptachlor, which are not economical to extract from chlordane during its manufacture, do not constitute a second active ingredient because heptachlor occurs as an impurity in the synthesis of chlordane and is not mixed with chlordane to formulate a new product.

Finally, in order for commercial chemical products or manufacturing intermediates to be subject to regulation as "P" or "U" hazardous wastes, they must be discarded or intended for discard as described in 40 CFR 261.2 (a)(2)(i). This requirement is satisfied when materials are "abandoned" as defined in 40 CFR 261.2(b), "when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel."

QUESTION NO. 2: Is there a critical cutoff concentration or percent active ingredient at which chlordane or heptachlor product would fall under the umbrella of the listing?

No. Under the existing regulations, there is no critical cutoff concentration or percent active ingredient at which chlordane or heptachlor product would fall under the listing. The Agency is initiating a program that will establish concentration thresholds for compounds listed at 40 CFR 261.33, below which they will no longer be the listed waste. This effort, however, will take a number of years to complete.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 5 1988

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. William Lindberg
Regulatory Affairs Coordinator
SWI, Inc.
P.O. Box B
Saukville, WI 53080

Dear Mr. Lindberg:

This is in response to your letter of April 19, 1988 to Mr. Steven Weil, in which you ask if paints containing solvent constituents are subject to F listings (40 CFR 261.31).

You are correct in stating that "solvents that are used for their 'solvent' properties--that is, to solubilize (dissolve) or mobilize other constituents" (50 FR 53316, December 31, 1985) are covered by the spent solvent listings. However, the Federal Register notice goes on to state that "process wastes where solvents were used as reactants or ingredients in the formulation of commercial chemical products are not covered by the listing. The products themselves are also not covered." (Id.) Paints, which are included in the classification of such commercial chemical products are, therefore, not F-listed spent solvent hazardous wastes.

Thank you for your letter. If you have any further questions, please call the RCRA/Superfund Hotline at (800)424-9346.

Sincerely,

Devereaux Barnes

Devereaux Barnes, Director
Characterization and
Assessment Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 19 1988

Michael Fox
Chemical Engineering Services
APTECH
P.O. Box 3440
Sunnyvale, CA 94088-3440

Dear Mr. Fox:

This letter is in response to your April 21, 1988 letter to Mr. Matthew Straus in which you request clarification of the hazardous waste listings.

The passage you cited from the Handbook for Small Business (EPA 1986) is correct. The remainder of this letter provides some explanatory information on the hazardous waste listings. Discarded commercial chemical products are hazardous wastes if they are listed in 40 CFR 261.33 (the "P" and "U" lists) or if they exhibit one or more of the hazardous waste characteristics of Part 261, Subpart C. A comment in Section 261.33 (d) clarifies that the listing applies to commercial and technical grades of the product, and to formulations in which the chemical is the sole active ingredient. "Sole active ingredient" means the active ingredient is the only chemically active component for the function of the product. If the discarded product is a formulation with more than one active ingredient, it would not be within the scope of the listing in Section 261.33.

The listings of Section 261.31 for spent solvents apply only to solvents which have become contaminated through use. Formulations with many "active ingredients" may be covered by the spent solvent listings in Section 261.31.

If a waste does not meet any of the listings, the generator is required under Section 262.11 to either test the waste or use his knowledge to determine if the waste exhibits a hazardous waste characteristic.

In addition, the generator should check with his state hazardous waste agency for additional wastes which may be regulated under state laws or regulations.

If you have further questions, please contact Mike Petruska at (202) 475-9888.

Sincerely,

Devereaux Barnes, Director
Characterization and
Assessment Division

JUL 28 1988

Mr. T. Wayne Vickers
V.P., Marketing and Sales
Columbus Industries, Inc.
P.O. Box 257
Ashville, Ohio 43103-0257

Dear Mr. Vickers:

I am responding to your letter dated June 27, 1988, in which you requested information regarding the disposal of paint filters and our opinion on the veracity of an advertisement for paint spray booth filters. Specifically, your questions deal with an advertisement for a styrofoam paint spray booth filter appearing in the April, 1988 issue of FINISHER'S MANAGEMENT magazine.

We can not comment on the veracity of the advertisement, but we can offer some information regarding the disposal and hazardous waste classification of related wastes.

Used paint filters are not a RCRA listed hazardous waste (i.e., not listed in 40 CFR 261.31-33). However, they may be characteristically hazardous if they exhibit any of the four hazardous waste characteristics (ignitability, corrosivity, reactivity, or extraction procedure (EP) toxicity - see 40 CFR 261.21-24).

The advertisement claims that the filter is soluble in paint thinner for easy disposal. If the thinner is one or more of the solvents covered by the EPA hazardous waste listings F001-F005, and the thinner has been used for its solvent properties (i.e., to solubilize or mobilize another material such as in a cleaning operation or in dissolving the paint filter), then the resultant solution of the paint filter and the thinner will become a listed hazardous waste on disposal.

I hope this information will be useful to you.

Sincerely,

Devereaux Barnes, Director
Characterization and Assessment Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 26 1988

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

MEMORANDUM

SUBJECT: Guidance for Secondary Lead Smelter Variances

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste

TO: Waste Management
Division Directors, Regions I-X

This memorandum provides guidance to assist you in handling variance requests you may receive from secondary lead smelters. Owners and operators of secondary lead smelters are likely to request variances from being classified as a solid waste for their lead plates and groups that are stored in storage piles. More detailed information is included in the attached report from Midwest Research Institute. Questions in this area should be addressed to Filomena Chau or Mike Petruska at FTS 382-4795 or 475-8551.

A. General.

Section 260.30(c) provides that the Regional Administrator may grant a variance from classification as a solid waste for those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is "commodity-like." This determination is to be based on five factors specified at Section 260.31(c)(1)-(5), and "other relevant factors" (paragraph (c)(6)).

Secondary lead smelters reclaim lead from spent lead acid batteries (a characteristic hazardous waste). An intermediate step in this reclamation process is the breaking and component separation of batteries, which results in partially-reclaimed lead-bearing material known as "plates" and "groups." These materials may be stored in piles and subsequently fed to blast or reverberatory furnaces for re-smelting. Under certain conditions, these plates and groups may meet the criteria in Section 260.31(c) and, therefore, would not be a solid or hazardous waste.

In some instances, the granting of a variance for plates and groups could lead to a smelter becoming exempt from the need to comply with the interim status requirements or obtain a permit. For example, if a smelter can set up an operation where incoming batteries are introduced directly into the recycling operation without prior storage, and where emission control dust (K069) is recycled either without storage or stored under Section 262.34, the smelter would have no activities subject to permitting (absent the plate and group storage pile).

B. Factors 1-4.

After analysis of a considerable body of information, OSW has determined that secondary lead smelters on a national (or "generic") basis meet the criteria of Section 260.31(c)(1)-(4). The basis for this determination is summarized below. (For more details, see the attached draft report from Midwest Research Institute (MRI).)

- The first factor (paragraph (c)(1)) is the degree of processing a material has undergone and the degree of further processing that is required (for the resulting material to be "commodity-like"). Available information indicates that the battery-breaking and component separation steps can be labor-intensive and often represent a significant percentage of the resources required to recycle a battery; we would view these steps, then, to account for a substantial amount of processing.

- The second factor (paragraph (c)(2)) is the value of the material after initial reclamation. We have determined that plates and groups do have significant market value, i.e., prices for plates and groups are listed in industry publications, and until recently smelters have purchased large amounts of plates and groups from independent battery breakers.

- The third factor (paragraph (c)(3)) is the degree to which the reclaimed material is like an analagous raw material. We have determined that plates and groups are similar to galena ore in terms of lead concentration, and based on available data do not contain significant amounts of hazardous constituents not found in galena. (Arsenic concentrations do appear to be slightly higher in the plates and groups, but we note that small amounts of arsenic are viewed as desirable in secondary lead smelting as an alloying metal; therefore, our determination is that

the slightly higher arsenic concentrations in lead plates and groups do not change the conclusion that it is substantially comparable in composition to galena ore.)

- The fourth factor (paragraph (c)(4)) is the extent to which an end market for the reclaimed material is guaranteed. Typically, secondary lead smelters break and separate batteries at the smelter site. This arrangement provides an end market for the partially reclaimed material because it is unlikely a smelter would close without processing remaining plates and groups. We do not, however, reach such a conclusion for independent battery breakers. The end market value for their broken batteries is heavily dependent on lead prices, and has been very insecure for the past several years.

C. Storage and Handling Practices.

Section 260.31(c)(5) identifies as a factor, "the extent to which the reclaimed material is handled to minimize loss." OSW reviewed information on plate and group storage and handling practices at most secondary lead smelters in the U.S. We are unable to reach any conclusions on a national basis for this industry because the available information indicates a wide variation in practices (i.e., some smelters store the lead plates and groups in a manner that minimizes loss while others do not). Each smelter facility will have to be evaluated individually to determine if the standard in paragraph (c)(5) is achieved. Factors that Regional (or State) personnel may want to consider include:

- Whether the storage pile is under a roof;
- Whether the pile is on an impervious base, e.g., coated concrete;
- Whether runoff controls are in place, e.g., retaining walls, drainage collection, etc.;
- Whether wind dispersion controls, e.g., sprinklers, vents, etc., are in place.

Plate and group piles may be evaluated in a manner similar to those hazardous waste piles considered for the limited exemption under 40 CFR Section 264.250(c), which calls for consideration of these same sorts of factors.

Also relevant is a comparison of storage and handling practices at the secondary lead smelters to handling practices employed by primary lead smelters for galena ore. Available information indicates that galena ore is always stored under cover, but galena storage areas are not always totally enclosed. Therefore, some outdoor plate and group storage areas may meet the paragraph (c)(5) factor without being enclosed in a building, but a plate and group pile without any cover would appear much less likely to satisfy the "minimize loss" criterion.

Finally, while concrete pads are the norm for plate and group storage areas, typically the top layers of these pads (which may be an asphalt liner) become damaged by the acid remaining on the plates and groups, and by front-end loader traffic and, therefore, have to be periodically replaced. Normal maintenance of a plate and group pad includes periodic replacement of the top (i.e., "sacrificial") layers. Therefore, part of the paragraph (c)(5) evaluation should include a review of the smelter's pad replacement schedule. Consideration should be given to requirements for coating the concrete pads with an acid resistent material.

In summary, a plate and group pile that is stored under cover, where run off and wind disposal is controlled, and where pad replacement prevents soil contamination, would appear to meet the paragraph (c)(5) "minimize loss" criterion.

D. Other Relevant Factors.

Under Section 260.31(c)(6), the Regional Administrator may consider other relevant factors in the determination of whether to grant the variance. These factors may be raised by the petitioner, the Agency, or other interested parties. As OSW has evaluated information on secondary lead smelters, the following additional factors have been raised as potential concerns. Although these factors may not be directly applicable to the Regional Administrator's decision to grant a variance, they may be relevant in, for example, assigning priorities to evaluate a facility's petition.

1. Economics of battery recycling. Recent EPA studies indicate that national battery recycling rates, while apparently stable at this time, have experienced a long term decline over the past 30 years. The result is that more batteries are disposed of, often in municipal landfills. In addition, loss of recycling capacity (i.e., smelter closures) has placed generators in some regions (e.g., the Pacific Northwest) in the position where they must transport batteries long distances to recycle. This obviously adversely affects recycling rates.

Environmental compliance costs may be a major component of a secondary smelter's capital and operating expenses. The next few years may be critical for many of these smelters, as they face the choice of full RCRA compliance and permitting versus facility closure. Prompt processing of variance petitions may allow well-run operations, for example, to expand operations without the need for a permit modification (or perhaps without a permit at all), and thereby maintain or increase regional recycling rates, even if other facilities close.

2. Corrective action. Facilities in the secondary lead smelting industry have had problems in the past and some are currently involved in clean-up activities. One implication of granting a variance is that certain facilities, as noted above, may become exempt from permitting and interim status requirements and, therefore, the corrective action provisions of RCRA Section 3004(u) and 3008(h) would no longer apply. (CERCLA Section 106 and RCRA Section 7003 actions would not be affected by granting the variance.) The Regional Administrator may want to consider the need for clean-up at a site under paragraph (c)(6), or at least in the timing of when a variance is granted. For example, final granting of a variance could be considered as part of clean-up action at the facility.

In summary, disposal of spent lead-acid batteries is becoming a serious national problem. One means to increase battery recycling rates is to exclude plate and group storage piles at those secondary lead smelter facilities that meet the Section 260.31(c) criteria from classification as solid waste. If a secondary lead smelter facility stores and handles its plates and groups in a manner that minimizes losses and otherwise runs a sound operation (as evidenced by, for example, clean-up of past releases), OSW would deem it appropriate and certainly consistent with national policy for the Regional Administrator to grant the solid waste variance.

Attachment

AUG 29 1988

Hazards in the Environment
Action League
HEAL-New Brighton
P.O. Box 12611
New Brighton, MN 55112

Dear Members of HEAL-New Brighton:

This is in response to your letter dated July 25, 1988, in which you expressed your concern about the use of pentachlorophenol as a wood preservative at two local sites in New Brighton, MN. More specifically, you urged the Agency to reclassify pentachlorophenol (PCP) as an acutely hazardous material and, if possible, to ban its use in the United States.

Wastes from the production of or manufacturing use of PCP (EPA hazardous waste F021) and discarded unused formulations containing PCP (EPA hazardous waste F027) are currently designated as acute hazardous wastes. (See 40 CFR 261.31). However, the Agency has received a petition to reclassify these two wastes as toxic wastes based on the results of a recent toxicological study. In April of 1988, the National Toxicology Program (NTP) released a draft report on the results of a study of the toxicity of purified and technical grade PCP, containing measured levels of HxCDD as well as other dioxin homologs in lower concentrations. (See enclosed citation). The Agency is in the process of reviewing these data and will respond to the rulemaking petition in the near future. This response will be a Federal Register notice and will request public comment. At that time, HEAL may submit its comments on EPA's decision.

Regarding the banning of PCP for use as a wood preservative, we have forwarded your letter to our Office of Pesticides and Toxic Substances (OPTS) for separate reply. The banning of chemicals is outside the purview of the Office of Solid Waste.

We look forward to your comments in the future.

Sincerely,

/S/

Sylvia K. Lowrance, Director
Office of Solid Waste

CITATION

McConnell, E.E., DVM, Chemical Manager. NTP Technical Report on the Toxicology and Carcinogenisis Studies of Pentachlorophenol (CAS No. 87-86-5) in B6C3F1 Mice. Peer Review Draft. National Toxicology Program. Research Triangle Park, NC. April, 1988. NTP TR 349.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 14 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESP

MEMORANDUM

SUBJECT: Pesticide Standards for Formaldehyde and Paraformaldehyde

FROM: Devereaux Barnes, Director
Characterization and Assessment Division (OS 330)

TO: Chet McLaughlin, Chief
State Programs Section, Region VII

This is in response to your memorandum of July 26, 1988 to Matthew Straus, in which you asked for our comments concerning an Office of Pesticides Programs' (OPP's) manual entitled "Guidance for the Reregistration of Pesticide Products Containing Formaldehyde and Paraformaldehyde as an Active Ingredient." You asked about the effect of this manual on the "sole active ingredient" clause regarding P and U listed hazardous wastes included in 40 CFR 261.33(e) and (f). You also asked if many of the pesticides on the P and U lists would no longer contain a "sole active ingredient" as a result of the subject OPP document.

The intent of the regulations concerning sole active ingredients can be found at 45 FR 78532, November 25, 1980. The concept of sole active ingredient was used for the purpose of "removing all trade names from the lists of 40 CFR 261.33(e) and (f), but clarifying that the scope of the 40 CFR 261.33(e) and (f) includes, in addition to the commercially pure grades of the chemicals, all technical grades and all formulated products in which the listed chemical is the sole active ingredient" (emphasis added). The Federal Register Notice explains that "many of the trade products regulated under this section are pesticides or fungicides, produced for the express purpose of destroying plant or animal life. It is evident that such a substance, when discarded, meets the RCRA definition of hazardous waste" (45 FR 78539). The Federal Register Notice also states (45 FR 78538) that "the product is considered to be the chemical comprising its active portion," and refers to the

Farm Chemicals Handbook, which "lists all trade products having a generically-named chemical as the sole active ingredient as 'other names' for that chemical." The Federal Register Notice clearly states that, under RCRA, the term "active ingredient" refers to the pesticide constituent on which the commercial product and the 40 CFR 261.33 regulations are based, not "inert ingredients which tend to magnify its toxic effects (e.g., solvents and surfactants)" (45 FR 78539).

The OPP Guidance Manual states that formaldehyde and paraformaldehyde, when added to preserve the formulation, in the past had been classified as inert ingredients. However, according to FIFRA Section 2(a), an active ingredient is "an ingredient which will prevent, destroy, repel, or mitigate any pest." Therefore, when these chemicals are added to preserve the formulation by preventing deterioration by bacteria and fungi, the Guidance Manual concludes that formaldehyde and paraformaldehyde are active ingredients. The Guidance Manual also directs that the following statement appear on the label for such products: "Formaldehyde (or paraformaldehyde) is present solely to preserve the pesticide formulation and does not otherwise contribute to the product's pesticidal activity." (p. 21)

When formaldehyde (or paraformaldehyde) is added solely to preserve the activity of a pesticide formulation, it is not considered an active ingredient for purposes of the sole active ingredient requirement of 40 CFR 261.33. Thus, the OPP Guidance Manual's determination that formaldehyde and paraformaldehyde are pesticidally active and the requirement that the labels state they are "pesticidally active when used as a preservative in pesticidal formulations" does not affect the determination of whether a waste is hazardous under 40 CFR 261.33.

Thank you for your inquiry. If you have any further questions, please contact Ron Josephson at FTS 475-6715.

cc: Juanita Wills, OPP (H7505C)

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
MARCH 1989

3. K061 Waste

Emission control dust/sludge from the primary production of steel in electric arc furnaces is listed as K061 waste under RCRA. A facility owner uses an electric arc furnace (EAF) to make steel billets. Is the emission control dust from this EAF a K061 waste?

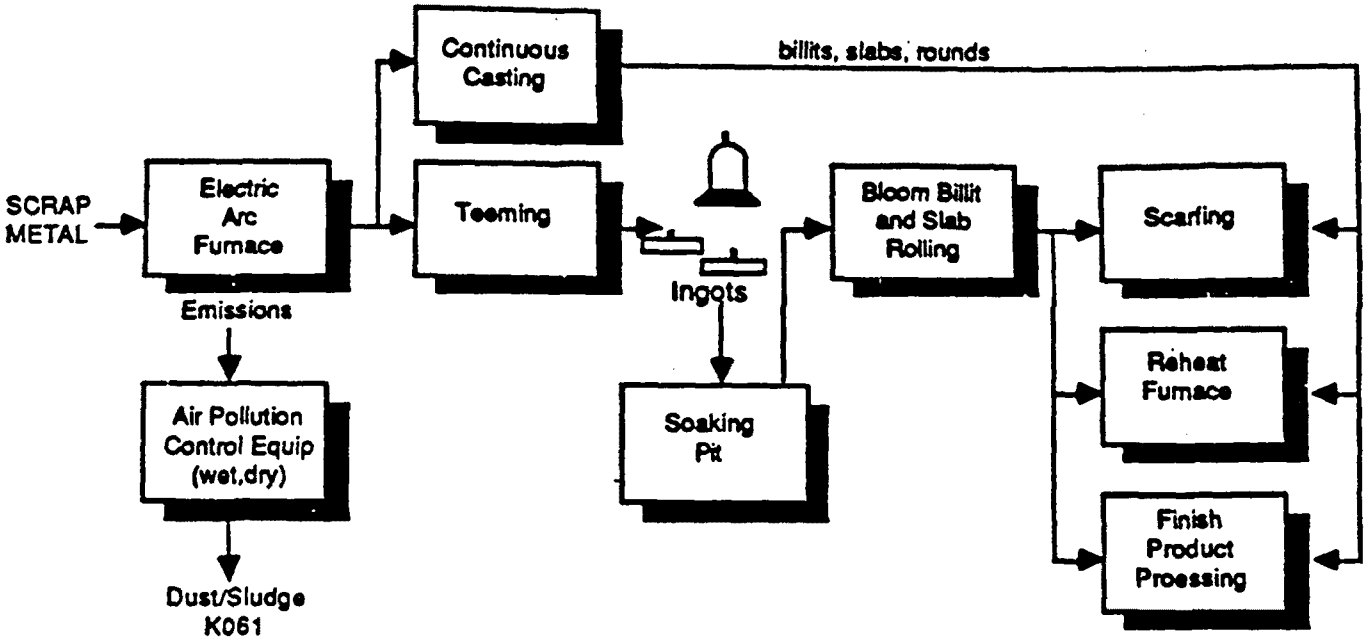
On December 18, 1978, (43 FR 58959), EPA originally proposed the K061 listing under SIC code 3312 as "iron making: electric furnace dust and sludge." The American Iron and Steel Institute commented that the electric furnace process is only used for steel making and not iron and steel making as listed in 1978. In response to this comment, EPA promulgated the listing on May 19, 1980, (45 FR 33124) as "emission control dust/sludge from the electric furnace production of steel." The American Foundryman's Society then pointed out that the Agency had insufficient data to show that foundry electric furnace emission control dusts and sludges were sufficiently similar in composition to warrant inclusion in the same listing. Therefore, on November 12, 1980, the Agency modified the listing of K061 to what it is today clarifying that the listing applies to "primary" steel producers only (see 45 FR 74892). The Agency intended only to distinguish steel production from other metal production processes (i.e., foundry operations) when it added the word "primary" to the November 12, 1980, listing (45 FR 74892). Foundry emission control dust is excluded from the scope of K061 listing (see Figure 1 attached).

In summary, steel producers using scrap metal in an EAF will generate K061 waste from their emission control equipment. For example, emission control dust generated from EAFs used to produce "semi-finished goods" such as steel billets or rolled steel, is regulated as K061 waste when disposed. However, emission control dust and sludge from foundry operations that use EAFs remain excluded from the context of the K061 listing and may only be identified as a hazardous waste if it exhibits any characteristics of hazardous waste per 40 CFR Part 261, Subpart C.

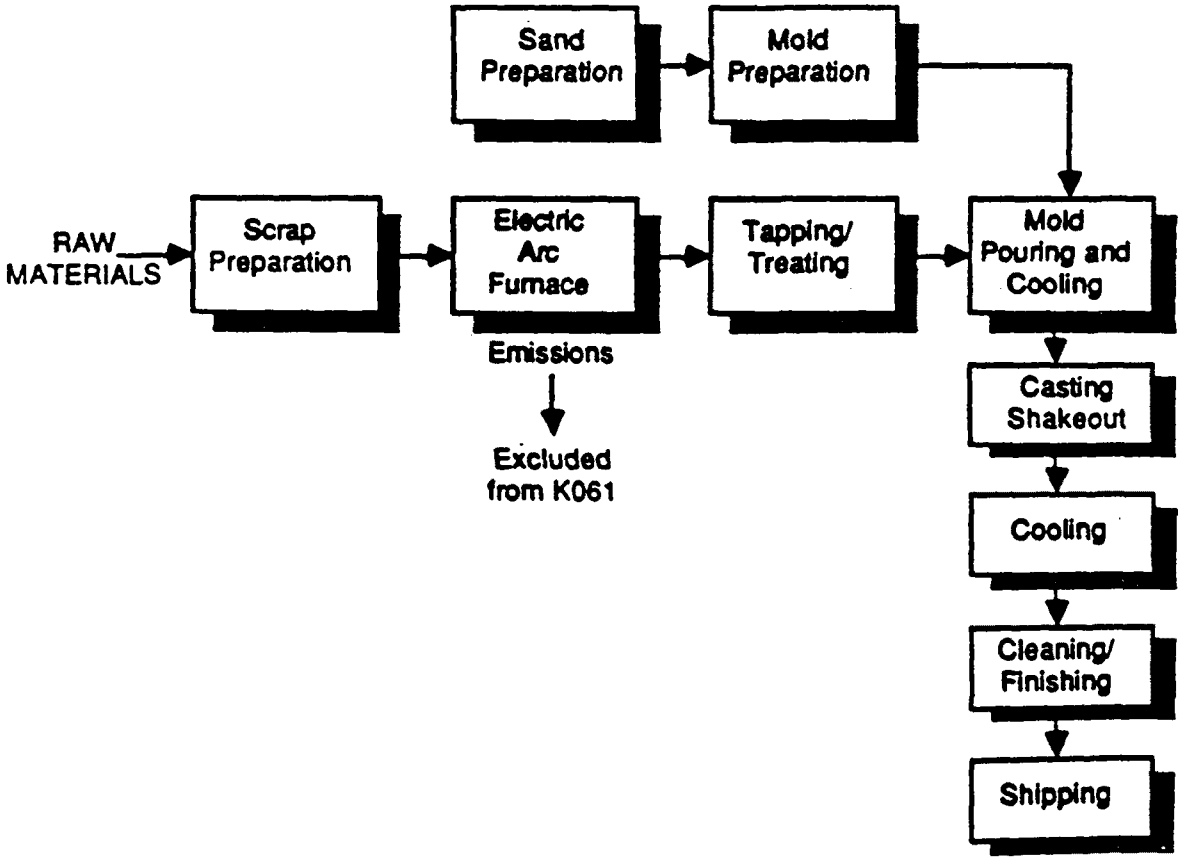
.061 Waste (Cont'd)

Figure 1

STEEL PRODUCTION



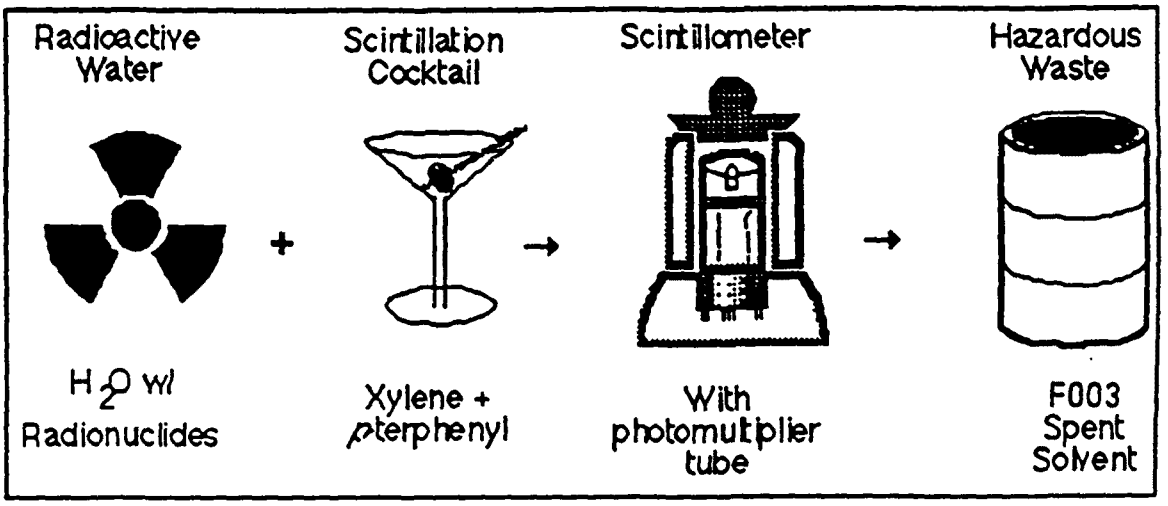
FOUNDRY:



9444.1989(02b)

4. Spent Solvents in Scintallation Cocktails

A nuclear power facility owner/operator generates a low level radioactive wastewater. In order to measure the activity of the radionuclides in the wastewater (a measurement of radioactivity), the owner mixes four parts radioactive wastewater to 19 parts of a scintillation cocktail (xylene with traces of p-terphenyl). In the resultant mixture, beta particles from the radionuclides excite the p-terphenyl, which emits photons. The photons are detected in a scintillometer which amplifies and counts the photons on a photomultiplier tube. This count provides a measurable level of radioactivity. The xylene contributes nothing to the above-described reaction and counting mechanism, other than providing a suspension media. After the testing procedure, the cocktail becomes a solid waste when it is discarded. Is the liquid waste identified as a F003 listed hazardous waste or only as a D001 ignitable characteristic waste?



In this particular process, the xylene is serving as a reaction media, in which the p-terphenyl and radioactive wastewater are suspended in order to allow a reaction to occur. The reaction in the xylene medium permits actual photon counting to determine radioactive levels. The preamble language of the December 31, 1985, Federal Register (50 FR 53316) clarified the listing of spent solvents, F001-F005: "the spent solvent listings cover only those 'solvents' that are used for their solvent properties—that is, to solubilize (dissolve) or mobilize other constituents. For example, solvents used for degreasing, cleaning, fabric scouring, as diluents, extractants, reaction and synthesis media... ." A December 6, 1988, letter from Devereaux Barnes, Director, Characterization and Assessment Division, Office of Solid Waste to Arthur Moretta, EPA, Revion V, reiterated this point: "The spent solvent listings cover those streams that are used to solubilize or mobilize other constituents." An argument that the xylene is used as a reactant or ingredient in the formation of a commercial chemical product and therefore not covered by the listing is not sound; the xylene is neither a reactant nor an ingredient in a commercial chemical product. The used scintillation cocktail containing xylene is defined as EPA listed hazardous waste F003.

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
MARCH 1989

2. Definition of Spent Solvent

The owner of a metal working facility uses a cutting oil to cool and lubricate metals during a drilling process. The cutting oil is purchased as a product and consists of 80% 1,1,1-trichloroethane and 20% lubricating oil. When spent, the fluid is sent for disposal. Would this material meet the F002 listing found in 40 CFR Section 261.31?

This question was addressed originally in the RCRA/ Superfund Industrial Assistance Hotline Monthly Report for April, 1988. At that time, the Agency viewed the material in question as an F002 hazardous waste in accordance with 40 CFR Section 261.31. Since that time, the Agency has amended the answer previously given to read as follows: The December 31, 1985, Federal Register (53 FR 53316) specifies which materials are covered by the spent solvent listings in 40 CFR Section 261.31. One of the key factors in meeting the F001-F005 hazardous waste listing is determining how or for what the material was used. In order to meet listings, the material must be used for its solvent properties. More specifically, the December 31, 1985, Federal Register specifies that "the spent solvent listings cover only those solvents that are used for their solvent properties, that is, to solubilize (dissolve) or mobilize other constituents. For example, solvents used in degreasing, cleaning, fabric scouring, as diluents, extractants, reaction and synthesis media, and similar areas are covered under the listings (when spent). A solvent is considered 'spent' when it has been used and is no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed (50 FR 53316)." However, the December 31, 1985, Federal Register also specifies that "process wastes where solvents were used as reactants or ingredients in the formulation of commercial chemical products are not covered by the listing. The products themselves are also not covered (50 FR 53316)." The 1,1,1-trichloroethane, in this circumstance is being used as a cooling ingredient in the formulation of product cutting oil. The metal working facility is using the cutting oil to coat and lubricate metals during their drilling operation. When the cutting oil can no longer be used, it meets the definition of a spent material in 40 CFR 261.1(c)(1). However, even though the cutting oil meets the definition of a spent material, it does not meet the spent solvent listing because the cutting oil formulation was not used as a solvent as described by the December 31, 1985 Federal Register. Likewise, the 1,1,1-trichloroethane is an ingredient in the cutting oil and this is not a use covered by the F001-F005 spent solvent listings found in 40 CFR Section 261.31. Therefore, the spent cutting oil in this circumstance does not meet the spent solvent hazardous waste listings found in 40 CFR Section 261.31.

JUN 28 1989

MEMORANDUM

SUBJECT: Classification of Solvent and Commercial Chemical Product Waste Streams

FROM: Devereaux Barnes, Director
Characterization and Assessment Division (OS-330)

TO: Howard Wilson, Manager
Environmental Compliance Program
Environmental Health and Safety Division (PM-273F)

This memorandum is in response to an inquiry you sent to Ron Josephson of my staff, dated June 8, 1989, and to questions presented at a meeting on June 14, 1989. Specifically, you request a definitive classification of solvent-contaminated wastestreams in order to prepare a guidance document for EPA laboratories. We will answer each of your concerns point by point in order to ensure clarify.

1) During organic liquid-liquid extractions, solvents (e.g. methylene chloride) are used, which are minimally (<2%) soluble in water. Thus, after the extraction, the aqueous phase contains trace amounts of solvent. Does this aqueous phase need to be disposed of as F002 spent solvent, since the "before use" solvent concentration was greater than 10%?

The aqueous phase from this separation is considered to be analogous to a process stream which has become contaminated with solvent constituents; this waste is not a spent solvent stream and would therefore not be classified as F002.

2) In other analyses, the extraction of an organic analyte is performed with solvents contained only in the F003 listing, such as methanol. Should the aqueous waste be classified as F003 spent solvent even if it is not ignitable?

Again, the scope of the listing did not include aqueous process waste streams contaminated with solvent

3) In a memorandum dated December 6, 1988, the Agency states that solvent-contaminated aqueous streams resulting from liquid-liquid extractions are not spent solvent and need be managed as a hazardous waste only if they exhibit one of the four characteristics defined in 40 CFR 261.21 - 261.24. Is this still true and is this applicable to the above situations?

Yes. The memorandum you reference pertained to processes at a pharmaceutical production facility. However, sufficient analogies exist among these situations that the process waste interpretation may be used in these cases.

4) A laboratory buys a commercial chemical product in order to formulate standards for quality assurance (QA) purposes. The QA standards are then sent to other laboratories for analysis. If excess standard solutions existed which were not needed for analysis but need to be disposed, would these formulations be considered commercial chemical product wastes under 40 CFR 261.33 (assuming that there is a sole active ingredient)?

Yes. Dilution of a commercial chemical product with water is not considered use of a commercial chemical product in this case. Thus, the excess QA standards intended for disposal would be listed hazardous wastes under 40 CFR 261.33.

5) A laboratory synthesizes a chemical to be used as a QA standard. The lab then distributes this chemical (or diluted QA standards) to other laboratories for analysis. Would excess quantities of these materials be considered hazardous wastes under section 261.33 (assuming that there is a sole active ingredient)?

Yes. Materials synthesized in a laboratory in lieu of buying a commercial product (because of cost savings or because the product is difficult to obtain) are equivalent to commercial chemical products, and therefore would be regulated under 40 CFR 261.33 when disposed. Again, excess QA standards made by diluting these compounds are also covered by the listings, when disposed.

Thank you for your inquiry. If you have any other questions on these topics, please contact Ron Josephson at 475-6715.

JUL 13 1989

MEMORANDUM

SUBJECT: Characterization of BTL Specialty Resins Corporation Waste as to Whether It Is RCRA Listed Hazardous Waste K022

FROM: Devereaux Barnes, Director
Characterization and Assessment Division (OS-330)

TO: David A. Ullrich, Associate Director
Office of RCRA
Waste Management Division, Region V

This is response to your memorandum of March 22, 1989, in which you asked whether a waste produced by BTL Specialty Resins Corporation is RCRA Listed Hazardous Waste K022. Our determination is based on information sent by your office and subsequent telephone conversations between Walter Francis of your staff and Ron Josephson of my staff.

Based on our review of the information that you provided, we have determined that the waste produced by BTL is RCRA waste K022 ("Distillation bottom tars from the production of phenol/acetone from cumene"), as listed in 40 CFR 261.32. The process generating BTL's waste meets the listing description and is not different in any significant respect from exemplary processes described in the listing background document. The argument presented by BTL's counsel, Mary Bryant, that BTL does not generate K022 because their waste is a "liquid" and not a "tar," is clearly erroneous. Tars are defined, e.g., in Webster's Dictionary, as "viscous liquids." Moreover, the process information provided by your staff indicates that more than one wastestream is mixed in the waste tank in question which, along with the temperature and pressure in the tank, explains why BTL's tar may be less, rather than more viscous.

Thank you for your inquiry. If you have any further questions on this topic, please contact Ron Josephson of my staff at FTS 475-6715.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

JUL 21 '89

Shirlee Schiffman, Chief
Bureau of Hazardous Waste
Regulation and Classification
New Jersey Department of Environmental Protection
401 East State Street
CN 028
Trenton, New Jersey 08625-0028

Dear Ms. Schiffman:

This is in response to your letter of April 5, 1989, and the subsequent conversation my staff had with you and your staff on April 20. Specifically, we are answering several questions on the applicability of hazardous waste regulations under 40 CFR 261.31 and 261.33 to situations enumerated in your letter.

In the first situation, you asked if the regulatory interpretation provided in a letter sent by the former Office of Solid Waste Director, Marcia Williams, dated October 26, 1987, is still valid in the case of acetone-contaminated water from the washout of a reactor vessel after removal of spent solvent. The Agency has not changed its interpretation.

In the second situation, you state that a company uses methanol and acetone to wash a product in order to remove water. From the telephone conversation, your staff indicated that the solvent mixture is 50% acetone and 50% methanol before use. To answer this question, two questions must be answered: 1) does use as a drying agent constitute use as a solvent? and 2) does the solvent mixture meet the listing description? First, use as a drying agent does meet the definition of solvent use because the material is used to extract water. Second, methanol and acetone are listed ignitable solvents under F003; therefore, the F003 listing applies because the solvent mixture consists solely of F003-listed solvents.

You asked during our telephone conversation whether the mixture rule under 40 CFR 261.3(a)(2)(iii) would apply to this situation. The mixture rule applies after the waste has been generated and is then mixed with a solid waste. The mixture rule specifies that if the mixture no longer exhibits the characteristic of ignitability, then the waste is no longer considered hazardous. In this situation, the spent F003 solvents collected after the washings are EPA hazardous waste F003 until

they are subsequently mixed with solid waste and no longer exhibit any hazardous waste characteristic.

In the third example, a transporter delivers P and U wastes in tanker trucks. The heels are drained, and the collected materials are drummed and manifested as hazardous waste. Once the tank trucks have been drained, subsequent washes may still contain small quantities of the original chemical. The answer to this question depends on whether the truck at the time of rinsing qualifies as an empty container, under 40 CFR 261.7. The wash waters generated after draining, assuming the commercial chemicals have been removed by reasonable means and less than one inch or less than 0.3% of the tank volume remained, would not be hazardous wastes. If these conditions are not satisfied, then the wastewater would be hazardous waste because they contain unused discarded commercial chemical products. (See 47 FR 36092 -36097, August 18, 1982.)

The fourth situation involves a company that uses toluene as a solvent in a chemical production process. After the product is made, most of the toluene is recovered. However, the wash water is contaminated with traces of toluene, which then contaminates the plant's process wastewater and settling tank sludges. The wash water may be considered a process stream that is contaminated with a solvent constituent and not a listed spent solvent. The wastewater and settling tank sludges also are not listed spent solvent wastes.

Thank you for your inquiry. If you have any other questions, please contact Ron Josephson of my staff at (202)382-4770.

Sincerely,

Devereaux Barnes

Devereaux Barnes
Director
Characterization and
Assessment Division

cc: **George Meyer, EPA Region II (2AWM-HWC)**

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JULY 89

1. Clarification of F009 Listing

Title 40 CFR Section 261.31 describes the hazardous waste listing F009 as "spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process." Does this listing include all spent stripping and cleaning baths from cyanide electroplating processes or only those stripping and cleaning baths used at some point after the cyanide bath?

Discussion of the scope of F009 in the RCRA Listings Background Document indicates EPA's intent is to regulate wastes that contain cyanide. A cleaning and stripping bath used prior to the cyanide plating bath would not contain cyanide contamination from carry over. Spent cleaning and stripping baths that follow cyanide plating baths at some point in the dip sequence would have levels of cyanide in them due to dragout. Therefore, it is EPA's intent to regulate only those spent cleaning and stripping baths from electroplating processes that are used at some point after the cyanide bath. However, if cleaning and stripping baths are commingled with other baths occurring during or after cyanide plating baths or if cyanide containing solutions or wastes are introduced or recycled in the process upstream of the cyanide plating baths, then these cleaning or stripping baths would be F009.

Source: Robert Scarberry (202) 382-4770
Research: Gwen Herron (202) 382-3112

Mr. Thomas R. Mastalerz
Technical Sales Representative
GSX Services, Inc.
P. O. Drawer C
Greenbrier, Tennessee 37073-0903

AUG 21 1989

Dear Mr. Mastalerz:

This letter is in response to your letter dated July 31, 1989, in which you asked for clarification of Resource Conservation and Recovery Act (RCRA) regulations as they pertain to "U" and "P" listed wastes found at 40 CFR Section 261.33(e) and (f).

When characterizing any commercial chemical product (CCP) as a hazardous waste under Subtitle C of RCRA, a person must first determine if the CCP can be defined as a solid waste (see 40 CFR 261.2). If the CCP is a solid waste, the CCP would also be a hazardous waste if it is either a "U" or "P" listed waste in 40 CFR Section 261.33(e) or (f) and/or if it exhibits a characteristic of a hazardous waste as defined in 40 CFR Subpart C of Part 261. If the CCP is not defined as a solid waste, it cannot be a hazardous waste.

As stated in 40 CFR Section 261.33(b), "The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded...any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraphs (e) and (f) of this section." Section 261.33(d) provides that commercial chemical products on the "U" and "P" lists would also include commercially pure grades and technical grades of that chemical.

The July 28, 1989 Federal Register (54 FR 31336) explains that the "U" or "P" lists do not apply to chemicals that have been used for their intended purpose. If the laboratory's "chemical A (U???)" described in your letter is "unused" and stills remains a technical grade of that chemical after the 0.5% - 5.0% contamination you indicated, then the chemical must be classified as a U listed waste when discarded or intended for discard/disposal. In addition, if the laboratory's "unused" chemical A was no longer considered a technical or commercially pure grade due to contamination, it would be considered an off-specification species of that chemical. As the November 25, 1980 Federal Register (48 FR 78540) explains, "off-specification

materials that, if they met the specification, would be commercial chemical products or manufacturing chemical intermediates" would be listed hazardous wastes when discarded or intended for discard/disposal.

If you have a CCP that has been used, then it would not be a "U" or "P" listed waste. It may, however, still exhibit one or more of the characteristics of a hazardous waste defined in 40 CFR Part 261 Subpart C. It is the responsibility of the generator to make this determination.

You should also be aware of the fact that if the CCP were a solvent (i.e., used for its solvent properties) and it was spent, it may meet one of the spent solvent hazardous waste listings found at 40 CFR Section 261.31 (Hazardous Waste Nos. F001 through F005).

Finally, please be advised that States may have regulations that are more stringent or broader-in-scope than those of the Federal government. You should always check with the appropriate state agency.

If you have any further questions, please call the RCRA/Superfund Hotline at 1-800-424-9346.

Sincerely,

Devereaux Barnes
Director
Characterization and
Assessment Division

9444.1989(08)

August 21, 1989

Mr. Stephen J. Evans
Environmental Engineer
Modine Manufacturing Company
1500 De Koven Avenue
Racine, Wisconsin 53403

Dear Mr. Evans:

This letter is in response to your letter dated August 3, 1989, in which you ask for classification, under the Resource Conservation and Recovery Act (RCRA), of wastewater treatment sludges resulting from your metal cleaning process.

Your first and foremost question is whether the sludge generated from the treatment of process wastewaters resulting from your metal cleaning process meet the listing description for RCRA Hazardous Waste No. F006. Based on the information in your letter, Modine's cleaning operation is not associated with electroplating. If this is the case, then the sludges generated from treating these cleaning baths (in a wastewater form) are not considered RCRA Hazardous Waste No. F006. This is based on the fact that cleaning is a separate and distinct process from chemical etching and milling. (See EPA's publication Development Document for Existing Source Pretreatment Standards for the Electroplating Point Source Category, August 1979, publication No. EPA440/1-79/003, pages 41 and 42 for the definitions of chemical etching and milling. Note that this document was referenced in the background document for the F006 listing). As the December 2, 1986 Federal Register (51 FR 43350) states, "The F006 listing included only common and precious metals electroplating, anodizing, chemical etching and milling, and cleaning and stripping when associated with these processes." This continues to be EPA's policy; cleaning must be associated with one of these three processes in order to be included in the listing description for Hazardous Waste No. F006.

Your second question relates to whether an electrical current is a prerequisite for a process to generate an F006 sludge. The application of an electrical current is not a prerequisite; chemical etching, for example, does not involve the application of an electrical current, but sludges generated by treating wastewater from a chemical etching process are included in the F006 listing. Unfortunately, the interpretation mentioned in your letter that you received from the RCRA Hotline on May 15, 1989 relative to this question was incorrect.

This has been retyped from the original document.

As you mention in your letter, however, the sludge generated in your wastewater treatment process may be characteristically hazardous (e.g., EP toxic); it is the generator's responsibility to determine whether his/her waste exhibits one or more hazardous waste characteristics as defined in 40 CFR Subpart C of Part 261.

Please be aware that many states have been authorized to run their own RCRA programs. State regulations may be more stringent or broader-in-scope that Federal regulations so you should always contact the appropriate state agency.

Should you have any additional questions, please feel free to contact David Topping of my staff at (202) 382-7737.

Sincerely,

Devereaux Barnes, Director
Characterization and
Assessment Division

This has been retyped from the original document.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 89

1. Waste Identification of Discarded Thermometers

A manufacturer of mercury thermometers produces a batch of contaminated thermometers that must be discarded. If the manufacturer discards the unused thermometers intact, would the waste need to be managed as U151 or would the manufacturer need to test the waste to see if it exhibits a hazardous waste characteristic?

40 CFR Section 261.33 contains a listing of commercial chemical products that are hazardous wastes if and when they are discarded. Under Section 261.33(d), the phrase "commercial chemical product is defined as a chemical substance which is manufactured or formulated for commercial or manufacturing use ...." Furthermore, according to the final rule preamble in the November 25, 1980 Federal Register (45 FR 78541), the Agency did not intend for the phrase commercial chemical product to apply to manufacturing articles that contain a chemical listed in Section 261.33. The intent was to regulate only those commercial chemical products and manufacturing chemical intermediates that are known by the generic name listed in Sections 261.33(c) or (f). Thus, a thermometer containing mercury is not itself a commercial chemical product and would not meet the U151 listing. The manufacturer would then need to check the discarded thermometers for the hazardous waste characteristics, specifically to see if the waste would exhibit EP toxicity and thus need to be managed as RCRA hazardous waste D009. Waste not subject to federal regulations may be regulated under specific state requirements which are more stringent.

Source: Ron Josephson (202) 475-6715
Research: Mary Beth Clary

Thank you for your inquiry. If you have any additional questions, please contact Ron Josephson of my office at FTS 475-6715.

cc: Susan Bromm, OWPE (OS-520)
John Smith, OTS (TS-798)
Waste Management Division Directors, Regions I, II, IV - X

9444.1989(11)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OCT 3 1989

Mr. Jeffrey O. Cerar
Squires, Sanders, and Dempsey
1201 Pennsylvania Avenue, Northwest
Washington, D.C. 20004

Dear Mr. Cerar:

This is in response to your letter of August 16, 1989, concerning the petitions of the Ferroalloy Association and Macalloy Corporation to withdraw the K090 and K091 hazardous waste listings.

As indicated in your letter and our meeting on July 17, the Agency does believe that trivalent chromium is a more serious health concern than previously believed. Recent evidence suggests that Chromium (III) may be a potential carcinogen.

The toxicokinetics of chromium have been well studied and are documented in the literature. Chromium (both III and VI) have been found to be absorbed in humans and animals following inhalation, oral, and dermal exposure (Tox Profile for Chromium, 1987). Chromium (VI) is taken up through the cell membranes and reduced to Chromium (III) intracellularly. In addition to the Chromium (III) metabolites, several other potentially genotoxic chromium metabolites are formed such as chromium (V and IV) as well as reactive peroxides and oxygen radicals. (Tox Profile for chromium, 1987). However, it is thought that chromium (III) may be the predominant genotoxicant producing DNA-protein cross links and DNA strand breaks (Beyersmann and Koster, 1987).

Until recently it was assumed that chromium (III) was unable to permeate the cell membrane due to negative results from <u>in vitro</u> genotoxic assays and positive results with isolated nuclei and purified DNA (Tox Profile for Chromium, 1987). Recent studies, however, have shown that chromium (III) complexes can penetrate biomembranes and induce DNA damage (de Flora et al., 1984; Beyersmann and Koster, 1987).

In light of the existing studies showing absorption of Chromium (III) via inhalation, oral and/or dermal exposure; permeation of chromium (III) across cell membranes, and evidence that chromium (III) is a genotoxicant, chromium (II should be regarded as a potential carcinogen. Our toxicologists would be happy to meet with you to discuss thi further.

Because of our toxicological concerns with trivalent chromium, the Agency is also rethinking the appropriateness c the exclusion under section 261.4(b)(6) for wastes which contain chromium which is nearly exclusively in the trivalent form. As you stated in your letter, however, we will need tc go through rulemaking to amend the regulations.

In addition, the Agency remains concerned about the conversion of trivalent chromium to the more toxic hexavalent form under certain plausible mismanagement scenarios, which w the original basis for the listing of K090/91. Thus, data submitted by the Ferroalloy Association on the K090/K091 proposed listing regarding valence did not affect the Agency' listing determination. Given these concerns with both trivalent and hexavalent chromium, we believe that the decisi to list K090 and K091 on the basis of total chromium was appropriate.

In your letter you indicated your concern with how the Agency lists wastes based on the presence and concentration o Appendix VIII constituents. It has always been the Agency's practice to consider the factors outlined in 40 CFR 261.11(a)(3) when listing a waste as hazardous. For the reasons described above, EPA believes that the listing of K09 and K091 was appropriate after considering all the relevant factors.

You also expressed concern over the variability of the waste covered by the K090 and K091 listings and indicated tha the Agency should not regulate them if the wastes are not consistently hazardous. Although the technologies which generate the waste differ and chromium levels vary within the ferrochromium industry, the wastes are all generated by air pollution control devices from furnaces used in the manufactu of ferrochromium or ferrochromium silicon and all wastes contain sufficiently high levels of chromium to warrant listing. We believe that the individual wastes covered by th listings are typically or frequently hazardous if mismanaged.

In regard to data obtained from the extraction procedure (EP) toxicity characteristic, EPA has always maintained that the EP levels are concentrations which are clearly hazardous based on the simulated leaching of certain toxic constituents from a waste. Concentrations below the EP levels also may pos

a substantial hazard to human health and the environment; thus, the Agency will not remove a listed waste from regulation based solely on data utilizing the EP toxicity characteristic.

Finally, you stated that delisting employs different criteria than listing and is not an appropriate option for your Association's members due to the timeframe and because you believe that the Agency should withdraw the listings. First, delisting requires the Administrator to determine, among other things, that the petitioned waste does not meet any of the criteria under which the waste was listed. Thus, although delisting may consider additional factors, it is not accurate to say that delisting applies different criteria. As stated in our previous letter of June 16, 1989, EPA does not presently intend to withdraw its listings. We must, however, go through proposed and final rulemakings to respond to your members' petitions as well as the petitions regarding the other 4 hazardous smelting wastes. Completing this process may take at least another year. Therefore, delisting may still be an option for your consideration. If the Agency were to apply its VHS delisting modeling tool, chromium bearing wastes may be delistable if the total chromium concentration does not exceed between 0.315 ppm and 1.6 ppm depending upon the annual volume of waste generated and assuming the waste does not exhibit other factors (e.g., additional toxic constituents) which would make the waste hazardous. See the description of the VHS model, 50 FR 48896 (November 27, 1985) for details.

I would like to emphasize that this letter contains only tentative reactions to the issues you have raised. A final determination on your members' petitions to withdraw the listings will be made only after notice in the Federal Register and a full opportunity for public comment. We will also make your August 16th letter, this response, and the technical materials cited above a part of the public record for your petition.

I hope this letter has provided further clarification on the Agency's position. As indicated earlier, our toxicologists would be happy to meet with you to discuss our health concerns with trivalent chromium. Please feel free to contact Dr. Susan Griffin at (202) 382-4295, if you would like to arrange a meeting.

Sincerely

Robert M. Scarberry, Chief
Land Disposal Restrictions Branch

9444.1989(12)

OCT 05 1989

Ms. Sonya E. Shashoua
Supervising Environmental Specialist
Bureau of Hazardous Waste Regulation and Classification
New Jersey Department of Environmental Protection
CN-028, 401 East State Street
Trenton, New Jersey 08625-0028

Dear Ms. Shashoua:

This is in response to your letter of May 25, 1989, in which you asked several questions related to specific waste codes under 40 CFR 261.33(e) and (f). As you requested, this office will clarify the points you have raised so your own hazardous waste lists are consistent with the technical corrections to §261.33 the EPA published on April 22, 1988 (53 *FR* 13382). We will answer your questions in the order you raised them.

1. The chemical name "3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin" (P001, CAS #81-81-2) was dropped from 40 CFR 261.33(e) while the name "Warfarin" was retained. What was the reason for this deletion?

Warfarin is the common name for this substance, and the name in the 9th Collective Index (CI) of *Chemical Abstracts* was changed.

2. There were two chemicals on 40 CFR 261.33(f) with the number U126; Glycidylaldehyde (CAS #765-34-4) and 1-propanol, 2,3-epoxy (CAS #556-52-5). After July 1, 1986 the latter chemical was dropped from 40 CFR 261.33(f). Why wasn't it retained with a different "U" number?

Glycidylaldehyde appears to be correct and 1-propanol, 2,3-epoxy was added as an incorrect synonym in 1981. When the Agency again addresses the issue of making technical corrections to §261.33, we will review the old support data to confirm the correct entry.

3. Can you verify that the Chemical Abstracts Service (CAS) number for U136 Cacodylic Acid is 75-60-5? The source I am using as a double check lists the number as 75-50-6.

You may verify our CAS number for cacodylic acid by checking the CAS Registry, the EPA CAS Register, or the Registry of Toxic Effects of Chemical Substances (RTECS), published by...

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

EPA Form 1320-1 (12-70) OFFICIAL

the National Institute for Occupational Safety and Health (NIOSH).

4. What is the correct name and CAS number for U036: Chlordane, technical (CAS #12789-03-6) or Chlordane, alpha and gamma isomers (CAS #57-74-9)?

Chlordane, alpha and gamma isomers (CAS #57-74-9) are the commercial products associated with the 9th CI name; Chlordane, technical (CAS #12789-03-6) is associated with the 8th CI name. Since no commercial grade of chlordane is a pure compound, any formulation in which chlordane is the sole active ingredient is probably regulated under §261.33.

5. What are the correct listings for creosote and coal tar? I have found:
U051 Creosote -
U051 Creosote CAS # 8021-39-4 (40 CFR - July 1, 1987 edition)
Appendix VIII Coal tar creosote CAS # 8007-45-2
Appendix VIII Creosote No CAS # U051
Appendix VIII Coal tar creosote CAS #8001-58-9 (40 CFR, July 1, 1987 edition)

Creosote, U051, with no CAS Number is correct since the Agency wants to include all forms of creosote under the listing. See enclosure for more details.

6. What is the source for the CAS numbers for "nitrogen mustard" and Nitrogen mustard N-oxide?" These compounds are not listed in the reference book I have.

The CAS Registry and RTECS are both sources for the CAS numbers for these substances.

7 The listing for U161 "Pentanol, 4-methyl" appears to be in error. The name "2-Pentanone, 4-methyl" has the CAS #108-10-1 and would agree with the other two entries for U161: "Methyl isobutyl ketone" and "4-Methyl-2-pentanone" both having the CAS #108-10-1. Could you please clarify this listing?

You are correct in the statement that 4-Methyl pentanol is an incorrect name for U161. Methyl isobutyl ketone and 2-Pentanone, 4-methyl (CAS #108-10-1) are both correct names for U161.

Thank you for your inquiry. Many times the Government Printing Office makes typographical errors and omissions when it publishes our regulations in the *Federal Register* and the Code of Federal Regulations. Such mistakes cause many people to send in inquiries about the accuracy of our listings and force us to publish technical corrections to the listings from time to time. You may also be interested in checking the accuracy of the CAS

numbers used in §261.33 and Appendix VIII by contacting the Chemical Abstracts Service (a part of the American Chemical Society) in Columbus, Ohio at (614)447-3600.

Sincerely,

Ron Josephson
Environmental Engineer
Listing Section

Enclosure

cc: George Meyer, EPA Region II (2AWM-HWC)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 20 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Kevin Anthony
Environmental Assistant
MagneTek Ohio Transformer
1776 Constitution Avenue
Louisville, OH 44641

Dear Mr. Anthony:

Thank you for your letter of September 11, 1989, in which you requested information concerning the handling of "F". series solid wastes. More specifically, you requested that we send you information on handlers and alternate disposal or reclamation processes for rags and similar materials, which have absorbed various volatiles and "F" wastes through wipe down and cleaning processes. In general, the EPA Regional Offices are responsible for this type of inquiry. However, because you have indicated that Region 5 referred you to my office, my staff has coordinated with them to prepare the following response for you.

Rags and similar materials may be incinerated and the residue landfilled. Laundering these rags is an alternative to incineration, for those rags which can be laundered. Dan Patulski of Region 5 did not have any additional information on handlers and alternate disposal or reclamation processes for rags and similar materials.

If you have any further questions, you can contact Mr. Patulski at (312) 886-0656. He has your letter and will be given a copy of this reply.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

SEP 22 1989

MEMORANDUM

SUBJECT: RCRA Regulation of a Spill of Tetrachloroethylene Contaminated with Polychlorinated Biphenyls (PCBs)

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste (OS-300)

TO: Steven Wassersug, Director
Waste Management Division, Region III (3HW-00)

This memorandum is in response to a June 9, 1989 letter from Lawrence Falkin of the RCRA Enforcement General Section to Pat Carter of the Headquarters Office of Waste Programs Enforcement (OWPE). In this letter, your staff asked for a determination of whether tetrachloroethylene contaminated with PCBs from the washout of transformers is a RCRA-regulated hazardous waste. Specifically, the tetrachloroethylene was used as a temporary transformer dielectric and to remove residual PCBs from transformers.

Although use as a dielectric does not meet the description of a solvent use, it is clear that the primary reason that the tetrachloroethylene is used is to remove the PCBs from the transformer. Use of tetrachloroethylene (where the before-use concentration is at least ten percent by volume) in "degreasing, cleaning, fabric scouring, as diluents, extractants, reaction and synthesis media, and similar uses" is a solvent use covered by the F002 spent solvent listing description. (See 50 *FR* 53316, December 31, 1985.) Here, the before-use concentration of the tetrachloroethylene is close to 100%. Spent tetrachloroethylene contaminated with PCBs is a spent solvent (F002) under 40 CFR 261.31 and is subject to all RCRA waste management and corrective action requirements. Further, the Toxic Substances Control Act (TSCA) in no way supersedes RCRA requirements applicable to such wastes. If a conflict between RCRA and TSCA authority were to be found, the more stringent requirements would apply. (See, *e.g.*, 52 *FR* 25769 - 25770, July 8, 1987.)

3. 40 CFR Section 261.33: Spills of Commercial Chemical Products

Any residues or contaminated soils, waters or other debris ". . . resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) . . ." of Section 261.33 are hazardous wastes if and when they are intended to be discarded. (40 CFR 261.33 (d)) Does 40 CFR 261.33 only apply to spills "into or on any land or water," or are other types of spills covered (i.e., debris that result from a cleanup of a spill wholly contained within a building)?

In the November 25, 1980 Federal Register, EPA states that the purpose of 40 CFR Section 261.33 is to regulate the listed chemical products (and spill residues thereof) as hazardous wastes when they are discarded or intended to be discarded. (45 FR 78540) Although not specifically stated in Section 261.33 (d), EPA intends that this section apply to all spill residues, regardless of where the spill occurs. The scope of this regulation includes not only spills on land or into water, but also other types of spills.

Source: Ron Josephson, OSW (202) 475-6715
Research: Sean White

I. SIGNIFICANT QUESTIONS AND RESOLVED ISSUES—JANUARY 1990

A. RCRA

1. Two Parts to the Definition of Treatment

To facilitate disposal, a generator consolidates two spent solvents, which are listed in 40 CFR Part 261 Subpart D, into a single container. Is the mixing of these wastes considered to be treatment of hazardous waste under RCRA? Would a person consolidating waste need a RCRA permit or interim status designation for treatment of hazardous waste?

The definition of treatment is a two-part definition. The definition includes "any method ... or process ... designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous; less hazardous; (or) safer to transport, store, or dispose of" (40 CFR Section 260.10).

Putting two RCRA hazardous wastes into one container with the purpose of facilitating disposal is treatment if, for example, the mixing makes one or both of the wastes less hazardous or safer to transport. (OSWER Directive 9432.05-84; November 6, 1984) Any person, unless otherwise excluded from regulation, consolidating wastes needs a RCRA permit or interim status designation for treatment if the mixing results in treatment according to the definition in 40 CFR Section 260.10. (Certain generators accumulating wastes and treating the wastes in tanks and containers may not be subject to permit requirements (51 FR 10168, March 24, 1986).)

Regardless of whether or not the person is treating hazardous waste, he may need a RCRA permit for storage. A generator would need a permit or interim status designation for storage if waste is stored longer, or is accumulated in amounts greater, than the limitations in 40 CFR Section 262.34. A transporter also would need a storage permit if, for example, he stores waste at a transfer facility for longer than ten days (40 CFR Section 263.12).

Source:	Jim Berlow, OSW	(202) 382-4627
	Mitch Kidwell, OSW	(202) 382-4805
	Richard Kinch, OSW	(202) 382-7917
	Chet Oszman , OSW	(202) 382-4499
Research:	Monica Genadio	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 22 1990

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Richard A. Jamison, Jr.
Micron Diagnostics, Inc.
Point Breeze Business Center
2200-C Broening Highway
Baltimore, Maryland 21224

Dear Mr. Jamison,

This letter responds to your March 14, 1990 correspondence regarding the regulatory status of your product, Micro-Clear.

In order for a material to be defined as a hazardous waste subject to regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA), it must first be defined as a solid waste according to the requirements set forth in 40 CFR 261.2. Unused commercial chemical products or manufacturing chemical intermediates do not qualify as solid waste unless they are discarded or intended to be discarded, burned for energy recovery or used to produce a fuel (if this is not their normal manner of use), or applied to the land (if this is not their normal manner of use). If a commercial chemical product is used, reused, recycled or reclaimed in lieu of being discarded, it does not qualify as a solid waste and cannot be a hazardous waste subject to regulations under Subtitle C of RCRA.

Your letter does not indicate the final disposition of the Micro-Clear, but you do state that Micro-Clear is a commercial product. Provided this commercial product is being used for its intended purpose, it would not qualify as a solid waste and would not be subject to RCRA Subtitle C jurisdiction. However, if this product could no longer be used for its intended purpose (e.g., it is off-specification or outlives its expiration date) and is intended for disposal, it would be a solid waste and could be subject to RCRA Subtitle C jurisdiction.

A generator of solid waste is required to perform a hazardous waste determination for his solid waste pursuant to 40 CFR 262.11. This regulation requires the generator to determine if his waste meets a listing of hazardous waste in Subpart D of 40 CFR Part 261. If the waste is not listed in Subpart D of 40 CFR Part 261, he must determine whether the waste exhibits a characteristic of hazardous waste identified in Subpart C of 40 CFR Part 261.

Assuming that a quantity of Micro-Clear was intended for disposal and that you have previously determined that it does not meet a listing of hazardous waste, the test data supplied with your letter appears to demonstrate that Micro-Clear does not exhibit any of the characteristics of hazardous waste identified in Subpart C of 40 CFR Part 261. You should be aware, however, that although your data indicates that Micro-Clear does not exhibit any of the characteristics of hazardous waste, each individual generator is responsible for evaluating his own waste and making this determination. Furthermore, the EPA recently finalized the Toxicity Characteristic rule. This rulemaking amends 40 CFR 261.24 (Characteristic of EP Toxicity) by adding an additional 25 organic constituents of concern and establishes regulatory thresholds for these constituents. Your letter indicates that a sample of Micro-Clear was evaluated for most of the constituents found in Table 1 under 40 CFR 261.24 (cadmium is not included with the metals which were found to be non-detectable). However, after the effective date of the Toxicity Characteristic regulations, generators must evaluate their solid wastes for the presence of these additional toxic constituents.

Should you have further questions regarding the regulatory status of your Micro-Clear, I encourage you to contact the appropriate Regional office or authorized State regulatory agency. The regulatory interpretations provided in this letter apply to Federal requirements. State and local regulatory agencies may have regulations that are more stringent than those at the Federal level. You may want to contact the appropriate State regulatory agency to determine what, if any, additional requirements apply.

Sincerely,

Devereaux Barnes
Director
Characterization and
Assessment Division

9444.1990(03)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR -5 ~~1988~~ 1990?

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Chuck Kreider
BASF Corporation
8 Campus Drive
Parsippany, New Jersey 07054

Dear Mr. Kreider:

This is in response to your letter of February 22, 1990 to Mr. Jace Cuje of Geo-Resource Consultants, Inc. (the RCRA/Superfund Hotline) concerning the commercial chemical product listing (40 CFR 261.33) for xylene (EPA Hazardous Waste No. U239). Specifically, you wanted to know if the listing for dimethyl benzene (a chemical synonym for xylene) was listed for ignitability and toxicity, or ignitability only.

On April 22, 1988, the Agency promulgated technical corrections to the §261.33 listings. (See 53 *FR* 13382.) In the process of doing this, the Agency added Chemical Abstracts Service (CAS) numbers to the listed chemicals, as well as chemical synonyms, to make understanding these regulations easier on the regulated community. After these corrections appeared in the *Federal Register* and the Code of Federal Regulations, we realized that a few typographical errors had been made. The case of dimethyl benzene is one of them. The listing for "benzene, dimethyl" (U239, CAS No. 1330-20-7) should be only for ignitability. We apologize for any inconvenience this may have caused you.

Thank you for your inquiry. If you have any additional questions, please contact Ron Josephson of my staff at (202)475-6715 or the RCRA/Superfund Hotline at (800)424-9346.

Sincerely,

Robert Scarberry

Robert M. Scarberry, Chief
Land Disposal Restrictions Branch

Printed on Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY - 2 1990

Mr. Frank Jaronik
Coral International, Inc.
135 LeBaron Street
Waukegan, Illinois 60085

Dear Mr. Jaronik:

This is in response to your letter of March 27, 1990, concerning the exclusion from the F019 hazardous waste listing which was finalized on February 14, 1990 (55 **FR** 5340). You wanted to know whether this exclusion applies to wastewater treatment sludges from zirconium phosphating of two-piece aluminum food cans in addition to aluminum beverage cans.

The F019 exclusion would apply to sludges from this process on aluminum food cans provided the conditions outlined in the February 14 **Federal Register** are met. The conversion coating process must involve the exclusive use of zirconium phosphating solutions that do not contain cyanide or chromium. Further, this process must not be associated with electroplating or conversion coating steps where hazardous constituents are used.

Should you have any additional questions, please contact Ms. Denise Wright of my staff at (202) 245-3519.

Sincerely,

Robert Scarberry

Robert M. Scarberry
Chief
Land Disposal Restrictions Branch

Mr. James B. MacRae, Jr.
Acting Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget
New Executive Office Building
Room 3019
Washington, D.C. 20503

Dear Mr. MacRae:

The purpose of this letter is to summarize the Agency's response to issues raised in OMB's review of the petroleum refinery sludge hazardous waste listing regulation. Since receiving your letter on September 6, 1990 the Agency has spent considerable time reviewing the issues raised, re-analyzing the data that support the rule, and developing written responses, the most recent of which we sent to you on October 5. Both the Deputy Administrator and I have spent significant amounts of time personally on this matter; we have both been briefed by staff on the issues, we have formulated the Agency's response, and we have met with you or talked personally on the phone. As late as the morning of October 16 EPA and OMB staff were engaged in detailed discussions on the text of the preamble. I am sure you will agree that the Agency has been quite responsive to your concerns.

As you know, the fundamental purpose of this regulation is to complete the work begun in 1980 when the Agency listed the first group of primary wastewater treatment sludges from petroleum refining. A major weakness in the original listing was that it failed to capture all of the primary sludges generated at petroleum refineries. This final listing regulation simply completes RCRA coverage of the these primary wastewater treatment sludges, all of which have the potential to present significant risks to human health when mismanaged. I therefore strongly encourage you to complete your review of this important regulation. Your speedy action is particularly important since the Agency is now under order of the U.S. District Court for the District of Columbia to promulgate this rule by October 22, 1990.

Following is a summary of the Agency's responses to your concerns in the order presented in your letter.

EPA's Decision to List Is Based on Arbitrary Distinctions Between Waste Types

Your September 6 letter raised two concerns about the scope of the listing determination. Your first concern is that the preamble fails to document the distinction between primary separation and biological separation sludges and thus calls into question the Agency's rationale for listing the former but not the latter. You provide data to support your conclusion that the levels of hazardous constituents in the two types of sludges are similar enough to justify the listing of both. Your second concern is that the listing determination fails to account for the variability in levels of hazardous constituents in the primary sludges and thus over-regulates.

With respect to your first concern, the Agency has never intended to include biological sludges in this listing nor have we published any documents suggesting that we were considering such an action. Our intent has always been simply to regulate the primary sludges that were not captured by the 1980 listings. Since biological sludges were not within the scope of the rulemaking, we have never undertaken a major sampling effort and therefore have only limited data. This limited data and our engineering judgment lead us to believe that biological sludges contain significantly lower levels of many hazardous constituents than primary sludges and thus pose less of a risk to human health and the environment. In attempting to re-create the figures shown in the table on page 4 of your letter, we realized that your figures for the concentration of hazardous constituents in biological treatment sludges include data from some units that would be regulated as primary treatment units under this listing. Your figures therefore overstate the concentration of hazardous constituents in aggressive biological treatment sludges and do not by themselves provide a rationale for listing biological treatment sludges. In our October 5 letter we transmitted new preamble language and data that more clearly explain why the Agency cannot justify the listing of biological sludges at this time.

Your letter also states that the levels of hazardous constituents in primary sludges vary by orders of magnitude across facilities and between units and thus the listing is over-inclusive. The Agency's data do not support this conclusion. While it is true that individual constituent concentrations vary, virtually every sample of primary separation sludge collected by the Agency contains one or more hazardous constituents several orders of magnitude above the applicable health-based levels.

Thus, notwithstanding variation among constituent concentrations, these data clearly demonstrate that all primary sludges have the potential to pose a risk to human health.

Selective Application of the Factors for Consideration in § 261.11 (a) (3)

Potential for Human Exposure

Your letter states that the Agency has not provided evidence of contamination in drinking water wells down-gradient of petroleum refineries. In response, we have provided preamble language documenting evidence found in Region VI of contamination of RCRA groundwater monitoring wells by currently listed primary separation sludges. As we stated in our earlier written response and in our October 4 meeting, it would be time-consuming and costly for the Agency to monitor drinking water wells (as opposed to monitoring wells) for the purposes of regulation development. Even if the monitoring data were collected, it would also be difficult to identify the specific source of any contamination detected due to the prevalence of contaminants surrounding petroleum refineries. The same limitation on identifying contamination sources applies to monitoring conducted by public drinking water treatment utilities. Therefore, as a standard practice, we rely heavily on modeling of constituent fate and transport to predict the potential for drinking water contamination from particular wastestreams. In the case of this industry, we have an unusually large database containing real-world information on toxic constituents, current management practices, site hydrogeology, and distances to public and private wells. It is our view that the fate and transport model, coupled with extensive real-world data inputs and the Region VI damage cases provide clear evidence of the potential for these sludges to contaminate down-gradient drinking water sources when they are mismanaged.

Factors Inadequately Addressed in the Draft Preamble
Risk Reducing Effects of Drinking Water Regulations

Your letter suggests that the benefits analysis and the decision to regulate should take into account both the effects of existing regulations under the Safe Drinking Water (SDWA) and the effects of contaminant taste and odor on drinking water use. You imply that it would be less costly to society to rely on SDWA regulations to prevent human exposure to any groundwater contamination through public drinking water treatment systems and to rely on contaminant taste and odor to prevent human exposure through private wells.

The Agency views this approach, which focuses on cleanup, as contrary to both the statutory goals of RCRA and the Agency's pollution prevention strategy. Prevention of pollution often has

proven to yield long-term benefits. The Agency nonetheless agrees that the existence of drinking water regulations for some of the hazardous constituents of primary separation sludge is relevant to the quantitative benefits calculation. However, drinking water regulations do not exist for all of the hazardous constituents, most notably the polynuclear aromatic hydrocarbons that are common in the petroleum sludges at issue here. The Agency did not therefore invest its limited analytical resources in a further refinement of the benefits analysis to measure the exact impact of drinking water regulations. We did provide in our October 5 letter additional language for the preamble and the Regulatory Impact Analysis (RIA) that qualitatively addresses this limitation in the analysis.

Contaminant taste and odor would be an unreliable approach to protection of private well users. The concentration threshold at which people taste and smell contaminants varies, and in the case of benzene, the threshold is several times higher than the drinking water regulatory level. Such an approach would obviously not be effective for contaminants that have neither taste nor odor.

The Agency also does not dispute the fact that treatment of contaminated groundwater is less costly in the short term than full implementation of RCRA Subtitle C. We are not convinced however, that the long-term costs to society would indeed be lower, given the mandates of both RCRA and CERCLA to clean up contamination and the essentially unquantifiable value of an uncontaminated natural resource. The policy and legal implications of implementing a treatment approach are profound, and would require the Agency to undertake a comprehensive re-thinking of the RCRA and CERCLA programs. We do not believe that it is appropriate to undertake such an effort at this time or in the context of this individual rulemaking. We would welcome the opportunity to discuss the environmental implications of relying on groundwater treatment instead of prevention and remediation later this fall as we begin to prepare for the reauthorization of RCRA.

Other Appropriate Considerations

1) Alternative Means of Achieving Equivalent Risk - Reduction Benefits at Less Cost

You suggest that EPA should have given further consideration to a range of alternatives for the regulation of primary separation sludge. Examples given include a de minimis approach, a Subtitle "D" or "D+" approach, and the more novel idea of regulating only when contamination in drinking water wells has actually been detected and the refinery has failed to provide either treatment or alternative water supply. Your letter goes on to state that full implementation of Subtitle C dampens

pollution prevention incentives by regulating all of the sludges to the same degree of stringency regardless of their level of toxicity.

Based on further analysis, we have found first that petroleum refinery primary wastewater treatment sludges are unlikely to qualify for a de minimis exemption from Subtitle C regulation. Since 1980 the industry has been unable to lower constituent levels to meet even the hazardous waste delisting levels, so we do not consider a de minimis approach to be viable. Second, we do not have statutory authority to develop or enforce Subtitle D regulations for this industry at this time, nor are we aware of the legal authority under which your final regulatory alternative could be implemented. We therefore did not pursue analysis of these options in our RIA.

The Agency could consider pursuing a concentration-based listing or tailoring existing Subtitle C requirements to this particular industry in hopes of reducing the costs of compliance. However, neither approach is likely to produce dramatic savings in this industry. The toxicity and mobility of these sludges would probably prevent the Agency from establishing concentrations that would allow substantial volumes to escape regulation. It would also be difficult to justify significant deviation from established Subtitle C engineering standards. Both approaches would require a new data collection and analysis effort as well as a re-proposal of the rule. We do not think it is appropriate to consider a fundamental change in our regulatory approach for petroleum refining waste at this late stage in the process, particularly when the standards for newly listed sludges would vary in approach from standards that apply to virtually identical sludges that have been listed since 1980. We do believe, however, that both concentration-based listings and tailored standards are worthy of consideration in the future for those wastestreams where it is appropriate. There are policy, legal, and resource issues to be evaluated before the Agency can fully implement either approach. We would be happy to discuss these issues with you at your convenience.

We do not agree with your statement that listing discourages pollution prevention. Our experience has been that listing under Subtitle C creates a strong incentive to reduce waste volume, to improve the efficiency of wastewater treatment systems, and to recycle and re-use waste materials. Based on this experience and information provided to us by the refining industry, we would expect the same incentives to exist for these petroleum sludge listings.

2) Upper-Bound Excess Lifetime Cancer Risk is Within EPA's Acceptable Risk Range

Your letter indicates that the excess cancer risks presented by primary treatment sludge are within the 10^{-4} to 10^{-6} "acceptable" range. Your letter fails to point out that OMB used average upper-bound cancer risks to the exposed population to document this statement as opposed to the cancer risks posed to the maximally exposed individuals (MEI's) at individual refineries. Historically, EPA has set standards to protect against MEI cancer risk levels in the 10^{-4} to 10^{-6} range.

3) Costs Exceed Benefits by at Least an Order of Magnitude

EPA is aware that the projected costs of complying with the petroleum refinery sludge listing exceed the benefits we have been able to quantify. It is extremely difficult to quantify the health and environmental benefits of prevention regulations and we would welcome any advice OMB may have on improving our techniques for benefits estimation. We provided in the attachments to our October 5 letter a discussion of the factors that have caused us to under-estimate benefits. These include exposure pathways not analyzed, constituents not included in the analysis, and future populations not accounted for. We believe that the incentives to reduce waste volumes and upgrade wastewater treatment systems, the closing of a long-standing gap in RCRA regulatory coverage, and the consistency with previous listing decisions are all factors in addition to the cost/benefit ratio that must be considered in this final regulatory decision.

In closing, I would like to say that EPA appreciates the time and effort that you and your staff have devoted to the review of this regulation. You have pointed out some issues which required fuller discussion in the preamble and have raised broad policy issues that clearly merit further consideration as we look to the future of the hazardous waste program. However, given the existence of a gap for 10 years in RCRA regulatory coverage of primary separation sludges and the court order requiring the Administrator to take final action on this rule by October 22, the Agency finds there is a compelling need to complete our work on the petroleum refinery sludge listing and promulgate this final rule.

Sincerely,

Don R. Clay
Assistant Administrator

cc: F. Henry Habicht, II

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

FEBRUARY 1991

1. Petroleum Refinery Wastewater Treatment Sludge Classification

A petroleum refinery produces large volumes of process and oily cooling wastewaters. Prior to discharge into the facility's privately owned treatment works, the wastewater undergoes treatment to meet applicable Clean Water Act discharge limits. At various points throughout the wastewater treatment process, the facility generates a sludge which is disposed of in a RCRA Subtitle D landfill. The November 2, 1990 Federal Register (55 FR 46354), promulgated two new petroleum refinery wastewater treatment sludge listings, F037 and F038. After May 2, 1991, the effective date of this rule, which of the facility's treatment sludges will need to be classified according to the new designations and therefore become subject to RCRA Subtitle C requirements?

In developing the new listings, EPA concluded that sludges resulting from various petroleum refinery wastewater treatment sources contain similar levels of hazardous constituents as those generated in Dissolved Air Flotation (DAF) units and American Petroleum Institute (API) separators, which are already designated as K048 and K051, respectively. Consequently, the Agency promulgated the nonspecific source F037 and F038 waste listings to ensure that regulatory coverage was extended to all petroleum floats and sludge resulting from primary wastewater treatment that are not covered under more unit-specific K designations. (55 FR 46356)

To determine the applicability of the F037 and F038 listings, the facility must ascertain the origin of the wastewater treatment sludges. Petroleum refinery process and oily cooling wastewaters are generally treated in two phases: primary treatment and secondary (biological) treatment. Primary wastewater treatment in the petroleum refining industry covers only the two initial stages of treatment which are designed to use physical and chemical processes to separate oil, water and solids from the wastewater stream.

Specifically, the F037 listing description is assigned to sludges resulting from the *first stage* of primary treatment where gravitational oil/water/solids separation is performed. The F038 designation pertains to floats and sludges that arise from the *second stage* of primary treatment in which physical and chemical processes are employed to separate emulsified oil/water/solids from refinery wastewaters. (55 FR 46363) PLEASE NOTE: sludges resulting from secondary wastewater treatment, which are distinguished by the active biological degradation phase that follows primary treatment, are not covered by the new petroleum refinery sludge rule.

A final consideration when determining the scope of the F037 and F038 listings are the exemptions for sludges generated from specific situations. These include (1) sludges generated from stormwater units that do not receive dry weather flow; (2) sludges (or floats) generated from aggressive biological treatment units; and (3) sludges resulting from specific wastewater treatment units already designated as K048 and/or K051. (55 FR 46358) The exemptions ensure that only sludges and floats resulting from previously unregulated activities or activities within the scope of the new listings (i.e., only primary treatment) are identified as hazardous under the F037 and F038 waste codes.

Source: John Austin, OSW (202) 382-4789
Research: Stephen Buchanan

Gaynor Dawson
Vice President
ICF Kaiser Engineers
601 Williams Blvd., 4th Floor
Richland, WA

Dear Mr. Dawson:

I am writing to respond to your August 17, 1990 letter requesting clarification of the circumstances under which lead shielding for radioactive waste is a solid waste under RCRA. In your letter, you refer to the June 26, 1987 correspondence between the Director of the Office of Solid Waste, Marcia Williams, and Terry Husseman, Chair of the Northwest Interstate Compact Committee, which states in part: "...lead whose primary use is shielding in low-level waste disposal operations is not subject to Federal hazardous waste regulations when placed on the land as part of its normal commercial use." This policy is unchanged.

Most recently, this policy was echoed in the October 4, 1989 Agency guidance to NRC licensees, "Guidance on the Definition and Identification of Commercial Mixed Low-level Radioactive and Hazardous Waste and Answers to Anticipated Questions." In question 6, on page 4 of the guidance, the issue is raised: "Are lead containers whose primary use is for shielding in disposal operations, hazardous waste under RCRA?" The first paragraph of the response follows:

> No. While lead containers and lead container liners may exhibit the hazardous characteristic for lead, those containers whose primary use is for shielding in low-level waste disposal operations are not considered hazardous wastes and thus, are not subject to the hazardous waste rules. These same containers and liners if disposed of or discarded would be considered wastes and if they exhibit the hazardous characteristic, would be subject to the hazardous waste rules.

In summary, your statement that "... lead containers or container liners [are] not solid wastes when the radioactive waste [is] disposed because the lead shielding continue[s] to fulfill this intended use as shielding" is a correct interpretation of Agency policy. While the lead shielding is not a solid waste, we recommend that it be macroencapsulated prior to disposal in or on the land to prevent the shielding

CONCURRENCES

from leaching. When this is done, the environment will be protected from radiation by the lead shielding, and from the leaching of lead by the macroencapsulation of the entire waste package. Please note that this macroencapsulation is not required by the land disposal restrictions, but represents best management practice. Of course, if the shielding is no longer serving its intended use as a commercial product and is discarded, and exhibits a characteristic, it is a solid waste and must meet all Subtitle C requirements, including macroencapsulation before being placed in or on the ground.

Your letter asks several questions regarding lead shielding, some of which were discussed over the phone with Rod Larang of your staff. The first question asks if lead shielding for radioactive wastes is a solid waste when it is disposed under certain conditions.

The first condition is when the shielding is part of an object being disposed, and while necessary for radiation protection during waste handling prior to its disposal in or on the land, is not necessary for radiation protection after the object has been placed in or on the land. Since the shielding is not necessary for radiation protection once the object has been disposed, it becomes a solid waste upon disposal, and therefore must meet all applicable treatment standards.

The second condition concerns lead shielding that is part of a disposed waste package and is necessary for radiation protection after the object has been buried. Here, the lead shielding is fulfilling its intended use as a commercial product, and is not considered a solid waste.

The third condition involves the introduction of shielding during the packaging of radioactive waste in preparation for its disposal. As the lead shielding is necessary only during waste handling in this example, once the shielding is disposed, it becomes a solid waste.

The fourth condition concerns the introduction of shielding during the packaging of the radioactive waste for disposal; the shielding being necessary for radiation protection after the waste package has been buried. Here the shielding is not a solid waste as long as it is fulfilling its intended use as a commercial product.

~~Question two reads: "If lead shielding is a solid waste~~ CONCURRENCES
~~when placed for disposal, is it subject to 40 CFR 268 waste~~

treatment standards (i.e., encapsulation for D008 waste lead shielding), or are these standards inapplicable because the shielding is not a solid waste until disposal is completed?" As indicated above, if the lead shielding itself is discarded and is no longer fulfilling its intended use as a commercial product, it is a solid waste, and is subject to all applicable treatment standards.

Question three describes a situation where a waste package with nonencapsulated shielding disposed in the past is retrieved in the future in order to treat the waste. In this case, as long as the shielding is fulfilling its intended use, it is not a solid waste. Once the shielding is discarded, however, the shielding becomes a solid waste, as it would no longer be serving the function for which it was intended. As the land disposal restrictions apply prospectively, it is important to know when the shielding was discarded. If it was discarded before the applicable effective land disposal restrictions date for the RCRA hazardous waste, the land disposal restrictions would not apply until it was dug up.

Question four in your letter provides two more examples of the use of lead shielding: radioactive materials passing through a lead pipe, and nonradioactive materials being protected from a radioactive environment by lead. To respond to the subparts of question four, first, the abandonment of buried lead-lined piping which transported radioactive materials and the radioactively contaminated lead-shielded phone cable constitutes disposal of a solid waste. See 40 CFR 261.2 for the definition of solid waste. This lead would be subject to treatment standards under the Land Disposal Restrictions program. Lead contaminated with radioactivity must be macroencapsulated before disposal (55 FR 22628). The piping and cables are wastes once abandoned; redisposing the waste elsewhere would not affect its status as a solid waste. Again, because the land disposal restrictions apply prospectively, if the material was abandoned before the land disposal restrictions effective date for the hazardous waste(s), the land ban would not apply unless the material was dug up. Liability for the improper disposal of hazardous waste would occur immediately upon such disposal. Violations of the land disposal prohibitions may result in the issuance of an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both. (RCRA section 3008 (a)(1)). To reiterate, HSWA requires hazardous wastes to meet promulgated treatment standards prior to land disposal. Failure to meet these standards is a violation of HSWA.

CONCURRENCES

Question 5 of your letter asks if, under Section 6001 of RCRA, federal agencies are immune from regulation by authorized states. Section 6001 of RCRA spells out clearly that any part of the Federal government engaging in waste disposal operations is subject to all federal, state, interstate, and local requirements. Moreover, Executive Order 12088 states that the Federal government will comply with all environmental statutes and regulations, including the environmental statutes and regulations of authorized states. Thus, under Section 6001 of RCRA, Federal agencies are not immune from regulation by authorized states.

We hope that this letter answers your concerns regarding the circumstances under which lead shielding for radioactive wastes is or is not a solid waste under RCRA. If you have further questions on this matter, please contact me.

Sincerely,

Richard Kinch, Chief
Waste Treatment Branch

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MAY 1991

1. Comparative Definitions of F001 and F002

Tetrachloroethylene, trichloroethylene, methylene chloride, and 1,1,1-trichloroethylene are listed in the definitions of both F001 and F002 in 40 CFR 261.31. The listing for F001 reads "the following spent halogenated solvents used in degreasing...", while the F002 listing begins with "the following spent halogenated solvents...". Although F001 applies specifically to solvents used in degreasing according to the December 31, 1985 Federal Register, the F001-F005 listings cover only those solvents used for their solvent properties. A solvent used in degreasing is considered to be used for its solvent properties. (50 FR 53316) Thus, a solvent, which is listed in both F001 and F002 (e.g., methylene chloride) and is used in degreasing, could be both F001 and F002. Would such a spent solvent be appropriately classified as F001, F002, or both?

It was not the intent of the Agency to apply both listings to a solvent constituent which is listed in both F001 and F002. The waste code that the spent solvent receives depends on the type of degreasing involved. Page 6 of the "Listing of Hazardous Waste (40 CFR 261.31 and 261.32); Identification and Listing of Hazardous Waste Under RCRA, Subtitle C, Section 3001" (also known as the Background Listings Document) clarifies the intent of the F001 listing as opposed to other spent solvents. Specifically, the F001 listing is appropriate when tetrachloroethylene, trichloroethylene, methylene chloride, and 1,1,1-trichloroethane are used in large-scale industrial degreasing operations [e.g., cold cleaning, vapor degreasing (open top and conveyorized), and fabric scouring]. Alternatively, tetrachloroethylene, trichloroethylene, methylene chloride, and 1,1,1-trichloroethane used in equipment cleaning or in smaller scale degreasing operations involving repair work (that do not employ industrial degreasing processes as described above), such as industrial maintenance and repair, commercial service and repair, and consumer-performed maintenance and repair, receive the F002 listing.

Source: Ron Josephson, OSW (202) 475-6715
Research: Peter LeTourneau

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG 30 1991

MEMORANDUM

SUBJECT: Residual Materials Contaminated with Trace Solvents

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste

TO: Robert L. Duprey, Director
Hazardous Waste Management Division
EPA Region VIII

This memorandum is in response to your requests for guidance on trace solvent issues dated December 20, 1990 and February 11, 1991. In the particular case cited, a facility degreases metal parts in an F001-listed solvent, air dries the parts, and then blasts the parts. Some of the blasting grit has been found to contain solvent constituents. According to your first memo, a conflict between Region VIII and the Utah Department of Health has arisen on interpreting the scope of the listing regulations. The conflict appears to be centered on whether previous Headquarters memoranda are valid and applicable to this situation.

Upon review of the specific situation and your initial response, research into previous Headquarters correspondence, and discussions with your staff, we concur with the memorandum sent by Terry Anderson to James Wickemeyer on October 29, 1990 (*i.e.*, the blasting grit generated by the facility in question does not meet the F001 spent solvent listing description). This letter is consistent with previous Headquarters interpretations as to the scope of the spent solvent listings or the mixture rule, which state traces of solvents left on equipment after cleaning are not spent and therefore do not meet the listing description. Such wastes may be hazardous because they exhibit one of the characteristics of hazardous waste described in 40 CFR 261 Subpart C (particularly the toxicity characteristic of §261.24).

If solvents are used for cleaning in excess of amounts needed for that purpose, however, the excess solvent residues

could be spent, and therefore listed hazardous waste. No set quantity has been established for excess amounts of solvents which would cause the residual in question to be subject to regulation. The nature of facility operations will dictate whether the amount of solvent released, inadvertently or deliberately, would cause the waste in question to meet the listing description. The applicability of such an interpretation would depend on the nature of the operation, the quantities of solvents used and disposed in the operation, and the manner in which they are used/disposed.

Please note that some state agencies have the authority to interpret Federal regulations more strictly than EPA, if desired. In this particular case, such an interpretation may ease the regulatory flexibility of State agency personnel.

Thank you for your memorandum. If you have any additional questions on this topic please do not hesitate to call me or have your staff contact Ron Josephson at FTS 260-4770.

cc: (w/incoming) Ken Gigliello, OWPE (OS-520)
Hazardous Waste Division Directors, Regions I - VII, IX, X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

November 26, 1991

Mr. James C.R. Lee, P.E., Ph.D.
Environmental Engineer.
CEPOJ-ED,
APO San Francisco 96343-0061

Dear Mr. Lee:

Thank you for your letter of June 27, 1991. Please accept my apology for the delay in answering your letter, which was referred to our branch from the Kansas City regional office.

In response to your first question, discarded wastewater at a corrosion control facility is considered a solid waste. (40 CFR 261.2). Whether a solid waste is also a hazardous waste depends on whether the solid waste contains any listed hazardous waste or exhibits any hazardous waste characteristics.

Methylene Chloride is listed in 40 CFR 261.31 as a hazardous waste. Unfortunately, the information you provide about the way in which the methylene chloride is used is not enough to allow me to say, conclusively, whether the waste you describe is hazardous. Methylene chloride is listed as both an F001 and F002 hazardous waste. I refer you to the following paragraphs:

> 40 CFR 261.3 Hazardous wastes from non-specific sources
>
> **F001...The following spent halogenated solvents used in degreasing**: Tetrachloroethylene, trichloroethylene, **methylene chloride**, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; **all spent solvents mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents** or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvent and spent solvent mixtures.

We appreciate the input and cooperation of the Navy and Department of Defense in resolving this issue and look forward to your continued support in securing passage of the Administration bill.

Sincerely,

Don R. Clay
Assistant Administrator

cc: Jacqueline Schafer
Department of Navy

Robert Grady
OMB

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

NOVEMBER 1991

1. Multisource Leachate (F039) Waste Code as it Applies to Contamination From Spills

The hazardous waste code F039, known as multisource leachate, is defined in 40 CFR §261.31 as leachate resulting from the disposal of more than one hazardous waste listed in 40 CFR Part 261, Subpart D, which is also a restricted waste under the Land Disposal Restrictions program in Part 268. Rainwater has percolated through soils contaminated with spills of several different listed hazardous wastes. Could the resulting contaminated water now receive the F039 waste code?

The January 31, 1991, Federal Register (56 FR 3865) states that in order to determine whether a waste meets the criteria of F039, it is necessary to first determine that the waste meets the definition of leachate. This definition, found in 40 CFR §260.10, is "any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste." The preamble of the January 31, 1991, notice also clarifies that only liquids that have percolated through land disposed wastes ("land disposal" having the meaning of RCRA Section 3004(k)) are considered to be leachate for the purposes of making this determination. The definition of land disposal in Section 3004(k) states that land disposal "shall be deemed to include, but not limited to any placement of such hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave" (emphasis added). Spillage and drippage are also forms of land disposal, albeit improper and illegal. Since spills and drips of hazardous waste which have collected in the soil are normally land disposed wastes, water that has percolated through soils contaminated with more than one listed hazardous waste for which Part 268 treatment standards are in effect is normally F039.

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
MARCH 1992

2. Commercial Chemical Product Definition in §261.33

A manufacturer intends to discard an unused formulation which contains two chemicals that serve as active ingredients. Only one of the chemicals is listed in 40 CFR §261.33. A comment in §261.33(d) states that "[t]he phrase 'commercial chemical product or manufacturing chemical intermediate having the generic name listed in...' refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use and which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient." (Emphasis added.) Does the term "sole active ingredient" refer only to chemicals which are listed in §§261.33(e) and (f)? If a product contains two active ingredients, only one of which is listed, would the discarded product be regulated as a P- or U-listed waste?

The discarded formulation would not be regulated as P- or U-listed waste when discarded. In order to be regulated as a P- or U-listed waste, a waste must meet all of the listing criteria. The listings in §261.33 do not include chemical mixtures where the listed chemical is not the sole active ingredient, and do not apply to chemicals that have been used for their intended purpose (54 FR 31335; July 28, 1989). In the scenario described above, while the discarded formulation meets the criterion of being unused, it contains more than one active ingredient. It is not necessary for a chemical to be listed in §§261.33(e) or (f) in order to meet the definition of an active ingredient. An active ingredient is defined as a compound or mixture that performs the function of the product. "Sole active ingredient" means the active ingredient is the only chemically active component for the function of the product. If a formulation has more than one active ingredient, the formulation, when discarded, would not be within the scope of the listing in §261.33, regardless of whether only one or both active ingredients are listed.

Generators, however, must be sure to correctly determine whether a particular constituent performs the function of the product, or only serves an ancillary function, such as mobilizing or preserving the active ingredient. For example, fillers, solvent carriers, propellants, and other components with no pesticidal role are functionally inert in pesticide formulations and therefore are not active ingredients. In cases where a hazardous constituent from §§261.33(e) or (f) is a functionally inert component of a commercial chemical product, e.g., a solvent carrier, its presence does not prevent the formulation containing another P- or U-listed constituent as the sole active ingredient from being a P- or U-list waste (internal Agency memorandum dated May 3, 1989).

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1992(02)

CONCURRENCES

AUG 24 1992

Kathryn D. Lynnes
Director of Environmental Compliance
BHL Consultants, Ltd.
2 Fountain Place
Suite 350
Grand Rapids, MI 49503

Dear Ms. Lynnes:

I am writing in response to your inquiry concerning the regulation of the commercial chemical product cyclophosphamide as Hazardous Waste No. U058.

Cyclophosphamide is a hygroscopic substance and readily hydrates to cyclophosphamide monohydrate (CAS# 6055-19-2) on exposure to moisture. Storage in air tight containers is recommended. IARC cancer review indicates sufficient evidence of human carcinogenicity for both forms of the chemical. The carcinogenicity of cyclophosphamide was the basis for hazardous waste regulation.

As you are aware, 40 CFR 261.33(f) assigns hazardous waste number U058 to cyclophosphamide (CAS# 50-18-0). Cyclophosphamide is also listed as a hazardous constituent in 40 CFR 261 APPENDIX VIII. Chemical Abstract Numbers (CAS) were added "as an identification aid" to the tables in §261.33 (51 FR 28296). The hazardous waste codes of §261.33(e) and (f) apply to all commercial chemical products or manufacturing chemical intermediates having the generic name listed (§261.33(a)).

In the case of cyclophosphamide, separate CAS numbers are assigned to anhydrous cyclophosphamide (CAS# 50-18-0) and cyclophosphamide monohydrate (CAS# 6055-19-2) by the abstract service. However, both the anhydrous cyclophosphamide and cyclophosphamide monohydrate are generically referenced as simply "cyclophosphamide" and are regulated as Hazardous Waste No. U058.

Sincerely,

Edwin F. Abrams, Chief
Listing Section
Waste Identification Branch

CONCURRENCES

SYMBOL	OS-333	OE-132S	OS-333					
SURNAME	Austin	Gallagher	Abrams					
DATE	8-24-92	8/24/92	8/24/92					

EPA Form 1320-1 (12-70) UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OFFICIAL FILE COPY
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OCT 20 1992

MEMORANDUM

SUBJECT: Regulatory Status of Waste Generated by McLaughlin Gormley King (MGK) Company in Minnesota

FROM: David Bussard, Director
Characterization and Assessment Division (OS-330)

TO: Joseph Boyle, Chief
RCRA Enforcement Branch (5HR-12)
EPA Region V

The purpose of this memorandum is to answer a part of a memorandum sent by you on July 23, 1991 to Michael Petruska in which you asked for determinations concerning the applicability of spent solvent listings. Specifically, you wished to know if a waste generated in the production of a pesticide by McLaughlin Gormley King (MGK) Company in Chaska, Minnesota is regulated as a listed hazardous waste.

As we understand the process, a solvent (toluene) is used to carry the reactants into the reactor. Subsequent to the formation of the product, the toluene is removed from the product-bearing stream. After the removal of the toluene, the product is distilled off and the residual is sent for disposal. The waste in question is that residual.

The Agency agrees with the Minnesota Pollution Control Agency (MCPA) in not classifying this waste as an F005 spent solvent waste. The toluene that is removed from the product-bearing stream is not considered a spent material because it is still in use as a reactant medium and is not "spent." Thus, the product-bearing stream remaining after the toluene is removed would not be derived from a waste meeting the F005 listing description. The residual remaining after a product distillation would then be considered a solid waste, but not an F005 hazardous waste or a waste derived from the treatment of an F005 waste.

If the waste in question exhibited any characteristic of hazardous waste (*i.e.*, ignitability, corrosivity, reactivity, or toxicity characteristic), it still could be a hazardous waste. However, your memorandum indicates that this waste does not exhibit any characteristic. Please also keep in mind that the

SYMBOL	OS-333	OS-332	OS-330	OS-330	OS-330		
SURNAME	Josephson	Adams	Gallagher	Cusanovich	Brandel	Bussard	
DATE	9-21-92	9/23/92	9/23/92	9/23/92	9/24/92	10/14/92	

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State may decide to regulate this waste more stringently than the Federal law requires.

Thank you for your inquiry. If you have any additional questions on this interpretation, please contact Ron Josephson of my staff at FTS 260-4770.

cc: Ken Gigliello (OS-520)
Waste Management Division Directors, Regions I - IV, VI - X

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
OCTOBER 1992

1. Perchloroethylene Used in Dry Cleaning

A dry cleaner uses a 50 percent perchloroethylene (tetrachloroethylene) mixture in her cleaning process. Since tetrachloroethylene appears in the listing descriptions for both F001 and F002, would the spent solvent mixture be classified as F001 or F002?

Spent tetrachloroethylene used in dry cleaning is classified as F002 (40 CFR §261.31). The background listing document for F002 identifies certain industries that generate spent halogenated solvents meeting the F002 listing (Identification and Listing of Hazardous Waste, §§261.31 and 261.32 -- Listing of Hazardous Waste, page 41). According to this document, tetrachloroethylene used in laundry and dry cleaning operations is regulated as F002. Of course, the spent solvent formulation must meet the 10 percent (by volume) before-use criterion in the F002 listing. Furthermore, the F001 listing is, by its terms, limited to spent solvents "used in degreasing."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

NOV 4 1992

Mr. James V. Noles
General Manager, Remedial/ Removal Operations Group
Four Seasons Industrial Services, Inc.
3107 South Elm-Eugene Street
P.O. Box 16590
Greensboro, North Carolina 27416-0590

Dear Mr. Noles:

This is in response to your letter of August 1, 1992, in which you asked several questions related to the classification of F003 wastes (ignitable non-toxic spent solvents). Specifically, you presented us with two scenarios: 1) the spilling of containerized spent solvent onto soil, and 2) the proper classification and applicable treatment standards for paint cleaning wastes in which xylene and acetone were used as solvents.

In the first situation described in your letter, xylene and acetone (F003) spent solvent wastes were containerized in drums for storage and ultimate incineration at a permitted treatment, storage, and disposal (TSD) facility. During loading of the drums for shipment, some of the spent solvent waste was spilled onto soil. The affected soils were excavated, containerized, sampled, and analyzed. You presented us with two questions concerning this incident:

1) Would this spent solvent contaminated soil be regulated as a hazardous waste?

ANSWER: Under Federal regulation, contaminated soils and other environmental media, when they contain a listed hazardous waste, must be handled as a hazardous waste until the medium no longer contains the listed waste. The determination as to whether or not the medium "contains" the listed waste or what treatment would be sufficient to remove the waste is decided by the EPA Region or authorized State agency. Please be aware that a state's laws and regulations may differ from the Federal program. In this case you should contact the State of North Carolina.

2) If yes, please explain why the waste mixture rule as defined in 40 CFR 261.3(a)(2)(iii) would not apply. The rule basically states that a solid waste (in this case, the soil), mixed with a hazardous waste (in this case, the

[redacted]	05-333	05-333	05333	OGC	LE-1325	LE-1325	05-330	
SURNAME	8017210	Bathija	Brandes	[illegible]	HBeldock	Freeman	Cannon	
DATE	9-17-92	9/17/92	9/18/92	9/[illegible]/92	9/29/92	9/30/92	10/30/92	

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it exhibits a characteristic of a hazardous waste as identified in Subpart C, would no longer be a hazardous waste should the mixture *(the contaminated soil)* not exhibit a hazardous characteristic.

ANSWER: Environmental media (such as soil or ground water) are not considered wastes, and, therefore, the "mixture rule" (40 CFR 261.3(a)(2)(iii)) does not apply. However, under the Agency's "contained-in" policy, such media contaminated with listed hazardous waste must itself be treated as listed hazardous wastes until the listed waste has been removed. Please note that with regard to your reference to §261.3(a)(2)(iii), the procedures in that section have been updated in accordance with Land Disposal Restrictions rules (see answer to #4 below).

In the second situation, according to your letter, xylene and acetone are used as solvents to clean excess paint and paint sludges from tools and equipment. The wastes generated, as described in your letter (classified as F003) are subsequently placed in a drum for disposal. An analysis of the waste reveals that the waste contents from these drums do not exhibit any characteristic of hazardous waste; however, the waste has constituent levels above those specified in the Land Disposal Restrictions treatment standards for xylene and acetone (0.15 ppm and 0.59 ppm, respectively). You presented us with two questions concerning this scenario:

3) Would this spent solvent paint waste be regulated as a hazardous waste?

ANSWER: Yes. Given that this waste is a spent solvent waste that meets the listing description, it is classified under current regulations as a listed F003 waste. The listing description applies to the containerized waste, which includes both the spent solvents and the paint residual removed by the solvents in the containers.

4) If this spent solvent paint waste sludge is a hazardous waste, how would you apply the fact that this type of spent solvent (F003) is listed in 40 CFR 261, Subpart D, due to its ignitability, and this waste no longer exhibits the ignitability characteristic?

ANSWER: From your letter and discussions our staff has had with you, we understand your question to concern the applicability of the Land Disposal Restrictions (LDR) treatment standards to this waste and mixtures involving this waste. Thus, our response is based on this understanding of your question. The LDR treatment standards are applicable to wastes as generated. As described above, the waste as generated in the situation you present, since it has not been mixed with another solid waste, is a listed hazardous waste because of the use of solvents identified in

F003, and their disposal subsequent to their being spent. The fact that the waste does not exhibit the characteristic of ignitability after storage does not alter its status as a listed waste when generated. As the Agency recently reiterated (57 FR 37210, August 18, 1992), "... such wastes cannot be land disposed until treated to meet the applicable treatment standards, and cannot be diluted to meet those treatment standards (56 FR 3871). This would also be true of mixtures involving such listed wastes, since otherwise the prohibitions would have no real meaning." Thus, the waste you have described above must be treated to meet the Land Disposal Restrictions treatment standards for constituents such as xylene and acetone if they contain levels of these constituents higher than those prescribed in the regulations and are destined for land disposal.

Thank you for your inquiry. If you have any questions concerning the solvent listings, please contact Mr. Ron Josephson of my staff at (202)260-6715. For answers to policy questions concerning the Land Disposal Restrictions, please contact Ms. Rhonda Craig at (703)308-8434.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

cc: Ken Gigliello, OWPE
Rhonda Craig, WMD
Waste Management Division Directors, EPA Regions I - X

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
NOVEMBER 1992

3. Beryllium Dust (P015); Applicability

Beryllium is listed in 40 CFR §261.33(e) as an acutely hazardous waste (P015). Does the P015 listing apply to all forms of unused beryllium that are discarded?

The hazardous waste listing P015 applies only to unused commercial chemical product beryllium dust that is discarded (see §261.33(d) for a definition of commercial chemical product). On May 19, 1980, beryllium dust was listed in an interim final rule as an acutely hazardous waste in 40 CFR §261.33(e) because of its acute toxicity to humans when inhaled (45 FR 33084). The listing was finalized on November 25, 1980 (45 FR 78532). In the April 22, 1988, Federal Register, which made technical corrections to the list of commercial chemical products in §§261.33(e) and (f), the word "dust" was inadvertently omitted from the listing (53 FR 13382). Despite this omission, the applicability of the listing remains unchanged. The April 22, 1988, Federal Register was intended only to amend certain typographical errors in the hazardous waste lists. EPA never proposed to change the listing from "beryllium dust" to "beryllium" and does not intend the listing to apply to beryllium. Therefore, despite this typographical error in 40 CFR §261.33(e), the scope of the listing remains unchanged, and the hazardous waste code P015 applies only to beryllium dust.

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
NOVEMBER 1992

2. Reclaimed Commercial Products: Regulatory Status

The owner of a facility collects used railroad ties that were treated with a wood preservative containing creosote. When the owner has accumulated a sufficient amount of railroad ties he bakes them to draw out the creosote. Once this process is complete, the reclaimed creosote can be used as a wood preservative without further processing. A drum of this creosote leaked into the soil. How is the resulting contaminated soil regulated upon disposal?

The creosote-contaminated soil must be managed as U051. The recovered creosote formulation is classified as a product because the creosote has been reclaimed from the railroad ties and requires no additional processing before it can be beneficially used (40 CFR 261.3(c)(2)). Upon leaking into the soil, the creosote is classified as a solid waste pursuant to §261.2(b). The generator must then determine whether this solid waste is a hazardous waste. Sections 261.33(e) and (f) designate certain commercial chemical products as hazardous wastes when discarded. Specifically, §261.33(d) defines commercial chemical product in part as any commercial or technical grade of a product, or any formulation in which the listed chemical is the sole active ingredient. Assuming the reclaimed creosote is the only chemically active component for the function of the wood preservative (i.e., the sole active ingredient), and the discarded material meets the definition of a solid waste per §261.2(b), the discarded creosote is classified as U051. Since the soil is contaminated with U051, it is subject to regulation as a hazardous waste in accordance with EPA's "contained-in" policy, which requires all media (i.e., debris, soil, groundwater, sediment) that contain listed hazardous wastes to be managed as listed hazardous wastes. The soil, therefore, would have to be handled as a hazardous waste (U051) until it is decontaminated or until the hazardous waste is delisted (see, for example, 56 FR 24444, 24456; May 30, 1991).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEC 11 1992

Mr. H. Michael Dorsey, Assistant Chief
Compliance, Monitoring and Enforcement Section
Office of Waste Management
1356 Hansford Street
Charleston, WV 25301-1401

Dear Mr. Dorsey:

This reply is in response to your letter of September 25, 1992 in which you requested clarification of EPA's hazardous waste listings pertaining to wood preserving operations.

You first ask for a definition of a "wood preserving process". The Agency considers a "wood preserving process" as any process intended to preserve wood from structural attack. The definition, therefore, is not based on the type of process used, i.e. pressure treatment or non-pressure dip treatment, but on the intent of the treatment, itself. Therefore, "dipping" operations are not excluded from wood preserving if the intent of the operation is to preserve wood. As the Agency stated in its initial proposed wood preserving hazardous waste listing,

> "Wood preservatives are used to delay deterioration and decay of wood caused by organisms such as insects, fungi, and marine borers. Surface discoloration (sapstaining) during short term storage can be adequately controlled by a superficial application of preservative, but for long lasting effectiveness, penetration of preservative to a uniform depth is required. This deep penetration is usually accomplished by forcing preservative into the wood under pressure, so that 'pressure treated' is often used as a synonym for 'preserved'." (53 FR 53282, December 30, 1988)

Next, you ask if wastes generated by the use of sodium pentachlorophenate would be considered hazardous wastes under the F032 hazardous waste code (see 40 CFR § 261.33(f)). As mentioned above, the intent of the process must be examined in making this hazardous waste determination. Typically, sodium pentachlorophenate is used for sapstain control on lumber following cutting. Sapstain control is considered surface protection, not wood preserving. Surface protection wastes are not currently regulated as listed hazardous wastes. The Agency proposed to list surface protection wastes as hazardous in its

CONCURRENCES							
SYMBOL	OSW	OSW					
SURNAME	Brandes	Quinn					
DATE	11/25/92	12/9/92					

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1988 proposed rulemaking (see 53 FR 53282, December 30, 1988). The final rule listed only wastes from wood preserving operations, deferring action on surface protection wastes to a later date. The Agency is currently examining these wastes, and is scheduled to make a final determination by December, 1993.

If a facility is treating wood with sodium pentachlorophenate with the intent of preserving the wood, it would be considered a wood preserving operation, and the wastes generated would be chlorophenolic wastes from a wood preserving facility designated as F032. We believe that it would be very unlikely that a facility would use sodium pentachlorophenate to preserve wood, since the preserving solution is aqueous and would wash off the treated wood and render the treatment ineffective.

If you have any further questions or concerns, please contact Mr. Rick Brandes, Chief, Waste Identification Branch at (202) 260-4770 or have your staff contact Mr. David J. Carver of my staff on extension (202) 260-6775.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 24 1992

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Ms. Jackie Noles
Operations Manager
Laidlaw Environmental Services (TS), Inc.
208 Watlington Industrial Drive
Reidsville, North Carolina 27320

Dear Ms. Noles:

This letter is a reply to your July 20, 1992 letter to the Agency in which you requested clarification on what constitutes dioxin related materials. I understand my staff has been in contact with you about the lateness of our response, and I appreciate your patience.

Your first question addresses the regulation of dioxin- containing wastes. Specifically, your question asks under which waste codes are dioxins regulated. Your letter asks if F020, F021, F022, F023, F026, F027, F028, D017, D041, and D042 (as defined at 40 CFR §§ 261.31, 261.24) are the waste codes under which dioxin is regulated. You are correct. These waste codes apply, but are not the only waste codes which may apply to dioxin-containing wastes. For example, F032 wastes (wastes generated at wood preserving processes which use chlorophenolic formulations) contain dioxin. Wastes which have Land Disposal Restriction (LDR) treatment standards for certain dioxins and furans include F039 (multi-source leachate), K043 (2,6-dichlorophenol waste from the production of 2,4-D), and K099 (untreated wastewater from the production of 2,4-D).

Your second question relates to proper characterization of dioxin-containing wastes based on known process information. Specifically, your question states that if any constituents exist in a material for which it was listed, but no identifiable process exists which would generate one of the above listed wastes, would the waste be regulated, provided that no other EPA codes apply? The "F" waste codes (hazardous wastes from non-specific sources) would not apply if a waste contains dioxin but does not meet the listing descriptions for the dioxin listings in 40 CFR 261.31. The "D" codes (codes which correspond to the toxic contaminant causing a solid waste to meet the characteristic of toxicity) would only apply if the levels of the respective constituents are above the regulatory level. The "D" codes listed above may contain impurities of dioxin.

The third question asks if the processes do apply, but the constituents listed in Appendix VII are not present in the waste, would the F020-F023 and F026-F028 waste codes apply? The waste codes would apply if the waste did not meet a specific exemption as specified in 40 CFR 261.4. This is true even if no Appendix VIII constituents are present. Please note, however, that any person may, pursuant to 40 CFR 260.22, petition the Agency to exclude the wastes at a particular facility from regulation as a listed hazardous waste.

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The fourth question asks what wastes generated from products which are derivatives of pentachlorophenol would be classified as F021? Any substance which is related structurally and can be made from pentachlorophenol in one or more steps is a derivative of pentachlorophenol. Examples include, but are not limited to, sodium pentachlorophenate, octachlorodibenzodioxin, octachlorodiphenyl ether, and potassium pentachlorophenate.

The fifth question asks what wastes generated from products which are derivatives of tri- and tetrachlorophenols would be classified as F021? Derivatives of tri- and tetrachlorophenols include tri- and tetra-chlorophenoxy derivatives of carboxylic acids which include the most common tri- and tetra-chlorophenoxy acetic acids and their salts as well as the tri-and tetra-chlorophenoxy derivatives of other acids such as propionic acid, butyric acid, etc. Ester and ether derivatives include methyl, ethyl, propyl, butyl esters and ethers as well as phenolic esters and ethers. Amine salts and other salts include all derivatives of tri- and tetra-chlorophenoxy acids reacted with various bases.

Your sixth question asks whether D017, D041, and/or D042 wastes can be landfilled in a Subtitle C landfill. It is important to emphasize that no matter what the hazardous waste is, the landfill must first be permitted to accept that specific hazardous waste. D017 is a restricted waste and must be treated to reduce the concentration of silvex to 7.9 mg/kg or less, prior to landfilling. Although LDR standards for dioxin containing wastes are based on concentration levels, the dioxin listing rule (50 FR 1978) requires special management standards for certain types of units which manage F020-23 and F026-28: (1) Incineration in accordance with 40 CFR 264.343 and 40 CFR 265.352; (2) Thermal treatment to 99.9999 percent Destruction and Removal Efficiency (DRE) in accordance with 40 CFR 265.383. D041 and D042 wastes can be landfilled if the landfill is permitted to accept the waste.

With regard to your last question, you ask if samples identify the presence of constituents listed in Appendix VII, but the original process generating the material and any previously applicable wastecodes are unknown, would the samples be excluded from RCRA regulation at the time of disposal, unless it is found that characteristic codes D017, D041, and/or D042 or other characteristic codes apply? If the waste in question cannot be traced back to an original process that would generate a waste meeting any listing description, then it is exempt from regulation providing that it does not fail a hazardous waste characteristic test. Please be advised that State regulations may be more stringent than federal regulations, and that TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) is a hazardous substance under CERCLA, regardless of its source.

If you have any further questions, please contact Mr. Rick Brandes, Chief, Waste Identification Branch at (202)260-4770.

Sincerely,

Bruce R Weddle

for Sylvia K. Lowrance
Director
Office of Solid Waste

cc: Judy Sophianopolis, Region IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FILE COPY

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

FEB 23 1993

Mr. N.G. Kaul, P.E.
Director
Division of Hazardous Substances
Regulation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233

Dear Mr. Kaul,

Thank you for your letter dated November 9, 1992, concerning the definition of solid waste under the Resource Conservation and Recovery Act (RCRA). In your letter, you raised two specific issues involving certain secondary materials: 1) clarification of the definition of commercial chemical products that are not found on the U- or P-lists in 40 CFR 261.33, and 2) the status of these non-listed commercial chemical products when recycled. I hope that this response will help clarify the federal regulations regarding these issues.

In addition, you may already be aware that the Director of the Office of Solid Waste (OSW) has recently formed a Definition of Solid Waste Task Force to re-evaluate the definition of solid waste. The Task Force is soliciting input from ASTSWMO, individual states, industry, and others on implementation issues such as the one raised in your letter. Overall, the Task Force is looking at ways to reduce the complexity of our current definition of solid waste, reduce disincentives for safe recycling and innovative technology development, and address concerns regarding the use of recycled hazardous waste in products. I understand that some of your staff have already met with the Task Force (prior to your letter being sent). Again, this response to your questions is based on the current federal regulations.

Definition of Non-Listed Commercial Chemical Products

Presently, the Agency interprets "non-listed commercial chemical products" under RCRA to include all types of unused commercial products that exhibit a characteristic of hazardous waste, whether or not these products would commonly be considered

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chemicals (e.g., unused circuit boards, batteries, etc.). Of course, these determinations are not always straightforward regarding certain types of commercial products, such as machinery, electronics, and other items containing various components, only some of which cause the overall item to exhibit a hazardous waste characteristic. We would expect these determinations to be site-specific.

Recycling Non-Listed Commercial Chemical Products

You stated that you were uncertain as to what types of "recycling" would qualify a non-listed commercial chemical product for the solid waste exemption in §261.2(c)(3), which is further clarified in the April 11, 1985 Federal Register (50 FR 14219). As you know, EPA defines "recycling" as including use/reuse, and reclamation (see 40 CFR 261.2(c)(4),(5), and (7)). Reclamation is further defined to be either regeneration, or the recovery of a usable product. With regard to the use/reuse provisions, any type of secondary material recycled in this manner would not be a solid waste, provided that the applicable conditions listed in §261.2(e) are met, and that the recycling is legitimate (see §261.2(f)).

With regard to the reclamation of non-listed commercial chemical products, their status is the same as that for listed commercial chemical products, as we stated in the April 11, 1985 Federal Register. This has been the Agency's position since publication of that clarification, and has remained unchanged. However, we do recognize that the universe of non-listed commercial chemical products could present some recycling activities which require careful analysis to verify that the recycling is legitimate; the burden of proof, however, remains with the person claiming that a material is not a solid waste (§261.2(f)).

You provided an example of off-specification paint, produced by a manufacturer and never used; we would define this material as a non-listed commercial chemical product. You then described this paint as being reclaimed to recover the solvent, resulting in a stillbottom containing the pigments and associated metals. We would view the off-specification paint, to be reclaimed, as excluded from the definition of solid waste. Although the reclamation process is recovering a usable product from the paint (i.e., solvent), and is not regenerating the paint to make new paint, this activity is nevertheless reclamation and therefore the off-specification paint is not a solid waste. Of course, the residual stillbottoms generated during reclamation, if characteristically hazardous, would be subject to Subtitle C requirements at the point of generation (i.e., when removed from the distillation unit), assuming they are to be discarded.

Finally, I would like to emphasize that if a person is claiming that a material is excluded or otherwise exempt because it is going to be recycled, the burden of proof rests with that person to show that the recycling activity is legitimate. For example, if a reclamation process recovers only a minimal amount of material, of questionable value, while the remaining residue is discarded, this would appear to be more like regulated

waste treatment than recycling. If non-listed commercial chemical products, exhibiting a hazardous waste characteristic, are being processed in order to treat them (and not to recover a usable product or to regenerate them), then the material is not excluded from the definition of solid waste under §261.2(c)(3).

If you have any other comments or questions, please call me, or you or your staff could talk with Ross Elliott of my staff at (202) 260-8551. Thank you very much.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

APR 20 1993

Mr. David P. Novello
Freedman, Levy, Kroll, and Simonds
Washington Square
1050 Connecticut Avenue, NW
Washington, DC 20036-5366

Dear Mr. Novello:

This letter is in response to your November 12, 1992 inquiry to the Agency concerning the regulatory status of a "centrifuge underflow" waste generated by your client, Aristech Chemical Corporation. Specifically, you wanted to know if the waste met any of the listing descriptions of hazardous waste recently promulgated for coke by-product wastes published August 18, 1992 (57 FR 37284 - 37306).

As we understand the process, crude coal tar (received from a neighboring coke producer) is dewatered and sent to a tank, where quinoline insolubles (QI) content is determined. The QI content, if too high, may adversely affect the quality of the products (such as creosote or pitch) made from the coal tar that your client sells. If the QI content is found to be too high, a centrifuge is used to remove some of it before the tar is distilled. This removed QI material is the "centrifuge underflow" in question.

After reviewing the written material you sent and discussed with my staff on January 27, 1993, we have concluded that the centrifuge underflow, consisting mainly of quinoline insolubles, does not meet any of the listing descriptions as promulgated in the August 18, 1992 coke by-products rule. Specifically, the Agency does not believe that your client's material fits the K148 description because it is not a distillation residue; i.e., centrifuging takes place prior to distillation. In addition, the underflow cannot be characterized as K147, because the centrifuges are process units, not storage tanks.

However, please be aware that the material may exhibit a characteristic of hazardous waste (ignitability, corrosivity, reactivity, or toxicity characteristic) as defined in 40 CFR 261 Subpart C. In addition, your State may regulate wastes more stringently than the Federal government, so you should check with the applicable authorities.

CONCURRENCES

SYMBOL	05-333	05-333	LE-132S	RE-132S	05333	08370	LAD	
SURNAME	Josephson	Abrams	Mernin	Stanfield	Bradley	Dyer	Burns	
DATE	3-31-93	3/31/93	4/1/93	4/1/93	4/12/93	4/14/93	4/15/93	

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

Content by Dave Ray III

Thank you for your inquiry. If you have any additional questions, please contact Ron Josephson of my staff at (202)260-4770.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

cc: Ron Josephson
Dawn Messier, OGC (LE-132S)
Ken Gigliello, OWPE (OS-520)
David Friedman, EPA Region III (3HW53)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1993(03)

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

SEP - 9 1993

MEMORANDUM

SUBJECT: Regulatory Status of Drip Gas Generated Along Natural Gas Transmission Pipelines

FROM: Jeffery D. Denit, Acting Director
Office of Solid Waste (OS-300)

TO: William E. Muno, Acting Director
Waste Management Division (H-7J)
US EPA Region V

This memorandum responds to your June 9, 1993 request for assistance in a regulatory determination regarding drip gas generated along natural gas transmission pipelines. Specifically, you ask whether drip gas that is poured down the well for use as a solvent to remove paraffin buildup is a legitimate use or the disposal of a hazardous waste. Your staff has previously discussed this issue with Mitch Kidwell of my staff.

As Mr. Kidwell discussed with your staff, if the drip gas is considered a by-product, pouring the material down the well as a solvent would be considered a use constituting disposal, meaning that the drip gas would be a solid/hazardous waste. However, if the drip gas is considered a product, the use would not be regulated under RCRA. The issue then hinges on whether the drip gas is considered a by-product or a product.

Based on earlier discussions, the drip gas does not entirely fit our understanding of a commercial product (e.g., it is not intentionally produced, there are no product specifications that ensure its quality for a given use, and it is not marketed to the general public). However, since there is no specific definition for "product" in RCRA or our regulations, Regions and authorized States have discretion to look at a number of factors that bear on whether a material is a waste. Considerations that may be considered in making a determination include: whether it is as effective in its identified use as an alternative product, whether there are hazardous constituents in the drip gas that would not otherwise be found in an alternative solvent, and whether it is managed in a manner commensurate with a product having market value.

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Therefore, if the generating company can demonstrate that the drip gas is more product-like than waste-like (explained below), a Region or authorized State could consider the use of the drip gas to be a product used in its normal manner of use. We would expect the generator to demonstrate that the drip gas:

1) is as effective as the alternative solvent that would otherwise be used (e.g., that the drip gas actually displaces the solvent in roughly similar amounts, such that the analogous solvent is not also used),

2) contains no more hazardous constituents than would otherwise be found in the analogous product (i.e., that there are no hazardous constituents present at significantly higher levels than are found in the analogous solvent), and

3) is managed in a manner that is commensurate with the management of a valuable commodity (e.g., sufficient records of inventory and use are kept, no more of the drip gas is used than is necessary, and the drip gas is stored and maintained in a manner consistent with the solvent that would otherwise be purchased).

I hope this has helped to clarify whether the drip gas is subject to regulation as a hazardous waste. While there is no straightforward answer, I believe that meeting the criteria listed above should ensure that the use of the drip gas as a solvent in the wells does not constitute sham recycling, but rather is considered to be an environmentally sound use.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1993(04)

SEP 2 6

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Honorable Mitch McConnell
United States Senate
Washington, D.C. 20510

Dear Senator McConnell:

Thank you for your letter of July 15, 1993, regarding the concerns of Charles Hotchkiss about the possibility of lead contamination in the Ohio River, resulting from skeet shooting at the Ohio County (Indiana) Sportsman's Club.

Due to concerns about the potential for adverse impacts of lead ammunition on the environment, the Environmental Protection Agency (EPA) would encourage a pollution prevention approach for ammunition use. Specifically, in those instances where substitute materials other than lead can be used for ammunition, we would encourage their development and use. We understand that Mr. Hotchkiss has been informed by sporting goods dealers that steel shot is an unsuitable substitute for lead shot in skeet shooting. However, from the limited research my staff has conducted, it is possible that shot composed of substances other than lead, in at least some circumstances, may be appropriate as a substitute for lead shot. Steel shot is widely available, and there has been at least one recent report (Field and Stream, March 1993) that a shotshell with bismuth shot pellets is now on the market.

With respect to legal options for addressing such sites, there have been recent developments in case law concerning lead ammunition used at a skeet shooting range in Connecticut. On March 29, 1993, the U.S. Court of Appeals for the Second Circuit decided a case concerning a Connecticut skeet shooting range's use of lead ammunition, which landed in Long Island Sound (Connecticut Coastal Fishermen's Association v. Remington Arms Co., Inc., 989 F.2d 1305 (2d Cir. 1993). Among other things, the court's decision addressed the applicability of certain provisions of the Resource Conservation and Recovery Act (RCRA) to lead ammunition used at the skeet shooting facility. The court affirmed the district court's decision that the lead ammunition deposited into Long Island Sound is "solid waste" under RCRA's statutory definition of solid waste, and that it is

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also "hazardous solid waste" under the statute. Accordingly, under the Second Circuit opinion, where such materials pose an "imminent and substantial endangerment" to health or the environment, a citizen may bring a lawsuit under RCRA section 7002 (a)(1)(B) [42 U.S.C. 6972 (a)(1)(B)].

With respect to the "clay pigeons" Mr. Hotchkiss mentioned in his letter, the district court addressed these targets, for skeet and trap shooters. While the district court did not determine whether the targets at the Long Island Sound site were hazardous wastes, the appeals court did find that they are "solid wastes" under RCRA, and subject to suits by citizens if they are found to present an imminent and substantial endangerment.

I hope this information is helpful. If you would like further information, specifically concerning the Ohio County Sportsman's Club in Indiana, please contact Norman R. Neidergang, Associate Division Director for RCRA in U.S. EPA Region 5, at (312) 886-7435, or David Wersan, Assistant Commissioner for the Office of Solid and Hazardous Waste Management in the Indiana Department of Environmental Management, at (317) 232-3210. We appreciate your interest in the environment.

Sincerely yours,

Elizabeth A. Cotsworth

for Jeffery D. Denit, Acting Director
Office of Solid Waste

9444.1993(05)

HOTLINE QUESTIONS AND ANSWERS

September 1993

RCRA

1. Nitroglycerine Pills as Commercial Chemical Products

A pharmaceutical company manufactures pills that contain a low percentage of nitroglycerine, with inert ingredients making up the remainder of the content. The manufacturer must throw away a batch of pills that has exceeded its shelf life. When discarded, are the pills a hazardous waste? If so, what waste code would apply?

The pills discarded by the manufacturer are a hazardous waste with the waste code P081. Several hundred commercial chemical products are listed in 40 CFR §§261.33(e) and (f). Nitroglycerine is listed in §261.33(f) with the waste code P081. The Comment in §261.33(d) defines the term "commercial chemical product" as unused chemicals that are either (1) pure or technical grades, or (2) formulations that contain the listed chemical as the only active ingredient. The P- and U-listings apply to such unused formulations of commercial chemical products regardless of the concentration of the sole active ingredient; except for the listings for warfarin and salts (P001 and U248) and zinc phosphide (P122 and U249), there is no critical percentage or cut-off concentration of the sole active ingredient that will cause a waste to fall within, or be excluded from, the listing. In this example, the pills constitute a formulation containing nitroglycerine as the sole active ingredient. Since the pills have not been used for their intended purpose (simply incorporating the nitroglycerine into the formulation does not constitute use), and nitroglycerine is the only component serving the function of the product (i.e., as medicine), the discarded pills are appropriately classified as hazardous waste P081.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1994(01)

JAN 12 1994

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Sharon L. Crawford
Project Manager
Pro-Act
Air Force Center for Environmental Excellence
Pollution Prevention Division
8106 Chennault Rd., Bldg. 1161
Brooks AFB, TX 78235-5318

Dear Ms. Crawford

This letter responds to your request for information on the proper disposal methods for hydraulic fluid filters used in aircrafts.

You ask whether hydraulic fluid filters are regulated in the same manner as used oil filters destined for disposal. Non-terne plated used oil filters from light duty vehicles and destined for disposal, are exempt from identification as a hazardous waste under regulations promulgated on May 20, 1992 (40 CFR 261.4(b)(15)). Light duty vehicles include automobiles, passenger vans, and light duty trucks (e.g., small pickup trucks). EPA decided to categorically exempt non-terne plated used oil filters destined for disposal from being identified as a hazardous waste based upon available toxicity characteristic data. However, EPA did not receive hydraulic fluid filter data to make a determination on hydraulic fluid filters in aircrafts. Therefore, hydraulic fluid filters are not included in the used oil filter exemption at 40 CFR 261.4(b)(15). However, a hazardous waste determination can be made for the hydraulic fluid filters (40 CFR 262.11). If the hydraulic fluid filters are determined not to be hazardous and cannot be recycled under Part 279, the hydraulic fluid filters must be disposed in accordance with the requirements of 40 CFR Parts 257 and 258. See section 279.81(b).

As stated in your letter, hydraulic fluid is regulated as used oil. Materials containing or otherwise contaminated with used oil (e.g., hydraulic fluid filters), from which the used oil has been properly drained or removed to the extent possible are not considered used oil under the Part 279 used oil management standards. There is one exception to this provision; hydraulic fluid filters from which used oil has been removed continue to be regulated as used oil if they are to be burned for energy recovery, regardless of the degree of removal (see page 26425 of

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the May 3, 1993 Final rule). Otherwise, once the used oil has been removed, the hydraulic fluid filters are no longer subject to the used oil regulations, but may be regulated as hazardous waste if they are listed or exhibit a characteristic of hazardous waste. Used oil that has been removed from the hydraulic fluid filters continues to be regulated as used oil and must be managed according to the Part 279 used oil management standards.

If you have any further questions regarding this matter, please contact Bryan Groce of my staff at (202) 260-9550.

Sincerely,

Elizabeth A. Cotsworth

Michael H. Shapiro, Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9444.1994(02)

JAN 26 1994

Donald D. Lain
Department of the Navy
Naval Air Warfare Center
Aircraft Division
Indianapolis, Indiana 46219-2189

Dear Mr. Lain,

This letter is in response to your November 15, 1993, letter requesting EPA to review the Navy's proposed procedure to decommission aluminum chaff roving bundles.

The reactivity characteristic includes solid waste which "forms potentially explosive mixtures with water", see 40 CFR 261.23(a)(3). Aluminum chaff roving bundles can release hydrogen gas when exposed to moisture. Hydrogen gas is flammable and therefore aluminum chaff roving bundles could carry the D003 wastecode, see §261.23(b). EPA has promulgated Land Disposal Restriction (LDR) rules requiring hazardous waste to be "treated" prior to land disposal. For the D003 wastecode, the treatment standard is a technology-based standard requiring "deactivation", see 40 CFR 268.42. Deactivation is the removal of the characteristic. Your Materials Lab Report (No. 24-92) indicates that an acidic solution accelerates the chemical reaction. Therefore, you should consider using an acidic solution to soak the chaffs in the demilitarization procedure. Using an acidic solution would provide a greater level of assurance that the reaction has gone to completion, as well as shorten the amount of time necessary for the reaction to go to completion.

Although, the Navy's proposed method of deactivation appears reasonable, the generators responsibility lies in "fully removing the hazardous characteristic" of D003 waste prior to land disposal. Even if the Navy chooses to incorporate EPA's comments compliance with the regulations at §268.42 will be determined based on full and complete deactivation of any and all D003 waste, and not on following a specified method of deactivation.

We believe it is likely that other Divisions in the Department of Defense use aluminum chaff roving bundles. Our comments would be applicable to anyone disposing of this type of waste, and we hope that your Division shares this information with other Offices within the Department of Defense. If my office can be of any further assistance in this matter please contact William Morrow of my staff at 202-260-3657.

Sincerely,

Michael H. Shapiro, Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1994(03)

MAR 31 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

Subject: Response to Request For Interpretation on Regulatory Status of Mercury Relays and Switches When Reclaimed

From: Michael Petruska, Chief
Regulatory Development Branch (5304)
Office of Solid Waste

To: Karen Schwinn, Chief
Waste Compliance Branch (H-4)
Region IX

In response to your October 29, 1993 request for guidance on the regulation of mercury wetted relays and switches that are recycled, the Office of Solid Waste has recently completed a memorandum (see attached March 24, 1994 memorandum from Michael Shapiro to Regional Division Directors) clarifying the definition of spent material. The March 24 memorandum clarifies that used mercury switches sent for reclamation are classified as spent materials (see page 4 of the March 24 memorandum). Therefore, these materials are solid wastes and also hazardous wastes.

I hope that this responds to your request for guidance. If you have any additional questions, please contact Paul Borst of my staff at (202) 260-6713.

Attachment

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 3 1994

9444.1994(04)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

TO: Robert L. Duprey
Director, Hazardous Waste Management Division
Region VIII

FROM: David Bussard
Director, Characterization and Assessment Division

SUBJECT: Definition of RCRA Waste K050

This responds to your memorandum dated November 12, 1993 requesting an interpretation regarding the applicability of the K050 waste code to sludges from double pipe (referred to as single pipe in the State of Utah letter) heat exchange units.

A double-piped unit consists of a concentric pipe configuration with the inner pipe having either a bare tube or a tube with longitudinal fins on the outside for improved heat transfer. As you know, the description of the K050 waste code (at 40 CFR 261.32) is "heat exchanger bundle cleaning sludge from the petroleum refining industry." This description is supported by the "Listing Background Document: Petroleum Refining," prepared as part of the May 19, 1980, final rule.

Our interpretations on the applicability of RCRA waste codes are based on the consideration of 1) the descriptive regulatory language and 2) the regulatory intent of the original listing, and 3) facts specific to the waste stream at issue.

The inclusion of the word "bundle" in the K050 description suggests that the waste code is specifically applicable to cleaning sludge from shell and tube heat exchanger units. These units consist of a "bundle" of tubes which are bound together and inserted into a "shell" which makes up the outer part of the unit. Since the applicability of a RCRA waste code is determined in the first instance by the descriptive regulatory language, it may be difficult to interpret the K050 waste code to apply to double-pipe units. The key consideration regarding this interpretation is whether the inside tube of a double-pipe unit is considered a "bundle" or not. In our opinion, it is <u>not</u> a "bundle" based on the dictionary definition of the word "bundle"

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[a group of things bundled together for convenient handling]; the double-pipe unit consists of a single tube inside an outer concentric tube and is not consistent with the definition.

This interpretation is also consistent with the intent behind the original listing of the K050 waste code. The toxicity concerns on which the K050 listing were predicated do not appear to be present for the sludges from double-pipe units.

As described in the listing background document, K050 was listed because of concerns posed by its chromium content; 40 CFR Part 261, Appendix VIII lists hexavalent chromium as the sole hazardous constituent for which K050 was listed. Based on Agency experience, most of the chromium present in heat exchanger sludge is derived from the chromate-based corrosion inhibitors utilized in cooling water. It is our position that the concern behind the K050 listing was to regulate chromium-bearing sludges derived from units in cooling water service.

Because double-pipe units are typically used in non-cooling water service where chromium-based corrosion inhibitors are not present, the relative chromium toxicity of the sludges derived from double-pipe units is expected to be significantly less than that from those derived from shell and tube units in cooling water service. Typically, a shell and tube "bundle" unit is used for low-pressure, high efficiency (more tubes for maximum surface area) applications such as coolers and condensers which use cooling water. A double-pipe unit is typically used for high-pressure, high-temperature, low-efficiency non-cooling water applications such as in lube oil wax extraction service.

In conclusion, based on both the descriptive regulatory language of the listing description and our position that the listing is intended to regulate chromium-bearing sludges from heat exchangers in cooling water service, our interpretation is that the K050 waste code does not apply to the double-pipe units described in your letter. This interpretation should have minimal impact on refinery hazardous waste management because of the smaller number of applications for the double-piped units in petroleum refining and the fact that these units will typically be managed the same as shell and tube units at most refineries. Furthermore, the sludges at issue are likely to be TC hazardous (benzene and other heavy organics), and therefore subject to RCRA Subtitle C standards even if they are not K050 listed hazardous wastes.

If you have any questions or further concerns, please contact Max Diaz at (202) 260-4786.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

NOV 12 1993

Ref: 8HWM-HW

MEMORANDUM

TO: David Bussard, Director
Characterization and Assessment Division (OS-330)

FROM: Robert L. Duprey, Director
Hazardous Waste Management Division (8HWM)

SUBJECT: Definition of RCRA Waste K050

We have recently received a request from the State of Utah for a determination regarding the applicability of the waste code K050 (heat exchanger bundle cleaning sludge from the petroleum refining industry).

Specifically, during a recent inspection of a Salt Lake City petroleum refinery, the State inspector observed finned heat exchanger pipe(s), removed from a double pipe heat exchanger, on a heat exchanger bundle cleaning pad. For enforcement purposes, the State has questioned whether the sludge present on the finned heat exchanger pipe(s) meets the definition of K050 (heat exchanger bundle cleaning sludge from the petroleum refining industry.) A copy of Utah's letter is attached. As background information, it appears that this refinery does not use hexavalent chromium compounds as a corrosion inhibitor in the cooling water (review of the RCRA Background Document indicates that these chromium compounds are the constituents for which this waste was listed.) The State has not conducted hazardous waste characterization testing of the sludge on these pipe(s) to date.

From our recent discussions with Max Diaz of the Waste Identification Branch, it appears that a formal policy does not exist on this issue. We believe that double pipe heat exchangers are capable of producing sludge similar to that produced by shell and tube heat exchangers, so that the sludge in question would be considered a K050 waste. We would appreciate a formal written interpretation on this issue as soon as possible, to allow the State of Utah to proceed with the appropriate enforcement action. Please contact Mindy Mohr at (303) 293-1840 for further information on our request.

cc: Max Diaz (OS-333)
Dennis Downs, UDEQ

Attachment

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State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF SOLID AND HAZARDOUS WASTE

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Dennis R. Downs
Director

288 North 1460 West
P.O. Box 144880
Salt Lake City, Utah 84114-4880
(801) 538-6170
(801) 538-6715 Fax
(801) 536-4414 T.D.D.

October 26, 1993

28

Larry Wapensky, Chief
Utah/North Dakota Section
U.S. EPA Region VIII
8HWM-HW
999 18th Street Suite 500
Denver CO 80202-2405

Dear Mr. Wapensky:

Representatives of the Utah Division of Solid and Hazardous Waste conducted a compliance evaluation inspection of the Big West Oil Company Flying J Refinery, 333 W. Center St., North Salt Lake, Utah, on September 24, 1993. During the inspection, fin heat exchangers were observed at the bundle cleaning pad at the refinery. The unit is composed of a single pipe, but serves the same function as a heat exchanger bundle. The Division of Solid and Hazardous Waste would like to know if sludge present on the fin heat exchangers meets the definition of K050 (heat exchanger bundle cleaning sludge from the petroleum refining industry).

Please address any questions to John Waldrip at (801) 538-6170.

Sincerely,

for Dennis Downs, Director
Utah Division of Solid and Hazardous Waste

DRD/JTW/jtw

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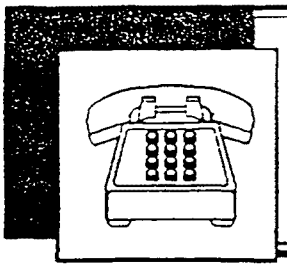

HOTLINE QUESTIONS AND ANSWERS

June 1994 9444.1994(05)

RCRA

1. Technical Grade Solvent Formulations and the F003 Listing

The F003 listing in 40 CFR §261.31 includes "all spent solvent mixtures/blends containing, before use, only [certain specified] spent non-halogenated solvents." This language implies that, to meet the hazardous waste listing, the solvent mixture must be pure before use (i.e., contain 100% F003-listed solvents). In the process of manufacturing some of these solvents however, small amounts of chemical impurities or contaminants may be generated, and remain with the product when distributed for use. For example, incomplete chemical reactions which take place during xylene manufacturing commonly generate minute quantities of benzene and toluene; rather than being 100% pure, the distributed solvent product may therefore contain 99.98% xylene and 0.02% benzene and toluene, or other similar concentrations of impurities. Would a solvent formulation consisting of 99.98% xylene and 0.02% benzene and toluene meet the F003 listing when used for its solvent properties and discarded?

A solvent formulation consisting of 99.98% xylene and 0.02% benzene and toluene meets the F003 listing when used for its solvent properties and discarded. The F003 listing covers pure solvent mixtures, as well as technical grade solvent formulations, which are used for their solvent properties. The term "technical grade" refers to all grades of a chemical which are marketed or recognized for general usage by the chemical industry. Solvent formulations containing *de minimis* percentages of manufacturing contaminants or impurities are considered technical grade products, provided that they are available for purchase and use in this form. Therefore, when determining if a given spent solvent mixture contains "only" the solvents specified in the F003 listing, generators should include in their evaluation each solvent constituent present in a mixture before use, provided that a particular solvent constituent is not a contaminant or present in *de minimis* concentrations (50 FR 53317; December 31, 1985). In other words, a technical grade solvent could contain small concentrations of contaminants or manufacturing impurities and still meet the F003 listing after being used for its solvent properties.

In the example presented above, the commercially available solvent that contains 99.98% xylene and 0.02% benzene and toluene (as impurities from the manufacturing process) qualifies as a technical grade formulation. The technical grade solvent formulation, once spent, meets the F003 listing despite containing, before use, less than 100% of the non-halogenated solvents specified in the listing description.

The purity of a technical grade formulation will vary from compound to compound and may range from highly purified to very impure. EPA has not established specific percentages or other criteria for use in determining when contamination is considered *de minimis*; such a decision must be made on a case-by-case basis by the appropriate regulatory agency.

HOTLINE QUESTIONS AND ANSWERS

August 1994

9444.1994(06)

RCRA

1. Unused Formulations Containing Sodium Pentachlorophenate are F027

The F027 hazardous waste listing includes discarded, unused formulations containing tri-, tetra-, or pentachlorophenol, as well as compounds derived from these chlorophenols (40 CFR §261.31). Does an unused chemical formulation that contains sodium pentachlorophenate meet the F027 listing when discarded?

Unused formulations containing sodium pentachlorophenate meet the F027 listing when discarded. Sodium pentachlorophenate, a wood surface protectant used to prevent sapstaining in freshly cut lumber, is a compound derived from pentachlorophenol by dissolving pentachlorophenol in sodium hydroxide (58 FR 25706, 25708; April 27, 1993).

Chlorophenolic compounds and their chlorophenoxy derivatives, such as sodium pentachlorophenate, have serious adverse health effects (48 FR 14514, 14516; April 4, 1983). Formulations containing these compounds also contain chlorinated dioxins and dibenzofurans. For these reasons, wastes meeting the F027 listing are designated as acutely hazardous (50 FR 1978, 1979-1982; January 14, 1985).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1994(07)

SEP 19 1994

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Gerald A. Dumas, Vice President
Environmental Services
RSR Corporation
1111 West Mockingbird Lane
Dallas, Texas 75247

Dear Mr. Dumas:

Thank you for your letter of August 8, 1994, in which you requested clarification about the scope of EPA's administrative stay for a portion of the K069 hazardous waste listing. Specifically, you wanted a written confirmation that the administrative stay can be applied to calcium sulfate sludge generated by an acid gas scrubber system that is not the primary pollution control device.

As stated in the Federal Register notice containing the administrative stay (56 FR 19951; May 1, 1991), the listing is stayed for sludges generated by secondary acid scrubbers. Therefore, the listing does not apply at this time to the secondary scrubber waste generated by Exide or to any other similar waste. Assuming, as stated by your letter, that the sludge at issue is generated by a system that is virtually identical to the Exide system, this sludge would fall within the scope of the administrative stay.

Unfortunately, because of the limited resources and other priorities within the office of Solid Waste for implementing a variety of mandated waste programs, we have not yet modified the language of the K069 listing to clarify the scope of this listing. In any case, the administrative stay will remain in effect until 30 days after completion of rulemaking dealing with the scope of the K069 listing.

I hope this letter has provided the clarification you were seeking concerning the scope of EPA's administrative stay for the K069 listing. If you have further questions on this matter, please feel free to have your staff contact Narendra Chaudhari at (202) 260-4787.

Sincerely yours,

Elizabeth A. Cotsworth

for Michael Shapiro, Director
Office of Solid Waste

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RSR CORPORATION

August 8, 1994

Mr. Michael H. Shapiro
Director, Office of Solid Waste
Room 2101, Mail Code 5301
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

RE: Scope of the K069 Administrative Stay

Dear Mr. Shapiro:

I write to request clarification of the May 1, 1991, Federal Register notice in which the U.S. Environmental Protection Agency (EPA) announced an administrative stay of a portion of the hazardous waste listing for emission control dust/sludge from secondary lead smelting (EPA hazardous waste No. K069).[1/] I seek written confirmation that the administrative stay now applicable to sludge generated from secondary acid scrubber systems applies to calcium sulfate sludge generated at any secondary lead smelter, provided the sludge is generated by an acid gas scrubber system that is not the primary pollution control device.

RSR Corporation, through its subsidiaries, operates three secondary lead smelters located in the City of Industry, California; Indianapolis, Indiana; and Middletown, New York. RSR facilities reclaim approximately one-third of all lead-acid batteries reclaimed in the United States.

EPA stated in the May 1, 1991, Federal Register notice that the K069 listing is not intended to cover acid gas scrubber sludge if it is: (i) generated by an air emission control device used chiefly to control lead emissions and other particulates; (ii) not amenable to recovery in the secondary lead process; (iii) not a dust; (iv) generated in lower volumes than the typical K069 waste; and (v) comprised of significantly lower concentrations of lead and other toxic metals than are typically found in K069 waste. EPA has also issued an interpretive memorandum that supports the conclusion that calcium sulfate sludge does not meet the K069 listing. EPA states

---

1/ 56 Fed. Reg. 19951. (May 1, 1991).

Corporate Offices: 1111 West Mockingbird Lane/Dallas, Texas 75247
Telephone: (214) 631-6070; Telex: 213-760; Fax. (214) 631-6146

in this memorandum that the K069 listing does not apply to secondary lead smelting residues that are generated when K069 dusts are recycled in the smelting process as feedstocks.[2/]

Assume for purposes of responding to this request that the sludge at issue is generated by a system that is virtually identical to the Exide Corporation system described in the May 1, 1991, Federal Register notice and on which the administrative stay is based. The system is equipped with a pollution control device that captures particulate matter and a secondary device (*i.e.*, a scrubber) that controls emissions of acid gas. The particulate matter (*i.e.*, emissions control dust) generated from the pollution control device is returned by an enclosed screw conveyor to the smelter for lead recovery. The scrubber system generates a calcium sulfate sludge.

RSR believes that acid gas scrubber sludge as described above would fall within the scope of the administrative stay. EPA verbally confirmed this interpretation during telephone conversations between Mr. Tom Ovenden, The Technical Group, Inc., one of RSR's consultants, and Steven Silverman, of EPA's Office of General Counsel, and Nerendra Chaudhari, of EPA's Office of Solid Waste. According to Messrs. Silverman and Chaudhari, the administrative stay applies to sludge generated at any secondary lead smelter, provided the sludge is generated by an acid gas scrubber system that is not the primary pollution control device.

RSR requests EPA's written confirmation of the foregoing. RSR also asks when EPA plans to amend the language of the K069 listing, as discussed May 1, 1991, Federal Register notice.[3/].

We look forward to your response. If you or your staff have any questions, please call me at (214) 631-6070 or RSR's consultant, Chris Bryant of The Technical Group, at (202) 962-8531.

Sincerely,

Gerald A. Dumas
Vice President
Environmental Services
RSR Corporation

2/ *See* Memorandum from S. Lowrance to Waste Management Division Directors regarding Regulatory Status of Residues From Secondary Lead Smelters That Recycle K069 Waste (Aug. 5, 1991).

3/ 56 Fed. Reg. 1991 (col. 3) ("EPA intends in the near future to prepare to amend the language of the K069 listing to clarify the scope of the listing to excluded [sic] sludges generated by air pollution devices that are not a plant's chief means of controlling lead emissions.")

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1994(08)

SEP 21 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Peter F. Downing, C.H.M.M.
Manager
Environmental, Health and Safety
Fidelity Chemical Products Corporation
470 Frelinghuysen Avenue
Newark, N.J. 07114

Reference: Applicability of F006 Hazardous Waste Code to Nickel Reclamation Process for Electroless Nickel Plating Spent Solutions

Dear Mr. Downing:

This responds to your letter dated November 5, 1993, requesting an interpretation of the potential applicability of the hazardous waste listings to your proposed process for reclaiming the nickel in spent electroless nickel plating solutions. Because your proposed process concerns a specific site, we have consulted with Mr. Jeffrey A. Sterling of the New Jersey Metro Bureau of Water and Hazardous Waste Enforcement and Mr. John Wilk of the Hazardous Waste Management Division of Region II in preparing this response.

The application of the hazardous waste regulations discussed in this letter is based on the information provided in your letter, which we summarize here for convenience.

You propose to recycle the nickel in solution by reducing the nickel ions with sodium hypophosphite through a controlled chemical plate-out process, allowing gradual deposition of nickel on steel wool. The nickel-plated steel wool will then be sent to a smelter for further reclamation in a smelting operation. The batch process will consist of 1) adjusting the pH and concentration of the sodium hypophosphite reducing agent, 2) heating the solution to the optimum reaction temperature, and 3) allowing the nickel to plate out to a concentration of less than 10 ppm. The wastewater will then be polished through activated carbon and sub-micron filters followed by ion exchange and pH adjustment prior to discharge to the local POTW. Spent solutions not amenable to the plate-out process will be precipitated to the metal hydroxide, followed by processing through the identical polishing process described above.

Recycled/Recyclable
Printed with Soy/Canola Ink on paper that contains at least 50% recycled fiber

Your letter requested verification of the following aspects of your process with respect to the RCRA current regulations:

"1. Electroless nickel solution is not a hazardous waste if it does not contain any listed waste (K,P,U,F) or wastes exhibiting the characteristics of hazardous waste (D wastes).

2. Any treatment to reclaim or recycle the nickel from spent electroless nickel solutions is not hazardous waste treatment subject to the requirements of a hazardous waste treatment permit.

3. Regeneration of either the ion exchange resin or the activated carbon does not require a hazardous waste treatment permit.

4. The sludge generated from the precipitation of the nickel as a metal hydroxide is not a hazardous waste if it does not exceed the TCLP parameters or exhibit any of the characteristics delineated at 40 CFR Part 261, Subpart C, Characteristics of Hazardous Wastes.

5. The metal deposited on the steel wool is not a hazardous waste, is a solid waste and is defined as scrap metal at 40 CFR 261.2(c)(6)."

Our interpretation of the above based on current RCRA regulations is as follows:

- The spent electroless nickel solutions received from your customers for the purpose of nickel metal reclamation are not hazardous unless they have been mixed with or derived from any listed waste(s) or exhibit any of the hazardous waste characteristics under 40 CFR 261.20 through 261.24. This determination is based on the fact that electroless plating is specifically exempted from the scope of the F006 listing as defined by the Agency in the Interpretative Rule which was published in the Federal Register on December 2, 1986 (51 FR 43350).

- Unless the spent electroless nickel solutions are determined to be characteristically hazardous, the proposed reclamation process would not involve the treatment of hazardous waste. This also applies to regeneration of either the ion exchange resin or the activated carbon, because the wastewater is not generated in an electroplating process and also does not meet any other listing description. Also, for the same reason, the sludge generated from the precipitation of the nickel as a metal hydroxide is <u>not</u> a hazardous waste if it does not exhibit any of the characteristics identified in 40 CFR Part 261, Subpart C. (Although your letter does not indicate how this sludge is to be managed, you should be aware that a characteristic sludge that is destined for

reclamation is excluded from the definition of a solid waste. See 40 CFR 261.2(c)(3). Note: The State of New Jersey does not have a similar exemption at this time.)

- Assuming the steel wool (on which the nickel has been plated) does not exhibit the characteristic of a hazardous waste or is not otherwise a hazardous waste because of the mixture-derived from rule, the steel wool would not be a hazardous waste. If the nickel-plated steel wool exhibits a characteristic of hazardous waste, you raised the issue of whether it met the definition of scrap metal (40 CFR 261.1(c)(6) and would be exempt when reclaimed (40 CFR 261.6(a)(3)(iii)); because the definition of scrap metal is based on a physical description of the material, the Agency is unable to make a definitive determination. Such determinations are case-specific and are typically made by the relevant State unless the State is not authorized for RCRA in which case the determination would be made by the relevant EPA Regional office. Please contact the appropriate State officials if you need additional assistance on this issue.

Please be aware that under Section 3006 of RCRA (42 U.S.C. Section 6926) individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the Federal program. When States are not authorized to administer their own program, the appropriate EPA Regional office administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) States retain authority to promulgate regulatory requirements that are more stringent than Federal regulatory requirements.

The Agency reserves the right to change this interpretation if it finds new information which refutes either the facts or assumptions on which this interpretation is based.

Thank you for your patience in this matter. If you have any further questions, please contact Max Diaz of my staff at (202) 260-4786.

Sincerely yours,

William F. Brandes, Chief
Waste Identification Branch

cc: Waste Management Division
Directors, Regions I-X
John Wilk, Region II
Jeffrey A. Sterling, NJ DEQ

FIDELITY CHEMICAL PRODUCTS CORPORATION

A DIVISION OF AURIC CORPORATION

470 FRELINGHUYSEN AVENUE/NEWARK, N.J. 07114/TEL. 201-242-4110/FAX # 201-242-5796

November 5, 1993

U.S. Environmental Protection Agency
401 M Street, SW (OS-330)
Washington, DC 20460

Attn: Rick Brandes, Chief
Waste Identification Branch

Dear Mr. Brandes:

On Tuesday, October 26, 1993, I met with Dave Carver of your staff regarding my letter dated August 4, 1993. This letter is a follow-up to our meeting. As stated in my previous letter, we are establishing a recycling program for our customers using electroless nickel (EN) plating technology.

We propose to recycle the nickel in solution by reducing the nickel ions with sodium hypophosphite through a controlled plate-out procedure. This allows gradual deposition of nickel on steel wool through chemical means. The nickel-plated steel wool will then be sent to a smelter for use as a raw material in a smelting operation.

We anticipate the need to conduct an extensive auditing and quality control program to ensure compliance with all applicable RCRA standards. We will require a facility audit of our participating customers to identify any potential problem areas which could lead to the shipment to us of non-conforming electroless nickel solution. This audit will include a tour of the plating areas, waste management program, management procedures to prevent cross-contamination, and sample collection. Samples will be submitted to us by the customers for every drum to be returned. The samples will be analyzed at our facility for heavy metals and plating characteristics, and a composite will be sent to a NJ DEPE certified laboratory for complete TCLP analyses with RCRA characteristics. The customer has to complete a recyclable material profile which delineates the characteristics of their spent EN solutions as well as certifying that the samples submitted are representative of the material to be shipped annually.

Once the material has been tested and determined to be

ANY SUGGESTIONS FOR USE ARE BASED ON OUR KNOWLEDGE AND EXPERIENCE. THE USE OF ANY PRODUCT OF OUR MANUFACTURE BEING BEYOND OUR CONTROL, HOWEVER, NO GUARANTEE, EXPRESSED OR IMPLIED IS MADE

acceptable, the customer will ship the material to our facility, where we will analyze the material and accept it only if it matches the pre-shipment samples and meets all applicable TCLP parameters. It is then pumped into our batch process, where the pH and concentration of reducing agent are adjusted prior to recycling. The solution is heated to the optimum working temperature and allowed to plate until the concentration of nickel in solution is less than 10 ppm. It is then transferred to a process tank prior to polishing through a carbon filter and sub-micron filtration, and finally ion exchange for the removal of the remaining nickel from solution. After final quality control and pH adjustment, the water is suitable for discharge to our local POTW.

In the event that the spent EN solution meets RCRA characteristics and TCLP parameters but does not perform adequately in the plate-out process, we will precipitate the nickel as a metal hydroxide. Once precipitation is completed, it will be polished as above to remove any residual nickel from solution.

Although many aspects of the process have been discussed with Dave, I feel that it is necessary to verify some of the more critical points:

1. Electroless nickel solution is not a hazardous waste if it does not contain any listed waste (K,P,U,F) or wastes exhibiting the characteristics of hazardous waste (D wastes).

2. Any treatment to reclaim or recycle the nickel from spent electroless nickel solutions is not hazardous waste treatment subject to the requirements of a hazardous waste treatment permit.

3. Regeneration of either the ion exchange resin or the carbon does not require a hazardous waste treatment permit.

4. The sludge generated from the precipitation of the nickel as a metal hydroxide is not a hazardous waste if it does not exceed the TCLP parameters or exhibit any of the characteristics delineated at 40 CFR Part 261, Subpart C, Characteristics of Hazardous Wastes.

5. The metal deposited on the steel wool is not a hazardous waste, is a solid waste and is defined as scrap metal at 40CFR261.2(c)(6).

Please review my understanding of the key components of my meeting with Dave Carver, as indicated in this letter, in writing at your earliest convenience. Enclosed is a process

schematic which may assist you in reviewing the information contained in this letter.

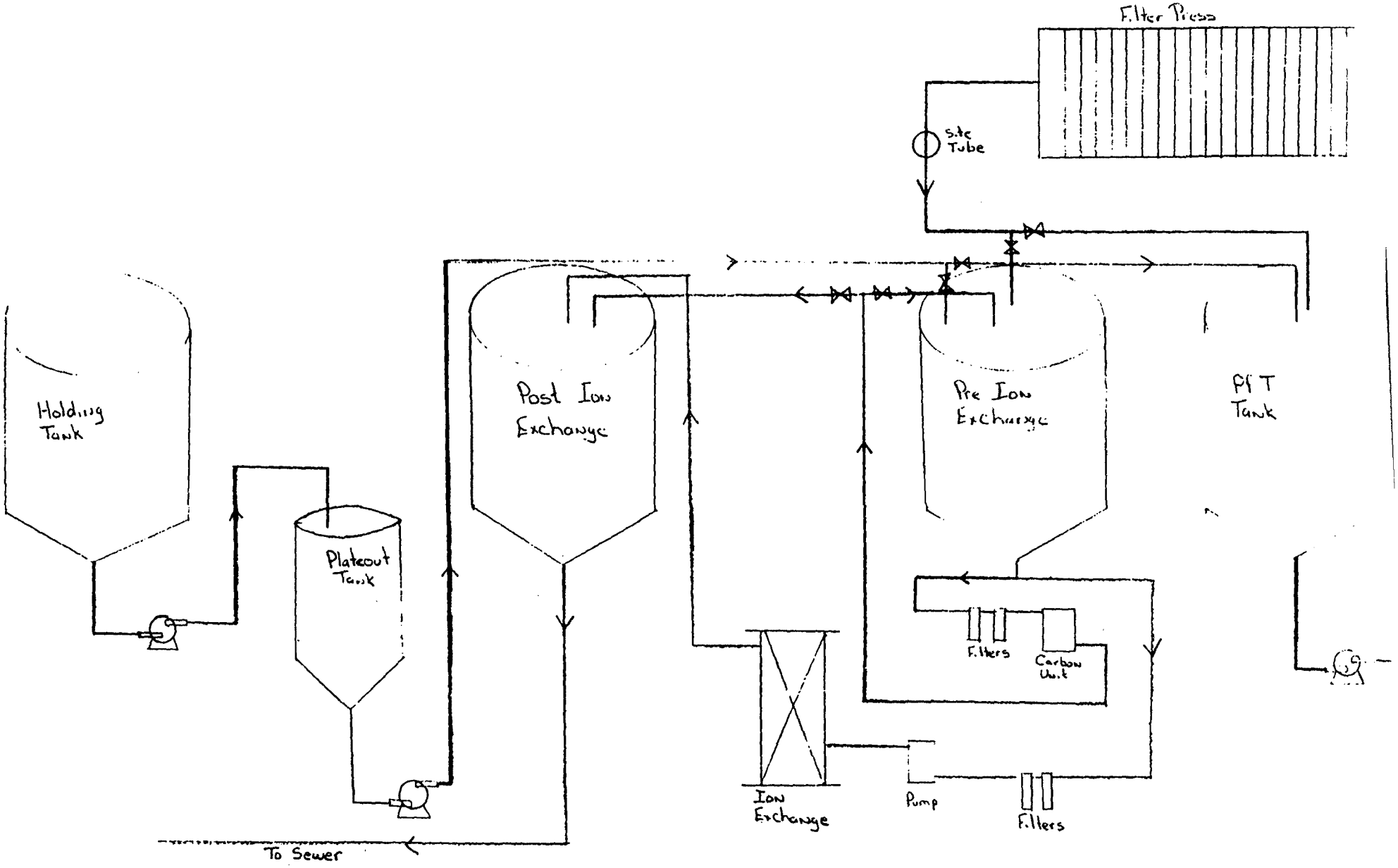
If you have any questions or comments, please do not hesitate to call me at 201-242-4110.

Very truly yours,

FIDELITY CHEMICAL PRODUCTS CORP.

PETER F. DOWNING, C.H.M.M.
Manager
Environmental, Health and Safety

PFD/pd
cc:MB,PD
enclosures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Post Ion Exchange
Pre Ion Exchange
Pf T Tank
Plateout Tank
Filters
Carbon Unit
Ion Exchange
Pump
Filters
To Sewer

FIDELITY CHEMICAL PRODUCTS CORPORATION

A DIVISION OF AURIC CORPORATION
470 FRELINGHUYSEN AVENUE/NEWARK, N.J. 07114/TEL. 201-242-4110/FAX #201-242-5796

August 4, 1993

U.S. Environmental Protection Agency
401 M Street, SW (OS-330)
Washington, DC 20460

Attn: Rick Brandes, Chief
Waste Identification Branch

Dear Mr. Brandes:

On Thursday, July 29, 1993 I spoke to Mr. Dave Carver of your office. This letter is to confirm my conversation with Dave regarding classification of spent electroless nickel plating solutions.

We are a manufacturer of solutions for the metal finishing industry. One of our primary product lines is electroless nickel (EN), a technology which allows deposition of nickel on variety of substrates without the need for an electrical current. As a service to our customers, Fidelity Chemical Products has begun establishing a recycling program for the nickel. Initial determinations have been made and confirmed by Dave Carver that both the spent EN solutions and the recycled nickel would not be considered a hazardous waste by the US EPA.

The electroless nickel solution does not contain any listed hazardous wastes. It passes for TCLP and RCRA characteristics. The solution contains roughly 6 grams nickel per liter of solution, present as nickel sulfate. The reducing agent in solution is sodium hypophosphite, at a concentration of $<5\%$.

Our process takes the EN solution, and continues plating the nickel on steel wool, as our customers would. Rather then replenish the nickel to the solution, however, we continue plating until the concentration of nickel left in solution is below 10 ppm. We then pass the solution through ion exchange to reduce the nickel concentration to below our pre-treatment

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standards for discharge to our local POTW. Prior to discharge, we filter any solids and carbon treat the material, as we do with all of our effluent.

If we find that the nickel is not removable from solution by reduction, we precipitate it as a metal hydroxide. This metal hydroxide also meets TCLP requirements, and we would consider it to be a non-hazardous waste material per RCRA standards.

In either event, the recycled material would be sent off site to be smelted and recycled into various steel products. In this manner, we feel that we can offer our customers a viable alternative to conventional treatment and landfilling, while helping to protect the environment.

Please respond to me in writing to confirm that the spent electroless nickel solution, the plated nickel metal, and the nickel hydroxide are not hazardous wastes, and the process which I have described herein would not be considered a "hazardous waste treatment" method. I am very eager to get this recycling program rolling, and would appreciate your response as soon as possible.

If you have any questions, please call me at 201-242-4110.

Very truly yours,

PETER F. DOWNING, C.H.M.M.
Manager
Environmental, Health and Safety

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FIDELITY
CHEMICAL
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CORPORATION
A DIVISION OF AURIC CORPORATION
470 FRELINGHUYSEN AVENUE/NEWARK, N.J. 07114/TEL. 201-242-4110/FAX #201-242-5796

FAX MESSAGE

TO: Max Diaz - U.S. EPA

FROM: Peter F. Downing, C.H.M.M.

DATE: September 1, 1994

Total pages including cover sheet: 7

MESSAGE: Max -

Per our discussion on 8/31/94, attached are the letters to NJ DEP and their response regarding the spent EN recycling. Please call me if you have any questions.

Thanks

Pete

Please contact the sender at 201-242-4110 if any pages are missing or unclear.

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State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
Lance R. Miller, Acting Director
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

July 19, 1990

Mr. Maurice Bick, President
Fidelity Chemical Products Corporation
470 Frelinghuysen Avenue
Newark, New Jersey 07114

Re: Recycling of Electroless Nickel

Dear Mr. Bick:

This letter is in response to your July 5, 1990 letter to Kurt Whitford discussing hazardous waste issues concerning the receipt of spent electroless nickel plating solutions by your company. As you stated in your letter, spent electroless nickel plating solutions are not listed hazardous wastes in New Jersey (or Federally). As such, these solutions could be hazardous in one or more of three scenarios: 1) if mixed with wastes listed in N.J.A.C. 7:26-8.13, 8.14, or 8.20; 2) if displaying one or more of the RCRA characteristics found in N.J.A.C. 7:26-8.9-8.12; or 3) designated as a hazardous waste by the Department due to the presence of hazardous constituents listed in N.J.A.C. 7:26-8.16.

Prior to accepting spent electroless nickel solutions from a company, Fidelity Corporation should determine that no listed hazardous wastes have been mixed with the solution. In addition to the auditing and testing proposed, a total petroleum hydrocarbon (TPH) analysis may be enlightening. Anytime TPH varies significantly from previous batches, further investigation should be considered.

Although spent electroless nickel plating solution should not fail any of the hazardous waste characteristics, routine evaluation of batches should be performed, as outlined in your July 5, 1990 letter. Anytime a batch of solution fails the criteria found in N.J.A.C. 7:26-8.9-8.12 the waste is hazardous and cannot be accepted by your company without first obtaining a hazardous waste facility permit.

Your letter states that spent solutions to be received by your company will contain 4000-5000 ppm of nickel. At those concentrations, the Department, when considering the factors listed in N.J.A.C. 7:26-8.6, would not consider the waste to be hazardous due to the presence of nickel as a hazardous constituent.

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If the spent nickel solutions are not hazardous waste, a RCRA Part B permit and manifesting would not be required.

If you have any further questions, please contact Kurt Whitford at (609) 292-8341.

Very truly yours,

Shirlee Schiffman, Chief
Bureau of Hazardous Waste
Regulation and Classification

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FIDELITY CHEMICAL PRODUCTS CORPORATION

A DIVISION OF AURIC CORPORATION

470 FRELINGHUYSEN AVENUE/NEWARK, N.J. 07114/TEL. 201-242-4110/FAX #201-242-5796

July 5, 1990

N. J. Dept. of Environmental Protection
B H W R & C
CN 028
401 E. State Street, 5th Floor
Trenton, NJ 08625

Attn: Kurt W. Whitford
Bureau of Hazardous Waste
Planning and Classification

Re: Recycling of Electroless Nickel

Dear Mr. Whitford:

This letter is in follow-up to my and Al Ruffini's conversations with you concerning the Federal and New Jersey state regulations governing the recycling of electroless nickel wastes. As we indicated, our firm is evaluating whether to offer such a recycling service to customers who purchase electroless nickel from us. We would be recycling the liquid nickel at our Newark, NJ facility. Some precipitated nickel from our process would be manifested to WRC Processing Resources or Inmetco. Some would be used internally.

The electroless nickel products to be reclaimed include 4855A, 4855BM, 4855CD, 4865A, 4865B, 4865C and similar formulations. Customers will return spent materials to Fidelity where we will then reclaim nickel from the solutions. The reclamation process involves precipitating the nickel in tanks and filtration in a filter press. The nickel sludge is then used internally or sold to a reclamation facility which will recover the nickel. The received nickel solutions are reduced from 4000-5000 pm to about 5 ppm by us through precipitation. The remaining liquid is then put through an ion exchange unit which will further reduce the nickel content of the liquid to less than 0.1 ppm. The liquid is discharged to the sewer in conformance with our Passaic Valley permit.

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As we stated, our primary concern is whether such an activity would require us to obtain a hazardous waste facility permit (commonly known as a RCRA Part B Permit). We are also concerned as to whether our customers must manifest the electroless nickel solutions to be recycled that they are sending us.

You indicated there is a classification of material termed "spent materials" which are considered to be solid wastes if they are reclaimed. "A spent material is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." You felt that waste electroless nickel falls into this category.

Having concluded that the waste is a solid waste, the next question is whether or not the solid waste is a hazardous waste. Hazardous wastes fall into two categories - listed and characteristic. Spent material from electroless nickel plating is not listed as either a non-specific waste source or a waste stream from a specific source. The only specific nickel compounds which are listed hazardous wastes as commercial or off specification products, are nickel carbonyl and nickel cyanide. Based upon our description of our material, you felt that electroless nickel is not a listed hazardous waste.

You also explained that if spent electroless nickel is not a listed waste, it may still be a hazardous waste if it is a characteristically hazardous waste. A waste is characteristically hazardous if it is ignitable, corrosive, reactive, or it exhibits the characteristic of toxicity. These criteria are listed as follows:

Ignitable

A waste is ignitable if it meets one of the following criteria:

1) Flash point less than 140 degrees F.
2) Flammable solid.
3) Ignitable compressed gas.
4) Is an oxidizer as defined in 49 C.F.R. 173.151. That section defines an oxidizer as a substance that readily yields 0_2, to stimulate combustion of organic matter, such as chlorates, permanganates and inorganic peroxides.

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Corrosive

A waste is corrosive if it is:

1) aqueous with a pH less than or equal to 2 or greater than or equal to 12.5.
2) a liquid and corrodes steel at a rate greater than 0.25 inches per year.

Reactive

A waste is reactive if it:

1) is normally unstable.
2) reacts violently with water.
3) forms explosive mixtures with water.
4) generates toxic gases when mixed with water.
5) is a sulfide or cyanide bearing waste which can generate toxic gases when exposed to pH conditions between 2 and 12.5.
6) is explosive or can be detonated.

Toxicity

A waste exhibits the characteristic of toxicity ("TC") if an extract from a representative sample of the waste contains one or more of listed contaminant at higher than listed levels. Currently, the test procedure for toxicity is the Extraction Procedure ("EP") which looks at 14 contaminants. In September of 1990 the EP toxicity test will be replaced by the Toxicity Characteristic Leaching Procedure ("TCLP") and the list of contaminants of concern will be expanded to 40.

Based upon our tests and knowledge of the electroless nickel, we do not feel it exhibits the characteristics of ignitability, corrosivity, reactivity or toxicity.

Al Ruffini and I also described our actual procedure for selecting and monitoring customers to be included in this program. They were as follows:

1) Customers would be selected one at a time and the customer base for whom we would recycle electroless nickel would be built up slowly.

2) A customer would be audited at their plant by us in order to qualify for sending their nickel to us. We would look for strong management, good environmental procedures and a well run, orderly plant.

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3) We would require a sample of their electroless nickel to be sent to us before we accepted their first electroless nickel. This sample would be sent to a State approved lot for EP Toxicity Test. This would be for the first shipment only. We would, on receipt of the first shipment, also send it to a NJ certified lab for EP Toxicity Test.

4) On all future shipments from that customer, we would require a certification that their shipment is in conformity with sample previously submitted. We would test these future shipments for EP Toxicity in our plant. If there is any questions regarding a particular shipment, we would submit to a State certified laboratory for their analysis.

5) Whenever and wherever TCLP toxicity testing becomes a requirement, we will test under TCLP Toxicity rather than under EP Toxicity.

Based upon the above analysis and information which we gave to you, you felt that electroless nickel was not a hazardous waste by either Federal or State of NJ standards and that we would not require a RCRA Part B Permit. You also felt that our customers would not have to manifest the electroless nickel they were sending to us unless their home state required it.

We feel that the above electroless nickel recycling project which we have proposed would be good for Fidelity and good for the environment.

We would appreciate a letter from you indicating receipt of this letter and that it basically describes our conversations with you of June 27, 1990.

Very truly yours,

FIDELITY CHEMICAL PRODUCTS CORP.

MAURICE BICK
President

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1994(09)

DEC 19 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Paul R. DiBella
Metals Recycling Technologies Corp
3350 Cumberland Circle
Suite 970
Atlanta, Georgia 30339

Dear Mr. DiBella:

In your letter of October 11, 1994 to Michael Shapiro, you request two regulatory determinations under the Resource Conservation and Recovery Act (RCRA) on the status of zinc oxide produced by Metals Recycling Technologies Corp. (MRT) at Nucor Corporation's electric arc steel furnace in Darlington, South Carolina. You ask: 1) whether the use of MRT Zinc Oxide as a nutritional supplement in the animal feed industry is use constituting disposal?, and 2) whether MRT Zinc Oxide that is sold to primary electrolytic zinc refineries is a product? This response can only answer these questions in general terms from the perspective of the Federal RCRA program. Any case-specific regulatory determinations on the status of these materials should be made by the appropriate regulatory authority, usually the authorized State or EPA Regional office.

Regarding the first issue of zinc oxide used for animal feed, MRT produces a zinc oxide material reclaimed from K061, emission control dust from electric arc furnaces, a listed hazardous waste. In your letter to the Environmental Protection Agency (EPA), you stipulate that this zinc oxide is completely reclaimed prior to sale for use as a nutritional supplement in animal feed. You indicate that no further reclamation or processing of MRT zinc oxide is necessary. If the reclamation process is complete, MRT zinc oxide would not be considered to be a hazardous waste and therefore not subject to RCRA regulation unless it is burned for energy recovery or used in a manner constituting disposal. 40 CFR Section 261.3(c)(2)(i).

In general, EPA does not believe that using hazardous wastes that are recycled (hereafter referred to as recyclable materials) as nutritional supplements in animals feed preparations is considered to be use constituting disposal. In contrast to crop fertilization, many animal preparations are not applied to the ground directly (although there may be some exceptions to this which would need to be determined on a case-by-case basis). Again, for case-specific determinations, you are encouraged to consult with the appropriate authorized State or EPA Region regarding the regulatory status of MRT zinc oxide sold as a nutritional supplement for animal feed.

Regarding the second issue of whether MRT zinc oxide sold to primary electrolytic zinc refineries is a waste or a product, this determination depends upon whether the zinc oxide has distinct components being recovered to produce a separate end product or the zinc oxide is being refined to concentrate the material as a whole and remove impurities prior to being introduced into commerce.

Recycled/Recyclable
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Recyclable materials remain hazardous wastes until the reclamation process is complete. Whereas, recyclable materials that have been completely reclaimed that had been hazardous wastes are no longer considered to be wastes. Thus, metal-bearing recyclable materials that are fully reclaimed for direct use or only need to be refined to be usable are products rather than wastes. 50 FR 614, 634 (January 4, 1985).

EPA's understanding of primary electrolytic zinc refining processes is that after zinc concentrates have been roasted to remove sulfur and other impurities that the zinc-bearing material (usually a zinc oxide) is leached into solution and treated to remove remaining metal impurities. Following the removal of the zinc leach residues, the zinc solution is electrowinned to produce zinc cathode metal which is then sent on for melting and casting. Thus, the zinc refining process can be said to chemically change the zinc oxide (normally an impure oxide) to zinc metal.

In contrast to other metal refining processes where the feedstock is already in the form of a metal, zinc refining results in the recovery of zinc metal as a distinct component and separate end product from a zinc compound (either a zinc oxide or zinc salt). Because zinc metal, a distinct component of zinc oxide, is being recovered as a separate end product, EPA views this type of process as further reclamation and therefore would view the secondary zinc oxide feedstock inserted into the process as a partially-reclaimed material rather than a fully-reclaimed material. Because the K061-derived zinc oxide would be partially-reclaimed, it would continue to be a hazardous waste rather than a product. Please note, however, that if the zinc oxide is sold as zinc oxide that is not used in a manner constituting disposal, burned for energy recovery, or sent on for subsequent reclamation and meets all product specifications for zinc oxide, that EPA would view this as a fully reclaimed material (as a zinc oxide) and therefore a product rather than a waste. Even though EPA views processing MRT zinc oxide in a primary electrolytic zinc refining process as a partially-reclaimed material, the zinc oxide would no longer be considered to be a solid or hazardous waste if a variance for partially-reclaimed materials (40 CFR Section 260.30(c)) is granted by the appropriate regulatory authority (either the State Director or EPA Regional Administrator).

Please be aware that under Section 3006 of RCRA (42 U.S.C. Section 6926) individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the Federal program. When States are not authorized to administer their own program, the appropriate EPA Regional office administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) States retain authority to promulgate regulatory requirements that are more stringent than Federal regulatory requirements. I hope that this letter sufficiently responds to your questions and concerns. If you have any further questions or comments, please contact Paul Borst of my staff at (202) 260-6713.

Sincerely,

David Bussard, Director
Characterization and
Assessment Division

Metals Recycling Technologies Corp.

3350 CUMBERLAND CIRCLE
SUITE 970
ATLANTA, GEORGIA 30339
TELEPHONE (404) 951-1542
FACSIMILE (404) 955-7610

PAUL R. DIBELLA

October 11, 1994

VIA OVERNIGHT DELIVERY
Mr. Michael Shapiro
Director, Office of Solid Waste
United States Environmental Protection Agency
Regulatory Development Branch
401 M Street, SW
Washington, D.C. 20460

Dear Mr. Shapiro:

Metals Recycling Technologies Corp. ("MRT") is writing to request regulatory determinations as to the status of certain fully reclaimed zinc oxide ("Zinc Oxide") produced with the MRT Process and used as described herein. Specifically, MRT requests determinations on the following:

1. Whether the use of fully reclaimed MRT Zinc Oxide as a nutritional supplement in the animal feed industry is a use constituting disposal?

2. Whether fully reclaimed MRT Zinc Oxide that is sold to primary electrolytic zinc refineries is a product?

EPA has repeatedly recognized that its regulatory jurisdiction under the Resource Conservation and Recovery Act (RCRA) over "wastes" and "partially reclaimed" materials does not extend to (i) fully reclaimed materials that are used beneficially and not burned for energy recovery or used in a manner constituting disposal [*See* 40 CFR Section 261.3 (c)2(i)], or (ii) fully reclaimed materials that only have to be refined to be usable [*See* 50 Fed Reg. 614, 634 (Jan. 4, 1985) and 56 Fed Reg. 41164, 41173 (Aug. 19, 1991)].

Background

MRT owns and operates the MRT Process, a patented hydrometallurgical process that recycles electric-arc furnace dust. The first commercial MRT Process facility is operating at Nucor Corporation's Darlington, South Carolina steelmaking plant. Information on the MRT Process was previously supplied to EPA in MRT's letter to EPA of July 26, 1994, wherein MRT requested a regulatory determination on the status of a certain lead/copper metal produced with the MRT Process.

One of the products of the MRT Process is zinc oxide. Zinc oxide is a specialty chemical used in a number of industries. Among its uses, zinc oxide is used as an ingredient in the making of tires, rubber, pharmaceuticals, ceramics, paint and nutritional supplements. World consumption of zinc oxide is approximately 800,000 metric tons annually.

The MRT Process produces commercial grade zinc oxide. The zinc oxide content of MRT Zinc Oxide ranges from 95% to over 99%. At either end of the zinc oxide content range, the heavy metal content of the MRT Zinc Oxide remains very low. Lead levels in the MRT Zinc Oxide are expected to average under 100 parts per million, and cadmium levels are expected to average under 40 parts per million.

MRT Zinc Oxide as a Nutritional Supplement in the Animal Feed Industry

The animal feed industry currently uses zinc oxide as a nutritional supplement. The zinc oxide as a nutritional supplement provides livestock with a source of zinc, a necessary dietary nutrient.

MRT is considering selling a portion of fully reclaimed MRT Process Zinc Oxide to the animal feed industry as a nutritional supplement. Used in this manner, the MRT Zinc Oxide will be mixed directly with other nutritional supplements and fed to livestock such as cows, pigs and other animals. No further reclamation or processing of the MRT Zinc Oxide is necessary. MRT believes that when used as a nutritional supplement in the animal feed industry, the MRT Zinc Oxide is not used in a manner constituting disposal, and, therefore, pursuant to 40 CFR Section 261.3 (c)(2)(i), is not subject to RCRA jurisdiction.

MRT Zinc Oxide Sold to Primary Electrolytic Zinc Refineries

From time to time, MRT may sell a portion of its fully reclaimed Zinc Oxide to primary zinc refineries, where the zinc oxide will be refined into zinc through electrolytic refining processes. There is no thermal metal recovery involved in electrolytic zinc refining. Moreover, the reclamation process on the MRT Zinc Oxide is already complete when it reaches the electrolytic zinc refineries. While the MRT Zinc Oxide used in this manner is suitable for a number of direct uses, market and/or economic conditions may provide justification for selling the Zinc Oxide to such primary zinc refineries.

As stated earlier, EPA has consistently taken the position that fully reclaimed materials suitable for direct use or that only have to be refined to be usable are "products", not "wastes" subject to RCRA jurisdiction. [*See* 50 Fed Reg. 614, 634 (Jan. 4, 1985) and 56 Fed Reg. 41164, 41173 (Aug. 19, 1991)]. Accordingly, MRT believes that fully reclaimed MRT Zinc Oxide sold to primary zinc refineries for use in electrolytic zinc refining processes is a "product", not a "waste", and, therefore, not subject to jurisdiction under RCRA.

Based on the foregoing, MRT respectfully requests regulatory determinations on the MRT Zinc Oxide used in the manners described above.

Sincerely,

Metals Recycling Technologies Corp.

METALS RECYCLING TECHNOLOGIES CORP.

PRD/bc
Enclosures

cc: Paul A. Borst, U.S. EPA
John E. Johnston, U.S. EPA Region IV

3. Epinephrine Residue In A Syringe Is Not P042

A hospital administers the drug epinephrine to patients by injection with a syringe. After the proper dose is injected, excess epinephrine and epinephrine residue remain in the syringe. Epinephrine appears on the P-list of hazardous wastes at 40 CFR §261.33(e) as P042. Is the epinephrine remaining in the syringe a P-listed hazardous waste when the syringe is discarded?

The epinephrine in the discarded syringe would not be classified as a listed hazardous waste. The P-list of hazardous wastes applies to unused discarded commercial chemical products. Commercial chemical products are defined as commercially pure grades and technical grades of the listed chemicals or chemical formulations in which the listed chemical is the sole active ingredient, which have not been used for their intended purpose (54 FR 31335, 31336; July 28, 1989). Drug residues often remain in a dispensing instrument after the instrument is used to administer medication. EPA considers such residues remaining in a dispensing instrument to have been used for their intended purpose. The epinephrine remaining in the syringe, therefore, is not a commercial chemical product and not a P042 hazardous waste. The epinephrine could be a RCRA hazardous waste, however, if it exhibits a characteristic of hazardous waste.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FILE

FEB 17 1995

9444.1995(01)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: P and U Listed Wastes and the Contained-in Policy

FROM: Devereaux Barnes, Director
Permits and State Programs Division, OSW

TO: Norm Niedergang, Director
Office of RCRA, Region V

Recently your staff contacted us in regard to the Agency's current RCRA contained-in policy as it applies to environmental media that contain P and U listed hazardous wastes. Since this question has been posed several times by other Regions, we would like to take this opportunity to articulate the Agency's position on this matter.

The RCRA contained-in policy applies to P and U listed wastes in the same manner as for other listed wastes. Although §261.33(d) specifies that contaminated soil and water generated from the cleanup of releases of P and U listed wastes must be managed as hazardous waste, such soil or water would not be considered "contaminated" in this particular context if the implementing agency determined that the media did not contain such a listed waste.

As you may know, the Office of Solid Waste is currently developing a new rulemaking--the HWIR Contaminated Media Rule--that will likely codify the contained-in concept in some detail. That rulemaking should hopefully resolve a number of the questions that are often asked regarding the current contained-in policy. Several of your staff are members of the HWIR-Media workgroup, and we will keep them apprised of any further developments regarding this concept.

If you have any questions, please contact Dave Fagan or Carolyn Hoskinson of my staff, at (703) 308-8620 and (703) 308-8626 respectively.

cc: J. Boyle
K. Pierard
B. Pace
T. Kaneen

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HOTLINE QUESTIONS AND ANSWERS

September 1995 9444.1995(02)

RCRA

1. Isomers of P- and U-Listed Wastes

The P and U lists at 40 CFR §§261.33(e) and (f) identify chemicals which, when discarded as unused commercial chemical products, are listed hazardous wastes. If a particular P- or U-listed chemical has many isomers, are those isomers listed hazardous wastes as well?

Many chemicals on the P and U lists have multiple isomers. Isomers are compounds made up of the same atoms in the same proportions, but which have different chemical structures and potentially different chemical properties. These different forms of a chemical can be identified precisely and given unique Chemical Abstract Service (CAS) numbers. For example, toluenediamine ($C_7H_{13}N_2$) may have many isomers, including toluene-2-4-diamine (CAS# 95-80-7) and toluene-2-6-diamine (CAS# 823-40-5), that differ structurally. Chemicals also may be identified as "mixed isomers." Mixed isomers include all mixtures of individual isomers of a compound. For instance, the generic mixed isomer designation of toluenediamine (CAS# 25376-45-8) includes mixtures of the isomers toluene-2-4-diamine and toluene-2-6-diamine.

EPA may choose to include all isomers of a chemical on the P or U list by listing the mixed isomer or generic name of the compound. If the generic mixed isomer name and CAS number of a compound appear on the P or U list, then any individual isomers of that compound and all mixtures of isomers of that compound meet the listing description. Thus, when discarded in its commercial chemical product form, the isomer toluene-2-4-diamine (CAS# 95-80-7) is a listed hazardous waste, because the generic mixed isomer toluenediamine (CAS# 25376-45-8) is listed as U221.

EPA may also choose to designate only specific isomers of a chemical as P- or U-listed hazardous wastes. When a particular isomer is designated, then only that isomer is covered by that particular listing. For example, U140 covers isobutyl alcohol (CAS# 78-83-1), an isomer of butanol. Since the U140 listing includes only isobutyl alcohol, other isomers of butanol are not U140 (although they may be listed elsewhere).

FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9444.1996(01)

AUG 30 1996

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Ms. Kelly V. Camp
Senior Project Manager,
Environmental Science Services
532 Atwells Avenue
Providence, Rhode Island 02909

Dear Ms. Camp:

This is in response to your letter of August 6, 1996 addressed to Michael Shapiro, Director of the Office of Solid Waste. Your letter requests on behalf of a client that the Agency determine whether a certain "aluminum powder preparation process" is considered chemical conversion of aluminum, and whether the wastewater treatment sludge from this process is considered Hazardous Waste No. F019. You stated that this sludge is currently managed as F019.

In the letter you indicated that your client's "aluminum powder preparation process" (encompassing two different surface treatment/preparation operations using different chemicals on aluminum) does not involve chromating, metal coloring, immersion plating, or phosphating as defined in the F019 listing background document. You also indicated that chromium and cyanide (the constituents that were the basis for the F019 listing) are not used in this process and, therefore, the wastewater treatment sludge from the process should not be classified as an F019 waste. In support of the latter argument, you submitted the results of a recent analysis of one sludge sample showing that no TCLP metals were detected.

We first note that the F019 listing definition covers all wastewater treatment sludges from the chemical conversion coating of aluminum, except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. As discussed in the 55 FR 5340 (February 14, 1990) rule that amended the definition of F019 to exclude wastewater treatment sludges from zirconium phosphating of aluminum cans, we acknowledge there may be other industry wastes that do not contain particular hazardous constituents (e.g., chromium, cyanide) and do not exhibit any hazardous waste characteristics However, such other wastes were not addressed in the February 14 exclusion rule as we did not have supporting data to review. Thus, other wastewater treatment sludges from the chemical conversion coating of aluminum, regardless of their composition

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and constituent concentrations, continue to be captured by the broad F019 listing definition unless and until delisted under 40 CFR 260.20 and 260.22.

Furthermore, we do not believe that your interpretation of the scope of the F019 listing given in the background document for electroplating and metal finishing operations (F006 and F019) is correct. Although the "aluminum powder preparation process" does not utilize any chromate compounds, it does involve phosphating (but not zirconium phosphating) to deposit a layer of phosphate for surface preparation. This meets the general description in the F019 listing background document that "phosphate conversion coatings produce a mildly protective layer of insoluble crystalline phosphate on the surface of a metal." Moreover, based on the limited information you provided, it is unclear if any other manufacturing or metal finishing operations precede or combine with the "aluminum powder preparation process", or if any of those operations may fall into the category of chemical conversion coating; and if chromium or cyanide from any other sources enters the process at issue.

I suggest that you contact the State regulating authorities to confirm whether or not the sludge generated by your client is considered F019. In addition, if your client believes its sludge is nonhazardous, the hazardous waste delisting process is available to ease the regulatory burdens. A delisting petition would be filed with either the State or the EPA Regional Office depending on the location of the facility in question.

If you have further questions concerning this matter, please feel free to contact Chichang Chen of the Waste Identification Branch at (703) 308-0441.

Sincerely,

for David Bussard, Director
Hazardous Waste Identification Division

cc: William Brandes
Chichang Chen

Appendices

APR 23 1984

MEMORANDUM

SUBJECT: Notes on RCRA Methods and QA Activities

TO: Addressees

The response to my previous RCRA Methods and QA Activities memo was very gratifying. We very much appreciate the comments and suggestions that you sent us. In this memo I will address some of the topics you suggested in your comments. The topics to be discussed are:

- Delisting Spot-Check Program
- Performance Audit Program for Volatile POHC
- Method 3030 - Acid Digestion of Oils, Greases and Waxes
- EP Toxicity - pH Adjustment
- Method 3550 - Sonication Extraction
- pH of Oil/Grease

Delisting Spot-Check Program

OSW has a program, which is approximately a year old now, in which unannounced visits are made to facilities that have submitted delisting petitions. Included in these visits are both on-site waste management facilities and commercial, off-site, multiple waste treatment facilities.

The purpose of the spot-check program is to collect representative samples of the material being managed in order to verify data submitted in the facility's delisting petition, and, if appropriate, to inspect the treatment process and ensure that exclusion contingencies are being observed.

A total of eleven visits have been made (one to Region I, two to Region II and four each to Regions III and V). As a result of the inspections, recommendations were made to deny

the petitions submitted by three of the facilities. In some cases, recommendations to the Regions for enforcement action resulted from these checks.

The spot-check program will continue with trips planned to Regions IV,V, and VII by late spring. Both the Regional office and the appropriate State office are notified and invited to accompany the OSW team on these visits.

Performance Audit Program for Volatile POHC

EMSL-RTP has prepared standard cylinders of organic substances in nitrogen in support of the OAQPS and RCRA monitoring programs. Each cylinder contains the following five organic compounds: carbon tetrachloride, chloroform, perchloroethylene, vinyl chloride and benzene. Some cylinders have compound concentrations in the range of 7 to 90 ppb suitable for auditing the VOST and others are in the range of 90 to 430 ppb and suitable for auditing a bag sampler.

While it is presently not required, OSW is considering the implementation of a performance audit program that would require source test measurements during all hazardous waste trial burns. Since EMSL-RTP is already in a position to conduct audits of VOST and bag sampling operations, we recommend that Regional permit and ESD personnel immediately begin to require use of the RTP audit cylinders during all source measurement programs.

Please direct all requests for audits to Florence Richardson of my staff. She will record the requests and forward them to EMSL-RTP for scheduling. This will permit us to determine the future resource implications of such a requirement. We would also appreciate any suggestions that you may have for implementing the program.

Method 3030 - Acid Digestion of Oils, Greases and Waxes

Region V has initiated analyses of waste oils to determine their hazardous characteristics, and the determination of metals is one of the principal waste oil analyses of interest. The lead and barium contents of waste oil are important because of their use as gasoline additives.

Prior to the metals' analyses, recovery data for oils spiked with organometallic standards were collected. The spike recoveries were definitely unacceptable for barium, lead, mercury and selenium.

We appreciate Region V bringing this problem to our attention, EMSL-Cinn is currently evaluating all of the SW-846 digestion methods. In response to comments such as these, we are considering modifications or adjustments to the current methods and also methods from other sources in the evaluation program. The report on the evaluation of this method is scheduled to be prepared and available for review by July,1984.

Method 1310 EP Toxicity

One question frequently asked is "What is the procedure to use if the maximum amount of 0.5N acetic acid has been added to the extractor and pH 5.0 ± 0.2 has not been reached?"

- In such a case the 4 meq/gm maximum amount of acid specified is controlling and no additional acid should be added to the system. Under such conditions the extraction is conducted at the pH reached after the maximum amount of acid is added.

"Also, when the EP toxicity test is performed on oily or greasy samples that cannot be filtered; is it permissible to heat these at low temperature to remove organics and then determine the metals present."

- Materials that do not pass the 0.45 um filter are considered as solids, irrespective of their liquid properties, and thus must be extracted with the acetic acid solution. They are not considered to be an extract as would an oil that passes through the filter.

pH of Oil and Grease

Another question that is often raised deals with how to measure the pH of oily materials.

- It is impossible to determine the pH of non-aqueous materials. In cases where the material is multiphasic, containing both an oil and a water layer, the water layer can measured.

Clarification of Method 3550

"A laboratory inquired about method 3550 and wanted to know if the results were to be reported in dry weight. This methods states 'a weighed sample of solid waste is ground, etc., etc.' The sample referred to is the 'as received material' not a dried portion."

Unless specifically stated in a method, results are to be reported "as received" and the sample is not dried before analysis.

NOTE

ORD provides vital QA support to the RCRA program through a number of laboratories. From time to time I thought it might be worthwhile to highlight these laboratories and describe some of the support they provide. In this memo we will highlight Quality Assurance at EMSL-Cinn, EMSL-LV and EMSL-RTP.

The EMSL-Cinn QAB staff is headed up by John A. Winter with Harold Clements and Ed Berg as section chiefs. They are responsible for preparing and distributing certain types of laboratory performance evaluation samples, quality control samples and reference materials. They also maintain and operate the EPA repository of toxic and hazardous materials and thus are responsible for distributing analytical standards to laboratories performing RCRA testing. The repository of calibration standards have been verified by multiple laboratory analyses as to percent purity of the neat compounds and concentration of solutions in the sealed ampules.

Responsibility for developing and distributing non-aqueous tandard reference materials, maintaining the Quality Assurance aterials Bank, evaluation of biological testing methods and development of leaching procedures is with EMSL-LV. Compounds in the bank are not calibration standards but are of various levels of purity and may or may not have been fully verified Gareth Pearson is the Branch Chief. Llew Williams is the Project Leader for the Ames mutagenicity and daphnia magna bioassay projects and for development of the second generation Extraction Procedure. These activities will be discussed in a future memo.

EMSL-RTP provides QA materials and conducts audits of laboratories dealing with airborne or gaseous sampling and analysis. As previously stated in this memo EMSL-RTP provides cylinders of standard gases for ensuring the measurement of organic compounds in trial burns and/or landfills. Darryl von Lehmden heads up this QA effort.

Once again let me thank you for your interest and please keep sending us your comments and ideas for future memos.

David Friedman
Manager
Methods Program

May 1984

4 APR 84

RE: WCBFR0136

MEMORANDUM

SUBJECT: Notes on RCRA Methodology and QA Activities

FROM: David Friedman
Manager
Methods Program (WH-565B)

TO: Addressees

This memorandum is an attempt to assist regional, state and other interested persons in keeping abreast of Agency RCRA methodology and Quality Assurance activities. I plan to send out these brief memoranda periodically. They will contain information on new test methods and guidance documents being developed, method evaluations in progress, updates on the accuracy and precision of the current RCRA methods, results of quality assurance audits (without mentioning names), as well as any other topics that you feel would be useful. The following topics will be addressed in this memo:

EP Toxicity Test

Adjustment of pH

Digestion of extracts

Testing manufactured articles

Test method evaluations in progress

New test methods under development

Waste Analysis Plans Guidance Manual

Reference Standards

Before getting into these topics I just want to ask that you reflect on this memorandum and send me your comments and questions regarding the information in this memo and include suggestions for future topics.

EP Toxicity Test

Adjustment of pH

Recently, differences in the results of lead analyses between two laboratories resulted in the discovery of a problem in execution of the EP Toxicity Test. Upon examination, by the Quality Assurance Officer for Region VI, it was determined that pH adjustment was being performed using pH paper and not with a PH meter. The EP test is especially sensitive to pH adjustment and for that reason the method requires that pH measurements be made only with a pH meter. The pH strips are not accurate enough and must not be used. In addition, frequent calibration of the pH meter is important. (See SW-846 "Test Methods for Evaluation Solid Waste," Method 1310, Step 7.13.1.)

Extract Digestion

Please remember that all extracts must be digested prior to analysis unless it has been demonstrated, on similar samples, that digestion is not necessary. All metal test methods in SW-846 explicitly require this (see, for example, Method 7040, Step 1.0).

Testing Manufactured Articles

The EP toxicity test procedure requires that a representative sample of the material be prepared for extraction by crushing, cutting or grinding into pieces which can pass through a 9.5 mm sieve.

The difficulty arises with manufactured articles when the material inside is an environmental problem but is encased in a leak resistant container designed to be structurally resistant to crushing, cutting or grinding. In rare cases where such products are an appropriate size, they may be tested without being cut-up pursuant to the Structural Integrity Procedure.

Although some batteries tend to degrade rapidly when placed in a landfill, certain batteries are manufactured in such a manner as to prevent disintegration after disposal. However, at this time the Agency has not developed standardized, EP toxicity test procedures for structurally strong articles such as batteries. EPA is considering proposing amendments to the EP Toxicity test which would allow a package designed to be structurally resistant to crushing, cutting, or grinding to be evaluated in the EP Toxicity test without being cut-up. One possibility would be to test the corrosion resistance of structurally resistant articles by submerging the article in

a 1M salt (NaCl) water solution at an elevated temperature (60°-80°) for a period of one month. If no leaks occur the product can be considered corrosion resistant.

I would appreciate hearing about any other suggestions you may have with respect to this issue. We hope to be able to develop a proposed amendment package in the near future.

Methods Evaluation

The Agency has initiated an extensive research program to determine the accuracy and precision of methods currently in SW-846. At the present time, the following methods are being evaluated.

- # 1110 Corrosivity Toward Steel
- # 1120 Polarization Resistance Method
- # 3030 Acid Digestion of Oils, Greases, or Waxes
- # 3040 Dissolution Procedure for Oils, Greases, or Waxes
- # 3050 Acid Digestion of Sludges
- # 3010 Acid Digestion Procedure for Flame Atomic Absorption Spectroscopy
- # 3020 Acid Digestion for Furnace Atomic Absorption Spectroscopy
- # 7190 Chromium: Atomic Absorption, Direct Aspiration
- # 7191 Chromium: Atomic Absorption, Furnace Method
- # 7195 Hexavalent Chromium: Coprecipitation
- # 7196 Hexavalent Chromium: Colorimetric
- # 7197 Hexavalent Chromium: Chelation - Extraction
- # 7198 Hexavalent Chromium: Differential Pulse Polarography Method
- # XXXX Hexavalent Chromium: Ion Chromatography

Method Development

Our efforts continue with respect to the development of additional methods for identifying hazardous wastes. Protocols are being developed or existing methodology is being modified to address the following areas:

Ignitable Solids

The objective is to develop methods for use in the definition of ignitable solids. Protocols have been developed and subjected to single laboratory evaluation using actual waste samples. Test have b

Hazards Posed by Liquids with Flash Points below 60°C
The objective is to develop a simple test for identifying those liquids that should not be considered as hazardous even though they will flash at a temperature below 60°C. Many such materials will not sustain combustion nor release sufficient amounts of energy to surrounding materials to spread the fire. The evaluation report of this method is also scheduled to be prepared and available for regional review and comment by the end of 1984.

Reactive Gases - Cyanide and Sulfide
The objective is to develop a method for determining when a waste is a reactive waste (40 CFR 261.33) by reason of potential H_2S or HCN release. A method has been evaluated using standards and actual waste samples. The test method is expected to be available for Regional review and comment by June of 1984. Work is also progressing on establishing reactive waste definition thresholds using the method. While it looks like it works acceptably well for sulfide-bearing wastes, further method refining will be necessary before it can be adopted for cyanides.

Waste Analysis Plans Guidance Manual

Under Section 3004 of RCRA, EPA promulgated standards applicable to owners and operators of hazardous waste management facilities. These standards govern the issuance of permits for facilities that treat, store, or dispose of hazardous waste. OSW is currently developing Permit Guidance Manuals to describe the permit application process and to provide guidance to applicants and permit writers in addressing the information requirements.

As part of the permit application, owners/operators are required to submit a Waste Analysis Plan. The requirement for a Waste Analysis Plan is to insure that owners or operators possess sufficient information on the properties of wastes so that they will be able to treat, store, or dispose of the waste in a manner which will not pose a threat to human health or the environment.

To assist permit applicants and State and EPA staff members who review applications and draw up permits, the Office of Solid Waste is in the process of preparing a Waste Analysis Plan Guidance Manual. This Manual will provide specific guidance on how to comply with the general waste

analysis requirements of 40 CFR 264.13. The Manual will include a discussion of the Waste Analysis Plan requirements, model Waste Analysis Plans for each of the principal waste disposal management situations, and a checklist for reviewers to use in evaluating permit applications. We anticipate that a draft of this manual will be available for Regional review early in Spring 1984.

Reference Standards

Since 1980, EPA's Office of Research and Development has maintained and continues to expand an inventory of standard compounds for use in analytical efforts.

Organic standards consist of either single-component solutions (for instrument calibration) or multi-component solutions, containing several chemicals. Analytical reference standards can be utilized in several ways to enhance sample analysis and quality control. Reference standards can be:

- added to media before analysis to check recoveries and thus be used as a matrix spike;
- added to a sample which has been prepared for instrumental analysis, and thus be used as an internal standard;
- used as a surrogate for a particular compound allowing for both sample analysis and recovery verification to be done in the same run, e.g., deuterated or fluorinated standards can thus be used as surrogates for compounds found in hazardous waste.
- used for instrument calibration.

A single source of standard chemicals of known purity and reference materials is necessary to assure that data of known quality are produced. The Quality Assurance Materials Bank provides reference standards to analytical laboratories to support the Agency's programs for monitoring hazardous waste (RCRA/ CERCLA). Pure ("neat") compounds are purchased and analyzed and low purity compounds are purified. Once verified, high purity organic and inorganic standards are prepared (standard solutions) and distributed for use by laboratories in calibration of instruments and for quality control in sample analysis. The purity, concentration, stability and applicability of each standard is evaluated by the QA Materials Bank. For information regarding the availability of specific standards contact Ed Kantor at EMSL-LV (702-798-2690; FTS545-2690), Ed Berg at EMSL-Cinn (513-684-7325; FTS-684-7325), or Florence Richardson at the Office of Solid Waste (202-382-4801; FTS-382-4801).

25 MAY 1984

Clarification of Guidance on Petroleum
Refinery Waste Analyses

John H. Skinner, Director
Office of Solid Waste

Hazardous Waste Branch Chiefs
Regions I-X

On April 3, 1984, I forwarded to you a memo entitled, "Guidance on Petroleum Refinery Waste Analyses for Land Treatment Permit Applications" (see copy attached). My April 3 memo provided guidance on evaluating petroleum refinery waste analyses submitted in land treatment permit applications. It included a list of hazardous constituents suspected to be present in petroleum refinery wastes and described the analytical methods for these wastes. This memo provides additional guidance clarifying the analytical methods that should be used for these wastes.

Attached is a copy of a draft document entitled, "Handbook for the Analysis of Petroleum Refinery Residues and Waste." This document describes the analytical plan that will be employed in OSW's petroleum refinery waste study. The analytical plan includes sample preparation techniques, inorganic and organic analytical methods, and analytical quality control procedures. Although developed for the OSW petroleum refinery waste study, the information provided in the attached document will be useful in any situation in which petroleum refinery waste analyses are necessary, including RCRA permitting.

The draft analytical method for organics provided in my April 3 memo was derived from an earlier draft of the attached document. This revised document now includes a more complete description of this method, and thus should be consulted by permit writers and applicants as EPA's most recent guidance. Specifically, Section 3.2 of the document includes the analytical methods for organic parameters. The hazardous organic constituents identified in my April 3 memo should be evaluated in waste analyses for land treatment permit applications.

In using the attached document, two points should be noted. First, the Extraction Procedure (EP) toxicity test data, as described in Sections 3.1.1 and 3.1.2, need not be submitted in the land treatment permit application. Rather, total metal concentrations should be reported in the application. Second, certain of the analytical quality control procedures described in this document, including frequency of procedural

blanks, duplicates, and instrumentation checks, may not be sufficient for RCRA permit waste analysis plans. The analytical QA/QC procedures described were developed for laboratories that are under close EPA supervision and are participating in the OSW performance audit program. Also QA/QC procedures for sampling are not addressed in the attached document. Comprehensive quality assurance/quality control procedures for waste sampling and analysis should be specified in the permit application. General guidance on QA/QC procedures can be found in Test Methods for Evaluating Solid Wastes (SW-846) and in Permit Applicants' Guidance Manual for the General Facility Standards of 40 CFR 264 (SW-968).

If you have any questions on the analytical procedures described in the attached document please contact Ben Smith (FTS-382-4791) of the Waste Identification Branch. Any questions regarding the use of this guidance in permitting land treatment units should be directed to Mike Flynn (FTS-382-4489) of the Land Disposal Branch.

Attachments

cc: Jack Lehman
Fred Lindsey
Ken Shuster
Eileen Claussen
Matt Straus
Bruce Weddle
Peter Guerrero

WH-565E:MFlynn:aj:382-4658:M2102:WSM:5/18/84

DEC 20 '84

MEMORANDUM - Number 4

SUBJECT: Notes on RCRA Methods and QA Activities

FROM: David Friedman, Manager
Methods Program, WH-562B

TO: Addressees

We appreciate your comments and suggestions in response to my previous RCRA Methods and QA Activities memos. This memo will address several of the topics suggested in recent correspondence:

- RCRA Laboratory Evaluation Program
- Standard Methods for Ground Water Testing
- Method 3030 - Acid Digestion of Oils, Greases, and Waxes
- Waste Analysis Plans Guidance Manual
- Reactivity Evaluations for Solid Waste

RCRA Laboratory Evaluation Program

The Office of Solid Waste (OSW) appreciates the cooperation of those Regional Laboratories that participated in the pilot Laboratory Evaluation Program (LEP) that OSW conducted during this past spring and summer. Now that the mechanics of the program have been worked out, the RCRA LEP is being officially implemented and expanded to include all EPA Regional Laboratories and OSW contractors.

Since the Superfund program has also established a LEP as part of the CERCLA QA program, OSW and the Office of Emergency and Remedial Response (OERR) will consolidate samples to minimize the impact on participating laboratories wherever possible. The differing needs of the two programs, however, will sometimes prevent such a consolidation.

During FY 85, each laboratory will receive four sets of check samples. Each set will consist of two samples to be analyzed by different methods.

Standard Methods Proposed For Testing Hazardous Waste Facilities' Ground Water

OSW recently proposed adopting a set of mandatory standard test methods to improve the quality of ground-water monitoring at licensed hazardous waste facilities. It is expected that such standardization would also help speed up the permit process by making the application evaluation process easier.

The rulemaking of which this proposal is a part has five objectives: 1) make the analysis and sampling methods in EPA Publication "Test Methods for Evaluating Solid Waste" (SW-846) mandatory for all testing and monitoring activities required under Subtitle C of RCRA; 2) consolidate in SW-846 all methods necessary for Subtitle C testing; 3) eliminate certain requirements for groundwater testing in those limited circumstances where the constituent being tested for immediately converts to another substance upon contact with water, or where no testing method has been developed to detect the constituent in question; 4) allow the limited use of SW-846 methods for compliance monitoring screening purposes; and 5) introduce the concept of hierarchical testing that in certain cases may reduce the number of tests required to determine whether classes of Appendix VIII compounds are present.

As it stands now, hazardous waste facilities must sometimes develop their own test methods to identify particular hazardous constituents because EPA has not formally specified which of a number of methods it considers acceptable. Federal and State environmental officials must then approve these methods as part of the facility permitting process. Since in the absence of mandatory testing requirements Federal or State environmental offices may develop differing requirements for acceptable test methods, monitoring requirements and results may vary from Region to Region (and State to State).

This proposed rule will allow permitting officials to quickly evaluate permit requests since all necessary methods will be contained in a single manual. More important, by consolidating test methods, it will be easier for the regulated community to apply for and be granted hazardous waste permits. For smaller facilities in particular, this proposal will help assist them in meeting RCRA's permit requirements. In addition to easing the permitting process, using standard methods for all monitoring will better enable the Agency to determine the quality of the data and to follow environmental quality trends.

Although EPA has prepared a series of draft guidance documents which give some general information on monitoring

methods, no one document has hitherto listed all the sampling and analysis methods that are specifically acceptable to OSW. The proposed regulation proposes a number of new testing methods and consolidates them into its existing test methods manual.

As noted above, the new standards also would save time and costs, while maintaining environmental standards, by eliminating groundwater testing for those chemicals that immediately decompose in ground water. The proposed regulations would also reduce unnecessary testing by allowing facilities monitoring their ground water to test for the absence of certain classes of chemical wastes, instead of testing for each individual chemical within a class. For example, if a facility tests its ground water for halogens and it finds none, then it would not have to test for each variety of halogen listed in the regulations.

The proposed regulation appeared in the Federal Register Oct. 1, 1984, at 49 FR 38786.

Analytical Report on Method 3030 - Acid Digestion of Oils, Greases and Waxes

In response to Region V's comments (May 1984), we initiated a task to examine EPA Method 3030 for its applicability to the analysis of barium, lead, mercury, and selenium in waste oils and to formulate any modifications necessary to produce satisfactory analyses.

The digestion of four waste oil samples by EPA Method 3030 gave very low recoveries for barium, lead, and mercury. Selenium could not be determined in the digest due to severe interference by sulfuric acid with the graphite furnace technique. The initial heating step of Method 3030 produces a large quantity of charred material which is not digested by the latter steps. Barium is precipitated as barium sulfate. This accounts for the absence of barium in the samples and lack of recovery. The Method 3030 digestion procedure was judged to be unsuitable for the determination of any of these metals. We recommend that Method 3050 be used for the digestion of barium, lead, mercury, and selenium.

Waste Analysis Plans Guidance Manual

Waste Analysis Plans Guidance Manual is intended to assist both permit applicants and reviewers/writers in the preparation and evaluation of waste analysis plans. The manual explains the RCRA regulations that require a waste analysis plan and provides a recommended approach, including checklists to ensure completion of the plans. It presents sample waste analysis plans for various hazardous waste management scenarios.

Although a waste analysis plan should demonstrate to EPA or State-permitting officials that the facility operator knows what information is needed to operate the facility properly and has in place a program to gather the necessary information, there is no specific required format for the plan. However, the manual suggests that the plan be organized around the following four questions:

- What are the specific wastes or types of wastes that will be managed within each process?
- What are the specific waste parameters that have to be quantified in order to satisfy the data needs?
- What are the waste-associated properties that are of concern in ensuring safe and effective management (e.g., Btu content, % water)?
- How will the necessary data be obtained, including a description of the sampling and analysis procedures and attendant quality control/quality assurance procedures to be carried out by the permittee?.

In addition to providing checklists to assure the completeness of the plan (and sample plans covering a variety of hazardous waste management scenarios) the manual puts forth such concepts as "boundary condition" and "tolerance limits." "Boundary conditions" gives the maximum and minimum values of waste properties which, if exceeded, would alert the operator that the waste does not meet its typical properties and requires further attention before acceptance. "Tolerance limits" are those characteristics of a waste or waste mixture that a waste management process can handle while maintaining permit compliance. The manual also discusses the selection of waste parameters, the need of periodic recharacterization of hazardous wastes, the performance of shipment screening by offsite facility operators, and procedures for waste sampling, analysis, and quality assurance/quality control.

The manual, can be ordered from the Government Printing Office as document #55-000-00244-4, at a cost of $5.50. The address is as follows:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Reactivity Evaluations for Solid Waste

In cooperation with the U.S. Department of Transportation and the United Nations Group of Experts on Explosives, the Bureau of Mines has been conducting research on the development of tests designed to determine whether a substance has explosive properties. These tests are currently under consideration for international standardization and are called the U.S. Gap Test and the U.S. Internal Ignition Test. The Bureau of Mines has proposed that these tests are suitable to determine the properties described in 40 CFR 261.23 (a)(6) and (7) which defines a solid waste as having the characteristics of reactivity if it has, among others, any of the following properties:

(a)(6) Capable of detonation or explosive reaction if subjected to a strong initiation source or if heated under confinement.

(a)(7) Readily capable of detonation, explosive decomposition, or reaction at standard temperature and pressure.

The methods were the subject of a single laboratory at the Bureau of Mines Laboratory in Pittsburgh, PA, using waste samples from processing waste treatment facilities. In addition, a series of standard explosives were obtained and evaluated for use in calibrating the tests.

A report summarizing the single laboratory evaluation should be available for review early in 1985.

Symposium

A symposium on RCRA test methods and Quality Assurance is being planned for July 24-26, 1985 in Washington, D.C.. Topics to be included are: Organic and Inorganic Analytical Methods, Hazardous Waste Identification Characteristics, Quality Assurance, and Sampling. More information will be included in our next issue.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JULY 84

A. RCRA

1. When does one make the determination that a waste is liquid or solid prior to disposal in a landfill? The waste in question is normally solid but liquifies at temperatures reached in the vehicle transporting it to the site (>140°F) and occasionally at ambient desert surface temperatures (120°F in the summer). The material will solidify over a short period of time.

   The phase of the waste should be determined just prior to disposal. In this case, the waste is liquified during transportation but will solidify over a short period of time. Therefore, it is proper to allow the shipment of containers to stabilize or solidify before performing the free liquid test. It is permissible to use best engineering judgment.

   Source: Paul Cassidy
   Research: Ken Jennings

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9445.1985(01)

APR 5 1985

Dr. Paul Jonmaire
Ecology and Environment, Inc.
195 Sugg Road
P.O. Box D
Buffalo, New York 14225

Dear Dr. Jonmaire:

In response to your recent request for information regarding the basis for inclusion on Appendix VIII of several substances, enclosed please find copies of relevant listing background documents.

In answer to your other question, soil contaminated with toluene is not automatically considered to be a hazardous waste solely because toluene is listed in Appendix VIII. Only if a spill containing one of the wastes listed in §261.31, .32, or .33 were the cause of such contamination would such a situation arise. If such a spill were indeed responsible for the contamination, formal delisting is required before the residue can be considered not to be hazardous. Supposing that the spill did not account for the contamination, the soil would only be regarded as a hazardous waste if it exhibits one of the hazardous waste characteristics. The inclusion of toluene on Appendix VIII is not considered to be germane.

Hoping this answers your questions.

Sincerely,

David Friedman
Manager
Methods Program

Enclosures:

§261.33 Background Document
Listing Background Documents:
Chlorobenzenes
Toluene
Cyanide

April 23, 1985

MEMORANDUM #6

DATE: April 1985

SUBJECT: Notes on RCRA Methods and QA Activities

FROM: David Friedman, Manager
Methods Program (WH-562B)

TO: Addressees

Thank you again for your response to my previous RCRA Methods and QA Activities memos. In this memo we will inform you about the following recent initiatives in the Agency:

- Public Meetings on Delisting
- Intra-agency Work Group on Update to SW-846
- Development of New Testing Methods and Reevaluation of Existing Methods.

We appreciate your comments and suggestions.

Public Meetings on Delisting

Approximately 200 persons attended public meetings in Washington, D.C. and Dallas, Texas, organized by the Delisting Program. The meetings were conducted to describe in detail how future delisting petitions will be affected by the Hazardous Waste Amendments of 1984 and to provide instruction to petitioners on the preparation of supplemental material that should be included in future delisting petitions. Presentations were made on the reauthorization of RCRA, the general petition review process, information resources and special procedures that will apply to petitions concerning wastes from petroleum refineries and multiple waste treatment facilities. A discussion session followed the presentations in which attendees were given the opportunity to question the delisting staff about their particular concerns.

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Intra-agency Work Group on Update to SW-846

As part of the process of finalizing the October 1, 1984 proposal to update SW-846, "Test Methods for Evaluating Solid Waste," an intra-agency work group is in the process of considering the comments received by the Agency in response to the proposed changes and is rewriting some of the methods to reflect these comments and suggestions. OSW expects to complete this process by the end of this summer, with Federal Register publication anticipated in the Spring of 1986.

Development of New Testing Methods and Reevaluation of Existing Methods

As part of its efforts to develop new testing methods and to determine the accuracy, precision and sensitivity of the existing methods, the EPA Office of Research and Development has completed a number of test methods studies including:

- Method 9022 and Interim Method 450.1 -- Determining total organic halide (TOX) in ground water and waste oil
- Method 8030 -- Determining acrolein, acrylonitrile and acetonitrile in ground water, solids and organic liquid matrices
- Method 8090 -- Procedure for analysis of nitroaromatics and cyclic ketones in ground water, liquid waste and solid sample matrices
- Method 8280 -- Procedure for analysis of hazardous wastes containing tetra-, penta- and hexa-chlorinated dibenzodioxins and -furans
- Application of a gas chromatography/Fourier transform infrared protocol to the determination of semivolatile organic compounds in waste water, soils, sediments and solid wastes
- Analytical methods for compounds that do not gas chromatograph.

The following sections describe these recent research developments.

Method 9022 and Interim Method 450.1

Various methods for determining total organic halide (TOX) in samples of ground water and waste oil were evaluated by EMSL-CIN (Thomas Pressley, 513-684-7494). Of three inorganic halide

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species generation approaches and three inorganic halide determinative techniques evaluated for ground water analyses, one combined approach using Schoeniger flask oxidation with colorimetric chloride determination was chosen for laboratory validation and method detection limit studies. Ground water samples were also analyzed for TOX using neutron activation analysis (Method 9022).

The results of this evaluation indicate that Method 9022 is an appropriate technique for TOX analysis and offers the additional advantage of providing individual chlorine and bromine values for the samples at levels equal to TOX detection limits achievable with the microcoulemetric determinative technique which has a reliable limit of sensitivity at 5 ug/L (Interim Method 450.1). The Schoeniger flask/colorimetric chloride and neutron activation analysis methods were found to give TOX results for spiked ground waters that were comparable to those obtained using the microcoulometric method. However, the Schoeniger flask/colorimetric halide method was useful only for halide levels above 0.2 mg/L due to the high halide background levels encountered in the reagents.

A method for analysis of oil samples that uses the sodium biphenyl reagent and a colorimetric chloride method was found to be unsatisfactory for the analysis of various oils spiked with PCBs due to interferences in the colorimetric determinative step that resulted in recoveries greater than 100 percent. Further evaluation of the sodium biphenyl reagent using alternative determinative techniques, such as microcoulometric detection or an additional clean-up step for the extract prior to the colorimetric determinative step, will have to be performed to establish the usefulness of the technique at halide levels in the range of 20 to 350 ug/g.

Method 8030

Method 8030 was modified using revised chromatographic conditions for determining acrolein, acrylonitrile and acetonitrile in ground water, solids and organic liquid matrices. In order to evaluate these modifications, method validation studies were conducted on each of the four sample preparation techniques included in Method 8030, namely: (1) heated purge-and-trap; (2) polyethylene glycol (PEG) extraction followed by heated purge-and-trap; (3) direct liquid injection; and (4) manual heated headspace. Each method validation involved the determination of the method detection limit (MDL) and seven replicate analyses of one or two matrices unspiked and spiked at two different levels. Ground water was analyzed by the heated purge-and-trap method; a solid waste was analyzed by the PEG/heated purge-and-trap method; and a liquid organic waste was

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analyzed by direct liquid injection and by the heated headspace method.

The heated purge-and-trap method gave excellent recoveries (85 to 96 percent) and precision for the three analytes in ground water. The PEG/heated purge-and-trap method gave good recoveries (76 to 96 percent) for acetonitrile and acrylonitrile in the solid waste but poor recoveries for acrolein (10 percent). Problems resulting from residual amounts of PEG indicated that additional modifications of this method are needed. The direct liquid injection technique gave excellent results for the determination of all three analytes (86 and 111 percent recoveries) in the liquid organic waste; however, late eluting material may present serious problems in some cases. The manual heated headspace method gave distinctly less accurate and less precise results than the PEG/purge-and-trap method for the determination of acetonitrile and acrylonitrile in the solid waste sample. Acrolein was not recovered at all by the method due, apparently, to decomposition during the one-hour equilibration at 90°C. The headspace method gave extremely erratic results for the analysis of the organic liquid waste and was, therefore, considered completely unsatisfactory for such samples.

This study was conducted by the EMSL-CIN laboratory (James Longbottom, 513-684-7308).

Method 8090

Another study recently completed by the EMSL-CIN laboratory (James Longbottom, 513-684-7308) was a single laboratory evaluation of Method 8090, which is a procedure for the analysis of nitroaromatics and cyclic ketones in ground water, liquid waste and solid sample matrices. The method spike recoveries in authentic matrices at two challenge concentrations were determined. Authentic matrices were obtained from industrial sources with manufacturing processes that might require the use of this method for monitoring, and as such these authentic samples provided the analytical conditions and background interferents that might be expected in actual implementation of this method.

The method detection limit (MDL) in reagent water for all the analytes ranged from 1.2 ug/L to a low of 0.26 ug/L. The experimental method detection limits were lower than the published method detections in Method 8090 for 2,4-dinitrotoluene, 2,6-dinitrotoluene, nitrobenzene and isophorone. The recoveries for all the analytes in reagent water were greater than 75 percent.

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The recoveries for the majority of the analytes in the three matrices (ground water, nonaqueous liquid waste, and solid waste) were generally good. All the analytes gave good recoveries (greater than 70 percent) and good precision (relative standard deviation less than 12 percent) in the ground water matrix. 2,4-Dinitrotoluene, 2,6-dinitrotoluene, 1,3-dinitrobenzene and 1,4-naphthoquinone gave good recoveries (greater than 70 percent) in the nonaqueous liquid waste. Poor recoveries were observed for nitrobenzene and isophorone in the nonaqueous liquid waste. For the solid waste matrix, 1,4-naphthoquinone gave the worst recovery (50 percent) of the six analytes, while the remaining analytes gave recoveries ranging from 60 to 70 percent at the high concentration level and greater than 80 percent at the low concentration level.

Method 8280

In 1983, EPA proposed a ruling affecting disposal of hazardous wastes containing tetra-, penta-, and hexa-chlorinated dibenzodioxins and -furans. As a result, the EMSL-LV laboratory initiated a validation study of the method proposed to detect these substances.

The RCRA Method 8280 consists of four major sections: (1) extraction of the analytes from the environmental sample; (2) "open" chromatographic clean-up with alumina using methylene chloride/hexane eluent; (3) MPLC clean-up; and (4) analysis by capillary column gas chromatography/low resolution mass spectrometry (HRGC/LRMS). In order to test Method 8280 efficiently and to develop appropriate modifications with minimal effort, each section of the methodology was tested separately. Initial tests were performed on a simple (pottery clay soil) sample matrix and upon standard solutions. Necessarily, the first step evaluated was the measurement technique. Both GC/MS and GC/EC (electron capture detection) were tested using guidelines from the published RCRA method. Because the analytes could not be measured at the published mass-to-charge ratio (m/z) values by GC/MS, these values were corrected prior to further work.

In summary, the following revisions were made to the published method: (1) correct m/z values were substituted for those in the published method so that the mass spectrometer could detect analytes and standards introduced via the interface gas chromatograph; (2) the extract clean-up with an alumina column was revised so that all desired analytes eluted in a single fraction, with the bulk of the analytical interferences removed; (3) the method was revised so that wet samples could be accommodated; and (4) NPLC procedures that could be performed effectively and be reproduced consistently were developed. The

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extraction revision allows accommodation of wet samples and improves recovery of spiked analytes in dry soil samples.

The RCRA method with revisions discussed above was subjected to performance tests that included: (1) analysis of reference materials containing 2,3,7,8-TCDD and interferences; and (2) precision and accuracy determinations on samples having known composition through spiking the sample matrix at this laboratory.

Two independent teams of analysts investigated the performance of the revised method using precision and accuracy determinations (standard deviation of results) and by recovery of spiked analytes and isotopically labeled standards. Effects of experimental parameters, such as QC column type (coating) and alumina activation level were also determined.

After incorporating necessary revisions, satisfactory method performance has been demonstrated on soil-type samples. Much precision and accuracy data obtained to date were based on GC/EC determinations. Comparisons to the precision and accuracy attainable by NPLC/LRMS is underway. Performance of the method on relatively complex matrices, such as sludges, still bottoms and fly ash was determined.

Although the method was found suitable for soils, fly ash and other relatively clean matrices, serious interferences were obtained during the analysis of still bottoms. Additional clean-up steps are now being studied. A copy of the revised method will be attached to the July memo (Ron Mitchum, 702-798-2103).

Gas Chromatography/Fourier Transform Infrared

The application of gas chromatography/Fourier transform infrared (GC/FT-IR) data to regulatory decisions requires the availability of validated analytical protocols. A GC/FT-IR protocol was developed by EMSL-LV (Donald Gurka, 702-798-2113) that is applicable to the determination of semivolatile organic compounds in waste water, soils, sediments and solid wastes. The protocol is designed for automated analysis of multicomponent environmental and hazardous waste extracts. Waste water analysis for semivolatile organic compounds is based upon extracting 1 L of sample with methylene chloride and concentrating the sample extract to 1.0 mL. The analysis of the semivolatile fraction derived from solid waste analysis is based upon extracting 50 grams of sample and concentrating the sample extract to 1.0 mL. A gel permeation option is included to further purify those extracts which cannot be concentrated to the specified final volume.

Using capillary GC/FT-IR techniques, waste water identification limits of 150 to 400 ppb can be achieved with this

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method while the corresponding identification limits for solid samples are 3 to 8 ppm. Automated packed column GC/FT-IR identification limits are approximately a factor of five higher than the corresponding capillary GC/FT-IR values. The most frequent obstacle to achieving these identification limits is expected to be the presence of large quantities of interfering high boiling coextractants. These coextractants would raise the identification limits by preventing the concentration of extracts to the desired final volume, thereby necessitating gel permeation clean-up, and/or by decreasing the spectral signal-to-noise GC-volatile analytes by raising the spectral background intensity.

Triple Quadrupole Mass Spectroscopy

In order to develop analytical methods for compounds that do not gas chromatograph, EMSL-LV (Steve Billete, 702-798-2232) has been studying the use of alternative analytical methods. A number of dye compounds and dye wastes were characterized by MS/MS using thermospray ionization and triple-quadrupole mass spectrometry. The polymethine, commarin, xanthene, arylmethane and non-sulfonated azo compounds are classes of dyes that, in general, give collision mass spectra when introduced into the spectrometer via the thermospray interface without chromatography. Other classes of dyes, such as phthalocyanines, stilbence and benzidine dyes, have not been detected by this method.

Many synthetic intermediates and other dyes were detected in standards of individual dyes. The precursor compounds are generally not completely removed from the commercial product. The dyestuffs are formulations based on color index standards. Dye wastes (mother liquors from various dye processes) were analyzed without pretreatment before injection into the spectrometer. High percentages of the starting materials used in the synthesis of specified dyes were often detected. Other types of dyes spiked into these wastes could be identified by their collision spectra. The quantification of these dyes proved difficult because of the impurity of the dye standards.

Detection limit studies indicate that at least 100 mg to 250 mg of injected material are needed for the dye to be identified. However, specific detection limits are dependent upon the class of dye and its actual chemical structure.

The use of triple-quadrupole mass spectrometry proves very effective in identifying those dyes that undergo thermospray ionization. The production of a useful spectrum from the single ion per compound generated from thermospray ionization makes the triple-quadrupole mass spectrometer useful in both structure and mixture analysis.

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Test Methods Discussed at AOAC Meeting in Dallas

In addition to the above studies for which reports have recently been completed, two other methods under development, a new Toxicity Characteristic Leaching Procedure (TCLP) and a Sorbent Pressure Test Method, were discussed at a session of the AOAC meeting on April 11, 1985 in Dallas, Texas. A discussion of these new methods is presented in the following sections.

Toxicity Characteristic Leaching Procedure

The 1984 amendments to the RCRA call for EPA to make the Extraction Procedure (EP) more accurate and to expand the hazardous waste characteristics. In response, the Agency is expanding the list of compounds that can be detected using the Extraction Procedure and is developing a second generation mobility procedure. The new TCLP is being designed to be suitable for determining the leaching behavior of volatile compounds as well as to be less costly and more precise than the current EP. Furthermore, the features of this new procedure are expected to approximate the leaching action of a sanitary landfill. The draft TCLP that was discussed at the AOAC meeting in Dallas makes the use of a zero-headspace extraction vessel, the tumbler type agitator currently employed in the EP, and an acetic acid/sodium acetate buffer as the extraction medium. A report is in preparation summarizing the results of the lysimeter and laboratory experiments that led to the draft procedure. A copy of the draft method is attached. For further information, contact Todd Kimmell 202-382-4795).

Sorbent Pressure Test Method

Compression of materials occurs during routine landfill operations, and the 1984 amendments to RCRA directed EPA to prohibit the landfill disposal of liquids absorbed in materials (sorbents) which can release these liquids when compressed.

In order to determine whether certain sorbents could release liquids under simulated landfill pressure, the Agency has initiated a program to develop a new test method, entitled the Sorbent Pressure Test. As discussed at the AOAC meeting, centrifugation and consolidation are currently being investigated as a means of simulating landfill pressure. The test will be designed to be easily applied in the field and to yield both qualitative and quantitative results.

Attachment

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MAY 31 1985

Mr. William L. Ramus
Water Management, Inc.
2480 Broadway Avenue
Cleveland, OH 44115

Dear Mr. Ramus:

This letter is in response to your May 17, 1985 letter to Mr. Matthew Straus of the Waste Identification Branch. Specifically, you requested a clarification of the F019 listing and its applicability to wastewater treatment sludges from sulfuric acid anodizing of aluminum.

The F006 listing of wastewater treatment sludges from electroplating operations was published Interim Final on May 19, 1980 (45 FR 33123). Comments were taken on the proposed listing, which prompted several modifications. These modifications were incorporated into the final listing on November 12, 1980 (45 FR 74886-74887). First, wastewater treatment sludges from several specific processes were excluded from the listing. These processes include sulfuric acid anodizing of aluminum. Also, wastewater treatment sludges from chemical conversion coating of aluminum were listed separately, as F019, because these sludges were not expected to contain significant concentrations of cadmium and nickel. Thus, the F019 listing is, in effect, a subcategory of the F006 listing.

Since wastewater treatment sludges from sulfuric acid anodizing of aluminum are specifically excluded from the F006 listing, the sludges are not included under F019. At present, this exclusion also includes the coloring step and, thus, the process you describe results in an excluded waste unless the sludge is hazardous by characteristic (ignitability, corrosivity, reactivity, or EP toxicity).

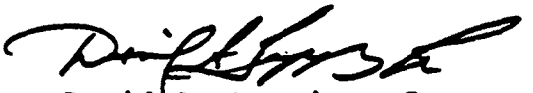
WH-562B/DTOPPING/rpj/382-4690/5-31-85/DISK DT 01

It is important to note that this waste is excluded from the listings because it meets the description in the F006 exclusion and not because the chemical conversion baths contain no chromium. Apart from the F006 exclusions, wastewater treatment sludges from all chemical conversion coating processes are listed hazardous wastes (F019 for aluminum, F006 other metals).

However, the Agency is currently re-evaluating the electroplating and metal finishing listings to determine whether phosphating and some other processes should continue to be included.

Should you have any questions related to this clarification or other aspects of the electroplating and metal finishing listings, please feel free to contact me at (202) 382-4690.

Sincerely,



David A. Topping, Jr.
Environmental Scientist
Waste Identification Branch (WH-562B)

cc: Sally Swanson, EPA Region V

MEMORANDUM #7

DATE: June 1985

SUBJECT: Notes on RCRA Methods and QA Activities

FROM: David Friedman, Manager
Methods Program (WH-562B)

TO: Addressees

Today's memo will cover the following subjects:

- Metal Determination in Ground Water
- Dioxin Method 8280
- Performance Audits on Gas Samplers
- Validation of Method 3540
- Reactivity Test Methods
- Symposium on Solid Waste Testing and Quality Assurance

Thank you for past comments and suggestions.

Metal Determination in Groundwater

The forthcoming publications, "Ground Water Technical Enforcement Document" (OWPE) and the Third Edition of SW-846, will provide greater detail on how metals are to be determined in ground water. The following policy will be implemented in both documents.

- All ground water samples are to be analyzed for total recoverable metals (unfiltered, mild digestion) and dissolved metals (filtered, mild digestion) as defined in the EPA publication "Methods for Chemical Analysis of Water and Waste" (EPA-600/4-79-020), Section 200 Metals, paragraphs 3.7 and 3.4. Total recoverable metals and dissolved metals are to be determined by the methods given in the same publication in Section 200 Metals, paragraphs 4.1.4 and 4.1.1. (The digestion

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given in Note 3 of 4.1.1 is always to be used for ground water samples.)

- Organic determinations are to be made only on ground water samples that have not been filtered.

- An on-site filtration method will be developed and evaluated before inclusion in SW-846.

Dioxin Method 8280

The single laboratory evaluation of Method 8280 for analysis of halogenated dibenzo-p-dioxins and dibenzofurans has been completed. The method consists of extraction, base and acid washes, alumina column chromatography, reverse phase HPLC, carbon column chromatography and quantitation by high resolution gas chromatography low resolution mass spectrometry (HRGC/LRMS) (see Table I). Analyses, concentrations and performance data are given in Table II. Detection limits derived from the single lab study are given in Table III. These may be higher than lowest possible detection limits because calculations are based on high natural and spiked dioxin concentrations. The EMSL-Las Vegas laboratory is currently investigating method modifications aimed at lowering the detection limits and is preparing for a multi-laboratory evaluation of the current method.

Availability of PPB Hazardous Organic Cylinder Gases for Performance Audits

In order to minimize the chance of poor data being collected when performing trial burns and other combustion process monitoring, the EMSL-RTP laboratory has prepared several audit cylinders for use in performing performance audits of SW-846 sampling methods 1.2.1.8 (VOST) and 1.2.1.13 (MM5). These multicomponent organic cylinder gases have been successfully used in audits during RCRA hazardous waste trial burns.

As a result of the success with these cylinders, OSW believes it is prudent for all persons performing such sampling to use a cylinder audit during each sampling episode. If such a level of Quality Assurance cannot be performed, then cylinder audits should be performed during all trial burns. The cylinder gas audit can be used for all volatile organic sampling that uses either the VOST or bag techniques. The audit adds an important ingredient now missing from such trial burns--assessment of sampling accuracy. Currently, EPA and State personnel who require trial burns for POHC have little means of knowing the accuracy of POHC measurements. Requiring permit applicants to conduct cylinder audits during the trial burn adds an important weapon to the QA arsenal. OSW strongly recommends instituting this requirement.

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TABLE I. FLOW SHEET FOR METHOD 8280 DIOXIN ANALYSIS

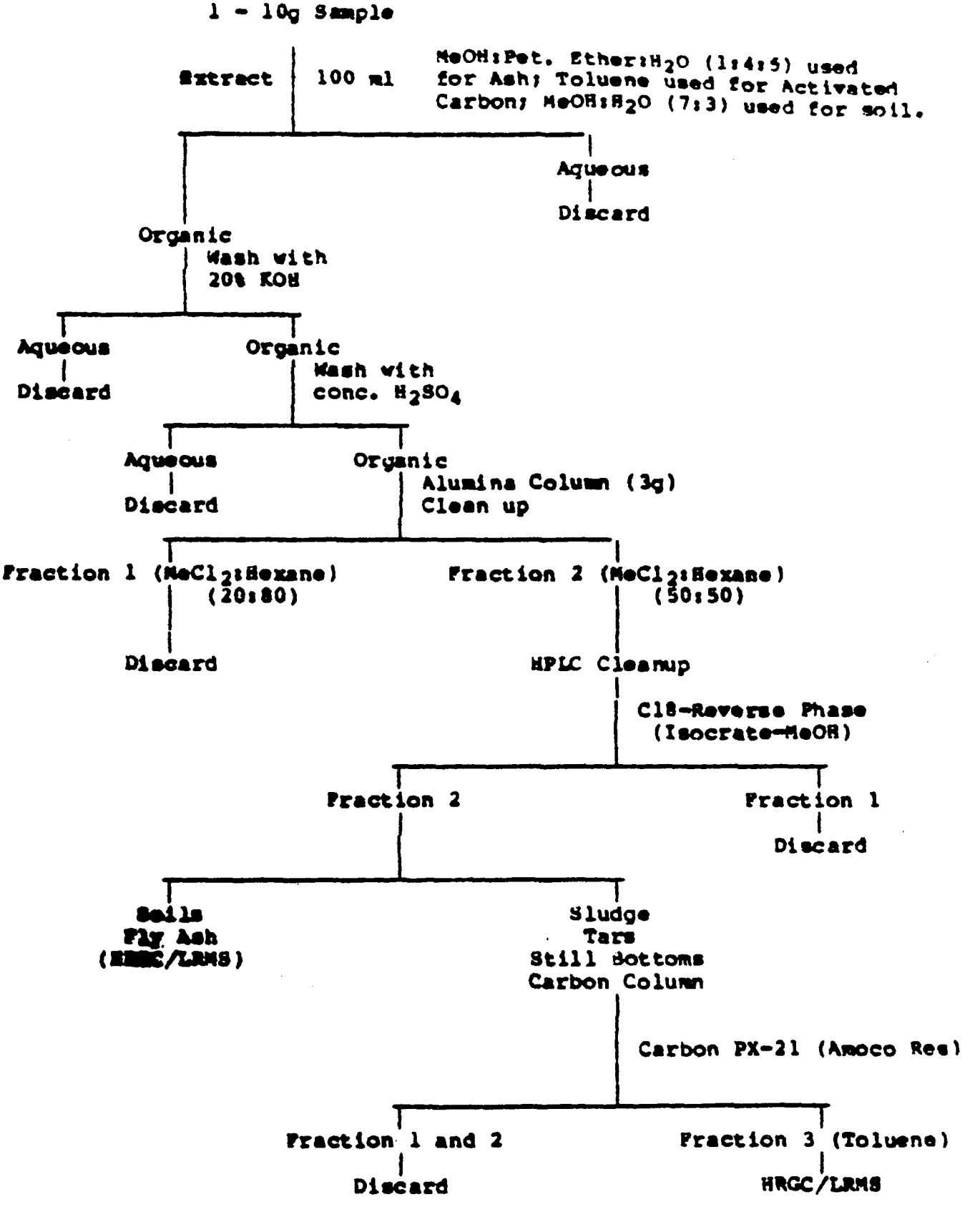

TABLE II. PRECISION DATA FOR REVISED METHOD 8280

Compound	Matrix	Analyte Level Native + Spike(ng/g)	N	Mean Percent Recovery	Percent RSD
1,2,3,4,7-PeCDD	clay	5.0	4	58.4	3.36
	soil	25.0	4	62.2	8.92
	sludge	125	4	79.2	6.93
	fly ash	13.9	4	102.4	10.3
	still bottom	2500	2	81.8	--
1,2,3,7,8-PeCDD	clay	5.0	4	61.7	23.2
	soil	25.0	4	68.4	10.8
	sludge	125	4	81.5	5.28
	fly ash	46	2	104.9	--
	still bottom	2500	2	84.0	--
1,2,3,4,7,8-HxCDD	clay	5.0	4	46.8	28.9
	soil	25.0	4	65.0	12.9
	sludge	125	4	81.9	9.0
	fly ash	46	2	125.4	--
	still bottom	2500	2	89.1	--
1.2,3,4,6,7,8-HpCDD	clay	5.0	4	ND	--
	soil	25.0	4	ND	--
	sludge	1×10^4	8	--	--
	fly ash	--	-	--	--
	still bottom	--	-	--	--
2,3,7,8-TCDD (C-13)	clay	5.0	4	64.9	7.58
	soil	25.0	4	78.8	9.14
	sludge	125	6	78.6	3.42
	fly ash	5.0	4	88.6	6.74
	still bottom	2500	3	69.7	7.47
1,2,7,8-TCDF	clay	5.0	4	65.4	6.91
	soil	25.0	4	71.1	8.40
	sludge	125	4	80.4	3.08
	fly ash	3.7	4	90.4	11.1
	still bottom	2500	2	104.5	--
1,2,3,7,8-PeCDF	clay	5.0	4	57.4	5.18
	soil	25.0	4	64.4	6.77
	sludge	125	4	84.8	9.74
	fly ash	46	2	105.8	--
	still bottom	178,000	2	--	--
1,2,3,4,7,8-HxCDF	clay	--	-	54.2	--
	soil	25.0	4	68.5	10.0
	sludge	133	4	82.2	5.29
	fly ash	17.6	4	91.0	8.71
	still bottom	2500	2	92.9	--

TABLE III. DETECTION LIMITS (ppb) FOR RCRA METHOD 8280

Analyte Class	Clay	Soil	Fly Ash	Still Bottom	Sludge
TCDD	1.0	5.0	1.0	500	25
TDCF	0.5	2.5	0.5	250	12
PeCDD	1.5	7.5	1.5	750	38
PeCDF	1.0	5.0	1.0	500	25
HxCDD	2.0	10	2.0	1000	50
HxCDF	1.5	7.5	1.5	750	38

weapon to the QA arsenal. OSW strongly recommends instituting this requirement.

These cylinders are available, at no cost, from the EMSL-RTP laboratory. Each audit cylinder contains 5 to 9 hazardous organics. Audit cylinders are available in two concentration ranges. The concentration of each hazardous organic in the low audit cylinders is between 7 and 90 ppb. The concentration of each hazardous organic in the high audit cylinders is between 90 and 430 ppb. Groups I and II cylinders are currently available for audits. Group III cylinders will be available in the Fall, 1985. Groups I, II and III cylinders contain the following hazardous organics:

Group I Cylinders	Group II Cylinders	Group III Cylinders
Carbon tetrachloride	Trichloroethylene	Pyridine
Chloroform	1,2-Dichloroethane	Vinylidene chloride
Perchloroethylene	1,2-Dibromoethane	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)
Vinyl chloride	Acetonitrile	
Benzene	Trichlorofluoromethane (Freon-11)	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
	Dichlorodifluoromethane (Freon-12)	Acetone
	Bromoethane	1,4-Dioxane
	Methyl ethyl ketone	Toluene
	1,1,1-Trichloroethane	Chlorobenzene

All audit cylinders are periodically analyzed to assure cylinder concentrations have remained stable. Also, all stability analyses in Appendix A include quality control analyses of ppb hazardous organic gas standards prepared by the National Bureau of Standards for EMSL-RTP/QAD.

Audit cylinders may be obtained by contacting:

Robert L. Lampe
USEPA, Environmental Monitoring Systems Laboratory
Quality Assurance Division (MD-77B)
Research Triangle Park, North Carolina 27711
Telephone: Commercial (919) 541-4531 or FTS 629-4531

This has been retyped from the original document.

Validation of Method 3540

The development and evaluation of fortification/homogenization procedures for preparing uniform distributions of analytes in diatomaceous earth showed no appreciable differences between fortification solvents, between mechanisms of homogenization, or between duration of homogenization. Uniformity of distribution of analytes in the diatomaceous earth was essentially independent of these parameters. Consequently, the most facile approach (i.e., fortifying using methylene chloride followed by tumbling for 30 min) was applied to subsequent experiments.

The evaluation of the Soxhlet Extraction Procedure (Method 3540, SW-846) using reagent diatomaceous earth demonstrated that this procedure provides accurate and precise measurements on nonvolatile components. Recoveries of such species from fortified diatomaceous earth was approximately 85 percent, with relative standard deviations of less than 11 percent. Recoveries of the three volatile analytes, toluene, p-xylene, and o-xylene were considerably lower (-40%). Loss of these volatile compounds during evaporation of gross solvent in the fortification step was considered the most probable cause of this poor performance. Extraction and K-D evaporation were also minor contributors. No effect of using diatomaceous earth from different sources on recovery of target analytes was noted.

Precision of determination of unknown components of diatomaceous earth fortified with actual pesticide industry waste was somewhat lower (approximately 27% RSD). This observation was attributed to the difficulty of homogenizing a mixture of two solid materials.

Reactivity Test Methods

Development of reactivity test methods for those waste materials which are capable of detonation is underway. In an interagency agreement with the Bureau of Mines Laboratory (BOM) in Pittsburgh, Pennsylvania, OSW sponsored a study that evaluated the U.S. Card Gap Test and the U.S. Internal Ignition Test as tools for determining if a given waste is an explosive that could undergo detonation under reasonable mismanagement conditions. Samples of sludge from several explosives processing waste treatment facilities were collected and analyzed as well as a series of standard explosives for calibration use. Because of the inconclusive nature of the results of the BOM work, further evaluation is needed before any decision is reached as to the applicability of these tests to RCRA wastes.

This has been retyped from the original document.

In the interim, OSW has supported the use of a battery of tests to determine reactivity due to explosive properties. This battery is outlined in a test plan submitted by the U.S. Army.

Please contact Florence Richardson (FTS 382-4770) for additional information on this aspect of reactivity.

This has been retyped from the original document.

9445.1985(05)

JAN 18 1985

Mr. Don B. Howard
C-K Associates, Inc
11848 South Harrell's Ferry Road
Suite A
Baton Rouge, Louisiana 70816

Dear Mr. Howard:

This letter is in response to your November 6, 1984, request for an analytical method to determine the presence of creosote. Alan Corson referred your letter to me, because I have been working with creosote regulations. In order to properly reply to your letter, I feel that some clarification is necessary.

K001 refers to wastes from wood preserving processes that use creosote and/or pentachlorophenol, which I presume is the case that you described. U051 refers to creosote as a commercial chemical product which is only considered as a hazardous waste if discarded or intended to be discarded. In other words, you will not have 4051 unless raw creosote is discarded.

As you may know, creosote is an extremely complex mixture of many compounds. The concentration distribution of these compounds varies depending both on reaction conditions and on the source of coal used. Unfortunately, we are aware of no single analytical method with which to determine creosote presence. Recent information indicates that following the procedure outlined in the footnote associated with creosote on Appendix III, is not a reliable indicator of the presence of creosote. EPA is presently working on a proposed rule to amend the hazardous waste regulations concerning creosote.

However, we are not concerned with creosote per se but rather, the toxic compounds that are present in creosote. I therefore, recommend you analyze for the toxic compounds identified as being present in K001 on Appendix VII. If any of these are present at the facilities you are concerned with, a potential hazard still exists. Analytical methods for these compounds are provided on Appendix III of 40 CFR part 261. Refer to Test Method for Evaluating Solid Waste (SW-846), Second Edition; Test Methods 8100, 8250, and 8310.

I hope these recommendations will be of assistance. Please feel free to contact me again, if you have any questions at (202) 475-8990.

Sincerely,

Agnes M. Ortiz
Chemical Engineer
Methods Program, WH-562B

cc: Region VI

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 85

"Skinner List"

1. What is meant by the term "Skinner List"?

The term "Skinner List" refers to a subset of 40 CFR 261 Appendix VIII constituents (89 compounds) that, when developed, was considered a conservative list of hazardous constituents that were reasonably likely to be in petroleum refinery wastes. The list was originally an attachment to a memo dated April 3, 1984, from John Skinner, then Director for the Office of Solid Waste, to the Regional Hazardous Waste Permit Branch Chiefs.

Its primary purpose was to provide permit writers guidance on evaluating petroleum refinery waste analyses submitted in land treatment permit applications. However, as a result of changes in delisting requirements as specified by the Hazardous and Solid Waste Amendments of 1984, the list became relevant for purposes of refinery delisting actions including the identification of analyses to be performed for delisting purposes. (The list of constituents sent to petitioners actually differed slightly from the original list that appeared with the Skinner memo. The constituents appeared in a list entitled "Constituents of Possible Interest to Refinery Listing Effort.")

As a result of additional data collected by the Agency during the spring of 1985, the decision was made to eliminate a significant number of constituents for which analysis was needed for delisting purposes. That subsequently reduced list is the current one now in use for delisting purposes only. Regional offices retain the authority to require the complete "Skinner List" to be used in land treatment permit applications. In addition, the hazardous waste listing program at EPA headquarters may periodically add constituents to the listings as a result of data collected through their industry studies. The guidance manual entitled Petition to Delist Hazardous Waste contains the current list for which analysis is needed for refinery wastes in addition to general information described on preparing a delisting petition. This guidance manual can be ordered at a cost of $19.00 through the National Technical Information Service (NTIS) by referring to order number PB 85-194488.

Source: Barbara Bush (202) 475-6776

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MARCH 87

5. Appendix VIII, Groundwater Monitoring

In the July 24,1986 Federal Register, EPA proposed changes to the existing ground-water monitoring requirements. These changes involve replacing the requirement for owner/operators to monitor for the 40 CFR 261 Appendix VIII hazardous constituents, with a new list of hazardous constituents in 40 CFR 264 Appendix IX. The Appendix IX list is the same as the Appendix VIII list except it does not include those listings from Appendix VIII that cannot be analyzed for in ground-water. Also, the proposed Appendix IX list includes 25 new constituents that are routinely analyzed for in the Superfund program. Under the existing regulations when the o/o discovers a statistically significant increase of an indicator parameter during the detection monitoring phase, the o/o must immediately sample all ground water monitoring wells and analyze those samples for the presence and concentration of Appendix VIII constituents. Based on this information, the Regional Administrator will set "ground-water protection standards", or levels, for the constituents in the ground water. If these levels are exceeded in the ground water, corrective action must be implemented. If the Appendix IX list is used in place of the Appendix VIII list, will the 25 additional Superfund chemicals also be analyzed for and be subject to the ground-water protection standards of the 40 CFR 264 ground-water monitoring program?

These additional 25 Superfund chemicals would be analyzed for along with the other proposed Appendix IX constituents when a statistically significant increase of an indicator parameter was identified during detection monitoring, and again any time Appendix IX monitoring was required. Because the Agency has not yet evaluated these 25 constituents to be "hazardous" per 47 FR 32295, as they have the Appendix VIII constituents, the Regional Administrator could use the "omnibus authority" of 40 CFR 270.32(b)(2) and Section 3005 (c)(3) of RCRA to set protection standards and require corrective action for these additional 25 constituents if it was deemed necessary to protect human health and the environment.

Source: Jerry Garman (202) 382-4658
Research: Robyn Neaville

SEP 16 1987

Dr. Suellen Pirages
National Solid Wastes
Management Association
Suite 1000
1730 Rhode Island Ave., NW
Washington, DC 20036

Dear Suellen:

I am writing in response to your recent letter requesting clarification of OSW's policy regarding the status of SW-846. It appears from your letter that a misunderstanding exists with regard to the function and regulatory status of the manual.

In general, EPA will mandate the quality assurance/quality control procedures in SW-846 but not the specific methods. To this end, we are in the process of preparing a Notice of Proposed Rulemaking which we expect to publish in the Federal Register early in 1988. However, for a limited group of regulations, we currently mandate use of SW-846 methods. For those regulations, SW-846 will continue to be mandatory. The specific program areas where SW-846 methods are mandatory include:

1. Determining whether a waste is hazardous by reason of one or more characteristics;

2. Sampling and analyzing a waste to gather data to support a delisting petition;

3. Conducting an incinerator trial burn; and

4. Determining whether a bulk or containerized waste contains "free liquid."

Other than exceptions noted above, SW-846 serves as a compendium of methods which are approved, but not mandatory, for use in complying with the requirements of the RCRA regulations. This approach was adopted, by OSW, to offer the greatest degree of flexibility to the regulated community while minimizing the burden to them of having to evaluate methods for each and every RCRA monitoring requirement. The Agency continually reviews the effectiveness of this approach. If we find that the flexibility is resulting in compliance problems in specific program areas, we would consider expanding the areas where use of SW-846 methods are mandatory.

We agree with your comment that, when developing a testing program, one should consider not only the methods in SW-846 but also those published by organizations such as ASTM, AOAC, and Standard Methods. To that end, OSW has an active program to encourage and work with standard-setting organizations in developing testing methods that can be used in the RCRA program.

We would appreciate any assistance NSWMA can give us in developing and evaluating testing methods. Wherever possible, we would very much like to undertake joint programs with NSWMA. I would be happy to have David Friedman attend the next meeting of your Technical Committee to explore specific areas where NSWMA can assist us in developing and evaluating testing methods.

Sincerely yours,

Marcia Williams, Director
Office of Solid Waste (WH-562)

cc: Sylvia Lowrance
David Friedman

OCT 20 1987

MEMORANDUM #20

DATE: October 1987

FROM: David Friedman, Chief
Methods Section (WH-562B)

TO: Addressees

This memo will address the following topics:

- o GC/MS Suitability Testing of RCRA Appendix VIII and Michigan List Analytes
- o Notes on Safety in the Laboratory
- o Standardization of Method 8610, Part 2
- o 1988 Solid Waste Testing and Quality Assurance Symposium
- o TCLP Video
- o Application of Structural Integrity Procedure when Performing EP Analyses

GC/MS Suitability Testing of RCRA Appendix VIII and Michigan List Analytes

The RCRA list of toxic compounds (Appendix VIII) contains over 300 organic analytes. In response to a petition by the state of Michigan, the Agency proposed to add over 100 additional organic compounds to the list. In order to develop and validate methods for the analysis of these compounds in wastes, EP extracts, and ground water, the Environmental Monitoring and Support Laboratory in Cincinnati (EMSL-CI) has been evaluating applicability of Methods 8240 and 8270 for these analyses.

The first phase of this approach involved the identification of those compounds which are amenable to GC separation and MS detection. These evaluations involved the analyses of solutions of standard materials using the GC/MS conditions described in the Contractor Laboratory Protocol (CLP) for the application of Methods 8240 and 8270 for volatile and semi-volatile organic compounds, respectively.

EMSL-CI recently issued the first report on this study. The report describes the procedures and presents the results obtained from this first phase of the study. The compounds were classified as candidates for Method 8240 or Method 8270 testing. Some compounds were not tested because they fell into one of the following categories:

- o The chromatographic behavior of the compound had already been thoroughly characterized.
- o The compound was known to degrade rapidly in aqueous sample matrices.
- o The compound was known not to be amenable to gas chromatography -- Compounds known to be too polar and/or too thermolabile to elute using Method 8270 conditions.
- o Standards were not available, either from the EPA repository or from commercial sources, for the compound.

For compounds not excluded for the above reasons, the following data were obtained:

- o GC Performance -- retention characteristics.
- o Mass Spectral Performance -- response factors, key ions for detection and quantification using extracted ion current profiles (EICP).

The project demonstrated that of the Appendix VIII or Michigan List analytes tested, 64 are compatible with the GC/MS analysis for volatiles and 220 others can be detected using the Superfund GC/MS program for semi-volatiles.

Notes on Safety in the Laboratory

The items below were brought to our attention and we felt it would be of benefit to reprint them in this issue. Chemical Safety (C&EN, July 27, 1987)

Noxious Fumes From Nitric Acid Digestion

SIR: We were interested to read of Paul Haas' description of an unexpected reaction involving the acidification of hydrous metal oxides with nitric acid (C&EN, April 20, page 3). The health and environmental chemistry group at Los Alamos National Laboratory conducts the extraction procedures-toxicity tests for determination of metals in hazardous waste materials as required by the Environmental Protection Agency. Because of the nature of these materials, there is always an inherent amount of uncertainty with each sample to be analyzed. However, our experience has shown that approximately one third of all samples are likely to yield a fairly vigorous reaction at some point throughout the extraction procedure.

Recently, we experienced an incident involving one of these samples. A sample aliquot was being prepared for mercury analysis by the stepwise addition of digestion acids and potassium permanganate. Nitric acid had been added to the aliquot in a 100-mL Erlenmeyer flask and the mixture had been allowed to stand for 15 to 20 minutes with occasional swirling. An ice bath was used to douse vigorous reactions. The flask was then removed from the hood and placed in the laboratory sink, which contained approximately 1 inch of cool water. Shortly thereafter, a reddish-brown mist containing probable fumes of nitrogen dioxide and butyric acid (based upon the appearance and odor) was liberated from the flask, resulting in mild exposure to the employee conducting the analysis. Several other individuals in the building also reported nausea and slight dizziness.

At the time of removal of the flask from the laboratory hood, the sample appeared quiescent; it was removed from the hood in order to make room for other samples being prepared in a similar fashion. In the future, all such samples will be retained in the hood throughout the procedure at the possible cost of increasing throughput time for sample analyses.

Mary C. Williams,
Fred N. Bolton
Health, Safety & Environment Division
Los Alamos National Laboratory

Standardization of EPA Method 8610, Part 2

Method 8610, "Total Aromatics by Ultraviolet Absorption" was evaluated in conjunction with Method 3560, "Reverse Phase Cartridge Extraction" for the separation and semi-quantitative determination of visible or ultraviolet absorbing organic compounds listed in Appendix VIII. In Part 1 of this program, reported on earlier by EMSL-CI (EPA/600/S4-85/052), the following work was conducted:

- A data base of visible and ultraviolet (UV) spectral data for the Appendix VIII compounds was developed and used to estimate detection limits for those compounds which absorb UV or visible light in the region 220 to 700 nm.

- The reverse phase cartridge extraction procedure of Method 3560 was evaluated and modified for the separation of polar and non-polar subsets of 21 Method 8610 analytes using methanol hexane eluents. However, the extraction procedure was found to be unsuitable for analyzing the tested composite groundwater sample. The tested water contained five sediment particles which partially moved through the extraction cartridge and possibly interfered with the UV analysis.

- The spectrophotometric determinative technique of Method 8610 was evaluated and found, in the range of 220 to 400 nm, to be very sensitive for a majority of the compounds.

Based on these results, further work was conducted by EMSL-CI to further investigate the applicability of these methods in a variety of ground-water samples and to refine method detection limit estimates.

Seven ground-water samples were supplied for the study by ASTM Committee D-34 members. These samples were evaluated for background UV absorbance, and duplicate sample extractions were used to simulate down-gradient versus upgradient testing. An estimated positive response decision level was found to be 0.02 absorbance units. Five Method 8610 analytes were evaluated for spike recoveries from both reagent water and a composite ground-water sample. One analyte was found to be unstable in water and the elution solvents used. The remaining four analytes had good total recoveries from reagent water ranging from 79 to 108 percent with standard deviations of all but one analyte ranging from 1 to 5 percent. Spike recoveries for composited ground water were not reproducible due, apparently, to a significant variability in recovery of native UV absorbing material. The cause of the variability could not be specifically attributed to, but may have been associated with, the presence of very finely divided particulate material.

Microwave Oven Safety

It has recently come to our attention that several laboratories are using kitchen type microwave ovens to aid in the acid dissolution of solid and liquid waste samples. The Methods Section is currently evaluating commercial microwave oven assisted sample digestion procedures and hopes to recommend

certain approaches in the near future. Those laboratories now using or contemplating the use of kitchen type ovens should be aware of several significant safety issues. First, when acids such as nitric and hydrochloric acids are used to assist sample digestion in open vessels, or in sealed vessels equipped with venting features, the potential for the acid gases released to corrode the safety wiring that prevents the microwave magnetron from shutting off with the door open. This can result in operator exposure to microwave radiation. On at least one occasion this has resulted in a severe burn to a laboratory technician. Use of an oven with corrosion resistant safety wiring may prevent this from occurring.

The second safety concern relates to the use of sealed containers in the oven. It has been found that pressure, coupled with elevated temperature and the acid matrix is more effective in dissolving certain samples than either of these separately. However, many commonly used digestion vessels constructed from fluorocarbons may crack, burst, or explode in the oven under certain conditions. Only a few containers are considered acceptable at present. In addition, pressure buildup may be exacerbated by use of certain acids such as perchloric which decompose under certain pressures and temperatures to form gaseous byproducts.

1988 RCRA/CERCLA Symposium

We are again requesting your suggestions for papers and poster presentations for the 1988 Solid Waste Testing and Quality Assurance Symposium. It is scheduled for July 11-15, 1988 and will cover the areas of physical, chemical and biological testing, quality assurance, sampling, hazardous waste identification, enforcement, laboratory information management and any other topics that are of interest to State, Regional, private sector, and contract laboratories. This year we plan to offer training classes in quality assurance/quality control, and statistics. Denise Zabinski will be accepting your suggestions and can be reached on 202/382-4761 or FTS 382-4761.

TCLP Video

Each Regional Quality Assurance Officer has received 2 copies of the new Toxicity Characteristic Leaching Procedure (TCLP) video to be used both for in-house training and to serve as a lending library. For those of you who would like to purchase the video instead of borrowing it from a QAO, it is available for $40 from the American Public Works Association (APWA) in Chicago. Please contact Dan Hansen of APWA at (312) 667-2200 for further information.

Applicability of the Structural Integrity Procedure When Performing Extraction Procedure Toxicity Determinations

Recently a question came in regarding whether or not one could use the Structural Integrity Procedure (SIP) when evaluating a certain waste in lieu of grinding the waste prior to performing the extraction. Since this was not the first time we have received such questions, I felt it would be appropriate to review when use of the SIP is appropriate and when it should not be used.

The Extraction Procedure (Method 1310) protocol requires that wastes be ground to pass a 9.5 mm sieve unless the waste is in the form of a single piece (Step 7.9). If the waste consists of a single piece, or if upon disposal will be in the form of a single piece, then one may use the SIP in lieu of grinding. The SIP may, therefore, only be used to evaluate a waste that is in the form of a monolithic mass. In addition, in order for the sample, being tested, to be truly representative of the waste as a whole, the waste will have to be homogeneous. Put another way, one must be able to obtain a cylindrical sample of the waste with the dimensions 3.3 cm X 7.1 cm which has the same compostion and properties as the waste as a whole. Thus when determining whether one can use the SIP the critical questions to be answered are:

1. Is the waste a monolithic block when disposed of, and
2. Is the waste homogeneous.

To be considered a monolithic mass, the waste must be produced or generated in the form of discrete units of material. For example, a solidified waste may be cast into cylinders or blocks of a predefined size and shape; the waste may be emplaced in a landfill cell as a fast setting liquid which then hardens into a mass the shape of the cell (a la concrete poured into a form); or the waste may be a product that is in the form of a discrete unit (e.g., telephone pole, block of plastic). A material, however, that, while at some point in the production process is in the form of a monolithic mass, randomly breaks up as a consequence of its management prior to disposal would not be considered to be a monolithic waste and therefore is not a candidate for testing using the SIP. It should be noted that, while wastes are normally tested using the SIP at the time of generation, pozzolonic or other wastes that "set up" with time to form a solid mass may be aged for up to 30 days before testing (see Method 1310 Step 7.10.1).

The second critical parameter that must also be considered is whether the waste is homogenous. In order for the sample that is to be tested to be a representative sample, the waste from which the sample is being derived must be homogeneous. If

the waste is not homogeneous the subsample used in the SIP would not be representative. Examples of non-homogeneous wastes are batteries and hazardous wastes encapsulated in a plastic or other covering to prevent contact between ground water and the waste. These wastes are considered not to be homogeneous since the outer surface is different from the inner surface, and a smale sample of the waste cut from the larger block of waste would not have the same properties (i.e., composition, permeability) as that of the "whole waste". If, however, the waste was prepared, by a fixation process, in the form of cylinders 3.3 cm X 7.1 cm, the samples would be representative of the waste as a whole and could be tested using the SIP.

NOV 17 1987

Suellen Pirages, Ph.D.
Director, Institute of Chemical
Waste Management
National Solid Wastes Management
Association
1730 Rhode Island Avenue, N.W.
Suite 1000
Washington, D.C. 20036

Dear Dr. Pirages:

Thank you for your letter of October 26, 1987, expressing the Institute of Chemical Waste Management's (ICWM) concerns on various issues.

The Environmental Protection Agency (EPA) shares your concerns regarding the performance guideline of 50 psi compressive strength for wastes subject to liquid absorption/ adsorption treatment. We intend to provide additional guidance to the Regions and States in the near future. This guidance will emphasize that we are not recommending that a specific compressive strength be incorporated into permits. The guidance will, at a minimum, deemphasize the importance of a specific level (such as 50 psi) and stress that the important criterion is that following treatment, compressive strength must increase over time.

Therefore, if an owner/operator shows an increase in compressive strength over time, then it can be concluded that the treatment process is indeed achieving stabilization/ solidification for that waste, and is not merely an absorption/adsorption process.

You also raise the issue of the tendency on the part of permit writers to allow facilities to use only SW-846 methods when testing wastes. While the regulations do not require the use of SW-846 methods, the permit writers may be requiring facilities to use them because these methods have been evaluated by EPA and found to be suitable for their intended purposes. Before a permit writer can allow a facility to use a non-SW-846 method, he/she must be convinced that the method works, and would probably require that the applicant first submit data which demonstrate the method's validity in the intended application. Therefore, I do not believe that sending a reminder to permit writers would address the problem.

We are trying to include in SW-846 the least costly methods that can adequately answer the testing questions that facility owners/operators need to answer. It is our aim to continue to expand the list of approved methods as expeditiously as possible. To this end, EPA has been soliciting from industry, and other members of the regulated community, suggestions on methods to include in SW-846. I suggest that ICWM submit to EPA any fingerprinting or other cost-effective testing methods that have been evaluated by ICWM. Once EPA has reviewed the method and its supporting data and determined that it is suitable for RCRA use, EPA will add the method(s) to SW-846. Enclosed is a copy of the Test Methods Equivalency Guidance Manual which describes the information EPA requires and the procedures.

EPA is currently considering alternative systems to use in coding hazardous wastes. Among the alternatives being evaluated are systems that more accurately describe the type of waste being characterized (e.g., incinerator ash, scrubber water, etc.). The Agency is also considering a feature by which the code would reflect the treatment requirements to which the waste must be subjected prior to disposal. This project is still in its early, conceptual stage. Finally, as to the proper characterization of mixture derived from wastes according to the current system, EPA requests that all of the waste codes (from which the new material is derived) be used.

If I can be of any further assistance, please let me know.

Sincerely,

/s/

J. Winston Porter
Assistant Administrator

Enclosure

WH-562/STRAUS-SCARBERRY-TONETTI/L.T.HANSEN - 382-2074/11-06-87/
CONTROL NO. SWER-002211/DUE DATE: 11-12-87/TELEX CONTROL #1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1987(04)

DEC 4 1987

Mr. Lundy Adelsberger
Ohio Environmental
Protection Agency
P.O. Box 1049
Columbus, OH 43266-0149

Dear Mr. Adelsberger:

I am writing to clarify how to determine allowable holding times when testing RCRA samples. Basically, the holding time for a given sample begins at the time the sample is generated.

For example, if one has to analyze a sample of ground water for volatile organics using Method 8010, the holding time specified in SW-846 is 14 days. This means that within 14 days from the time the sample of water was taken from the well, it must be analyzed using Method 8010.

If, on the other hand, one is to analyze a sample of ground water for semi-volatile organics using methods 3510 and 8270, the water must be extracted within 7 days (the holding time for Method 3510) and then the organic extract analyzed within 40 days from the time the water was extracted (the holding time for Method 8270 samples).

In summary, as long as the holding time for each sequential step in a determination is not exceeded, the holding time criteria is not exceeded and the determination is not considered invalid.

With respect to the testing of waste materials to determine whether or not they exhibit the characteristic of Extraction Procedure Toxicity things are slightly more complicated. The listed holding times apply to analytes in the matrix in which they will be determined. If mercury is to be determined in Method 1310 leachate (the Extraction Procedure), the 28 day holding time, listed in SW-846 for mercury, begins when the leachate is generated. There are no holding times established to govern the time between collection and leaching. The analyst, in conjunction with the customer or regulatory official, should use his best professional judgement in such cases.

CONCURRENCE

SYMBOL

I hope this discussion clarifies the issue of holding time for you. If you have any additional questions, please contact Florence Richardson, of my staff, at 202/382-4778.

Sincerely yours,

David Friedman, Chief
Methods Section (WH-562B)

cc: F. Richardson
RCRA/CERCLA Hotline

OCT 21 1987

Mr. Robert Meltzer
Vice-President of Publications
and Marketing
ASTM
1916 Race Street
Philadelphia, PA 19103

Dear Mr. Meltzer:

I am writing as a follow up to my discussion with Kathy Green at the D-34 Committee meeting held in Clearwater, Florida last month. We discussed reprinting some ASTM Standards in the Environmental Protection Agency manual SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition.

SW-846 contains testing methods approved by EPA for meeting the testing requirements of the Resource Conservation and Recovery Act. In response to requests by laboratory personnel who use the manual, we would like to include the approved ASTM Standards listed below in SW-846 to ease the burden on users. We estimate 10,000 copies of SW-846 are presently in print to which the ASTM Standards would be added. Currently, the following ASTM Standards have been approved for use in the RCRA program.

D445-86 Test Method for Viscosity of Transparent and Opague Liquid and Calculation of Dynamic Viscosity

D446-85a Specifications for Operation of Glass Capillary Viscometers

D2015-77 Test Method for Gross Calorific Value for Solid Fuel by the Adiabatic Bomb Calorimeter

D1888-78 Method A Test Method for Particulate and Dissolved Matter in Water

D1888-78 Method B Test Method for Particulate and Dissolved Matter in Water

D93-80 Test Method for Flash Point by Pensky-Martens Closed Tester

D3828-81 Test Method for Flash Point by Setaflash Closed Tester

Kathy indicated that she thought there might be a mechanism to permit ASTM methods to be included. As we are approaching our deadline for the next update, I would appreciate any assistance you can give us on this matter.

My staff and I look forward to working with you. If you have any questions related to this matter, please contact Denise Zabinski or me at 202/382-4761.

Best regards,

David Friedman, Chief
Methods Section (WH-562B)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1987(06)

JUN 30 1987

John J. Mousa, Ph.D.
Environmental Science and
Engineering, Inc.
P.O.Box ESE
Gainesville, FL 32602

Dear Dr. Mousa:

I am responding to your request for interpretation of the SW-846, Third Edition holding times for Semi-volatiles in soil as they appear in Table 4-1.

Soil/sediment/sludge samples, if properly stored, may be held for 14 days prior to extraction. Extracted samples may be held for 40 days prior to analysis for sem-volatile organic compounds, provided they are properly stored.

I hope this response answers your question. If I can be of more help, please feel free to contact me.

Regards,

Denise A. Zabinski
Chemist, Methods Section

cc: David Friedman
Martin Meyers

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JUNE 89

1. Appendix VIII and Appendix IX

What is the difference between Appendix VIII and Appendix IX under RCRA? When is each used?

The hazardous waste regulations (40 CFR) contain two lists of chemicals which are sometimes confused: Appendix VIII of Part 261, and Appendix IX of Part 264.

—Appendix VIII

Appendix VIII in 40 CFR Part 261 is EPA's list of RCRA hazardous constituents. This list was first promulgated in the May 19, 1980 Federal Register (45 FR 33130). The Appendix VIII list is comprised of chemicals which have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms. Compounds which meet the criteria for 40 CFR Sections 261.33(e) and (f) as identified in Sections 261.11(a)(1), (2), and (3) are also included in Appendix VIII.

1. Appendix VIII and Appendix IX (Cont'd)

Appendix VIII is a composite of several other lists of regulated chemicals. Appendix VIII includes chemicals from the priority pollutants list under the Clean Water Act, chemicals considered hazardous to transport under Department of Transportation, chemicals identified as carcinogens by EPA's Carcinogen Assessment Group, and chemicals which have a high acute toxicity as identified by NIOSH's Registry of Toxic Effects of Chemical Substances list. Appendix VIII lists the chemical names in alphabetical order, the Chemical Abstract Service (CAS) name and number, and the RCRA hazardous waste code (where applicable). There are currently 416 chemicals or classes of chemicals on Appendix VIII.

The main purpose of Part 261, Appendix VIII is to identify the universe of chemicals of concern under RCRA. Appendix VIII is used for two main purposes. EPA uses Appendix VIII to determine if a waste contains hazardous constituents and, therefore, should be considered for listing under 40 CFR Section 261.11. (Appendix VIII however, should not be used by a generator identifying hazardous wastes under Part 261, Subparts C and D. Appendix VIII is much broader than the actual hazardous waste lists in 40 CFR sections 261.31-261.33.) Owners/operators of RCRA facilities use Appendix VIII for hazardous waste analysis before incineration (Section 264.340).

EPA's original regulations for ground-water monitoring at permitted land disposal facilities required owners and operators, under some circumstances, to analyze samples of groundwater for all constituents listed on Appendix VIII. The Agency soon discovered that compliance with this requirement caused a wide range of practical analytical problems. These problems included listings in Appendix VIII that covered broad categories (e.g., chlorinated naphthalene, not otherwise specified), listings of compounds which decomposed in water, and listings for which no analytical standard existed. To abate these groundwater monitoring problems, EPA promulgated Appendix IX of Part 264, the Groundwater Monitoring List (see 52 FR 25112).

—Appendix IX

Part 264, Appendix IX was promulgated to replace Part 261, Appendix VIII for groundwater monitoring for permitted facilities. Hence Part 264, Appendix IX is the Groundwater Monitoring List. It is comprised of compounds in the Part 261, Appendix VIII list for which it is feasible to analyze in groundwater samples as well as a few compounds routinely monitored under Superfund. Appendix IX lists the chemicals' common name in alphabetical order, the CAS number, the CAS index name, the SW-846 suggested test method, and the Practical Quantitation Limits (PQL's)

1. Appendix VIII and Appendix IX (Cont'd)

which are the lowest concentrations of analytes in groundwater that can be reliably determined within specified precision and accuracy limits using the suggested method. Appendix IX of Part 264 currently contains 211 chemicals and their associated test methods.

Under the July 9, 1987, rules (52 FR 25942), an owner/operator of a RCRA facility will have certain Part 261 Appendix VIII hazardous constituents specified in his permit for which he must determine background levels (40 CFR Section 264.98). If he determines that there is a statistically significant increase over the background values specified in his permit at any monitoring well, he must notify the Regional Administrator and immediately sample the groundwater in all monitoring wells to determine the presence and concentration of any Part 264, Appendix IX constituents.

Appendix IX is only used for groundwater monitoring. It is not used as widely as Part 261, Appendix VIII (e.g. incineration, listing criteria). For further discussion of Part 261, Appendix VIII and Part 264, Appendix IX and their respective roles in the groundwater monitoring program under RCRA, see Part 264, Subpart F and the July 9, 1987 Federal Register (52 FR 25942).

Source: Bob April (202) 382-7917
Research: Reneé Bench (202) 382-3112

Copper - no data available
Dibenz(a,h) anthracene - B_2 carcinogen; RSD 2.0×10^{-8} mkd
1,1-Dichloroethane - no data available
Diethyl Phthalate - oral RfD 8×10^{-1} mkd
Indeno [1,2,3-cd]pyrene - C carcinogen; RSD 5.7×10^{-5} mkd
Iron - no data available
Lead - clean up to background levels
Manganese - no data available
Mercury - oral RfD 2×10^{-3} mkd
Nickel - oral RfD 2×10^{-2} mkd
Phenanthrene - oral RfD 5.7×10^{-5} mkd (this is not an agency verified number)
Phenol - oral RfD 6×10^{-1} mkd
Selenium - (Selenious acid) - oral RfD 3×10^{-3} mkd
Silver - oral RfD 3×10^{-3} mkd
2,3,7,8 - TCDD - B_2 carcinogen RSD 6.2×10^{-12} mkd
toluene - oral RfD 3×10^{-1} mkd
1,1,1-trichloroethane - oral RfD 9×10^{-2} mkd
1,1,2-trichloroehtane - (1) oral RfD 4×10^{-3} mkd
(2) RSD 1.7×10^{-5} mkd
Vanadium (Vanadium Pentoxide) - oral RfD 9×10^{-3} mkd
Vinyl Chloride - no data available
Xylene - oral RfD 2.0 mkd
Zinc - oral RfD 3×10^{-4} mkd

The following compound are currently in the process of having RfD's developed:

Acenapthene	Fluorene
Anthracene	Pyrene
Fluoranthene	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

SEP 21 1992

Mr. Joseph R. Storrs
Recontek, Inc.
P.O. Box 379
Newman, IL 61942-0379

Dear Mr. Storrs:

I am writing in response to your letter of August 28, 1992 regarding the calculation of TCLP concentrations from total concentrations.

As we previously discussed, you may use total analysis in lieu of TCLP analysis to determine if an analyte could possible be above the appropriate regulatory level. This is stated in Section 1.2 of Method 1311(TCLP) as you correctly pointed out. Your understanding of EPA's policy on this procedure as outlined in paragraph 3 of your letter is correct.

Equation(2) presented in your letter is not valid and is inconsistent with paragraph 3 of your letter. Samples are almost never completely dissolved in the extraction fluid during TCLP analysis. Generally only a small portion goes into solution as this is a leaching procedure and not a total dissolution procedure.

To summarize, in the case of a 100% solid sample where TCLP is required, you may perform a total analysis for the regulated analyte by an appropriate method, divide the total concentration found by twenty (20), and compare the result with the regulatory limit for that analyte identified in the appropriate regulation.

I hope that this information will be of use to your analytical program. If you have any questions, please feel free to call me at (202) 260-4778.

Sincerely,

Oliver M. Fordham Jr.

Oliver M. Fordham, Jr.
Chemist
Methods Section (OS-331)

Printed on Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1992(02)

2BLWP137.92

December 22, 1992

Ms. Kelly S. Swanson
QA Officer
Analytical Technologies, Inc.
11 East Olive Road
Pensacola, Florida 32514

Dear Ms. Swanson:

This letter is in response to your request of December 16, 1992, for clarification on the issue of matrix spikes for Method 8310. Your response to the Florida HRS Water Certification Deficiency Report was not enclosed with your letter.

I believe that Section 8.7 of Method 8000A, included below, should adequately address the issue of frequency of spikes from the Office of Solid Waste Headquarters point of view.

> 8.7 The laboratory must, on an ongoing basis, analyze a reagent blank and a matrix spiked duplicate for each analytical batch (up to a maximum of 20 samples/batch) to assess accuracy. For soil and waste samples where detectable amounts of organics are present, duplicate samples may be appropriate in place of spiked duplicates. For laboratories analyzing one to ten samples per month, at least one spiked sample per month is required.

However, if the requirements of any RCRA-Authorized State differ from those of EPA, the State regulations apply.

If you have any questions, please call me at 202-260-7459.

Sincerely,

Barry Lesnik, Chemist
Methods Section (OS-331)
RCRA Organic Methods Program Manager

CONCURRENCES							
SYMB.	OS-331	OS-331					
NAME	LESNIK	Hamm					
DATE	12/22/92	12/29/92					

A Form 1320-1 (12-70) *U.S.GPO:1989-624-485 OFFICIAL FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1993(01)

January 21, 1993

Mr. Mark J. Mensik
Q.A. Coordinator
Evergreen Analytical, Inc.
4036 Youngfield Street
Wheat Ridge, Colorado 80033-6021

Dear Mr. Mensik:

In response to your letter of December 30, 1992, the definition of holding time, as applicable to the RCRA Program, is the time period between the taking of the sample and the completion of its analysis. In the case cited in your letter, the specific holding time of seven (7) days, for semivolatile analytes in aqueous matrices, refers to the time period between the taking of the sample and the completion of the extraction using either Method 3510 or Method 3520.

If you have any further questions, please call me at 202-260-4761.

Sincerely,

Barry Lesnik, Chemist
Methods Section (OS-331)
RCRA Organic Methods Program Manager

CONCURRENCES								
MI	OS-331	OS-331						
RNAME	LESNIK	Hanson						
TE	1/21/93	1/21/93						

A Form 1320-1 (12-70) *U.S.GPO:1989-624-485 -- OFFICIAL FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

March 11, 1993

Dr. Jerome King
Quality Assurance/Quality Control Director
A & L Midwest Laboratories, Inc.
13611 B Street
Omaha, Nebraska 68144

Dear Dr. King:

I am writing in response to your inquiry of January 28, 1993, concerning Method 8260 calibration standards and "waste type". Regarding calibration of Method 8260, the calibration criteria were established for 5-mL samples, since virtually all volatile organic analyses performed under the RCRA Program can be done on 5-mL samples. Since RCRA analyses are not typically performed on 25-mL samples, OSW has not done any extensive investigation of appropriate RFs for 25-mL samples.

There is an ongoing EPA effort to generate an integrated VOA method that would satisfy the analytical and regulatory requirements of the various Agency Program Offices where this issue is currently being addressed. Until this integrated method is completed, I would suggest that if you need to run 25-mL samples, you use either the Drinking Water criteria specified in Method 524.2 or the CLP criteria specified in the Low-Level Volatiles method in the current CLP Statement of Work.

Regarding your inquiry about data reporting, that is an issue that should be addressed to either your State regulatory agency or EPA Region 7.

Regarding the QA/QC associated with SW-846 Method 1311 (TCLP), "waste type" refers to materials which have significant differences in chemical constituents or physical properties. Every time there is a significant change in the chemistry or physical state of the waste, a matrix spike must be performed in order to prove that your analytical procedure is working properly on the material being tested. There are a myriad of potential chemical and physical interferences that can alter analytical results. The matrix spike is the simplest, most cost-effective means of monitoring these possible problems.

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We would agree with you that a waste generated from latex paints is different from a waste generated from enamel paints. Additionally, a waste generated from a titanium based paint is different from a waste generated from a lead based paint. There is no way to simply divide "waste types" into solids, liquids, and sludges. For example, sludges generated by oil refineries, by chrome plating operations, and by wood preserving would have totally different chemistries and certainly must be analyzed as different "waste types". Spiking one of these sludges tells you absolutely nothing about the possible analytical problems with the others.

If you have any further questions about organic or characteristics methods, call either me or Ollie Fordham at 202-260-4761.

Sincerely,

Barry Lesnik

Barry Lesnik, Chemist
Methods Section (OS-331)
RCRA Organic Methods Program Manager

cc: Ollie Fordham

April 8, 1993

Mr. Alex M. Blanche
Analytical Technologies, Inc.
225 Commerce Drive
Fort Collins, Colorado 80524

Dear Mr. Blanche:

This letter is in response to your inquiry of March 30, 1993, requesting clarification on analytical quantitation using GC/MS methods. You are correct in your use of the average RF values obtained for the initial five-point calibration curve for the quantitation of RCRA analytes using Methods 8240, 8260, and 8270. The daily midpoint check standard was only intended to verify that the GC/MS instrument has not drifted out of its initial calibration range. If the daily calibration check fails, the analyst must then regenerate a new five-point calibration curve.

It is not scientifically sound to quantitate over a wide calibration range using only a one-point calibration curve generated from the daily check standard. In addition, analytical samples should be prepared so that they will fall within the working range of the initial five-point calibration curve.

We have drafted language to clarify this five-point vs. one-point calibration issue. This revised language is currently scheduled to be included in the Third Update revisions of the GC/MS methods. However, there is a possibility that it could be moved to the Second Update in response to public comment.

If you have any additional questions, please call me at 202-260-4761.

Sincerely,

Barry Lesnik, Chemist
Methods Section (OS-331)
RCRA Organic Methods Program Manager

CONCURRENCES								
SYMBOL	OS-331	OS-331						
SURNAME	LESNIK	Hanger						
DATE	4/8/93	4/8/93						

EPA Form 1320-1A (1/90) Printed on Recycled Paper

OFFICIAL FILE COPY

APR 19 1993

Mr. Raymond D. Hiley
Goodwin, Procter & Hoar
Counsellors at Law
Exchange Place
Boston, MA 02109-2881

Dear Mr. Hiley:

Thank you for your letter of March 24, 1993 concerning the determination of the corrosivity characteristic. The Paint Filter Liquids Test (Method 9095 in SW-846) was developed to determine free liquids in a waste. It was never intended for use in determining if a waste contains any bound or absorbed liquid or if such liquid is aqueous.

The Office of Solid Waste is looking at the issue of what constitutes a liquid for characteristic testing. We will shortly be proposing revisions to the Third Edition of "Test Methods for Evaluating Solid Waste" (SW-846) in the Federal Register. In this proposal, we hope to clarify the meaning of liquid for characteristic testing. After this rule is proposed in the Federal Register, we would happy to sent you a copy of the notice.

The guidance on the use of Method 9095 provided in the February 16, 1990 letter to Mr. Robert D. Wyatt would still be our best advice to you until rules have been promulgated defining the meaning of "liquid" and "aqueous" for characteristic testing.

As you have correctly stated, under the present regulations an aqueous phase must be present in the sample in order to determine the corrosivity characteristic by pH measurement. This is because it is technically impossible to determine pH in liquids where water is not present.

CONCURRENCES								
OL	LE-1395	OS-331	OS331					
SURNAME	Reinsch	Hansen	McBail					
DATE	4/16/93	4/16/93	4/16/93					

I hope that this information will be of use to your analytical program. If you have any questions, please feel free to call Ollie Fordham of our Methods Section at (202) 260-4778.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 29 1993

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. E. J. Solomon
Genmin Laboratories
Cnr. East Geduld & Cowles Rd.
Geduld Springs
2357, Springs 1560
Republic of South Africa

Dear Mr. Solomon:

Thank you for your March 18, 1993 letter to Matthew A. Straus of the U.S. Environmental Protection Agency concerning hexavalent chromium analysis. EPA has an ion chromatographic procedure for the analysis of hexavalent chromium, Method 218.6, "Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography."

It was developed for the Office of Water's NPDES program (Clean Water Act) by EPA's Environmental Monitoring Systems Laboratory in Cincinnati, Ohio. The current edition is Revision 3.2 dated April 1991. A copy is enclosed for your information and convenience. To date, the method has not been promulgated, but it is being used "unofficially" in many applications where promulgated regulatory methods are not required.

The Office of Solid Waste intends to incorporate Method 218.6 into SW-846 for its own testing needs after it passes work group review and is put into SW-846 format. Another ion chromatographic procedure being considered by our work group is Method 0013, "Determination of Hexavalent Chromium Emissions from Stationary Sources." This is a draft method and is unavailable for distribution at this time.

I have made numerous phone calls to ascertain if there have been any updates to EPA's regulations governing disposal of Cr(VI) and Cr(III) wastes, particularly with respect to possible oxidation of Cr(III) to Cr(VI) and the possible reclassification of Cr(III) wastes as hazardous wastes. I have been unable to find any addition information on this topic beyond the October 30, 1980 Federal Register notice which you cited.

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I hope this information will be of use to your analytical program. If you have any further questions, please feel free to call me at (202) 260-4778.

Sincerely,

Oliver M. Fordham, Jr.

Oliver M. Fordham, Jr.
National Inorganic Program
Manager for RCRA

Enclosure

cc: Alec McBride, TAB, (OS-331)
Larry Rosengrant, WTB, (OS-322W)
Matt Straus, WMD, (OS-320W)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL - 7 1993

9445.1993(06)

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Quality Assurance Project Plans for RCRA Ground-Water Monitoring and Corrective Action Activities

FROM: Sylvia Lowrance, Director
Office of Solid Waste
Office of Solid Waste and Emergency Response

H. Matthew Bills, Director
Office of Modeling, Monitoring Systems and Quality Assurance
Office of Research and Development

TO: Waste Management Division Directors, Regions I-X
Environmental Service Division Directors, Regions I-X

A fundamental requirement of the RCRA program is the collection of environmental data that are of adequate and documented quality to support our decision making. To meet this requirement, data quality objectives (DQOs) are established through the quality assurance project planning process. This memorandum discusses the application of the DQO process to the ground-water monitoring and corrective action program, and provides additional information sources and guidance documents that are available for quality assurance program development. As a follow-up to this memorandum, we are developing examples of Quality Assurance Project Plans (QAPjPs). These examples will demonstrate that QAPjPs can be of varying complexity depending upon their associated DQOs, and that review and approval of QAPjPs designed to achieve less complex DQOs can be expedited in certain cases.

The overall level of uncertainty that a decision maker is willing to accept in this decision making process is known as a DQO. Quality assurance project plans are used as a management control to ensure that DQOs are defined and documented. QAPjPs may vary in complexity based on acceptable levels of uncertainty associated with the goals of a specific project. The minimum elements of a quality assurance program for all data collection activities in RCRA are outlined in Chapter One (Quality Assurance) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA SW-846, Third Edition, as amended by Update One, July 1992), which is currently being issued by the Office of Solid Waste.

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Chapter One of SW-846 addresses Quality Assurance (QA) programs and Quality Control (QC) procedures that should be implemented by hazardous waste facility owners and operators conducting ground-water monitoring and remediation programs pursuant to RCRA. Chapter One of SW-846 defines fundamental elements of a data collection program that include:

1. Design of a project plan to achieve the data quality objectives (DQOs);

2. Implementation of the project plan; and

3. Assessment of the data to determine if the DQOs are met.

The overall acceptable level of uncertainty expressed by the DQO is used to specify the quality of the data, usually in terms of precision, bias, representativeness, comparability and completeness. These terms apply to the entire measurement system (e.g., sampling network design, sample collection and handling, laboratory analyses, etc.), not just the analytical operations. QAPjPs, or equivalents, such as ground-water sampling and analysis plans, should detail the Quality Assurance and Quality Control (QA/QC) goals and protocols for data collection activities that will generate data of adequate quality to achieve the DQOs.

We consider the DQO/QAPjP process to be necessary for adequate data collection in the corrective action program. The process used within a Region for review and approval of QAPjPs should be documented in the Regional Quality Management Plan. How the process is structured is a Regional decision that should consider resources (FTE and time), criteria for the reviews, and available expertise.

In addition, during the Corrective Action Program Reviews, the Regions raised questions about the amount of detail required in QAPjPs and the level of review necessary for QAPjP approval. The DQO process is designed to collect data that are scientifically valid, defensible, and of known precision and accuracy *relative to the use for which the data are obtained.* Different components of the corrective action process may have different objectives and data collection uses. This data use may vary in complexity, for example, from field screening to delineate areas of gross contamination ("hot spots"), to detection monitoring scenarios where constituent concentrations are measured in ground water at the parts per billion (ppb) level of sensitivity. For specific project purposes, it may be acceptable for the DQOs for hot spot screening to be of lesser precision than those for the ground water analyses. Similarly, QAPjPs that detail the data acquisition and analysis for less precise DQOs can also be of reduced detail, and may be more quickly reviewed and approved in certain cases. As stated earlier, examples of QAPjPs for field screening and RCRA Facility Investigation (RFI) activities that involve reduced levels of detail but still meet the DQOs are under development, and will be sent to you in the future.

To assist you in the development of QAPjPs and DQOs, we are forwarding several recently published guidance documents that address data quality. These documents include:

1. Chapter One of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA SW-846, Update to Third Edition, July 1992),

2. Ground-Water Monitoring: Draft Technical Guidance (EPA/530-R-93-001; November 1992),

3. Handbook of RCRA Ground-Water Monitoring Constituents: Chemical and Physical Properties (EPA/530-R-92-022; September 1992),

4. Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities: Addendum to Interim Final Guidance (EPA/530-R-93-003; July 1992),

5. Ground-Water Information Tracking System and Statistical Analysis Software (GRITS/STAT) and User Manual (July 1992).

We hope that the enclosed materials are helpful in assisting with the development of DQOs and QAPjPs. If you or your staff members have any questions or additional suggestions on how to improve data quality, please contact Charles Sellers, OSW's Quality Assurance Officer at (202) 260-3282.

Enclosures (5)

cc: Dave Fagan, OSW
Ken Gigliello, OWPE
Charles Sellers, OSW
Nancy Wentworth, ORD
Regional RCRA Branch Chiefs
Regional Quality Assurance Managers

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1993(07)

September 2, 1993

Mr. Chris Ricardi
QA/QC Coordinator
ABB Environmental Services, Inc.
110 Free Street
P. O. Box 7050
Portland, Maine 04112-7050

Dear Mr. Ricardi:

I am writing in response to your inquiry of August 30, 1993, regarding initial and continuing calibration requirements in Method 8240. The Office of Solid Waste considers the language in Section 7.3.4,

> "If no source of the problem can be determined after corrective action has been taken, a new five point calibration MUST be generated. This criterion MUST be met before quantitative sample analysis begins."

to be clear and unambiguous. If you are out of calibration for your Calibration Check Compounds, you must generate a new five-point calibration curve before you analyze any samples. This does not mean using an archived curve from last month or five years ago. It means generating a new five-point curve immediately prior to running any samples. However, you only have to meet the calibration requirements for the actual target compounds which you must determine for your particular application.

If you have any further questions, please call me at 202-260-7459.

Sincerely,

Barry Lesnik, Chemist
OSW-Methods Section (OS-331)
RCRA Organic Methods Program Manager

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1993(08)

MEMORANDUM

DATE: November 5, 1993

SUBJECT: Additional Analytes for HWIR Target Analyte List in Wastewater

FROM: Barry Lesnik, Chemist
Methods Section (5304)

TO: William Morrow
Characteristics Section (5304)

Per your request of November 3, 1993, I have reviewed the six potential HWIR analytes for their analytical suitability and their potential to be found in wastewaters. Paraldehyde, formaldehyde and chloroacetaldehyde can be found and analyzed in wastewater matrices. Appropriate analytical methods for paraldehyde are sample preparation by Method 5031 (Azeotropic Distillation) followed by determination by either method 8015B (GC/FID) or Method 8260 (GC/MS). Formaldehyde can be analyzed by Method 8315 (HPLC). Chloroacetaldehyde has not been tested as a Method 8315 analyte, but I believe that it should be suitable for HPLC determination using this method. High concentrations of chloroacetaldehyde in water result in the formation of an insoluble hemihydrate form of the compound, which precipitates out.

Phosgene is a gas which reacts vigorously with water. Thus, it is highly unlikely to be found in wastewater matrices. Sodium azide and hydrofluoric acid are also highly reactive compounds which are unlikely to be found in wastewater matrices.

If you have any further questions, please call me at 260-7459.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1993(09)

December 7, 1993

Ms. Mickey Owens
President
SOS Environmental, Inc.
13800 Thermal Drive
Austin, Texas 78728

Dear Ms. Owens:

This letter is in response to your inquiry of December 1, 1993, about the use of Method 1311 as an alternate extraction procedure for total petroleum hydrocarbons (TPH) in soils. The fact that we are not able to respond within the unrealistic timeframe specified in your letter, does not in any way affect your obligations under the RCRA regulations.

In response to your specific questions, I would like to clarify that Method 1311-Toxicity Characteristic Leaching Procedure (TCLP) is not an extraction procedure, but a leaching procedure. It was not designed as a sample preparation extraction method, which maximizes analyte removal from a solid matrix, but as a measure of how much of the target analytes may leach from a waste in a landfill into the groundwater, due to rain and other environmental factors. Therefore, TCLP is not an appropriate sample preparation procedure either for extractable TPH or for volatile TPH fractions such as gasoline. It is neither equivalent to the sample preparation procedures in the following paragraphs, nor is it an adequate sample preparation method for TPH in soils.

In our opinion, the appropriate methods to be used for the preparation of extractable TPH in soils are Method 3540-Soxhlet Extraction, Method 3541-Automated Soxhlet Extraction, or Method 3560-Supercritical Fluid Extraction (SFE). Methods 3540 and 3541, using pentane as the extraction solvent, are appropriate for the preparation of samples from which the TPH is to be determined only by gas chromatography with flame ionization detection (GC/FID) (Method 8015B). Method 3560 is appropriate for the preparation of samples from which the TPH is to be determined either by GC/FID (Method 8015B) or by Infrared Spectroscopy (IR) (Method 8440).

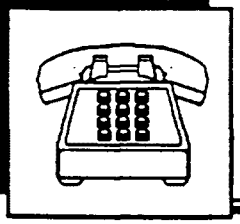
Also, in our opinion, the appropriate methods to be used for volatile TPH in soils are closed-system purge-and-trap (Method 5035) as the preparative method, followed by GC/FID (Method 8015B) as the determinative method. Aromatic gasoline fractions (BTEX) can be determined by GC simultaneously with TPH by using a photoionization detector (PID) (Method 8021) in series with the FID (Method 8015B).

If you have any further questions, or want to request copies of the methods mentioned above, please call the Methods Section Office at 202-260-4761.

Sincerely,

Barry Lesnik, Chemist
Methods Section (5304)
RCRA Organic Methods Program Manager

9445.1994(01)



HOTLINE QUESTIONS AND ANSWERS

January 1994

RCRA

1. Use of Total Waste Analysis in Toxicity Characteristic Determinations

A generator suspects that his waste may exhibit the toxicity characteristic and thus be subject to regulation as a RCRA hazardous waste. Since he is unsure of the types and concentrations of hazardous contaminants present in the waste, he performs a total waste analysis. Can he use the results of the total waste analysis to make a toxicity characteristic determination, or must he perform Method 1311, the toxicity characteristic leaching procedure (TCLP), to determine the waste's regulatory status?

While a toxicity characteristic determination under §261.24 typically involves application of the TCLP followed by analysis of the TCLP extract, a generator may be able to use total waste analysis to demonstrate that a waste does not exhibit the toxicity characteristic. Section 1.2 of the TCLP states, "If a total analysis of the waste demonstrates that individual analytes are not present in the waste, or that they are present but at such low concentrations that the appropriate regulatory levels could not possibly be exceeded, the TCLP need not be run." This analysis can provide the generator with a convenient and cost-effective means of determining if he needs to run the TCLP in order to definitively characterize a waste.

The means for using total waste analysis results to make a toxicity characteristic determination reflect TCLP methodology and therefore vary depending on whether the waste is defined as a liquid, a solid, or a dual-phase waste. Under the TCLP, liquid wastes (i.e., those wastes that contain less than 0.5% dry solids) do not require extraction. The waste, after filtration, is defined as the TCLP extract (Part 261, Appendix II, §2.1). A generator can therefore characterize a liquid waste by filtering the waste, measuring total constituent concentrations in the resulting filtrate, and comparing these concentrations to the appropriate regulatory limits under §261.24.

Wastes which are either 100% solid (i.e., wastes that contain no filterable liquid (Part 261, Appendix II, §7.1.1.1)) or which contain both a liquid and a solid component require conversion of total waste analysis data to estimates of constituent concentrations in the TCLP extract, or maximum theoretical leachate concentrations. For instance, to evaluate the regulatory status of a 100% solid, a generator can simply divide each total constituent concentration by 20 and then compare the resulting maximum theoretical leachate concentration to the appropriate regulatory limit (the division factor reflects the 20-to-1 ratio of extraction fluid to solid used in the TCLP). If no maximum theoretical leachate concentration equals or exceeds the appropriate regulatory limit, the solid cannot exhibit the toxicity characteristic and the TCLP need not be run.

The generator of a dual-phase waste (i.e., a waste which has both a solid and a filterable liquid component) can perform a total waste analysis on the liquid and solid portions and calculate maximum theoretical leachate

concentrations for the waste as a whole by combining results mathematically through use of the following formula:

$$\frac{[A \times B] + [C \times D]}{B + [20\ L/kg \times D]} = M$$

where:

A= concentration of the analyte in the liquid portion of the sample (mg/L)

B= volume of the liquid portion of the sample (L)

C= concentration of the analyte in the solid portion of the sample (mg/kg)

D= weight of the solid portion of the sample (kg)

M= maximum theoretical leachate concentration (mg/L)

For example:

A generator who receives the results of a total waste analysis wishes to determine if his waste exhibits the toxicity characteristic for lead. Since he knows the lead concentration in each phase of the waste (0.023 mg/L in the liquid phase, 85 mg/kg in the solid phase), the volume of the liquid phase (0.025 L), and the weight of the solid phase (0.075 kg), he can calculate the waste's maximum theoretical leachate concentration:

$$\frac{[A \times B] + [C \times D]}{B + [20\ L/kg \times D]} =$$

$$\frac{[0.023\ mg/L \times 0.025\ L] + [85\ mg/kg \times 0.075\ kg]}{0.025\ L + [20\ L/kg \times 0.075\ kg]}$$

$$= 4.18\ mg/L$$

Because the 4.18 mg/L maximum theoretical leachate concentration is below the 5.0 mg/L regulatory limit, the generator determines that the waste cannot exhibit the toxicity characteristic for lead.

If maximum theoretical leachate concentrations are less than the applicable limits under §261.24, the waste does not exhibit the toxicity characteristic and the TCLP need not be run. If, on the other hand, total waste analysis data yield a maximum theoretical leachate concentration that equals or exceeds the toxicity characteristic threshold, the data cannot be used to conclusively demonstrate that the waste does not exhibit the toxicity characteristic. The generator may have to conduct further testing to make a definitive toxicity characteristic determination.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9445.1994(02)

March 10, 1994

Dr. Joe Tehrani
SFE Programs Manager
Isco, Inc.
Separation Instruments Division
P. O. Box 5347
Lincoln, Nebraska 68505

Dear Joe:

Thank you for your letter of January 25, 1994, submitting the results of the BCO PAH study using SFE as the preparative method. While we have not yet had the time to review it in great detail, there is one major issue in the preliminary validation that causes OSW considerable concern.

The issue of concern is the comparison of the SFE extraction results to those obtained using Sonication (Method 3550) rather than Soxhlet extraction (Methods 3540 or 3541) for a validation study. It is well known that target analyte recoveries using Method 3550 are lower than those obtained using either Method 3540 or Method 3541 (See References 1 and 2 below). OSW has also made it clear that validation of new extraction procedures should be done with comparison of results to the most rigorous validated reference method, i.e., Soxhlet extraction. Prior to making an informed evaluation on the BCO PAH method, the SW-846 Organic Methods Workgroup would like to see both single laboratory and round robin data evaluated against Soxhlet extraction using either Method 3540 or 3541.

If you have any further questions, please call me at 202-260-7459. I am enclosing for your information a copy of Reference 1.

Sincerely,

Barry Lesnik, Chemist
Methods Section (5304)
RCRA Organic Methods Program Manager

attachment

References

1. Christopher S. Hein, Paul J. Marsden, Arthur S. Shurtleff, "Evaluation of Methods 3540 (Soxhlet) and 3550 (Sonication) for Evaluation of Appendix IX Analytes form Solid Samples", S-CUBED, Report for EPA Contract 68-03-33-75, Work Assignment No. 03, Document No. SSS-R-88-9436, October 1988.

2. Lopez-Avila, V. (W. Beckert, Project Officer); "Development of a Soxtec Extraction Procedure for Extraction of Organic Compounds from Soils and Sediments"; U.S. Environmental Protection Agency. Environmental Monitoring and Support Laboratory. Las Vegas, NV, October 1991; EPA 600/X-91/140.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9445.1994(03)

MAR 10 1994

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Chris Miller
National Technical Director of Inorganics
GTEL Environmental Labs, Inc.
Meadowbrook Industrial Park
Milford, NH 03055

Dear Mr. Miller:

I am writing in response to your letter of February 23, 1994 to Alec McBride concerning your request for a variance to use palladium for graphite furnace analysis in several SW-846 metals methods.

Monitoring requirements under RCRA Subtitle C specify only that the analyst must demonstrate that he can determine the analytes of concern in the matrix of concern at the regulatory level of concern. Since SW-846 methods are written as guidance for a wide variety of matrices, it is up to the individual analyst to optimize a particular method to his specific needs. Allowable modifications include adjustment of sample size or injection volumes, dilution or concentration of the sample, and modification or replacement of equipment. These method changes must be documented and the analyst must demonstrate that his method can meet the previously-stated analytical requirements. Specifically, Chapter Two of SW-846, Section 2.1.2, states that reagents "specified in these methods may be replaced by any similar types as long as this substitution does not affect the overall quality of the analyses".

If you have any further questions concerning inorganic methods, please call Ollie Fordham of my staff at (202) 260-4778.

Sincerely,

Gail Hansen

Gail Hansen
Chief,
Methods Section
(5304)

cc: Alec McBride
Ollie Fordham

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1993(01)

SEP 20 1993

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Frank J. Prasil
Recycled Printer's Ink
133 West End Avenue
Knoxville, TN 37922

Dear Mr. Prasil:

This is in response to our phone conversations of September 14 and 15, 1993, in which you asked me to clarify a couple of points in the September 1, 1993, letter from Mr. Denit to you. Specifically, I confirmed that under Federal regulations at 40 CFR Section 261.5 (g), conditionally exempt small quantity generators of hazardous waste may send their waste to any of the types of facilities specified in Section 261.5 (g) (3), and this includes "a facility which beneficially uses or reuses, or legitimately recycles or reclaims..." the waste. (Section 261.5(g)(3)(v)(A).)

Further, as we discussed, waste shipped from conditionally exempt small quantity generators under the conditions of Section 261.5 need not be accompanied by the National Uniform Hazardous Waste Manifest. Finally, as the September 1, 1993, letter from Mr. Denit noted, individual States may have more stringent regulations than EPA's, and U.S. Department of Transportation regulations also may apply. Thank you for your interest in sound recycling of waste. If you have further questions, please contact Ross Elliot or Ann Codrington of my staff at (202)260-8551.

Sincerely,

Michael J. Petruska, Chief
Regulatory Development Branch

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HOTLINE QUESTIONS AND ANSWERS

April 1995

9445.1995(01)

RCRA

2. Nitroglycerin Patches: Not Listed Hazardous Wastes When Discarded Unused

Nitroglycerine can be administered as a medication by applying a patch containing the chemical to a patient's skin. Nitroglycerine appears on the P-list of RCRA hazardous wastes and carries the waste code P081 (40 CFR §261.33(e)). When nitroglycerine patches are discarded unused, must they be classified as P-listed hazardous waste?

Discarded unused nitroglycerine patches are not classified as P-listed hazardous waste. The P- and U-lists of hazardous wastes at 40 CFR §261.33(e) and (f) apply to unused discarded commercial chemical products. EPA refers to commercial chemical products as commercially pure grades and technical grades of the listed chemicals or chemical formulations in which the listed chemical is the sole active ingredient (54 FR 31335, 31336; July 28, 1989). Although nitroglycerine may be the only chemically active component of a medical patch, a nitroglycerine patch is considered a manufactured article, similar to mercury-containing thermometers, not a commercial chemical product. EPA did not intend for the phrase "commercial chemical product" to apply to manufactured articles like medical patches that contain a chemical listed in §261.33. Unused discarded nitroglycerine patches are regulated under RCRA Subtitle C only if they exhibit a characteristic of hazardous waste.

9450 – GENERATOR STANDARDS

Part 262

ATK1/1104/21 kp

9451 – GENERAL

Part 262 Subpart A

9451.1980(01)

December 2, 1980

Michael Ridge
Manager, Environmental Health
Carrier Corporation
Carrier Tower
P.O. Box 4000
Syracuse, New York 13221

Dear Mr. Ridge:

This is in response to your letter of August 19, 1980, to Ms. Eileen Claussen requesting clarification of our RCRA hazardous waste management regulations as they pertain to hazardous waste generated in the field servicing of air conditioning equipment.

Your letter indicates that in servicing air conditioning equipment owned by your customers, your servicemen may remove waste oil, spent refrigerant and other materials from such equipment and, because these materials are to be discarded, they are solid wastes and may be hazardous wastes. You basically ask whether your company is a generator of hazardous waste (or whether the owner of the equipment being serviced is the generator) and what are your company's responsibilities, if any, are in managing such hazardous waste.

We interpret our regulations such that, when hazardous wastes are generated in the servicing of equipment (air conditioning or other types of equipment), both the owner of the equipment being serviced and the person (company) performing the servicing are generators and are jointly and severally liable for performing the generator's responsibilities of Part 262 of our regulations. We hasten to point out, however, that we will allow and, in fact, prefer one of these parties to perform the generator duties. And, where one party, in fact, does perform those duties, we will look to that party as the generator and normally will not bother the other party. However, we feel that, from an enforcement position, we must hold both parties jointly and severally responsible. A discussion of this can be found in the preamble to a recent amendment we promulgated in 45 Federal Register 72026-72027, a copy of which is enclosed.

This has been retyped from the original document.

I hope I have helped clarify our regulations for you. If you would have additional questions, please do not hesitate to write, call or come see me. I apologize for the tardiness of this response but we simply have been overwhelmed with requests for clarification of our regulations.

Sincerely yours,

Gary H. Dietrich
Associate Deputy Assistant Administrator
for Solid Waste

Enclosure

bcc: Filomena Chau w/incoming
Jack Lehman w/incoming
Regional A&HM Division Directors, Regions I, III-X
w/incoming
Water Division Region II w/incoming

This has been retyped from the original document.

NOV 18 1980

Julie R. Cooper
Attorney
Mobay Chemical Corporation
Penn Lincoln Parkway West
Pittsburg, Pennsylvaina 15205

Dear Ms. Cooper

This is in response to your letter of November 5, 1980, to Ms. Filomena Chau requesting an interpretation of our hazardous waste management regulation.

You indicate that your company hires many independent contractors and they, in turn, often hire subcontractors to perform various services including painting, janitorical services, boiler cleaning and construction. You indicate that these contractors and subcontractors generate wastes and that some of these wastes may be hazardous wastes. You state that you normally require your contractors to remove their wastes from your premises and you indicate that they may or may not require waste removal by their subcontractors. Finally, you say that you would like to continue the practice of having contractors remove their waste but would like to have the option of assuming this responsibility.

By implication, you are asking who is the generator of hazardous waste: your company or your contractors (or his subcontractor) EPA contends that both parties or, as the case may be, all three parties are generators and are jointly and severally liable for complying with the generator standards in Part 262 of our regulations (see 45 Fed. Reg. 33140-33148). We do not object to and, in fact, prefer that only one of these parties, by mutual agreement (e.g., a contract) perform these responsibilities in fact. We will reserve the right, however, to hold both or all three parties liable for these responsibilities in any enforcement actions we might take as a result of a violation of the regulations. This interpretation parallels the interpretation we have taken and discussed in the preamble to a recent amendment to our regulations (see 45 Fed. Reg. 72026-72027, October 30, 1980).

Consequently, either your company, your contractor or his subcontractor can assume responsibility for removing hazardous wastes generated on your premises and further assume the responsibility for complying with Part 262 of our regulation, as your company prefers. But your company, in any case, wil have liability for proper performance of these responsibilities.

We will plan to issue this interpretation in a Regulatory Interpretation Memorandum in the near future. Pending such issuance, you can consider this letter to be an official interpretation on this matter.

Sincerely yours

Gary N. Dietrich
Associate Deputy Assistant Administrator
for Solid Waste

bcc: Filomena Chau w/incoming
Mike Barclay w/incoming
Regional A&HM Division Directors w/incoming

Mobay

Mobay
Chemical Corporation

Penn Lincoln Parkway West
Pittsburgh, PA 15205
Telephone: 412/777-2000

November 5, 1980

Ms. Filomena Chau
Office of Solid Waste (WH 562)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Re: Independent Contractor Generators

Dear Ms. Chau:

I have had several conversations with regional and headquarters' staff regarding the regulatory status of independent contractors who generate hazardous waste on sites owned or leased by us. None of these persons has been able to point to specific affirmative regulations that clearly set forth the responsibilities of the owner and the independent contractor under these circumstances.

In the manufacture of chemicals and maintenance and construction of plants, many independent contractors are used. These contractors and their subcontractors may generate hazardous waste in the course of performance of their contracts. Examples of contractors who might generate hazardous waste include consulting engineers, painting contractors, janitorial services, boiler cleaning services, industrial cleaners, construction contractors and common carriers. In many of our contracts we would oblige the contractor to remove waste from our premises. These contractors may or may not contract in the same manner with their subcontractors. We would like to be able to continue

Writer's Direct Dial Number

412 - 777-2187

the practice of having the contractors remove waste from our premises, but we would also like to have the option of being able to take the waste from them for disposal.

Please advise us of the proper procedures to follow in each instance. If appropriate, we would appreciate issuance of a Regulatory Interpretation Memorandum.

Very truly yours,

Julie R. Cooper
Attorney

JRC:my

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

SEPTEMBER 83

9451.1983(02)

RCRA

- Several colleges and universities have asked for clarification on the issues of filing for generator I.D. numbers and determination of eligibility as small quantity generators.

  Several basic configurations exist for college campuses. The rural or suburban campus might have several buildings on one contiguous piece of property. This would be considered a single or individual generation site even though one or more hazardous wastes are generated from one or more sources. One EPA I.D. number would be assigned, and small quantity generator status would be determined by looking at the total hazardous waste generated or accumulated on the site.

  Many university campuses are divided by public roads or other rights-of-way which they do not control. Metropolitan campuses are frequently constructed on a number of adjoining city blocks where the various campus buildings are separated by city streets but the buildings may be connected by tunnels or overhead walkways. Even in these cases, each generation site (i.e., each city block or each half of a campus bisected by a public road) would be a generator (or small quantity generator) and assigned its own EPA I.D. number.

  Hazardous wastes being shipped from one campus building (i.e., generator) to another building (i.e., TSDF) where the sites are divided by a highway would need a manifest while on the highway. The one exception is when the waste is shipped directly across the road. In this case, the receiving building is considered "on-site," as defined in 40CFR 260.10 even though both sites are required to have separate EPA I.D. numbers. (NOTE: The definition of "on-site" is intended to be used only in determining whether or not a generator should initiate a manifest. It does not define two buildings owned and/or operated by the same person but divided by a highway as one generator site). The Agency's philosophy is to identify each shipment of hazardous waste as being from a specific location. EPA needs to identify who is responsible for the waste (i.e., who created the waste, determined it to be hazardous, and is liable for its proper management). This may cause some or all of the waste from a university to be subject to the reduced requirements of the small quantity generator.

  The Agency is contemplating lowering the small quantity generator exclusion limit which should then capture these wastes.

  Source: Lee Daneker and Rolf Hill

September 4, 1984

K. T. Allford
NL Treating Chemicals
NL Industries, Inc.
17402 Wallisville Rd.
P.O. Box 490
Channelview, TX 77530

Dear Ms. Allford:

I am writing in response to your July 24, 1984, request for application of the Resource Conservation and Recovery Act (RCRA) hazardous waste identification regulations as they apply to SULFA-CHECK spent slurry.

It is the responsibility of the person who generates a solid waste to determine whether the waste is a hazardous waste, following the procedures outlined in 40 CFR 262.11. First, SULFA-CHECK is not excluded from regulation in §261.4. Second, determine whether SULFA-CHECK is a listed waste from 40 CFR 261 Subpart D, and, third, determine whether or not SULFA-CHECK is hazardous based on 40 CFR 261 Subpart C characteristics either by testing or applying knowledge. Steps 2 and 3 are elaborated on below.

Since it is spent, it is neither a §261.33(e) or (f) unused commercial chemical product, off-specification species, container, nor spill residue of those listed chemicals. You have probably eliminated the §261.31 and §261.32 source listings based on your knowledge of the waste.

The sample has a flash point of over 200°F, but the test procedure was not specified. Ordinarily, open cup tests (such as the Department of Transportation requires) will produce higher flash points than the closed cup tests required by EPA. You should determine what type of flash point protocol was used by the Chemical Research Laboratories.

If SULFA-CHECK is aqueous, it is not corrosive. If it is a nonaqueous liquid, the "quarter-inch" corrosivity test (or an equivalent method) outlined in 261.22 must be performed.

Although the RCRA regulations do not specify tests for reactivity, suggested cyanide and sulfide concentrations are less

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than 10 ppm, or roughly 10 mg/kg. You should ascertain the reactivity status of SULFA-CHECK.

In terms of EP toxicity criteria, your laboratory report does not indicate how the analysis was performed, and your enclosed analysis does not indicate concentrations of the pesticides produced by the EP toxicity procedure. You can probably conclude, based on the starting composition of SULFA-CHECK and the type of use it has, that none of the heavy metals or pesticides designated in the EP toxic test would be found in SULFA-CHECK.

You should not perform the determinations outlined in 40 CFR 261.11(a)(2) to classify your waste. The Administrator uses those criteria to designate solid wastes as hazardous waste. Thus, even if a solid waste met one of the criteria, it is not a hazardous waste until so designated by EPA.

I hope this overview of the hazardous waste determination clarifies the steps you must take in order to certify whether or not SULFA-CHECK is a RCRA hazardous waste. On the basis of what you wrote, SULFA-CHECK would not be a RCRA hazardous waste, but you will have to confirm this preliminary determination by reviewing the points I have raised. You can understand why the regulations (§262.11) make it the generator's responsibility to determine whether their solid waste is hazardous, considering the many parameters involved.

As you may know, 44 States and territories have instituted hazardous waste programs that operate in lieu of RCRA. In those States, you will have to comply with State hazardous waste specifications, instead of the Federal standards. You should contact the appropriate State agency to acquire their regulatory standards. For a copy of the State hazardous waste agency addresses and phone numbers, and for a further discussion of your question, call the RCRA/Superfund Hotline at 800-424-9346. Please do not hesitate to call me at (202) 382-4770 if the Hotline cannot clarify these issues for you.

Sincerely yours,

Alan S. Corson
Chief
Studies and Methods Branch

This has been retyped from the original document.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

OCTOBER 85

3. Waste Minimization

Section 3002(b) of the Solid Waste Disposal Act (SWDA), as amended, requires that a generator sign a certification on the manifest (EPA form 8700-22) and on the biennial report. The certification states that the generator "has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable." If a generator of hazardous waste reclaims and reuses some of the hazardous waste on-site and sends the rest off-site for recycling, can the generator certify that a waste minimization program is in place since the volume of hazardous waste actually disposed of has been minimized?

The waste minimization provision of SWDA §3002(b) is a self-implementing program in which the choice of compliance mechanisms is to be made by the generator in ligt of his/her own particular circumstances. The waste minimization requirement is met for the purpose of certification when the generator makes a good faith effort to minimize threats to human health and the environment. EPA has determined that various management practices conducted by a generator can be viewed as forms of waste minimization, e.g., participation in a waste exchange, recycling of solvents, and that these practices are consistent with the Congressional intent of the requir ment (see Senate Report No. 284, 98th Congress, 1st Session 66 (1983)). These activities reduce the volume of waste disposed of by the individual generator and also minimize the overall quantity of hazardous waste disposed of by allowing continual reuse of hazardous substances. Therefore, in the case described above, the generator may sign the certification on the manifest since the generator has a waste minimization program in place.

Source: Elaine Eby (202) 382-7930

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9451.1986(01)

MAR 17 1986

Honorable Edwin Garn
United States Senate
Washington, D.C. 20510

Dear Senator Garn:

This letter responds to your request dated February 4, 1986, on behalf of your constituent, Mr. Richard L. Meibos. Mr. Meibos is concerned that regulations being promulgated for small quantity generators of hazardous waste will force his institution to change certain waste management practices.

The regulations to which Mr. Meibos refers are being promulgated under the Hazardous and Solid Waste Amendments of 1984 (HSWA), signed into law on November 8, 1984. HSWA directs the Agency to promulgate standards "for hazardous waste generated by a generator in a total quantity of hazardous waste greater than 100 kilograms but less than 1000 kilograms during a calendar month," by March 31, 1986 (Section 3001(d)(1)). HSWA also specifies certain minimum requirements for these 100-1000 kg/mo generators that the standards must include. One such statutory requirement is that treatment, long-term storage (for more than 180 days or 270 days if the waste is to be shipped more than 200 miles), and disposal of hazardous waste from 100-1000 kg/mo generators occur at a facility which has interim status or a permit under the Resource Conservation and Recovery Act (RCRA). The Agency proposed standards for these generators on August 1, 1985, and accepted comments on the proposal until September 30, 1985. EPA expects to promulgate final standards before the March 31, 1986, deadline. These standards will incorporate the statutory minimum requirements. A copy of the proposed rule is enclosed.

Mr. Meibos discusses the following waste management practices:

--burning waste as fuel;
--evaporating waste in rooftop containers;
--discharging diluted waste to public sewer systems; and
--neutralizing sludges, mixing them with sand or vermiculite, and disposing of them in solid waste management facilities.

Currently, regulated quantities of hazardous waste may be burned as fuel in industrial boilers without a permit or interim status. In the coming months, we will propose technical standards for the operation of these industrial boilers, as HSWA requires.

By contrast, burning of regulated quantities of hazardous waste in non-industrial boilers, such as those at schools, hospitals and office buildings, is prohibited (see 40 CFR 266.31, as amended at 50 FR 49164 (November 29, 1985)).

Regulated quantities of hazardous waste may be stored in containers, but those containers must be closed except when necessary to add or remove waste (40 CFR 265.173). Disposal of regulated quantities of hazardous waste must occur at a facility which has interim status or a permit from EPA or an authorized State.

Materials that pass through a sewer system to a publicly owned treatment work (POTW) are excluded from the hazardous waste management provisions of RCRA (40 CFR 261.4). However, such materials may be subject to pretreatment standards under the Clean Water Act or to local limits on what may be sent to the POTW.

If a sludge results from the treatment of a listed hazardous waste (lists of hazardous waste are found at 40 CFR Part 261 Subpart D) and that sludge is mixed with other material, the entire mixture is considered a hazardous waste and must be managed as such. A sludge could also be a hazardous waste if it exhibits the characteristic of corrosivity, reactivity, ignitability, or extraction procedure toxicity (40 CFR Part 261 Subpart C). If such a sludge is mixed with other material, the mixture must be managed as a hazardous waste only if the mixture continues to exhibit one or more characteristics.

Mr. Meibos is concerned that changes in hazardous waste law and regulations will result in more waste being disposed of on land, which may cause releases from sites such as those which occurred at the Love Canal. The Congress made limitations on land disposal of hazardous waste an Agency priority in HSWA. This statute prohibits land disposal of hazardous waste by certain dates, unless the Agency determines that land disposal would be protective of human health and the environment.

Mr. Meibos also discusses a generator's permanent legal liability for management of the generator's hazardous waste. This liability was established by the Comprehensive Environmental Response, Compensation and Liability Act (Superfund). It applies to all generators of hazardous waste and is not subject to change by the Agency.

One method for mitigating the land disposal and liability problems discussed by Mr. Meibos is for generators to reduce the amount of hazardous waste they produce. HSWA encourages waste minimization and the Agency is currently studying waste minimization strategies.

The American Chemical Society has produced a brochure entitled "Less is Better," that describes techniques laboratories may use to reduce the amount of hazardous wastes they produce. I have enclosed a copy, which you may want to pass along to Mr. Meibos. I have also enclosed a copy of an EPA brochure which describes the current requirements for 100-1000 kg/mo generators, and an insert which deals specifically with laboratory wastes.

I hope that this addresses Mr. Meibos' concerns. If I can be of further assistance, please let me know.

Sincerely,

J. Winston Porter
Assistant Administrator

Enclosures

9451.1986(02)

March 17, 1986

Honorable Gillespie V. Montgomery
House of Representatives
Washington, D.C. 20515

Dear Mr. Montgomery:

I am responding to your letter of February 11, 1986, to Mr. Matthew Straus in which you express concern that EPA is considering classifying port facilities as generators of vessel oily waste.

In response to questions raised by the Coast Guard, EPA issued a directive on February 5, 1985, which clarified the applicability of EPA's regulations under the Resource Conservation and Recovery Act (RCRA) to operational waste from ships. A copy of that directive is enclosed. In particular, the Coast Guard asked EPA to determine who is the generator of oily waste that is produced on ships and discharged to reception facilities at ports and terminals.

EPA has determined that for any oily waste that is produced in product or raw material vessel units both the ship, and in some circumstances, the operator of the port facility would be considered hazardous waste generators. For other types of oily waste, such as bilge water in vessel engine rooms contaminated with engine lubricant drippings or solvents, only the ship would be deemed to be the hazardous waste generator. A more detailed discussion of EPA's regulations for generators of oily hazardous waste is contained in the February 5 directive to the Coast Guard.

We hope that this has been responsive to your concerns regarding the applicability of EPA's hazardous waste regulations to terminals. If you have other questions on this subject, please don't hesitate to contact Carolyn Barley of my staff at 202-382-2217.

Sincerely yours,

J. Winston Porter
Assistant Administrator

This has been retyped from the original document.

APR 28 1986

Ms. Patricia DeJong
Information Services of Alaska
P.O. Box 843
Anchorage, Alaska 99510

Dear Ms. DeJong:

Your letter to Mr. Roy R. Jones regarding the acceptability of performing total analyses, in lieu of performing the Extraction Procedure (EP) Toxicity Test, was forwarded to Ms. Florence M. Richardson, the Office of Solid Waste's Quality Assurance Officer, and finally, to myself. The EP, as well the new TCLP test that you referred to, are both my responsibility.

In answer to your question, Section 262.11 of the Resource Conservation and Recovery Act (40 CFR 262.11) provides for the use of generator knowledge in application of the characteristics. Practically speaking, the generator has the option of considering his or her knowledge of the waste in determining whether it meets any of the characteristics. This includes information regarding total waste concentration.

The TCLP (enclosed - See Section 1.2), which will soon be proposed for use in expanding the EP Toxicity Characteristic, specifically states that if a total analysis of the waste demonstrates that a waste does not contain a particular contaminant, or that it does contain the contaminant, but at such low concentrations that the particular hazardous level could not possibly be exceeded, then the TCLP does not have to be performed. This evaluation must be made, however, assuming that all the contaminant present in the waste will migrate or leach into the liquid extract.

Please call me at (202)382-4795 if I can be of any further assistance.

Sincerely,

Todd A. Kimmell
Environmental Scientist
Methods and Studies Branch (WH-562B)

Enclosure

cc: Florence M. Richardson (OSW)
Roy R. Jones, EPA Region X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 15 1986

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. William Plumley
#80391-011-V-3
P.O. Box 1010
Bastrop, Texas 78602

Dear Mr. Plumley:

Thank you for your letter asking for information about how to dispose of "dry" toluene and carbon tetrachloride safely. In addition, you asked whether it is safe to dispose these wastes in the regular trash.

As you might be aware, regular trash is frequently disposed of in landfills. Toluene and carbon tetrachloride are chemicals with the potential to cause serious health risks when land disposed. Even though your wastes maybe "dry," other liquids in the landfill could mobilize these materials.

From your letter we can not determine whether you are a small quantity generator(SQG) of hazardous wastes. Therefore, if you are a SQG, you will find enclosed the brochure A Handbook for Small Business that explains how small quantity generators (see pages 6 to 9 for the definition) must comply with applicable Federal laws. I also am enclosing the document Alternative to Hazardous Wastes Landfill that describes available methods to treat regulated hazardous wastes prior to dispose them in a permitted RCRA hazardous wastes landfill.

If you have any questions regarding the SQG brochure or on your status as generator of hazardous waste please contact Dave Plant of our Regional Office at (214) 767-2600. EPA also maintains a toll free hotline for questions on hazardous waste disposal the number is 1-800-424-9346.

For additional information on disposing of hazardous wastes safely, you also can contact your local authorities. In Texas you can contact Ed Hatton of the Texas Water Commission at (512) 463-7754.

Sincerely,

James R. Berlow
Chief
Treatment Technology Section
Waste Treatment Branch (WH-565A)

Enclosure

cc: Dave Plant, Region VI

Ed Hatton,
Texas Water Commission

MAR 24 1986

Honorable William V. Roth, Jr.
United States Senate
Washington, DC 20510

Dear Senator Roth:

This letter responds to your request of February 3, 1986, on behalf of your constituent, Mr. William N. Cann, Jr. Mr. Cann is concerned about his responsibilities for the transportation and disposal of small quantities of hazardous waste.

As you know, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Section 107(a), establishes liability for the costs of removal or remedial action and any other costs or damages resulting from a release of a hazardous substance. CERCLA establishes three classes of people responsible for cleanup costs, damages to natural resources, and related expenses: (1) all owners and operators of facilities or vessels, including persons who owned or operated facilities at the time of disposal; (2) persons who contracted for the disposal or treatment of hazardous substances (i.e., generators), and (3) persons who accepted the hazardous substances for transport and selected the treatment or disposal facility (i.e., transporters). This concept of "joint and several" liability has been a consistent part of the CERCLA program. What has undergone recent changes are the specific requirements which a generator like Mr. Cann must meet under the Resource Conservation and Recovery Act (RCRA).

In 1980, when EPA initially issued regulations under RCRA for the management of hazardous waste, small quantity generators, those producing less than 1000 kilograms (about 2200 pounds) of hazardous waste in a calendar month, were exempted from most of the requirements applicable to larger generators. The Hazardous and Solid Waste Amendments of 1984 (HSWA), however, direct EPA to publish, by March 31, 1986, final regulations for generators of between 100 and 1000 kilograms of hazardous waste in a calendar month. At a minimum, the regulations must require 100 to 1000 kilogram/month generators to: use a Uniform Hazardous Waste Manifest when shipping hazardous waste off-site; store waste

on-site for no more than 180 days (270 days if the waste is to be shipped more than 200 miles); and ensure that their hazardous waste is managed at a hazardous waste facility with interim status or a permit under RCRA. EPA is now finalizing the regulations, and expects to publish these rules within the next two weeks. The regulations will be effective six months following publication in the Federal Register.

Until the final rules become effective in September 1986, virtually the only requirement for 100 to 1000 kg/mo generators under federal law is the HSWA statutory requirement, effective August 5, 1985, that these generators use a partially completed, single copy Manifest to accompany hazardous waste shipped off-site. Many States, however, have additional or more stringent requirements for small quantity generators in place now.

Although Delaware has generally adopted the federal RCRA program, there are additional State laws that may impact your constituent's activities. While federal law, for example, currently allows small quantity generators to send their hazardous waste to a sanitary landfill or other facility authorized by the State to accept it, I understand that Delaware landfills are not authorized to accept hazardous waste. Therefore, it is likely that Mr. Cann, as he indicates in his letter, does need to send his hazardous waste to facilities located out of State. Which is the closest facility he may use is largely dependent upon the type of hazardous waste Mr. Cann generates, as different facilities accept different types of hazardous waste. While printing establishments generally produce such wastes as contaminated solvents, without more information about Mr. Cann's specific wastes, it is difficult to provide the name of a facility authorized to accept his waste. The Delaware Department of Natural Resources and Environmental Control should be able to provide assistance to Mr. Cann.

Similarly, Mr. Cann's suggestion that small quantity generators be allowed to transport their own hazadous waste to the facility they select is currently permitted under federal regulations. Again, however, I believe that certain State requirements may apply. If this is the case, Mr. Cann may be required to obtain a transporter license before he can haul his hazardous waste to the facility he selects.

I have enclosed a copy of a brochure we have prepared for small quantity generators explaining the current federal hazardous waste requirements, which may be helpful to Mr. Cann. Included in the brochure is an insert providing information specific to the printing and allied industries. This is one of a series of eighteen industry-specific inserts we have prepared as a part of our education/outreach effort for newly regulated small quantity generators. For your reference, I am also including a complete

set of these industry-specific inserts. We would be happy to add Mr. Cann's name to our mailing list so that he may receive a copy of the final federal regulations and other education materials as they become available. In the meantime, I suggest that Mr. Cann contact the Delaware Department of Natural Resources and Environmental Control at (302) 736-4781 for information on specific State requirements as they may apply to him.

I hope this information will be helpful. We appreciate your inquiry and your interest in the small quantity generator program.

Sincerely yours,

J. Winston Porter
Assistant Administrator

Enclosures

FEB 5 1987

MEMORANDUM

SUBJECT: Rapid Issuance of Identification Numbers to Sites Under Investigation by the Drug Enforcement Administration

FROM: Marcia Williams JD for MW
Director
Office of Solid Waste (WH-562)

TO: Regional Project Officers, Regions I - X
(See list of addressees)

The purpose of this memorandum is to extend EPA's policy for rapid issuance of identification numbers to sites under investigation by the Drug Enforcement Administration (DEA).

Because of this Administration's commitment to halt the illegal manufacture and sale of drugs, the DEA has embarked upon an ambitious program of enforcement against illegal drug manufacturing operations. In particular, DEA Special Agents have been securing clandestine laboratories, many of which generate hazardous waste (e.g., ether, cyanide wastes). Since the waste is usually transported off-site immediately to approved treatment, storage, or disposal facilities, DEA officials need immediate access to generator identification numbers for these sites in order to complete the manifest which must accompany the shipment.

The Agency's policy regarding rapid issuance of identification numbers for emergencies or unusual circumstances allows generators or transporters to obtain provisional identification numbers orally by telephone. See attached Federal Register of December 24, 1980.

The unusual circumstances surrounding the DEA clandestine lab operations warrant extending the rapid issuance policy to such sites. Therefore, we ask that you orally provide emergency identification numbers to DEA agents who may call to obtain the numbers for shipment of wastes from secured laboratories. The numbers can be used on a

one-time-only basis. The mechanism used by Region V for issuing such numbers (attached) may be a useful format for you to follow. Follow-up requirements to provide completed notification forms (8700-12) would depend upon the individual circumstances at each site as well as upon Regional and State discretion and policy.

If you have any questions about this request, please contact Mike Petruska of my staff on 475-8551.

Attachments

Addressees:

Ken Blumberg, Region I
Mark Savedoff, Region II
Shirley Bulkin, Region III
Rita Ford, Region IV
Judy Stone, Region V
Bob Stender, Region VI
Jane Ratcliffe, Region VII
Jon Minkoff, Region VIII
Matt Mitguard, Region IX
Judy Fey, Region X

cc: Steve Levy (WH-563)

February 18, 1987

Honorable John Paul Hammerschmidt
House of Representatives
Washington, DC 20515

Dear Mr. Hammerschmidt:

Thank you for your letter of January 21, 1987, on behalf of your constituent, Mr. Gene Culver. Mr. Culver is concerned about the costs for disposing of the hazardous wastes from his dry cleaning establishment, and a recent increase in charges for the Safety-Kleen® service he has been using.

As you know, the Hazardous and Solid Waste Amendments of 1984 (HSWA) to the Resource Conservation and Recovery Act (RCRA) directed the Environmental Protection Agency (EPA) to promulgate regulations for small quantity generators of 100 to 1000 kg of hazardous waste per month. Congress directed that, at a minimum, regulations issued by EPA require that: (1) all treatment, storage, and disposal of hazardous wastes from 100 to 1000 kg/mo generators occur at facilities with interim status or a RCRA permit; (2) 100 to 1000 kg/mo generators be allowed to store waste on-site for up to 180 days (or 270 days if the waste is to be shipped more than 200 miles) without the need for a permit; and (3) that 100 to 1000 kg/mo generators use a Uniform Hazardous Waste Manifest when shipping their hazardous waste off-site for treatment, storage, or disposal.

In developing these regulations, the Agency attempted to assure protection of human health and the environment while avoiding unreasonable burdens on the large number of small businesses affected by the rules. As a result, the final regulations for small quantity generators of 100 to 1000 kg/mo that went into effect on September 22, 1986, provided some relief from a number of paperwork and recordkeeping requirements applicable to larger generators. In addition, 100 to 1000 kg/mo generators were allowed a longer on-site storage period (180 days as opposed to 90 days) in which to accumulate their waste for more economical shipments off-site. For your reference, I have enclosed copies of a handbook we developed to explain these new requirements to affected businesses.

As a result of these new rules, a number of waste management and disposal firms, such as Safety-Kleen®, have developed "milk run" programs to serve small quantity generators. State

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This has been retyped from the original document.

agencies, local governments, and several trade associations have also recognized the need for innovative, economical, and efficient programs for handling small quantities of waste from a large number of generators. We are encouraging some of these programs through a series of grants awarded under §8001 of RCRA. Some pilot efforts now underway include establishment of periodic "milk runs", transfer stations, and waste exchanges. EPA does not, however, have any authority over private companies pricing structures, which appears to be one of the sources of Mr. Culver's concerns.

In sum, we understand Mr. Culver's concern about the increased costs he faces for properly disposing of his dry cleaning wastes. We hope that, as additional firms enter the small quantity generator market, and as State and local programs evolve, Mr. Culver will be offered a greater variety of waste management plans, and will be able to select one that most economically and appropriately fits his needs.

If I can be of any further assistance, please let me know.

Sincerely,

J. Winston Porter
Assistant Administrator

This has been retyped from the original document.

JUL 30 1987

MEMORANDUM

SUBJECT: Generation of Aids to Navigation (ATON) Batteries and RCRA Requirements

FROM: Marcia E. Williams, Director
Office of Solid Waste (WH-562)

Gene A. Lucero
Office of Waste Programs Enforcement (WH-527)

TO: Kenneth D. Feigner, Chief
Waste Management Branch (HW-112)
EPA Region X

This is in response to your June 30, 1987, memorandum in which you requested clarification as to how the RCRA rules apply to ATON batteries. The answers to your specific questions are as follows:

1. We agree with you that the entire battery is counted in weight calculations;

2. The points of waste generation are, as you suggested, each ATON unit service area (either landbased or the tender vehicle). Each area is subject to the quantity determination of §261.5, except when several areas are on one site; then the entire quantity of hazardous waste generated at the site is counted.

3. The location to which the spent batteries are taken would normally be a TSDF, provided the waste is received from one or more ATON units which generate greater then 100 kg/mo. of hazardous waste. You should note, however, that 40 CFR §263.12 provides that properly packaged and labeled hazardous waste containers may be held for 10 days or less at a transfer facility without having to comply with Parts 264, 265, or 270.

4. The satellite accumulation area provisions of §262.34 (c) do not apply to the ATON locations because they are not all on one site, but rather are each distinct sites surrounded by water.

5. We believe that the batteries removed after tender servicing do require manifesting, as well as those removed from land-based vehicle servicing. The location where a battery is removed from service is the waste generation site. The generator must manifest the batteries to a TSDF provided they are not a conditionally exempt generator. As indicated above, the batteries may be held for up to 10 days at a transfer facility under §263.12.

Please feel free to contact Michael Petruska at 475-6676 if you have any further questions.

cc: Waste Management Division Directors, Regions I - IX
Solid Waste Branch Chiefs, Regions I - X

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 87

3. 100-1000 kg/mo Generators

40 CFR Part 262 states that a 100-1000 kg/mo generator has 180 days to store hazardous waste without a permit or interim status. If the waste is shipped more than 200 miles, the generator is allowed to store waste on-site for up to 270 days. Is it permissible for a 100-1000 kg/mo generator to ship waste to a TSD facility more than 200 miles away, even though the generator could send the shipment to a facility less than 200 miles away?

40 CFR Part 262 contains no regulations addressing when a generator is permitted to ship waste in excess of 200 miles, and thus receive an extra 90 days storage time. 40 CFR 262.40 states that a generator can store hazardous waste for 270 days, "if he must transport his waste or offer his waste for transportation over a distance of 200 miles or more." The preamble notes that "the Agency has decided not to establish specific criteria for determining if a generator may accumulate waste on-site for 180 or 270 days. EPA believes that such criteria would not serve any useful purpose... ." "In addition, the Agency was concerned that establishing criteria for demonstrating that the closest facility was greater than 200 miles from the generation site would be unnecessarily confusing and could have the perverse effect of causing waste to go to less desirable management practices (e.g., where a disposal facility is located within 200 miles while a recycling facility is located over 200 miles from the generator, the generator could be forced to utilize the less desirable disposal facility)." Therefore, it would be permissible for a generator to send hazardous waste to a facility greater than 200 miles away even though there is a TSD facility closer than 200 miles away.

Source: Mike Petruska (202) 382-7936
Research: Mark Janaskie

9451.1989(01)

8-341:DGallman:cy:5/1/89
Control No. OS-078

MAY 3 1989

Alan H. McLean
Hughes Hubbard and Reed
Madison Avenue
New York, New York 10017

Dear Mr. McLean:

This letter is in response to your letter dated March 2, 1989, requesting a written interpretation of aspects of the Resource Conservation and Recovery Act (RCRA) implementing regulations applicable to recycling activities (40 CFR Parts 124, 264, 265, 266, 268 and 270). It is my understanding that Environmental Technology Group's (ETG's) operation involves a mobile recycling unit that visits hazardous waste generator sites. Used solvents are pumped into the mobile unit through hoses connected to the generators' storage tanks or containers and a horizontal thin film evaporator is applied to reclaim reusable solvents. The reusable solvents are then pumped back into the generator's product tanks or containers. All rinsings and non-recoverable residues exiting from the mobile unit are placed in waste containers and remain on-site as the property of the generator.

In your letter, you reached several tentative conclusions regarding the applicability of certain RCRA regulations to your process. I have discussed those Federal regulations below to clarify how they would apply to your activities. However, it should be noted that in states that are authorized to implement the RCRA program, the state regulations, rather than Federal regulations, are applicable. The state program can be broader-in-scope or more stringent than the Federal counterpart, so ETG should check all applicable state standards before deploying its mobile recycling units.

The first question raised is, who is considered the generator of the residue or still bottom resulting from the recycling of the spent solventby ETG's units. EPA considers the original generator of the spent solvents and ETG to be co-generators of these still bottoms, and the RCRA regulations regarding generators, found at 40 CFR Part 262, are applicable to both. However, this does not mean that both generators

must satisfy each regulatory requirement individually. When two or more parties contribute to the generation of a hazardous waste, as is the case in the generation of the still bottoms, these requirements are satisfied if one of the parties assumes and performs the duties of the generator on behalf of both the parties (45 FR 72026, October 30, 1980). Therefore, by mutual agreement either party could perform the generator responsibilities of recordkeeping, reporting, and manifesting for the still bottom waste. Typically, these duties are assumed by the original generator who owns the site. Nevertheless, EPA reserves the right to enforce against any and all persons who fit the definition of "generator" in a particular case if the requirements of Part 262 are not adequately met. For more discussion on generator responsibilities, see the October 30, 1980 Federal Register notice referenced above.

Regarding the notification process, generator notifications under section 3010 of RCRA are generally required only once, at the time that RCRA regulations initially become applicable to the generator. It is through the notification process that a generator obtains an EPA identification number. If the original generator has already submitted a notification and received an EPA identification number, and if this generator consents to perform the generator duties for the still bottoms as described above, then, additional notification is not required for the mobile unit to perform the recycling operation. This arrangement appears to fit the circumstances described in your letter. However, should the agreement between ETG and a particular client prescribe that ETG be the generator of record for the still bottoms, including manifesting the residue, ETG would need to obtain an EPA identification number for that particular site by submitting a notification form (40 CFR 262.12(a)).

You also inquire about the applicability of the permitting requirements to the generator or the mobile unit operator. Your letter correctly states that a hazardous waste recycling process is exempt from the RCRA permitting requirements (40 CFR 261.6(c)). Therefore, neither ETG nor the generator would be obligated to obtain a permit for the recycling operation. Further, generators are allowed to accumulate hazardous waste on-site in tanks or containers for up to 90 days without being required to obtain interim status or a permit (40 CFR 262.34). It should be noted, however, that 90-day generators must comply with the technical standards of Part 265, Subpart J (for tanks), and Subpart I (for containers), as well as certain emergency response and personnel training provisions. If the accumulation period before the waste is introduced into the recycling unit exceeds 90 days, the generator will need to obtain interim status or a permit for such storage.

Wastes or residues from recycling activities are considered to be newly generated wastes and therefore are also allowed a 90 day accumulation period without a permit. Note that these wastes are also "derived from" wastes and are assigned the same EPA waste codes as the spent solvent from which they are derived (40 CFR 261.3(c)(2)(i)).

You also indicate in your letter that ETG will not be subject to the Part 268 land disposal restriction requirements since a permit is not required. However, you should note that the Part 268 standards apply independent of the permit program, and any such requirements that are applicable to a particular waste (e.g., the solvent still bottoms) must be complied with regardless of the §262.34 accumulation provision.

I hope this information will be helpful to you. If you have further questions please feel free to call Frank McAlister at (202) 382-4740.

Sincerely yours,

/S/

Joseph S. Carra
Director
Permits and State Programs Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 26 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Donald A. Barbour
Nuclear Metals, Inc.
2229 Main Street
Concord, Massachusetts 01742

Dear Mr. Barbour:

Thank you for your letter of April 6, 1989 to EPA Administrator William Reilly regarding inconsistencies between the Nuclear Regulatory Commission's (NRC) and EPA's regulatory programs. In that letter you identified both regulatory requirements and routine radioactive waste management practices as examples of inconsistencies between the Atomic Energy Act (AEA) and the Resource Conservation and Recovery Act (RCRA).

The first joint initiative undertaken by EPA and NRC was a comparative study of the respective agencies regulatory programs. The purpose of that study was to delineate inconsistencies. None were identified although differences in stringency were. However, implementation of the dual regulatory program may reveal instances where compliance could result in an inconsistency. However, RCRA permitting and/or administrative requirements are not examples of inconsistencies. Nevertheless, I would like to respond to each of the concerns and proposed resolutions you raised.

First, you indicated generators of mixed waste may routinely treat the waste to conform with NRC waste form requirements and/or Department of Transportation (DOT) shipping requirements. You expressed concern that this treatment might force generators into the RCRA permitting scheme.

Admittedly, the overwhelming majority of mixed waste handlers are already licensed by NRC for operations involving the radioactive constituent of the waste. Also, hazardous waste treatment, storage or disposal that may have been incidental to radioactive waste management must now be brought into conformance with regulatory requirements for hazardous waste management including permitting. However, not all hazardous waste handling processes must be permitted under RCRA. Facilities engaged in recycling, resource recovery, totally

enclosed treatment and certain in tank treatments within the generators 90 day accumulation time do not require a RCRA permit, for example. Generators need to assess their waste management operations and processes to take advantage of these and other exemptions which may be available.

Second, you suggested the benefits of storage for decay of high activity waste may not be fully exploited by generators because storage beyond 90 days would warrant a RCRA permit.

In addition to storage of high activity wastes to minimize occupational exposures, storage for decay of short-lived radionuclides is also a common practice. The latter practice could potentially allow certain mixed wastes to be managed solely as hazardous waste. Staff is currently assessing the implications of RCRA on these practices. This effort, however, has been hampered because of scanty information on the actual number of facilities and waste volumes in this category. Currently, the Agency is not considering changes to existing storage rules although some modification may be justifiable in the future.

Third, you commented that the absence of disposal capacity will force generators that might otherwise be exempt from hazardous waste permitting requirements to obtain RCRA storage permits.

Mixed waste disposal capacity like low-level waste disposal capacity is unlikely to be available until after the January 1, 1993 deadline established by the Low-Level Radioactive Waste Policy Act Amendments of 1985. Even then, the probability of national mixed waste capacity being available is small. This uncertainty underscores the need to ensure that mixed wastes are managed in a manner which protects human health and the environment from the hazardous constituent of the waste. The Agency is developing guidance jointly with NRC that will integrate the respective regulatory regimes for storage. The Agency has undertaken this initiative because of anticipated long-term storage of mixed waste.

Fourth, you indicated dual manifesting would be cumbersome and recommended use of the radioactive waste management manifest.

As you know, NRC manifesting data elements differ for wastes destined for disposal versus treatment or storage under RCRA. Similarly, information necessary to satisfy EPA recordkeeping and reporting requirements may not be data elements on the NRC manifest. We have explored the practicality of using a single manifest with NRC and both agencies agree that dual manifesting represents a reasonable and expeditious approach.

Fifth, you questioned whether mixed waste could be shipped from a State where the waste was a hazardous waste and subject to RCRA to a facility in a State where the waste was not hazardous waste.

EPA regulations at 40 CFR Part 262.20(b) require generators of hazardous waste "to designate on the manifest one facility which is permitted to handle the waste described on the manifest." The regulations are clear that the facility so designated is the "designated facility" as defined in the Section 260.10. That definition refers specifically to Section 262.20, the requirement that generators designate a permitted facility. Thus, a "facility which is permitted to handle the waste" must also be a facility that fits the definition of "designated facility." Under that definition, a designated facility must: [1] have an EPA permit (or interim status) in accordance with the requirements of Parts 270 and 124, [2] have a permit from a State authorized in accordance with Part 271, or [3] be a treatment, storage or disposal facility that is regulated under Section 261.6(c)(2) or Subpart F of Part 266, and that has been designated on the manifest by the generator pursuant to Section 262.20.

The phrase "in accordance with" as used in the definition of designated facility can be read to imply that if a RCRA permit need not be issued to a facility because the waste is not hazardous under authorized State law, then the waste could be delivered to that facility without violation of authorized State or Federal law. It should be noted that this interpretation of "designated facility" reflects the special situation where hazardous waste in one State is shipped to a second State that does not regulate the waste as hazardous.

Sixth, you expressed concern that transporters may need to obtain a "State hazardous waste transporter permit" which could impede mixed waste shipment.

Transporters are not required to obtain a RCRA permit. Rather, transporters must comply with the regulations governing handling, transportation, and management of hazardous waste. EPA has also adopted DOT hazardous materials transportation regulations as necessary to protect human health and the environment in the transportation of hazardous waste. EPA's transporter standards are found at 40 CFR Part 263.

You should note that while transporters are not required to obtain a permit under Federal regulations, States are not precluded from developing such regulations under authorized State law. No authorized State has instituted such a requirement for hazardous waste transporters although New York is considering such a State law.

Last, you commented that any reconsideration or change in the Federal regulatory status of used oil "should consider the advantages of preserving present disposal options for radioactively contaminated waste oil."

As you know, used oil is not "listed" as a hazardous waste under RCRA. However, the Court of Appeals has overturned this 1986 decision, and the Agency is currently re-evaluating the technical basis for listing used oil on an accelerated schedule. To date, the Agency has not made a finding on the regulatory status of used oil although, any such finding will be predicated on environmental considerations.

However, authorized State hazardous waste programs may be "broader in scope" than the Federal program. And, consistent with this provision, used oil may be listed as a hazardous waste under authorized State law. Several States have, in fact, established such a waste listing. Handlers of mixed waste need to be cognizant of the scope of authorized RCRA programs to ensure compliance with applicable regulatory requirements.

I hope my comments have been useful in delineating the Agency's position on regulation of mixed waste. Again, thank you for your comments and analysis of what are certainly some of the key areas of concern regarding dual regulation of mixed waste. While immediate plans do not include revamping the RCRA program specific to mixed waste, certainly the issues you raised will receive additional attention as we continue to refine our regulatory program.

Sincerely,

Suzanne Kudyniski for

Joseph S. Carra
Director
Permits and State Programs

cc: John Greeves, U.S. NRC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 13 1991

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Clarification of SQG Requirements and Liabilities

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste (OS-300)

TO: Jeffrey Zelikson, Director
Hazardous Waste Management Division (9H-1)

This memorandum is written in response to your February 20, 1991, request for clarification of the regulatory requirements and potential liabilities of small quantity generators pertaining to the use of hazardous waste manifests to assist you in responding to William Apger.

The practice in question is a situation in which hazardous waste is transported to a permitted (or interim status) storage facility, accompanied by a hazardous waste manifest; a small quantity generator has initiated the shipment, and has contracted with the storage facility to clean up and remove the waste from the generator's property. Once the waste reaches the storage facility, the manifest is signed and returned to the generator. The waste is later sent to another designated facility for final treatment and disposal, and is accompanied by a second manifest on which the storage facility is named as the generator. The requestor asks if this practice conforms to the legal requirements imposed under RCRA, if obtaining and following recordkeeping requirements for the first manifest is sufficient, and if the generator should request copies of the manifest initiated by the owner/operator of the storage facility when the waste is shipped to the second facility.

Small quantity generators who generate between 100 and 1000 kg of hazardous waste per month, as well as generators of more than 1000 kg per month, are required to comply with regulations pertaining to the manifest. If the generator, the transporter, and the storage facility in the scenario presented each use the uniform hazardous waste manifest during handling of the waste, completing the required signatures (the generator, transporter, and storage facility before a copy is returned to the generator in accordance with 40 CFR 262 Subpart B) and maintaining the required records, then the generator would appear to be in compliance with the Federal regulations. Note that conditionally-exempt small quantity generators, i.e., generators

Printed on Recycled Paper

of less than 100 kg of hazardous waste in any given month, are exempt from the manifest provisions.

As you are aware, States are allowed to impose regulations which are either more stringent or broader in scope than the Federal regulations; therefore, the generator should also check with the State in which his facility is located.

The letter which you provided with your request for assistance also states that the storage facility would, upon request, furnish the generator with copies of the manifests which are prepared at the storage facility for the subsequent transportation of the waste to the ultimate treatment and disposal facility. If the generator is requesting such copies because of a concern about potential future liability, a request for copies of these manifests could be regarded as a prudent practice. As you know, the generator retains potential liability under Superfund for future mismanagement of hazardous waste even after it has left his site and is out of his possession.

Please contact me if you need further clarification on this or other issues.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MARCH 1991

1. Amendments to Part 262 Hazardous Waste Determination and Recordkeeping Requirements of Part 262 and 268

The Land Disposal Restrictions (LDR) Third Third final rule (June 1, 1990, 55 FR 22520) revised the waste identification requirements of 40 CFR 262.11. Prior to the revision, section 262.11 set out an either/or scheme where, if the generator determined that a waste was listed in Part 261, Subpart D, he or she need not determine whether the waste exhibited a characteristic under Part 261, Subpart C. With the promulgation of the Third Third rule, the Agency amended section 262.11 to indicate that generators must determine whether listed wastes also exhibit any hazardous waste characteristics for purposes of compliance with LDR.

A generator is required to develop and maintain records for hazardous waste under two regulatory programs, LDR (Part 268) and generator standards (Part 262). How does the amended language of 40 CFR 262.11(c) affect the paperwork associated with these two regulatory programs?

> The amended language of section 262.11(c) does not affect the generator paperwork required in Part 262. When a generator determines that a solid waste meets a Part 261, Subpart D hazardous waste listing, he/she is not

required to determine whether the listed waste exhibits any characteristics for purposes of filling out Part 262 paperwork such as generator notification forms (8700-12) and biennial reports. (However, the generator may elect to determine whether the waste exhibits a characteristic for his/her own information or for other reasons.) On the other hand, the paperwork of Part 268 must reflect the amended language of section 262.11(c) which states that for the purposes of compliance with Part 268 a generator must determine if a listed waste is also characteristically hazardous. (Emphasis added.)

The general principal of the section 262.11 waste identification modification is that if both the treatment standard for a listed waste and the treatment standard for a characteristic waste are in effect for a common constituent, then the treatment standard for the listed waste applies because it is more specific. If, however, the treatment standard for the listed waste does not specifically address the characteristic(s), the waste codes for both the listed waste and the characteristic waste(s) should be included on the notification paperwork of section 268.7. (see 55 FR 22659) In the Third Third technical amendment rule (January 31, 1991, 56 FR 3864), the Agency provided an example of this second scenario. K062 is listed for toxicity as well as for the characteristic of corrosivity. Because the K062 treatment standard does not specifically address the characteristic of corrosivity, both K062 and D002 must be included in the section 268.7 paperwork. (56 FR 3872)

There is also a variation of the principle illustrated above. If the most specific treatment standard is subject to a national capacity variance or a case-by-case extension and thus is not yet in effect, then the treatment standard for the most specific waste code that is in effect must be met. The January 31, 1991, Federal Register also provides an example of this situation. During the K048 variance period from August 8, 1990, until November 8, 1990, K048 was subject to the treatment standards for EP toxic chromium and lead (D007 and D008) since the treatment standards for these two characteristics were in effect. After the variance expired for K048, section 268.7 notification for the K048 treatment standard would only apply because the listing treatment standard is more waste specific than the two characteristic waste treatment standards. (56 FR 3873)

In conclusion, the amended language at 40 CFR 262.11(c) was intended for compliance with LDR treatment standards. The generator recordkeeping and reporting requirements of Part 262 remain unaffected.

Source: Rhonda Craig, OSW (202) 382-7926
Becky Cuthbertson, OSW (202) 475-9715
Research: Cynthia Hess

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 16 1991

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Michael H. Oberg
Chief Operating Officer
United Marketing International, Inc.
P.O. Box 989
Everett, WA 98206-0989

Dear Mr. Oberg:

Thank you for your letter dated February 19, 1991 concerning the Toxicity Characteristic (TC) rule and its relationship to used oil filter disposal as outlined in a October 30, 1990 memorandum to Mr. Robert Duprey in EPA's Region 8 office.

The TC rule was effective in all states on September 25, 1990, regardless of the state's RCRA authorization status. The TC will be implemented and enforced by EPA's Regional Offices until such time as states are authorized to implement and enforce the TC. Please note that the compliance date for generators of small quantities (from 100 to 1000 kg of total hazardous waste in a calendar month) of TC-hazardous wastes was March 29, 1991. Small quantity generators (SQGs) were required to begin managing their TC-hazardous waste in accordance with all applicable hazardous waste regulations on that date. Of particular concern to the Agency is the proper management (e.g., storage, treatment, transportation and disposal) of these wastes.

As a point of clarification, I would also note that under the TC rule, generators are not specifically required to test their waste. The regulations allow generators to use their knowledge of the waste and/or the process that generated it to determine if it is hazardous. They are, however, required to be correct in their determination.

The Agency intends to fully enforce this rule. The Agency's enforcement policy clearly is designed to identify and prosecute violators and to deny any economic benefit resulting from violations. Civil and criminal penalties are also available as enforcement tools.

Finally, the Office of Solid Waste appreciates the information you provided pertaining to recently completed studies of used oil filters conducted by the University of Northern Iowa. This study addresses the Agency's recommended best operating practice contained in the October 30, 1990 memorandum which suggested both draining and crushing of the oil filter to ensure

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maximum removal of the oil. Of course, as discussed earlier, each hazardous waste generator is ultimately responsible for making their own determination as to whether their waste is hazardous under the TC rule for any waste stream generated.

I hope this letter clarifies the nature of the Agency's implementation of the TC rule. If you have any additional questions, please feel free to contact Mr. Steve Cochran of my staff at (202) 382-4770 for general TC questions and Mr. Hugh Davis in the Office of Waste Programs Enforcement at (202) 475-9867, if you have TC enforcement questions.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
AUGUST 1992

1. Treatment in a Generator's 90-Day Containment Building

According to the March 24, 1986, Federal Register, generators may treat hazardous waste in accumulation tanks or containers in conformance with the requirements of §262.34 and Subparts J or I of Part 265 without obtaining a permit or interim status (51 FR 10168). In the August 18, 1992, Federal Register (57 FR 37194), EPA promulgated standards for a new hazardous waste management unit known as a containment building (Parts 264 and 265, Subpart DD), and amended §262.34 to allow generators to accumulate hazardous waste on-site in containment buildings for 90 days or less without a permit or interim status (§262.34(a)(iv); 57 FR 37264). May generators accumulating hazardous waste in containment buildings in compliance with §262.34 and Part 265, Subpart DD treat the waste without obtaining a permit or interim status?

A generator accumulating hazardous waste in a containment building for less than 90 days in compliance with §262.34 and Part 265, Subpart DD (the technical standards for interim status containment buildings) may treat these hazardous wastes in the containment building without obtaining a permit or interim status as long as thermal treatment is not involved. The August 18, 1992, Federal Register states that §262.34 has been revised to exempt generators from permitting requirements when accumulating or treating hazardous waste on-site in containment buildings (57 FR 37242 and 37253). Generators who accumulate or treat hazardous waste in containment buildings must comply with the general Part 262 regulations, as well as the following requirements in accordance with §262.34(a)(1)(iv): comply with Subpart DD of 40 CFR Part 265; place in the facility's operating record a certification by a professional engineer that the building complies with the design standards specified in 40 CFR §265.1101; and maintain in the facility's files documentation showing no hazardous wastes remain in the unit for longer than 90 days (57 FR 37264).

If a generator chooses to treat a prohibited hazardous waste in containment buildings, however, and is conducting such treatment in order to meet applicable Part 268, Subpart D treatment standards, he or she must comply with the waste analysis plan requirements of §268.7(a)(4). Section 268.7(a)(4) has been modified to reflect the addition of containment buildings to §262.34 as accumulation/ treatment units (57 FR 37270).

Thermal treatment is regulated by the specific standards for incinerators (Part 265, Subpart O), boilers and industrial furnaces (Part 266, Subpart H), and thermal treatment (Part 265, Subpart P), and is therefore not eligible for the §262.34 permit exemption even if the treatment occurs inside a containment building.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1993(02)

OCT - 7 1993

Mr. Mark Bell
1001 Fannin Street
Suite 2050
Houston TX 77002-6778

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Mark Bell:

Thank you for your letter of February 3, 1993, in which you requested clarification on the amount, type, and frequency of hazardous waste training for persons working in and around facilities where hazardous waste is handled. We apologize for the delay in our response.

The type of information you request is best provided based on a site-specific assessment of each situation. This assessment can be made by the authorized State agency (or, if the State is not authorized, the EPA Regional office) that implements the hazardous waste program in the State in which the facility is located. Also note that under Section 3009 of RCRA (42 U.S.C. Section 6929), States retain authority to promulgate regulatory requirements that are more stringent than federal regulatory requirements.

In general, EPA requires generators of more than 1,000 kilograms per month (kg./mo.) of hazardous waste (or more than 1 kg./mo. of acutely hazardous waste) who accumulate waste on site, to comply with the same personnel training requirements as treatment, storage, and disposal facilities (40 CFR 262.34 and 265.16). The generator's training program must be "designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems..." (40 CFR 265.16(a)(2)).

These requirements are intended to ensure that personnel are adequately prepared to properly handle the types of hazardous wastes that are managed at the facility and to respond to any emergencies that are likely to arise.

The regulations at 40 CFR part 262, 264 and 265, do not specifically address some of the scenarios you present. We have provided information from Federal Register preamble discussions and EPA guidance documents listed below to assist you in developing appropriate training programs. We recommend however,

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that determinations on information such as this be obtained from your State (or appropriate Regional office).

Additional information on personnel training for persons who work with hazardous waste can be found in:

RCRA Personnel Training Guidance Manual, U.S. EPA, September 1980, EPA FW-915. Order from: National Technical Information Service (703)487-4650, Order number PB87-193 348 Cost: $27.00

Permit Applicant's Guidance Manual For the General Facility Standards of 40 CFR 264, U.S. EPA, September 1980, EPA FW-915. Order from: National Technical Information Service (703)487-4650, Order number PB87-151 064 Cost: $44.50

You also may find the following Federal Register notice preamble discussions to be helpful:

49 FR 49570 December 20, 1984;
51 FR 10164 March 24, 1986; and,
45 FR 33182 May 19, 1980.

Generally, 40 CFR Part 262.34(d)(5)(iii) provides that "The generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operation and emergencies." Thus, if a person is handling hazardous waste, he or she should have had training in proper waste handling and emergency procedures appropriate to the types of waste handled, the management methods used, and the hazards presented by the waste type and waste management method. In addition "there must be at least one employee either on the premises or on call...with the responsibility for coordinating all emergency response measures..." (40 CFR 262.34(d)(5)(i)). This may apply when wastes are taken from a satellite accumulation area to a 90-day storage area and to persons who will be responsible for managing the waste (e.g., persons managing wastes in drums and tanks.)

If you have further questions about training needs, contact your authorized State agency (or, if the State is not authorized, the EPA Regional office) that implements the hazardous waste program in the State in which the facility is located. If you have questions about this letter, contact Ann Codrington of my staff at (202) 260-8551.

Sincerely,

Elizabeth A. Cotsworth

for Jeffery D. Denit
Acting Director,
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1993(03)

NOV 1 1993

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Ethan R. Ware
Ogletree, Deakins, Nash, Smoak & Stewart
Palmetto Center
1426 Main Street
PO Box 11206
Columbia, SC 29211

Dear Mr. Ware:

Thank you for your letter dated January 4, 1993, concerning the management of hazardous waste by generators under the Resource Conservation and Recovery Act (RCRA). In your letter you asked whether 40 CFR §262.34, which allows generators to store and/or treat wastes in accumulation containers or tanks without interim status or a RCRA permit, applies to the situation of your clients. I regret the delay in responding to your letter.

You specifically asked whether the transfer of hazardous waste from one container to another for treatment affects the applicability of the generator 90-day treatment exemption. This type of waste transfer may occur during the accumulation period for two reasons. First, 40 CFR §262.34 does not preclude generators from transferring waste between tanks or containers to facilitate storage or treatment. Second, the requirements of Subparts I and J of 40 CFR Part 265, compliance with which is a condition of the exemption, address the addition and removal of wastes in tanks and containers and provide procedures to prevent releases to the environment from such activities. Of course, the requirements of §262.34 would apply to each tank or container holding hazardous waste (see, e.g., 40 CFR §265.173 and 40 CFR §265.193).

However, please be aware that under §3006 of RCRA (42 U.S.C. §6926), individual States may be authorized to administer and enforce their own hazardous waste programs in lieu of the federal program. When States are not authorized to administer the program, the EPA Region in which the State is located administers the program and is the appropriate contact for any case-specific determinations. Also note that under §3009 of RCRA (42 U.S.C. §6929), States retain the authority to promulgate regulatory requirements that are more stringent than federal regulatory requirements. Some States may not allow generators to treat hazardous waste under §262.34, while other States may not allow this type of transfer of hazardous waste for either storage or treatment.

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You indicated in your letter that the characteristic hazardous waste treated under §262.34 by generators would no longer be defined as hazardous waste after treatment. For the waste to become non-hazardous, a generator must remove the characteristic and comply with the applicable RCRA Land Disposal Restrictions (LDRs) requirements, including 40 CFR §268.7(a)(4), for restricted wastes prior to land disposal. Therefore, if the generator's waste is restricted from land disposal, he must either meet applicable treatment standards during the on-site treatment period, or notify the treatment or storage facility in accordance with 40 CFR §268.7.

Thank you for your interest in the safe management of hazardous wastes. If you have any additional questions regarding this matter, please contact Rick Picardi of my staff at (202) 260-5756.

Sincerely,

Bruce R. Weddle

Bruce R. Weddle
Acting Director
Office of Solid Waste

bcc: EPA Regional RCRA Branch Chiefs
Susan Bromm (OWPE)
Dawn Messier (OGC)
Catherine Smith (OE)
RCRA Hotline

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1993(03)

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OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

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Sincerely,

Bruce R. Weddle

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Acting Director
Office of Solid Waste

bcc: EPA Regional RCRA Branch Chiefs
Susan Bromm (OWPE)
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1994(01)

FEB 10 1994

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Thomas J. Dolce
GZA-AET
140 Broadway
Providence, RI 20903

Dear Mr. Dolce:

Thank you for your letter of December 17, 1993, regarding counting waste in satellite accumulation areas. You specifically asked if a small quantity generator who collects hazardous wastes at satellite accumulation areas must count this waste for the purpose of determining generator status.

The regulations at 40 CFR 261.5(c) state what is, and is not included when making quantity determinations.

> Hazardous waste that is not subject to regulation or that is subject only to §262.11, §262.12, §262.40(c) and §262.41 is not included in the quantity determinations of this part and parts 262 through 266, 268, and 270 and is not subject to any of the requirements of those parts. Hazardous waste that is subject to the requirements of §261.6(b) and (c) and subparts C,D, and F of part 266 is included in the quantity determination of this part and is subject to the requirements of parts 262 through 266 and 270.

To determine generator status, generators must count all hazardous waste generated at their facility in a calendar month. Wastes not included in the monthly determination are either not subject to regulation or subject to only the notification and reporting requirements in 40 CFR section 262.22, 262.12, 262.40(c) and section 262.41 as cited above.

Wastes stored in satellite accumulation areas **are** subject to certain container standards (e.g., sections 265.171, 265.172, and 265.173(a)). The container standards are not among those listed in section 261.5(c) as "not included in the quantity determination." Therefore, wastes in the satellite accumulation areas must be included in the generators's monthly waste quantity

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determination as well as other on-site quantity determinations.

For further discussion of this and other generator requirements please see 51 FR 10151, March 24, 1986. We have enclosed a copy of this Federal Register notice for your convenience. If you have questions about this letter, please contact Ann Codrington of my staff at (202) 260-4777.

Thank you for your interest in the safe management of hazardous waste.

Sincerely,

Loretta Mazzetti, for

Michael Shapiro
Director, Office of
Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1994(01)

FEB 10 1994

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SOLID WASTE AND EMERGENCY RESPONSE

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Michael Shapiro
Director, Office of
Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1994(02)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MAR - 4 1994

Mr. John J. Stocker, President
Shipbuilders Council of America
4301 N. Fairfax Drive
Suite 330
Arlington, Virginia 22203

Dear Mr. Stocker:

Thank you for your letter of February 14, 1994, requesting that the Environmental Protection Agency (EPA) issue generator identification numbers to the Department of Defense (DOD), in particular the Navy. Further, you request that the Navy's ID number always appear on the hazardous waste manifest, along with a contractor's number, if a contractor is used to prepare waste for shipment. This would then make the Navy liable, in your view, should the waste be mismanaged.

EPA certainly shares your concern that hazardous waste be managed properly. As we have explained in previous letters, the presence or absence of someone's ID number on the Manifest is not the determining factor in assessing liability. Liability under CERCLA is determined based on the statute, and the facts in the case in question. The Navy may or may not be liable in a specific case, regardless of whether their ID number or someone else's ID number was on the manifest. Under RCRA, EPA allows "co-generators" to decide between themselves who should take primary responsibility for filling out the manifest and fulfilling other generator responsibilities. As the preamble discussions we have sent you explained, this does not mean that one party has assumed liability for both parties. In fact, both parties may be liable for any violations or for damages, depending on all the facts in question. This is EPA's longstanding policy, and we do not view 10 USC 7311 to require any change of EPA's policy.

I understand that the Manifest Regulatory Negotiation Committee did spend considerable time debating this issue before deciding not to craft any specific provisions to deal with it. The Committee decided, as I understand it, that the manifest as presently structured can accommodate the situation where more

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than one party are co-generators, and in fact a second ID number can be placed on the manifest in the "other information" block. The Committee decided against requiring an ID number to appear on the manifest for each and every entity that may be a co-generator in every situation.

In some instances EPA does issue ID numbers to DOD installations. If a DOD facility is a site that produces hazardous waste, they would normally be considered a generator and (provided they generate more than 100 kilograms of hazardous waste in a month) they would need to obtain an EPA ID number. At this time, EPA does not have a national policy on how to handle ID numbers for waste generated on ships. In some instances, EPA has issued ID numbers to the ship, and in others the shore facility or contractor providing service to the ship is issued the ID number.

I hope this information is of assistance to you.

Sincerely yours,

Lorietta Marzetti, for

Michael Shapiro, Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1994(02)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

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4301 N. Fairfax Drive
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I hope this information is of assistance to you.

Sincerely yours,

Loretta Manzetti, for
Michael Shapiro, Director
Office of Solid Waste

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 22 1995

9451.1995(01)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. James M. Kuszaj
Ogletree, Keakins, Nash,
Smoak & Stewart
4101 Lake Boone Trail
Post Office Box 31608
Raleigh, North Carolina 27622

Dear Mr. Kuszaj:

Thank you for your letter of July 6, 1995, requesting EPA's current interpretation of the requirements in 40 CFR §262.12 regarding EPA identification numbers. You ask the following four questions related to obtaining more than one EPA identification number (I.D. number) for a geographically contiguous piece of property.

- Is there any prohibition against maintaining multiple I.D. numbers for the same property?
- Can two autonomous divisions of the same company co-located on the same property be considered separate generators and be issued separate I.D. numbers?
- Would the answer to the question above be different if the aggregation of waste from both divisions caused one of the divisions to change regulatory classification. For example, to move from a conditionally exempt SQG to a large quantity generator?
- Would EPA or the state need to be specifically informed that there are separate I.D. numbers for the same property?

The regulations at 40 CFR §262.12 require a generator to have an EPA I.D. number before treating, storing, disposing of, transporting, or offering for transportation, hazardous waste. Because the regulations do not explicitly state how I.D. numbers should be distributed, you should contact the state authorized to implement the RCRA program in your area with specific questions. Notwithstanding the preceding, the following terms are useful in any discussion of I.D. numbers and their applicability to generation sites.

The definition of *generator* found in 40 CFR §260.10 is "any person, by site, whose act or process produces hazardous waste identified or listed in part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation." The definition of a *person* in 40 CFR §260.10 is "an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body." *Individual generation site* means the contiguous site at or which one or more hazardous wastes are generated. An individual

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generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

In your letter, you describe two autonomous divisions of a company which occupy different portions of a contiguous piece of property. The company as a whole would meet the definition of "person" in 40 CFR §260.10 and although autonomous, the divisions would not generally be considered separate generators if they operate on a geographically contiguous piece of property meeting the definition of "individual generation site."

Although there is no specific prohibition in the regulations against a generator maintaining multiple I.D. numbers for an individual generation site, the Agency expects each individual generation site to have one I.D. number. Of course the approved state RCRA program may have specific state law requirements which operate in lieu of the federal program.

Requests for multiple I.D. numbers for one individual generation site must be evaluated on a case by case basis by the authorized state (or EPA Regional office in the case of Alaska, Hawaii, Wyoming, Iowa and the U.S. Territories other than Guam) to determine whether the entity (and perhaps its waste streams) can be separated in some meaningful way. Where the entity's accounting practices dictate separate documentation for waste streams, it may make sense for the State or Region to likewise monitor them separately. The Agency does not intend for properties to be subdivided for the purpose of avoiding regulation, e.g. by slipping under the small quantity generator limitation.

EPA assumes that states assigning multiple I.D. numbers for one individual generation site do so because the entity (and perhaps its waste streams) is separate in some meaningful way. Therefore, EPA does not expect to be informed where there is more than one I.D. number for an individual generation site. However, since you state in your letter that the two autonomous divisions owned by the same company were not aware that the other had obtained a separate I.D. number, it may be necessary to inform the state since formal application for two numbers for one individual generation site has not been made and the requisite evaluation has not been done.

Finally, please be reminded that authorized states may impose requirements different than federal requirements which may, among other things, have the effect of limiting or increasing the number of I.D. numbers per individual generation site. If you have further questions on this matter, please contact Ann Codrington of my staff at (202) 260-8551.

Sincerely,

Michael Petruska, Chief
Regulatory Development Branch

LAW OFFICES

OGLETREE, DEAKINS, NASH, SMOAK & STEWART

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RALEIGH, NORTH CAROLINA 27622
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received
JUL 13 1995
JK

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WASHINGTON, D. C.
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NASHVILLE, TENNESSEE
ALBANY, NEW YORK

JAMES M. KUSZAJ, PH.D.
PARTNER

July 6, 1995

Michael Shapiro
Director, Office of Solid Waste
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C.

Re: Generator Identification Numbers
40 C.F.R. §262.12

Dear Mr. Shapiro:

I am writing to request EPA's current interpretation of the requirements in 40 C.F.R. §262.12 as they relate to generators of hazardous waste obtaining multiple EPA identification numbers for a geographically contiguous piece of property.

My specific questions involve the following facts:

Company A owns a large geographically contiguous piece of property. Two autonomous divisions of Company A occupy different portions of the property. Each division generates and manages its own hazardous waste. Each division applied for and obtained from either EPA or the state a unique generator identification number. Since the divisions were autonomous, neither was aware that the other had obtained a separate I.D. number.

Given these facts, my questions are:

1. Is there any prohibition against maintaining multiple I.D. numbers for the same property?

2. Can two autonomous divisions of the same company co-located on the same property be considered separate generators and be issued separate I.D. numbers?

3. Would the answer to Question 2 be different if the aggregation of waste from both divisions caused one of the divisions to change regulatory classification. For example, to move from a conditionally exempt SQG to a large quantity generator?

4. Would EPA or the state need to be specifically informed that there are separate I.D. numbers for the same property?

Thank you for your attention to the matter. I look forward to hearing from you.

Sincerely yours,

OGLETREE, DEAKINS, NASH,
SMOAK & STEWART, L.L.P.

James M. Kuszaj

JMK/mvk

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1996(01)

MAR 12 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Steven T. Warshaw
President
Olin Microelectronic Materials Division
Olin Corporation
501 Merritt 7, P.O. Box 4500
Norwalk, Connecticut 06856-4500

Dear Mr. Warshaw:

Thank you for your letter of February 21, 1996 regarding states that Olin is proposing to enter into contractual arrangements with certain of its customers who use Olin's specialty chemicals to fabricate computer chips, integrated circuits, and other electrical devices. These contractual relationships would be entered into as a part of Olin's Product Stewardship Program.

Your letter explains that under the contracts, Olin would retain legal ownership of the specialty chemicals supplied to customers; would maintain a physical presence at the customer's site; and would remove, accumulate, and manage any chemicals that exit the customer's process units. Specifically, your letter asserts that Olin would retain ownership of any hazardous wastes that result from the use of its chemicals, and that Olin would assume responsibility for the proper management of these wastes under Subtitle C of the Resource Conservation and Recovery Act (RCRA).

According to your letter, Olin's purpose in writing to EPA is to obtain confirmation that Olin would be considered a generator of the hazardous wastes which result from the joint activities of Olin and its customers, such that Olin's compliance with the hazardous waste generator requirements (codified in Part 262 of 40 CFR) would also fulfill its customers' obligations

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under these regulations. Olin also seeks confirmation that EPA would, in the event a joint liability results from these relationships, look first to Olin for performance of the generator obligations.

I am pleased to provide you with the requested confirmation. First, it is correct that under the facts related in your letter, Olin would clearly be a generator of any hazardous wastes which exit from the process units of your customers. Also under these facts, EPA would look first to Olin for compliance with the generator requirements set forth in Part 262 of 40 CFR. This would be the case regardless of whether Olin or Olin's customer actually operates the process unit. This follows from EPA's "co-generator policy," which was first announced in the October 30, 1980, Federal Register notice which you cite in your letter, and discussed in numerous regulations and interpretive letters since that date.

In the case where Olin operates the process unit, the status of Olin as generator of the waste is straightforward. In this instance, Olin would be the owner of the materials being processed, the operator of the process unit, and the person removing the waste from the process unit. All of these roles are acts which contribute to the production of a hazardous waste, within the meaning of the generator definition at 40 CFR §260.10. Under this scenario, Olin would appear to be the more significant contributor to the generation of the hazardous waste. The customer would still be a jointly liable co-generator, though, because it owns the process unit and the product being fabricated with Olins chemicals. As explained in the co-generator notice of October 30, 1980, EPA would typically look first to the operator of the process unit (Olin) to fulfill the generator duties. Thus, Olins compliance with the generator requirements would discharge Olins and its customers obligations under the regulations.

In the second scenario, the facts are altered to the extent that your customer, rather than Olin personnel, would operate the process unit generating the waste. Olin and the customer would again be co-generators, since each is performing acts which produces a hazardous waste. The customer is a generator because it owns the product being fabricated, and because it owns and is operating the process unit. Olin remains a co-generator because of its ownership of the chemical raw materials, and because it would be the person removing the waste from the process unit and subjecting it to RCRA regulation. See 45 FR 72024 at 72026.

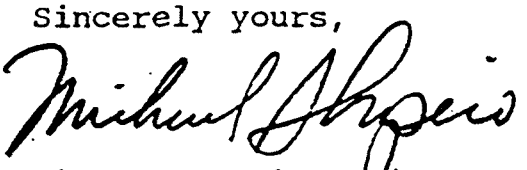
Under this second scenario, Olins contribution to the generation of the waste is not as predominant as in the above first scenario. Further, under the policy discussed above whereby EPA generally looks first to the operator of the process unit for compliance, the customer might appear to be the generator with primary responsibility.

However, as stated in the "co-generator" notice, this presumption would not apply in the case where there is a mutual agreement among the parties for one of the co-generators to perform the generator duties on behalf of all. EPA encourages such an arrangement, and the contracts between Olin and its customers would clearly fall within this policy. As EPA explained in the October 1980, notice, EPA will look first to the generator designated by a mutual agreement among co-generators. The agreement overrides the policy that looks first to the operator of the process unit, except in those cases where a responsible party is not clearly designated, or where EPA does not know about the agreement. See 45 FR 72024 to 72027. I trust that Olin will retain copies of its contracts to display to RCRA inspectors, and that the contracts will be sufficiently specific in designating Olin as the responsible generator.

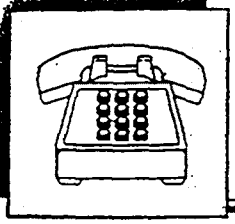
I should emphasize, however, that the co-generator policy is a Federal policy, and that since its announcement by EPA in 1980, the RCRA program has been delegated (with few exceptions) to our authorized state programs. So, you should contact the state hazardous waste agency in each state where you propose to implement this arrangement to verify that the state also follows the same or a similar policy with respect to co-generators. Under RCRA, states may generally choose to operate hazardous waste programs that are more stringent than EPAs requirements.

Thank you for bringing Olins Product Stewardship Program to our attention. I laud you for promoting this excellent example of corporate responsibility, and I wish your company every success in carrying it out.

Sincerely yours,



Michael Shapiro, Director
Office of Solid Waste



HOTLINE QUESTIONS AND ANSWERS

9451.1996(02)

April 1996

RCRA

1. Frequently Asked Questions on Hazardous Waste Generator Requirements

May large quantity generators (LQGs) and small quantity generators (SQGs) treat hazardous waste on site without obtaining a permit or interim status?

EPA has consistently maintained that a permit or interim status is not required if a LQG or SQG treats hazardous waste in accumulation units such as tanks or containers that are in full compliance with the requirements of 40 CFR §262.34 and the special unit-specific requirements found in Part 265 (March 24, 1986; 51 FR 10146, 10168). This treatment must be completed within the specified regulatory time limitations.

Must SQGs submit a Biennial Report for their hazardous waste management activities?

No, SQGs (generators of greater than 100 kg but less than 1,000 kg in a calendar month) are subject only to the reporting requirements listed in 40 CFR §262.44. The Biennial Report regulation at 40 CFR §262.41 is not specifically listed in that section.

The 40 CFR Part 262 regulations, Standards Applicable to Generators, do not mention conditionally exempt small quantity generators (CESQGs). Where are the CESQG regulations found?

Unlike the LQG and SQG regulations that are found throughout Part 262, the CESQG requirements are found in §261.5. CESQGs are those generators who produce less than or equal to 100 kg of hazardous waste, less than or equal to 1 kg of acute hazardous waste, or less than or equal to 100 kg of spill residue of acute hazardous waste per calendar month.

Must generators preparing an off-site shipment of hazardous waste list the EPA waste codes on the manifest?

EPA manifest regulations at 40 CFR §262.20 and Appendix to Part 262 do not require generators to list EPA waste codes on the manifest. The shaded space provided on the manifest for EPA waste codes is for the convenience of state agencies, as some states may require EPA waste codes to be listed on a manifest (40 CFR §271.10(h)). The Department of Transportation (DOT) regulations may, however, require listing EPA waste codes as part of the DOT description (40 CFR §179.203 (k)(4)).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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9451.1996(03)

MAY 1 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: Resolution of RCRA Issues Relating to the Wood Preserving Industry

FROM: David Bussard, Director
Hazardous Waste Identification Division

TO: John B. Rasnic, Director
Manufacturing, Energy and Transportation Division
Office of Compliance

In your February 29th memo to me, you raised a couple of issues that you wanted us to look into. The first of these was a question as to whether the current regulations support a wood preserving facility's claim that a drip pad sump is part of the facility's wastewater treatment system and is therefore exempt from certain RCRA requirements, even though the wood preserving regulations require that the sump meet subpart J tank standards.

The answer is yes, depending of course on the particular facts, drip pad sumps may generally satisfy the wastewater treatment unit exemption. The requirement that wood preservers must meet subpart J standards does not trump the wastewater treatment unit exemption. I have attached a memo from Tim Sullivan in the Region IX office that I think does a very good job of explaining this.

You also asked whether, should we end up excluding recycled in-process wastewaters at wood preserving facilities from the definition of solid waste, it would be possible that a previously regulated facility could become a conditionally exempt small quantity generator (CESQG); and, if so, would that facility need to comply with RCRA requirements specifically crafted for wood preservers.

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First, it is important to point out that if any facility meets the conditions set forth in the section defining and explaining CESQG status (§261.5), it is considered to be conditionally exempt from the definition of solid waste (and therefore hazardous waste) and is thus subject to very few requirements under RCRA. In the case of the wood preserving industry, they would be conditionally exempt from subpart W and subpart J requirements, among a number of other requirements. However, with respect to conditionally excluding wastewaters that are reused, one approach we could take in crafting a national provision (whether regulatory or legislative) is to grant the conditional exclusion only when the wastewaters are used in connection with a drip pad that is in compliance with RCRA Subpart W drip pad standards. Should we do this, your question would be moot.

It would be useful to know if anyone in your office has been able to determine how many facilities might become CESQGs if their in-process wastewater is not counted as solid waste; and whether this issue has occurred at any facilities to date, in the absence of a national wastewater exclusion for those wastewaters prior to reclamation. Second, I would be interested to hear whether you think a typical wood preserving facility could qualify for an exemption under §261.5, especially those conditions under §261.5(g)(3),(4), or (5).

Finally, I would like to say that I appreciate all the help that Seth Heminway of your office has been able to provide us on a number of issues related to this industry. My staff will continue to work with Seth to resolve any key issues raised by your draft Wood Preserving Compliance Notebook.

I look forward to seeing any information you can provide on the CESQG issue.

Enclosure

SHAW, PITTMAN, POTTS & TROWBRIDGE
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BRENDA J. BOYKIN
(202) 663-9130

August 15, 1995

Ms. Sylvia K. Lowrance
Director, Office of Solid Waste
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Re: Satellite Accumulation Rule; Request for Interpretation

Dear Ms. Lowrance:

I am writing to request an interpretation of the rule that applies to generators who accumulate hazardous waste in satellite accumulation containers. 40 C.F.R. § 262.34(c) states that "[a] generator may accumulate as much as 55 gallons of hazardous waste . . . in containers at or near any point of generation" provided that the generator complies with certain requirements. The rule states that if the generator accumulates more than 55 gallons of waste, he must "with respect to that amount of excess waste" move the waste to the facility's long-term (e.g., 90-day) storage area within three days.

My question is whether the generator can temporarily have more than 55 gallons of hazardous waste at a single satellite location. This could occur, for example, if the generator has filled one 55-gallon container with hazardous waste and intends to move that container to the long-term storage area within three days. If the generator then starts filling a new 55-gallon container in the three-day period before he or she removes the old one, this would mean that the total quantity of hazardous waste at the satellite accumulation location could exceed 55 gallons temporarily (because it would include the filled 55-gallon container as well as the amount that accumulates during the three-day period). I am uncertain whether the rule would allow the generator to have more than 55 gallons at one time at a satellite location, even under these circumstances, and I would appreciate your clarification.

RECEIVED
9-14-95 SKL

Please contact me if you require any additional information in order to respond to this inquiry. Thank you for your assistance.

Sincerely,

Brenda Boykin

Brenda J. Boykin

204190-01 / DOCSDC1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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MAY 1 1996

9451.1996(04)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Brenda J. Boykin
Shaw, Pittman, Potts, & Trowbridge
2300 N Street, N.W.
Washington, D.C. 20037

Dear Ms. Boykin:

Thank you for your letter of August 15, 1995 requesting an interpretation of the regulations that apply to generators who accumulate waste in containers at or near the point of generation where wastes initially accumulate. Specifically, you ask whether the regulation at 40 CFR 262.34 (c) would allow the generator to accumulate more than 55 gallons of non-acutely hazardous waste at one time at a satellite location.

As you may know, the regulations at 40 CFR 262.34(c)(1) state that "a generator may accumulate as much as 55 gallons of non-acute hazardous waste or one quart of acutely hazardous waste...in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste..." Such accumulation may take place provided that the waste is placed in containers that are in good condition, the waste is compatible with their containers, the containers are marked with the words "Hazardous Wastes" or other words that identify the contents, and the containers are covered when the generator is not adding or removing waste. See 49 FR 49568 - 49572, Dec. 20, 1984. Should the 55 gallon limit be exceeded, Section 262.34(c) requires the generator to mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating, and after three days, manage that excess waste in accordance with Section 262.34(a).

Your question relates to the interpretation of 40 CFR 262.34(c)(2) which states that:

> A generator who accumulates either hazardous waste or acutely hazardous waste listed in §261.33(e) in excess of the amounts listed in paragraph (c)(1) of this section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with paragraph (a) of this section or other applicable provisions of this chapter. During the three day period the generator must continue to comply with paragraphs (c)(1)(I) through (ii) of this section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

According to these provisions, the generator has 3 days after the 55 gallon limit has been exceeded to transfer the excess waste from the satellite area. In order to answer your question of whether waste above the 55 gallon limit may be accumulated in the 3 day interim period and remain subject to the accumulation area provisions, it is necessary to refer to the preamble language of

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December 20, 1984, which considers the potential hazards of accumulating hazardous waste in these sites. In the December 20, 1984 *Federal Register* notice, the Agency states that "...the accumulation at satellite areas of up to 55 gallons of non-acutely hazardous waste is reasonable and safe and does not pose a threat to human health and the environment" (49 FR 49569, Dec. 20, 1984). However, in the discussion which followed, the Agency questioned the safety of the accumulation of non-acutely hazardous waste in amounts above the 55 gallon limit. "Because the weight of evidence suggests limited use by the regulated community of containers larger than 55 gallons and because spills of 110 gallons of non-acutely hazardous waste would pose a higher environmental threat, EPA does not believe that the satellite accumulation level should be higher than 55 gallons." Id.

The preamble language above illustrates the Agency's view that waste accumulation in satellite accumulation areas should not be excessive. Although it is clear that the Agency did not intend for amounts as large as 110 gallons to be accumulated on a routine basis, it is not specific about whether small amounts of non-acutely hazardous waste exceeding the 55 gallon limit may be accumulated routinely. The Agency understands that due to the nature of the production process, there may be special cases in which small quantities of wastes above the 55 gallon limit may need to be accumulated for brief periods in one accumulation area. Thus, we interpret that the satellite accumulation provisions of 40 CFR 262.34(c)(1) permit the generator to continue to accumulate nominal quantities of a non-acutely hazardous waste in excess of the 55 gallon limit as long as the additional wastes accumulated during the 3-days are managed in accordance with section 262.34(c)(1). Any excess waste must be managed (including transferring that excess waste to the generator's 90-day accumulation area) in accordance with section 262.34(a) within three days.

The Agency does not expect that any accumulation over the 55 gallon limit will be excessive and believes that most facilities should be aware of the process waste generation rate and should be able to arrange for the removal of any excess accumulation within the 3-day time frame, thereby avoiding excessive accumulation of waste over the 55 gallon limit. The Agency also understands that there may be one-time circumstances during which quantities in excess of 110 gallons are generated. In such cases, the Agency recommends that you contact your state waste management office for further guidance on how such occurrences should be handled.

Also, because states may have regulations and interpretations that are more stringent than the federal regulations, the Agency strongly recommends that you check with your state waste management office (or Regional office in unauthorized states) for questions specific to the amount of waste allowed above the 55 gallon limit in the particular states where your clients operate. This interpretation is not binding on authorized states.

I hope this response is of assistance. In you have additional questions, please contact Ann Codrington of my office at (202)260-8551.

Sincerely yours,

Michael Shapiro, Director
Office of Solid Waste

cc: Bill Hamele

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1996(05)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Ms. Young Mi Kim
5080 Likini Street #913
Honolulu, Hawaii 96818

Dear Ms. Kim:

Thank you for your letter of March 21, 1996 to President Clinton requesting information about the management of hazardous waste generated in quantities less than 100 kilograms. Specifically, you ask why hazardous waste is thrown away with ordinary garbage and what happens to the waste when it is thrown away.

Generators of less than 100 kilograms of hazardous waste per month are currently referred to as "conditionally exempt small quantity generators" (CESQGs) and are exempt from many of the hazardous waste regulations found at Title 40 of the *Code of Federal Regulations*. Although they are exempt from the majority of hazardous waste regulations, these generators are still subject to some requirements. First, they must identify their wastes to determine whether they are hazardous; second, they cannot accumulate more than 1,000 kilograms of hazardous waste at any time; and third, they must either treat or dispose of the waste onsite, or ensure that it is sent to a permitted hazardous waste management facility, a permitted municipal or industrial solid waste facility, or a recycling facility. Therefore CESQGs are not exempted outright, but are exempted on the condition that the waste is managed at an approved facility. These provisions were intended to assure that human health and the environment are protected.

Additionally, federal regulations allow states to adopt more stringent regulations if they choose, and some states have chosen not to exempt CESQGs from many of the hazardous waste generator requirements. These requirements are imposed through state municipal or industrial waste permit, license, or registration programs.

When designing the hazardous waste management program in the late 1970s, EPA chose 100 kilograms as the point at which significant regulation would apply because it sought to exclude from the regulations persons whose generation of hazardous waste does not pose a substantial threat to human health or the environment. At that time more than 90 percent of the hazardous waste was generated by large quantity generators. The Agency believes that in order to be as effective as possible at implementing the hazardous waste program with limited resources, it must focus on those generators who generate hazardous waste in significant quantities, rather than attempt to cover every generator of hazardous waste (there are more than 215,000 hazardous waste generators who generate greater than 100 kilograms of hazardous waste per year and between 455,000 and 700,000 CESQGs in the U.S.). By excluding CESQGs from most hazardous waste regulations, EPA is able to focus on the overall environmental objectives of the Agency.

Additionally, small amounts of hazardous wastes may be included in household wastes which are currently not regulated under EPA's hazardous waste requirements. Many state and local governments impose regulations governing the disposal of household wastes and may organize collection centers for household hazardous wastes. In addition EPA has issued standards for municipal solid waste landfills. These requirements for municipal landfills

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which are implemented by the states, are structured so that the public is protected from potential hazards associated with landfills that receive hazardous waste. These landfills are subject to requirements that minimize hazards including location restrictions (e.g., they cannot be located near flood plains or faults), operating criteria (e.g., they must be covered every day), and strict groundwater monitoring requirements. These measures help ensure that the hazardous waste that ends up in landfills does not pose a threat to human health and the environment.

For your information, we have included three EPA publications which may be of help in clarifying EPA's waste management program for generators of small quantities of hazardous waste. They are *Solving the Hazardous Waste Problem: EPA's RCRA program; Understanding the Small Quantity Generator Hazardous Waste Rules: A Handbook for Small Business; Safer Disposal for Solid Waste: The Federal Regulations for Landfills; Criteria for Solid Waste Disposal Facilities: A Guide for Owners/Operators;* and *Household Hazardous Waste Management: A Manual for One-Day Community Collection Programs.* We hope this information addresses your concerns.

Sincerely yours,

Elizabeth A. Cotsworth

for Michael Shapiro, Director
Office of Solid Waste

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1996(06)

MAY 1 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Peter J. Wojdyla
Pima County Risk Management
32 N Stone, 3rd floor
Tucson, AZ 85701

Dear Mr. Wojdyla:

Thank you for your letter of September 18, 1995 requesting an interpretation of several questions regarding generator requirements and how they may apply to various on-site and off-site scenarios. While we are responding to your questions based on EPA's implementation of federal regulations, please be aware that the State of Arizona is authorized to implement its RCRA program in lieu of the federal regulations and should be consulted regarding the circumstances of a specific location. The state may have regulations that are more stringent than federal regulations, and these state requirements govern operation at these sites.

Below is a summary of the questions you asked followed by our interpretation. For your convenience we have attached copies of documents which relate to the issues you raise.

Question one

Your first question requests clarification of the definition of on-site to determine whether two structures in one complex owned by a single owner are considered separate generators under RCRA. You state in your letter that an office building and a factory are located on a single property and that the office building generates one kilogram of hazardous waste while the factory generates one thousand kilograms of hazardous waste. You ask whether the complex can be considered one generator or two. You also ask for clarification of the terms "installation", "facility", and "individual generation site" as they pertain to the definition of "on-site"

For the purposes of generator notification and obtaining EPA identification numbers, and assuming that the two structures you describe are on-site as defined at 40 CFR §260.10, one identification number is sufficient for the two structures. Also, the wastes generated on the contiguous property would be subject to the requirements for large quantity generators of

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hazardous wastes.[1] A manifest however, would have to be completed if waste must be shipped on roads or other right-of-ways to which the public has access.

There is no regulatory definition for the term "by site". However, at 40 CFR §260.10, EPA defines "on-site" as:

> ...the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right of way Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

EPA also defines the term "individual generation site" as "...the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous wastes but is considered a single or individual generation site if the site or property is contiguous." (40 CFR §260.10) The property you describe would meet the definition of individual generation site if it is contiguous and would be "on-site" for the purposes of manifesting if the two structures were either a) not divided by a public right-of-way, or b) the public right-of-way can be crossed directly without traveling along it.

If the two structures were owned by different people, then under federal regulations one identification number would be needed for each structure even if the regulated activity is taking place on a contiguous piece of property. However, please check with your state for specific guidance on the issuance of identification numbers for the scenarios you provide.

The definition of the terms "installation" and "facility" are not directly relevant to your specific question. "Installation" is not defined in the RCRA regulations at 40 CFR §260.10. It is only defined within the instructions to the *Notification of Regulated Waste Activity Form*, (EPA form 8700-12). Since the form is used by all persons requiring an EPA identification number, the term installation is meant to refer in general terms to all users of identification numbers.

"Facility", as defined in 40 CFR §260.10, refers to treatment, storage, and disposal facilities. The term refers, for permitting purposes, to the area where hazardous waste treatment,

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[1] However, if acute hazardous waste is generated in quantities less than one kilogram, then this waste may be counted and managed separately from non-acute hazardous waste. (See 40 CFR §261.3(e) and (f)). For example, a generator of one kilogram or less of acute hazardous waste and 1000 kilograms of non-acute hazardous waste may manage the acute hazardous waste according to the provisions for conditionally exempt generators while the non-acute hazardous waste would be subject to requirements found at 40 CFR §262.34(d) for small quantity generators.

storage, and disposal activities occur and/or the waste management area that may be made up of one or more waste management units and also defines the area subject to corrective action. Therefore the definition of facility is not of direct relevance in the context of the description you provide since your question does not concern waste management sites subject to permitting requirements, but rather generation sites.

Question two

You state in your letter that Pima County has several different individual generation sites that are divided by roads which are owned by the County. You ask whether consolidation of several locations currently having different identification numbers would be of any significance.

Consolidation of two or more locations having different EPA identification numbers may cause several changes in the notification and manifesting process. For example, a change in the County's regulatory classification as a small or large quantity generator could result from the consolidation of several locations having different identification numbers.

Should the County (the generator) decide to consolidate several locations into one site the following conditions must be met: 1. The County must control the roads and public access must be restricted. If the generator does not control the road, a manifest must be completed for shipments that must travel off-site, (e.g., along a road) to the other property belonging to the generator. 2. At a location where the generator controls the right-of-ways that divide the property and restricts access, a manifest is not required to ship wastes to the different individual generation sites. However, although there is no specific prohibition in the regulations against a generator maintaining multiple I.D. numbers for an individual generation site, the Agency expects an individual generation site to have only one I.D. number. A state may approve of the use of more than one I.D. number in special cases. 3. The proper state or Regional office must be notified of the change.

Also, please be aware that the Agency has proposed to change the definition of "on-site" to include properties that, although contiguous, are divided by a public right-of way. (See 60 FR 56468, November 8, 1995)

Question three

You ask whether shipments of hazardous wastes between two properties under the same ownership located at opposite corners of an intersection would be considered "*on-site*".

The Agency has stated in a November 4, 1994, letter from Michael Shapiro to Congressman Tim Johnson, "If the entry and exit between two parts of a campus [at a university] are directly across from each other, or across the junction of two crossroads, they are considered geographically contiguous" and would meet the definition of "on-site". Two properties under the same ownership whose entrances are located cater-cornered to each other would meet the

definition of "on-site".

Question four

You ask whether waste from a conditionally exempt small quantity generator could be shipped for centralized handling to a site generating large quantities of wastes without obtaining a permit for storage or treatment of hazardous waste.

The Agency is in the process of reviewing whether waste from a conditionally exempt small quantity generator loses its exemption if taken to an intermediate location not identified at 40 CFR §261.5(g)(3) for purposes such as consolidation and storage prior to delivery to its final destination. We therefore cannot provide an interpretation on this question until a determination has been made.

Question five

You ask to whom must a large quantity generator send waste?

Large quantity generators and small quantity generators shipping waste off-site must prepare a manifest and transport the waste to a facility designated on the manifest in accordance with 40 CFR §262.20(b). EPA defines the term "designated facility" to mean

> ...a hazardous waste treatment, storage, or disposal facility which (1) has received a permit (or interim status) in accordance with the requirements of parts 270 and 124 of this chapter, (2) has received a permit (or interim status) from a State authorized in accordance with Part 271 of this chapter, or (3) is regulated under section 261.6(c)(2) or Subpart F of part 266 of this chapter, and (4) that has been designated on the manifest by the generator pursuant to section 260.20[sic (262.20)]. If a waste is destined to a facility in an authorized State which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving State to accept such waste.

This definition includes only limited exceptions for facilities other than permitted or interim status TSDFs. Therefore, a large quantity generator or small quantity generator could manifest and transport hazardous waste to facilities other than permitted TSDFs provided that the facility is appropriately designated on the manifest and meets the definition of a "designated facility". (Small quantity generators possessing a reclamation agreement pursuant to 40 CFR §262.20(e) are exempted from certain manifesting requirements as you mentioned in your letter.)

Question six

You ask whether a permit must be obtained if the owner of several small generation sites

would like to utilize a centralized handling operation for packaging, transport, etc., and whether all requirements at Part 263 apply.

If a generator generates waste in quantities over 100 kilograms and ships the waste to a location other than one that is on-site as defined at 40 CFR §260.10, a manifest is required for these shipments, and the regulations at Part 263 apply.

However, waste *in transportation* (e.g., manifested off-site) may be consolidated at transfer facilities defined at 40 CFR 260.10 as "...any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous wastes are held during the normal course of transportation".

Under certain specified conditions, the regulations allow transporters to store shipments of hazardous waste at transfer facilities without obtaining a permit or interim status. The regulations state that:

> A transporter who stores manifested shipments of hazardous waste in containers meeting the requirements of section 262.30 at a transfer facility for a period of ten days or less is not subject to regulation under parts 264, 265, 268 and 270 of this chapter with respect to the storage of those wastes (40 CFR §262.12).

If the county designated an area as a transfer facility and met the conditions identified, consolidation would be allowable at that location. In order for the transfer facility to be excluded from permitting requirements, the waste must be stored during the normal course of transportation (e.g., treatment, storage, and disposal facilities designated on the manifest cannot qualify as transfer facilities.) Waste at such transfer facilities may be consolidated into larger units or shipments may be transferred to different vehicles for redirecting or rerouting. (See December 31, 1980 45 FR 86966)

Question seven

The following clarifies how a facility may respond to a location where hazardous wastes have been dumped illegally.

Persons who generate hazardous waste as a result of a discharge may temporarily store those wastes without a permit if they comply with the requirements for 90 day accumulation described on 40 CFR 262.34.

The Agency defines the term "discharge" or hazardous waste discharge" to mean "the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water (40 CFR §260.10).

The regulations at 40 CFR §270.1(c)(3) exempt only those management activities

performed to provide an immediate response for discharges of hazardous waste from the permitting requirements.

> (i) A person is not required to obtain a RCRA permit for treatment or containment activities taken during immediate response to any of the following situations:
> (A) discharge of a hazardous waste;
> (B) An imminent and substantial threat of a discharge of hazardous waste;
> (C) A discharge of a material which, when discharged, becomes a hazardous waste.
> (ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part for those activities.

Additional provisions exempting immediate response activities are found at 40 CFR §264.1(g)(8) and §265.1(c)(11). To qualify for the exemption the treatment or containment activity must be for the initial, immediate response to the discharge. Once the immediate threat passes, all applicable RCRA standards apply including the accumulation provisions described at 40 CFR §262.34. EPA explains:

> The exemption concerns only treatment and storage activities; it does not relieve anyone of complying with any requirements for the disposal of hazardous waste. In addition, the exemption applies only during immediate response; all hazardous waste management activities thereafter are fully subject to RCRA regulations (January 19, 1983; 48 FR 2508, 2509).

Additionally, after the initial response has ended, an emergency permit may be available for other emergency activities.

We hope we have clarified the issues you raised. Again, we strongly encourage you to check with the state of Arizona because as an authorized state, Arizona may have regulations or interpretations that differ from, or are more stringent than the federal requirements.

Please direct any questions about the interpretations in this letter to Ann Codrington, of the Generation and Recycling Branch at 202-260-8551.

Sincerely yours,

Michael Shapiro, Director
Office of Solid Waste

Enclosures

cc: Bill Hamele
Ethel DeMarr, Arizona DEQ

Received
9/22/95

PIMA COUNTY
RISK MANAGEMENT
32 N. STONE, 3RD FLOOR
TUCSON, AZ 85701
(602) 740-5295

September 18, 1995

Michael Shapiro
Director, Office of Solid Waste
United States Environmental Protection Agency
401 M Street Southwest
Washington, District of Columbia 20460

Re: Request for Written Interpretations

Dear Mr. Shapiro:

I am the Environmental Loss Control Officer for Pima County Risk Management in Tucson, Arizona. Some of my duties include providing assistance for our various departments in understanding federal regulations. I am in the process of performing a form of "desk audit" in order to assist our operating units to comply with "RCRA" requirements in a consistent manner. I find that some of the definitions and guidance given are subject to interpretation; I need to clarify some of these issues before I attempt to provide direction to some of our operations which get involved with hazardous waste and therefore RCRA compliance. In the past, I have approached the Region for such interpretations, and when I asked for a written response, my questions were forwarded to the "central office". In two cases, the Region and the "central office" provided contradictory responses; for this reason, I am setting forth my questions in writing and asking for a written answer, clarification, interpretation, and/or response to each.

I shall set forth each question or situation for which I am seeking guidance:

1. In 40 CFR 260.10, "*Generator* means any person, by site, whose act or process produces hazardous waste . . . .". What does "by site" mean? EPA Form 8700-12 utilizes the term "Installation" for notification purposes. It has also been suggested that "*Facility*", as defined in 40 CFR 260.10, can be used to define "Installation" for generator notification purposes in as much as a generator can be expected to store hazardous waste for a time, no matter how short. Reflecting on these various generator location descriptors, I am unsure as to the extent of a generator for regulatory purposes. For example, if a complex, single ownership, has two separate structures, one of which is an office building and the other a factory, and the factory generates one thousand kilograms (1,000 kg) of hazardous waste per calendar month and the office wastes one kilogram (1 kg) of spent flammable toner per month, are there two (2) generators, one of which is conditionally exempt, or just one (1) (with the office waste subject to full large quantity generator

regulation)? The term "by site" would seem to suggest there are 2 generators, whereas if the "facility" definition is used, 1 generator. The term "Installation" would appear to be able to cover either interpretation. What if they shared the same structure? Also do the definitions of "*On-site*" or "*Individual generation site*" have any application in answering/interpreting the proffered situation?

2. As a political subdivision, Pima County owns many road "rights-of-way" and could, theoretically, conjoin its various locations. Is this of any significance under "RCRA" regulations?

3. If two properties with the same ownership are located "kitty-corner" across an intersection and access can be had at the opposing corners, would they be covered by the term "*On-site*"?

4. If there are two (2) "generators", one of which is a large quantity generator (LQG) and the other is a "conditionally exempt small quantity generator" (CESQG), which are owned and operated by the same entity but separated geographically, it would appear that the CESQG waste cannot be transported to the other generation site for handling by the LQG (without it being a permitted TSDF) for the purpose of combining it with its own wastes in order to see that it is appropriately disposed. Is this correct? (As a public entity, the county attempts to keep its hazardous wastes out of local landfills and see that it is appropriately disposed or destroyed.)

5. It appears that an LQG must manifest and transport his hazardous waste(s) to nothing other than a permitted TSDF, unless it is being handled "*On-site*". Is this correct? And, except for contractual reclamation of hazardous waste, it appears that the same is also true of small quantity generators (SQG). Is this also correct?

6. Pima County is a large county and has many operations/facilities located throughout it. In order to transport hazardous wastes to a centralized handling operation for packaging, transport, etc., must that operation acquire a TSDF permit before being utilized? Also, do all the manifesting and transportation requirements apply to moving the wastes to such a location?

7. At present, when there is a "wildcat dump" of what appears to be a hazardous material within our "right-of-way" or on County property, we try to appropriately mitigate the situation; this usually entails the containerization of the contaminant and affected material(s) and transport to one of our maintenance yards for holding until an appropriate disposition can be made. If the material is a hazardous waste, and we are knowledgeable of this fact, can this be done in other than an emergency situation?

Please provide me with written responses to the above. If guideline or program memoranda exist which can assist in addressing the above, I would be grateful if they could also be provided.

Thank you for your attention and consideration. If you have any questions concerning this letter, please call me at (520) 740-4001.

Very truly yours,

Peter J. Wojdyla, P.E.
Environmental Loss Control Officer

xc: Bob Healey, Director
Chris Straub, Deputy County Attorney
Becky Pearson, Public Works

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9451.1996(07)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

To: Mary F. Toro, Compliance Officer
Consumer Product Safety Commission

From: Gregory Helms
Office of Solid Waste

Re: Management and Disposal of Waste Vinyl Mini Blinds

We have received your questions about management and disposal of lead-bearing vinyl mini blinds that are being discarded by homeowners or retailers in connection with your recommendations that they be replaced due to their potential to cause lead poisoning. The attachment to this memo restates and answers each of your questions.

The Resource Conservation and Recovery Act (RCRA) only applies when blinds become a waste, i.e., they are being discarded or disposed; any blinds being sent back to a manufacturer for sale in other markets (e.g., for export) would not be regulated under RCRA. However, given the health concerns about the blinds CPSC has identified, we hope you will encourage those with stocks of blinds not to export these products. Key points in managing and disposing of waste blinds are: 1) waste blinds from households or other residential buildings may be disposed of as ordinary household trash (i.e., they are exempt from Federal hazardous waste regulation under RCRA); 2) whoever discards blinds from sources other than households or residential buildings is responsible for determining whether they contain enough lead to be considered a hazardous waste, although such a determination can make use of information from other reliable sources; 3) management and disposal requirements for hazardous waste blinds vary depending on the volume of waste being disposed; 4) there is a federal minimum set of management requirements, but states may have additional requirements, and should be consulted in planning management and disposal of waste blinds.

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QUESTIONS ON LEAD-BEARING MINIBLINDS

1. What is the appropriate disposal method that consumers should be using for their lead-bearing vinyl miniblinds?

EPA's regulations state that wastes from households (i.e, garbage and trash) are not regulated as hazardous waste under the Resource Conservation and Recovery Act (see 40 CFR 261.4(b)(1)). Therefore, consumers may dispose of their miniblinds in the same manner that they discard ordinary household trash. They may put the blinds out with the garbage, or they may contact a commercial trash hauler.

2. If consumers have numerous miniblinds in their homes to dispose of, e.g., if a household had 15 miniblinds for disposal, would this be treated differently than a household that had only one or two miniblinds?

No. EPA's regulations provide that wastes from households are not regulated as hazardous, and there are no limitations on the quantity of the wastes.

3. What is the appropriate disposal method for apartment complexes, hotels, military bases and hospital facilities that house many people and may have over 1,000 lead-bearing miniblinds to dispose of?

EPA's regulations provide that wastes from single and multiple residences, hotels, motels, bunkhouses, crew quarters, and ranger stations are considered household wastes and are not regulated as hazardous under RCRA (see 40 CFR 261.4(b)). These facilities may therefore dispose of the blinds in the same manner that they discard other trash or garbage.

However, hospitals and other non-residential buildings are not considered generators of household wastes. They are subject to the same disposal requirements that apply to retailers, which are described in the answer to question #4 below. Therefore, waste blinds generated from military base housing units would be exempt, while waste blinds generated from offices, day care centers, and other buildings would not be exempted as household waste.

4) How should retailers dispose of the miniblinds they have in inventory if they decide to dispose of them and not return them to the place of manufacture? Retailers may have tens of thousands of blinds in inventory.

Once a retailer decides to dispose of the miniblinds, he must 1) determine whether they are a hazardous waste (see 40 CFR 262.10 and #6 below), and if they are hazardous, 2) determine his size status as a generator, because requirements vary depending on the quantity of a hazardous waste generated. He should then contact his state hazardous waste agency for more information on management and compliance in his state because states may have their own regulations governing hazardous waste.

The retailer can determine his generator status by calculating how much hazardous waste he or she generates in a calendar month (40 CFR 262.10 (b) and 261.5 (b) and (c)). If the retailer generates less than 100 kg of hazardous waste (mini-blinds plus any other hazardous waste generated on site) then the retailer would be classified as a Conditionally Exempt Small Quantity Generator (CESQG). A retailer who generates between a 100 kg and 1000 kg of hazardous waste in a calendar month would be classified as a Small Quantity Generator (SQG); and a retailer who generates more than 1000 kg of hazardous waste in a single calendar month is classified as a Large Quantity Generator (LQG).

Conditionally Exempt Small Quantity Generators have minimal requirements for handling hazardous waste (40 CFR 261.5), and may dispose of waste blinds in non-hazardous waste facilities, although disposal must be in state approved facilities. Some states have additional requirements for CESQGs beyond the Federal minimum, so retailers should always contact their state hazardous waste agency for complete information on applicable requirements.

Both SQGs and LQGs are required to handle hazardous waste under EPA's hazardous waste regulations (40 CFR 262 - 270), and ultimately ensure their disposal in regulated hazardous waste disposal facilities. The requirements for SQGs are similar but less stringent than those for LQGs. Both SQGs and LQGs may be required to:

- obtain an EPA identification number (40 CFR 262.12)
- prepare the hazardous waste for shipment (package, label, mark, placard) (40 CFR 262.30 - 262.33)
- manifest the waste for shipment to a hazardous waste treatment, storage, disposal, or recycling facility (40 CFR 262.20 - 262.23, 262.42)
- manage the hazardous waste on site in an environmentally sound manner (40 CFR 262.34).
- do record keeping and/or reporting (40 CFR 262.40 - 262-41)
- ensure the waste meets treatment standards before land disposal (40 CFR 268)
- comply with export and import requirements when necessary (40 CFR Subparts E and F).

Again, some state requirements may vary from the minimum federal requirements, so contacting the state regulatory agency is important.

5. Should retailers treat consumer returned merchandise differently than inventoried products?

As state regulations vary, generators of hazardous waste should always check with their state hazardous waste authority for more information on management and compliance.

Assuming the blinds are a hazardous waste, generally, retailers may dispose of miniblinds returned from consumers and those from inventoried stock either separately or together. A retailer who chooses to handle them separately may take advantage of the household waste exclusion for the blinds returned from households (see questions 1, 2, and 3). However, the inventoried stock must be managed as described in the response to question 4. Because only

miniblinds generated in a household (as defined in 40 CFR 2661.4 (b)(1)) are eligible for the household waste exclusion, the retailer must be certain that miniblinds returned from other regulated sources such as businesses and commercial facilities are not mixed with those from households. The miniblinds returned from sources other than households should be handled along with the inventoried stock as a regulated hazardous waste.

If a retailer does not wish to segregate different groups of blinds, or if he wishes to adopt the most environmentally conservative approach, he may handle both groups together as described in the response to question 4.

6. Does EPA require testing to determine that waste is hazardous?

Once the retailer (or manufacturer) decides to dispose of the miniblinds, he is required to determine whether they are a hazardous waste. This means the retailer must either test a representative sample of the miniblinds to see if they are considered a hazardous waste (see #7 below), or the retailer or manufacturer may also rely on knowledge of the composition and properties of the blinds in making this determination (40 CFR 261.10 (a) (2)). If the retailer does not want to test the miniblinds, the most conservative approach is to handle all of the miniblinds as if they were hazardous waste. Although testing is not required, if subsequent testing by EPA or others demonstrates that the waste was hazardous, an incorrect determination made based on knowledge would leave a waste generator (the retailer or manufacturer) vulnerable to enforcement action.

7. What test method does the EPA recommend to retailers to determine whether their inventory is hazardous? Are there certified laboratories that can conduct these tests?

The toxicity characteristic leaching procedure (TCLP; Method 1311) test would be used to determine whether lead-bearing vinyl mini-blinds are a hazardous waste when disposed. EPA does not certify laboratories that perform the TCLP test. However, many reputable commercial laboratories are capable of performing the test. Testing labs can be identified by contacting the International Association of Testing Labs, at 703-739-2188, or ACIL, at 202-887-5872.

8. Where can retailers get a copy of the test method?

Retailers will generally want to rely on a testing lab to understand the test method details. Copies of the TCLP test method are available as a part of the EPA analytic methods manual, SW-846 (through NTIS, 703-487-4650), or from the analytical methods information communication exchange (MICE) hotline, at 703-821-4690.

9. What level of lead is hazardous for purposes of disposal?

The TCLP test uses a sample of the waste and a leaching solution (in a ratio of 1:20). After mixing the waste with the leaching solution, the leaching solution is tested for hazardous

constituent concentration. If lead in the leaching solution is present at a concentration higher than 5 mg/l (or ppm), the waste would be considered to be hazardous, and would be required to be managed and disposed as a hazardous waste.

10. Is there a contact person at EPA that can offer retailers guidance on disposal if their inventory is determined to be hazardous?

For further assistance in understanding the applicable hazardous waste regulations, the retailer should contact the hazardous waste agency in his or her state. Other assistance resources include the EPA Resources Centers, the RCRA hotline (800/424-9346 or 703/412-9810), or the EPA Regional office.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 23 1996

9451.1996(08)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Philip Kircher
Director of Government Sales
RGF Environmental Systems, Inc.
3875 Fiscal Court
West Palm Beach, FL 33404

Dear Mr. Kircher:

Thank you for your letter of July 9, 1996 concerning the applicability of the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations to your chemical flocculation unit, the "Split-O-Mat," when used to treat wash water from C-130 aircraft engines. As you discussed with Charlotte Mooney, of my staff, at the federal level we can explain how the federal regulations might apply to your unit, and what criteria you (and/or the generator of a hazardous waste) should use to determine which federal regulations would apply.

However, most state environmental agencies are authorized to implement the RCRA hazardous waste program, and the states' regulations, rather than the federal regulations, apply in authorized states. State hazardous waste regulations must be at least equivalent to the federal regulations, but may also be more stringent. Because authorized states implement and enforce their own hazardous waste programs, authorized states generally make decisions about how the regulations apply to specific facilities within the states. Therefore, you (and/or the generator of the hazardous waste) should work with the appropriate state agency to determine how the hazardous waste regulations of a particular state would apply to the specifics of any particular installation of your equipment. Since many of the state hazardous waste regulations are similar to the federal regulations, the following discussion of the federal regulations should help you become familiar with some of the possible regulatory requirements.

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Based on the information you provided, it appears there are several ways your unit might be regulated under the federal hazardous waste regulations. In general, treatment[1] of hazardous waste is subject to the RCRA hazardous waste regulations. Thus, assuming the cadmium contaminated wash water you describe exhibits the hazardous waste characteristic of toxicity, treatment of that waste would generally require a hazardous waste treatment permit. However, there are several exceptions that may apply to your unit.

First, it appears likely that your unit would meet the wastewater treatment unit exemption of 40 CFR 264.1(g)(6), which exempts treatment units from RCRA permitting if they meet the definition of wastewater treatment unit. This definition is found in 40 CFR 260.10 and reads as follows:

> "Wastewater treatment unit" means a device which:
>
> (1) Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and
> (2) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in §261.3 of this chapter, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in §261.3 of this chapter; or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in §261.3 of this Chapter; and
> 3) Meets the definition of tank or tank system in §260.10 of this chapter.

To determine whether your unit would meet this definition, at each location you should determine whether the facility is subject to section 402 or 307(b) of the Clean Water Act (National Pollutant Discharge Elimination System permitting and pretreatment standards, respectively), and whether the unit meets the definition of tank. "Tank" is defined in 40 CFR 260.10 as "a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support." Whether or not your unit meets the definition of tank will depend on the specifics of each situation, and where questions arise, is a determination that should be made by the appropriate state.

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[1] The term "Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume. (40 CFR 260.10)

Second, your unit may also be considered a generator accumulation unit and therefore subject to 40 CFR 262.34. This provision exempts generator accumulation tanks **and containers** from RCRA permitting as long as they are managed in compliance with certain requirements. Thus, this provision could apply if it were determined that the wastewater treatment unit exclusion did not cover some of your units because they were considered to be containers,[2] rather than tanks. The 40 CFR 262.34 requirements include general standards for generators, accumulation time limits, and specific design and management requirements for each type of accumulation unit (e.g., tank or container). Since the military sites you are working with are generators of hazardous waste, it is likely that they are already in compliance with the general standards for generators. If that is the case, they would only need to revise their procedures for compliance with the general standards as necessary to address the new treatment activity, to meet the accumulation time limits, and to comply with the specific design and management requirements for the unit itself (e.g., compliance with Subpart I of Part 265 for containers).

The discussion above assumes that facilities using your unit are already regulated large quantity generators of hazardous waste (greater than 1,000 kilograms of hazardous waste per month). It is also possible, however, that such a facility might be a "small quantity generator" or a "conditionally exempt small quantity generator," in which case less stringent requirements would apply. I have enclosed copies of two documents that summarize the federal hazardous waste regulations for each of these generator categories.

You should also be aware that if the treatment sludge generated in your unit exhibits characteristics of hazardous waste, including the toxicity characteristic for cadmium, the waste must be managed as a hazardous waste. Finally, there may be requirements under the land disposal restrictions program (40 CFR Part 268) that would apply to the treatment sludge or to the original wash water. Additional information about the hazardous waste regulations can be found in the enclosed documents, and by calling our RCRA Hotline at (800) 424-9346. The Hotline can explain the federal regulations in detail, and can also provide contacts at the various state agencies to find out about state regulations.

I hope this information concerning the federal regulations is useful. You (and/or the generator of the hazardous waste) should check with the appropriate state agencies

---

[2] The term "container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled. (40 CFR 260.10)

to determine the specific requirements that may be applicable in those states. If you have further questions, please contact Charlotte Mooney, at (703) 308-7025.

Sincerely,

David Bussard, Director
Hazardous Waste Identification Division

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9452.1996(03)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Ms. Catherine A. McCord, Manager
Regulatory Programs and
Business Integration Division
Safety-Kleen Corporation
1000 North Randall Road
Elgin, IL 60213-7857

Dear Ms. McCord:

In May, 1996, you and Larry Davenport first met with my staff in the Hazardous Waste Identification Division (HWID) to discuss the use of automated information technologies in the hazardous waste manifest system. During this meeting, you indicated that Safety-Kleen Corp. (Safety-Kleen) had developed the capability to store manifest records electronically at its recycle facility in Denton, Texas. Since Safety-Kleen may wish to implement this system on a national basis, you asked HWID to clarify if this electronic record system complied with current Subtitle C requirements for the use and retention of the Uniform Manifest. By this letter, I am pleased to provide you with the requested clarification.

Based on the information provided to EPA staff by Safety-Kleen's representatives, I conclude that the automated manifest record system operated by the company at its Denton, Texas recycle facility complies with current RCRA record retention and access requirements. This conclusion follows from our finding that the image files stored by Safety-Kleen's system meet the requirements in our current manifest regulations for maintaining manifest copies that bear the handwritten signatures of the generator and subsequent waste handlers. Safety-Kleen's automated system is able to reproduce high quality copies of manifests that include the images of the original handwritten signatures. In addition, the Safety-Kleen image file system appears to incorporate data integrity and security features which further ensure the trustworthiness of the records and their general admissibility into evidence. Finally, we find that the indexing and automated retrieval features included in the system satisfy RCRA statutory provisions which require facilities to provide RCRA inspectors with reasonable access to their facilities and to their hazardous waste records, including the ability to inspect and copy records. In the enclosure included with this response, we explain this interpretation and our findings in greater detail.

I understand that you have previously received a consistent interpretation from officials in the Texas Natural Resource Conservation Commission, which implements the authorized RCRA hazardous waste program in the State of Texas. To the extent that Safety-Kleen expands its

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automated record system to facilities in other States, you must verify with the appropriate State agencies that the system will comply with each State's manifest retention regulations and the Rules of Evidence that govern the admissibility of computer generated records in that State's Courts and agencies. Authorized States may implement RCRA programs that include requirements more stringent than the Federal requirements, and not every State has adopted Rules of Evidence that are as liberal as the Federal Rules insofar as admitting electronic copies of documents into evidence.

This response is directed specifically at the system as configured in Denton and described to EPA and OMB staff by Safety-Kleen's representatives at a meeting here on October 3, 1996. However, similar systems used by others could also meet our requirements, if they are designed and operated in accordance with the guidance contained in this letter and the enclosure. In this regard, the generation and storage of image files that include handwritten signatures, the inclusion of design and operating controls which ensure record accuracy, integrity and security, and the inclusion of indexing and file retrieval features which ensure reasonable inspector access are the key factors in this decision.

Thank you for taking the time to share with us information about your company's innovative efforts in adopting an automated approach to manifest record keeping. We believe that systems such as these will demonstrate that automated information technologies can indeed reduce record keeping burdens, while making access to the data more efficient and timely.

If you have any questions about this response, please contact Michele Anders, Chief of the Generator and Recycling Branch, on 703-308-8551, or Richard LaShier on 703-308-8796.

Sincerely yours,

Michael Shapiro, Director
Office of Solid Waste

Enclosure

cc: David Nielsen, OECA/RED
Ann Stephanos, OECA/RED
George Wyeth, OGC
Palmer Kelly, OECA/OCE
Rieh LaShier, HWID/GRB
David Updike, CIRMD
Ann Codrington, HWID/GRB
David Schwarz, OPPE
Dell Billings, DOT/RSPA
Nick Swanstrom, OECA/OCE
Chris Wotz, OMB

Waste Management Division Directors, Regions I - X
Tom Kennedy, ASTSWMO

OSW's Interpretation and Findings Regarding
Safety-Kleen Corp.'s Automated Manifest Record Storage System

I. Issue: Does Safety-Kleen Corp.'s automated manifest record keeping system, which uses a scanner and Personal Computer (PC) to generate and store electronically image files of completed and signed manifests, comply with the current RCRA regulatory requirements addressing the retention of signed manifest copies by waste handlers, and the RCRA statutory requirement that hazardous waste facilities provide RCRA inspectors with access to their records for inspection and copying?

II. Background

In May, 1996, representatives from Safety-Kleen Corp. (Safety-Kleen) met with management and staff from OSW's Hazardous Waste Identification Division (HWID) to discuss the use of automated information technologies in the hazardous waste manifest system. During this meeting, HWID was advised that Safety-Kleen had developed the capability to store manifest records electronically at its recycle facility in Denton, Texas. Safety-Kleen expressed a desire to proceed with implementing this capability on a national basis, and asked OSW to clarify if this electronic record system complied with current Subtitle C requirements for the use and retention of the hazardous waste manifest.

Subsequently, HWID staff conducted a series of internal meetings on the topic of electronic storage with staff from several interested EPA offices, including the Office of General Counsel, the Office of Regulatory Enforcement, the Office of Criminal Enforcement, and the Office of Policy, Planning, and Evaluation. Since the RCRA manifest requirements touch upon areas within the scope of the hazardous materials transportation laws, staff from the Department of Transportation were also invited to participate in these discussions. These internal discussions focused on the technical and legal issues presented by electronic record storage, considering both the facts presented by Safety-Kleen and the other types of automated systems that are likely to be encountered as information technologies are relied on increasingly to supplant paper record systems. This discussion will continue as a part of the manifest revisions rulemaking that is now underway in OSWER.

After several internal meetings, we invited Safety-Kleen's representatives to again meet with interested staff, to provide additional information on the design and operation of the Denton, Texas record keeping system, and to answer staff questions on the security and accessibility of the stored files. This meeting, attended by EPA and OMB staff, occurred at EPA Headquarters on October 3, 1996.

A. Safety Kleen's Storage System

At the October 3rd meeting, Safety-Kleen was represented by Ms. Catherine McCord, the company's manager for Regulatory Programs and Business Integration, and by Mr. Larry

Davenport, the company's vice president for Information Services. Ms. McCord and Mr. Davenport provided much helpful information which clarified staff's understanding of the features and operation of the Denton, Texas automated storage system. Briefly, we understand these to be the key features of the Denton system:

1. Upon receipt of a shipment at the Denton recycle facility, a hard copy of each manifest is scanned, and the image file created by the scanner is saved to disk. The manifest, when scanned, contains the handwritten signatures required under 40 CFR 262.23(a), and these signatures are captured as part of the image file copies.

2. Shortly after scanning the manifests, Safety-Kleen's clerical staff enter some 20 elements of data about the shipment and the manifest into a system index. This index enables Safety-Kleen personnel or RCRA inspectors to access the manifest files by date of receipt, manifest number, facility name, or other descriptors.

3. The index and manifest retrieval features of the system are Windows™ based applications that support an intuitive, graphical interface with the user. The index to the retrieval system is activated by "double-clicking" on the index icon that appears on the desktop, and the search for specific manifests is activated by pull-down menus and dialog boxes that prompt the user for the fields and data that define the search parameters.

4. The system automatically displays a list of all manifests that respond to a specific search request. The user can then select any item from the displayed list with the computer mouse, and the system will then display the image file of the manifest. The output can be examined on the monitor, or printed as hard copy. Print-outs from the system are typically of the same quality as photocopies of the original documents, and all handwritten signatures appear on the records.

5. At the end of each day, an additional copy of each manifest file scanned into the Denton storage system is transmitted electronically to the company's headquarters in Elgin, Illinois.

B. <u>The Federal Manifest Regulations</u>

The record retention requirements for hazardous waste generators are set forth at 40 CFR Part 262, Subpart D. Taken together, §262.40(a) and §262.23(a) require generators to retain signed copies of completed manifests for a period of 3 years, and provide that the "signed" manifest copies must bear the handwritten signatures of the generator, the transporters accepting the waste for transportation, and the owner or operator of the designated facility, who certifies to the receipt of the waste by signing the manifest. I note that there are similar provisions in the Subtitle C regulations for transporters and treatment, storage and disposal facilities, which taken together, require a "handwritten signature" to be obtained whenever there is a change in the

custody of the waste, and require retention for 3 years of these signed copies among the records of the regulated waste handlers. See §§263.20(d)(1), 263.22(a), and 264.71.

C. Statutory Requirement for Access to Records

Section 3007(a) of the RCRA statute provides that any person who generates, stores, treats, transports, disposes of, or has handled hazardous wastes shall, upon the request of any duly designated RCRA inspector, furnish information relating to hazardous wastes to the inspector, and permit such a person at all reasonable times to have access to and to copy all records relating to hazardous wastes.

III. Detailed Discussion

A. The Requirements for Copies Bearing Handwritten Signatures

As summarized above, the current Federal manifest regulations require the generator and each subsequent handler involved with an off-site shipment of hazardous waste to sign the manifest "by hand," and to keep in their files for a 3-year period a copy of the manifest which bears these signatures. The key regulatory compliance issue presented by Safety-Kleen's system is whether the electronically stored image files are created and maintained in such a manner that they qualify as "copies" bearing the necessary "handwritten" signatures. We conclude that the image files meet this standard, because:

(1) The handwritten signatures from the hard copy records are captured by the scanner, incorporated into the stored image files, and reproduced accurately in the output generated by the computer system. Safety-Kleen demonstrated to EPA that the output displays signatures that look no different than the signatures that initially appeared on the scanned hard copies, and the reproduced manifest copies (and signatures) are of the same or better quality than those which are produced by photocopy machines or fax machines. Significantly, this system does not attempt to substitute "digital signatures," PIN Numbers, or other electronic surrogates for the original handwritten signatures.

(2) The image files appear to meet the standards included in the *Federal Rules of Evidence* for the admission of copies and computer generated records into evidence in judicial proceedings brought in the Federal courts. We believe that the law of evidence provides the proper standard for determining whether these electronic documents (the image files and any printouts generated by the system) are acceptable "copies" within the meaning of our manifest retention regulations. The regulations require these manifest copies to be retained in order that they may be inspected by RCRA inspectors, and in a proper case, admitted in evidence in RCRA enforcement proceedings or other proceedings (e.g., CERCLA liability) where the information on the manifests may be considered relevant. Thus, their acceptability as inspectable records and possible evidence should be

evaluated according to the law of evidence on the admissibility of computer generated records.

A significant factor which distinguishes the admissibility of computer generated records from other types of business records is the trustworthiness of these electronic records. In this context, trustworthiness can be affected by the reliability of the hardware and software that make up the computer system, and by the reliability and accuracy of the data entry and data processing methods used by the operator. In addition, the trustworthiness of electronic records can be enhanced by the presence of "computer security" controls that are directed at controlling unauthorized access to the system and data, and at preventing inadvertent or intentional loss or corruption of the data stored in these records.

Based on the features of the Safety-Kleen system that was explained to EPA and OMB staff, we are reasonably assured that the company's electronic manifest records are accurate and secure. This conclusion is supported by these facts:

- The scanning equipment and software installed by Safety-Kleen are extremely accurate. Fewer than 1% of the manifests that are scanned present difficulties during scanning, and most of these can be corrected by obtaining a better copy of the manifest for scanning or by sharpening the image quality before saving the image to disk.

- Safety-Kleen is merely scanning the original hard copies of completed manifests into its computer system, and not entering new data manually. The quality of the image is verified before the record is saved to disk, and the scanning of the paper forms provides minimal opportunities for data entry errors or for alteration of records.

- The Denton facility transmits each night a back-up copy of the electronic manifest records to corporate headquarters in Elgin, Illinois. Thus, in the event of a fire, flood, or other accident involving the Denton site, the records of waste activity will be secured in Elgin.

Therefore, we believe that these materials would be admissible in evidence, so that they are acceptable manifest "copies" bearing the waste handlers' "handwritten signatures," as required by the RCRA regulations.

B. Reasonable Access to Records

The final factor which we considered in determining the acceptability of Safety-Kleen's automated records system is the real world accessibility of the electronically stored manifest records to RCRA inspectors. Section 3007 of the RCRA statute states that any person who generates, stores, treats, disposes, transports, or otherwise handles hazardous wastes must permit EPA or State enforcement personnel access at reasonable times to their facilities as well as to the records relating to their hazardous wastes. Reasonable access to facility records includes the right to inspect and to copy all such records. RCRA §3007(a). Therefore, in considering the

merits of any electronic storage system, we must be satisfied that the system would not in any significant way impede the access of RCRA inspectors to the manifest records. In other words, would a RCRA inspector entering a facility with an automated record system enjoy a level of access to individual manifests that is at least comparable to that which he or she would encounter with respect to paper copies maintained in file drawers?

We conclude that Safety-Kleen's system provides adequate assurances of inspector access to electronic manifest files. As the company demonstrated to us, the index and retrieval features of the automated system are implemented from the Windows™ desktop, and do not require more than rudimentary familiarity with the Windows™ operating system and its pull-down menus and dialogue boxes. The data elements that may be searched are suggested in a pull down menu, and once a selection is made (e.g., manifest #, date of receipt, facility name) the user is prompted for the data that define the search request. The index and retrieval systems are very intuitive, and lead one to a list of responsive files, which if selected, generates the image of the manifest for examination or printing. We believe that an inspector would only need a few minutes to become familiar with the operation of this system. Once comfortable with the retrieval system, the inspector would actually enjoy a superior level of access compared to paper files, since the index feature now supports searches on about 20 data elements. Thus, an inspector should be able to focus his or her inspection efforts much more efficiently with the automated system and target the search as necessary.

Therefore, for the reasons stated above, we are satisfied that Safety-Kleen's image file storage system meets current RCRA requirements for retention of copies bearing the handwritten signatures of waste handlers, and for ensuring reasonable access by enforcement personnel to Safety-Kleen's manifest records for inspection and copying. This interpretation is directed specifically at the system as configured in Denton, Texas, and described to EPA and OMB staff by Safety-Kleen's representatives at our meeting on October 3, 1996. However, similar systems used by others could also meet RCRA requirements, if they are designed and operated in accordance with the guidance contained in this interpretation. In this regard, the generation and storage of image files that include handwritten signatures, the inclusion of design and operating controls which ensure record accuracy, integrity and security (and thus admissibility of the records in evidence), and the inclusion of indexing and file retrieval features which ensure reasonable inspector access are the key factors in this decision.

Because this issue touches upon the use of innovative information technologies, and involves regulations and interpretations that have national significance, we are distributing this interpretation to the Regional Waste Management Division Directors and to the Association of State and Territorial Solid Waste Management Officials. We will also make this interpretation available through the OSWER Home Page on the Internet.

9452 – THE MANIFEST

Part 262 Subpart B

9452.1984(02)

October 25, 1984

MEMORANDUM

SUBJECT: Violation of EPA Hazardous Waste Manifest Regulations by Federal Facilities

FROM: Bruce R. Weddle
Director
Permits and State Programs Division (WH-563)

TO: Stormy Friday
Director
Facilities and Support Services Division (PM-215)

The Uniform Hazardous Waste Manifest regulation became effective on September 20, 1984. This regulation mandated a hierarchy for all generators of hazardous waste to follow in acquiring manifest forms and shipping hazardous waste off site.

A number of States and Regional offices have told us that some Federal facilities including EPA facilities, are not using the correct form for manifesting hazardous wastes to treatment, storage, and disposal facilities. In order to correct the problem and bring all Federal facilities into compliance, we would like you to notify all EPA facilities that might be generating hazardous waste of the form acquisition hierarchy.

The Uniform Hazardous Waste Manifest regulation (March 20, 1984 FR) states that the generator must use the manifest form of the consignment State if that State prints and distributes the form. If that State does not print the form, then the generator must use the manifest form of the generator's State if the State prints and distributes the form. If neither State prints and distributes the form, then the generator should obtain the form from any source such as a printer.

Attached is a list of contacts, including phone numbers, of State printing and distributing the form. Any EPA facility (e.g., our laboratories) that is manifesting hazardous waste to any of these States, should call State for forms or that assistance. There may be a charge for manifests in some States.

This has been retyped from the original document.

If you need additional information or clarification, please call the EPA Hotline. The Hotline number is 382-3000 for the Washington area and 800-424-9346 outside the Washington area.

Attachment

This has been retyped from the original document.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

NOVEMBER 84

2. Some of the States that have received authorization from EPA to manage their own RCRA programs regulate a larger universe of wastes than does EPA. Where on the Uniform Hazardous Waste Manifest (UHWM) does a generator record a waste regulated only by the State?

   The UHWM was designed to allow the listing of both federally-regulated wastes and wastes regulated solely by a State. The Department of Transportation's (DOT) Hazardous Materials Regulations (49 CFR 172.201 (a)(1)) require generators to distinguish between federally-regulated materials (or waste) and State-regulated wastes. The DOT regulations also specify several options for distinguishing a federally regulated material (or waste). One option allowed by DOT is the addition of a Hazardous Materials Column to the UHWM which the generator would check or mark for those line entries which are regulated by federal law as hazardous wastes or hazardous materials.

   The use of the UHWM for State requirements is discussed in greater detail in the preamble to the Uniform Hazardous Waste Manifest rule published in the March 20, 1984 Federal Register (49 FR 10492-10496).

   Source: Carolyn Barley (202) 382-5235
   Research: Hilary Sommer

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JUNE 85

Small Quantity Generators

4. International Fabricare is a trade association that represents dry cleaning and laundry establishments. This industry will be affected by the new Small Quantity Generator (SQG) program pursuant to the Hazardous and Solid Waste Amendments (HSWA) of 1984 (P.L. 98-616). Starting August 5, 1985, SQGs generating between 100 kg. and 1000 kg. per month must accompany hazardous waste shipments with a Uniform Hazardous Waste Manifest. One of the items on the manifest that must be completed is item 12, "Containers." "Containers" specifies the number and type of containers. On designating the container type, the SQG completing the manifest must select one of 12 types. Dry cleaners sometimes package and ship hazardous wastes in plastic bottles, similar to Clorox bottles. How should item 12 be completed?

   Once a hazardous waste is packaged per DOT/EPA regulations, the container must be categorized according to item 12 on the manifest. A plastic bottle would be categorized as "DF." "DF" means fiberboard or plastic drums, barrels, or kegs. In obtaining and completing the manifest, the SQG should first contact the State regulatory agency responsible for hazardous waste management as provided in 40 CFR 262.21. The State agency will provide information regarding where to obtain the manifest and how to complete the portions required by the State, if any.

More importantly the SQG must package and label the hazardous waste according to DOT regulations specified in 49 CFR Parts 172, 173, 178, and 179. All RCRA hazardous wastes which are subject to 40 CFR Part 262 manifest requirements are also hazardous materials subject to DOT shipping requirements (40 CFR §263.10). In complying with DOT requirements, technical assistance is available from DOT by calling the Office of Hazardous Materials Regulations, Materials Transportation Bureau at (202) 426-2075.

Source: Curt Overcast (202) 382-4761
Carolyn Barley (202) 382-2217

Mr. Frank L. Deaver
Corp. Environmental Services Manager
Tektronix, Inc.
Tektronix Industrial Park
P.O. Box 500
Beaverton, Oregon 97077

Dear Mr. Deaver:

Thank you for your letter of September 16, 1985, concerning the Waste Minimization Statement on the Uniform Hazardous Waste Manifest (UHWM) form.

In your letter, you indicated that Tektronix employees are reluctant to sign the statement unless the signature block is modified to indicate that the Tektronix employee signing the statement is signing as an agent of Tektronix. You have included a suggested modification to the form and have requested EPA's concurrence on that modification.

EPA views the changes which you suggested as two separate modifications. The first modification which Tektronix has proposed is to preprint in the signature block area of Item 16 the words TEKTRONIX, INC. to indicate the generator and to add the word "BY" to indicate that the employee signing the form is signing as an agent of Tektronix, Inc. EPA concurs with this modification since it is consistent with the modifications EPA allows generators to make to the form (see page 10499 of the enclosed March 20, 1984, Federal Register).

The second modification which Tektronix, Inc. is proposing to make to the UHWM form is to add a block below Item 16 for an employee to print or type his or her name. This modification is not permissable since the inclusion of an additional space alters the form. The only changes to the form which may be made are identified in the March 20, 1984, Federal Register (page 10499). However, I would like to suggest the following modification which makes use of the existing space on the form. I believe this accomplishes the same goal as your proposed modification without altering the design of the form:

Printed/Typed Name TEKTRONIX, INC.-(Employee's Name)	Signature: TEKTRONIX, INC BY: (Employee's Signature)	Mo Da Yr / /

Other alternatives which Tektronix may want to consider would be to add the phrase "on behalf of TEKTRONIX INC." to the signature block of Item 16 (see the attached July 11, 1985, letter to the Boeing Company) or to include additional information about the signature in Item 15, Special Handling Instructions and Additional Information.

I understand that Carolyn Barley of my staff spoke with Jim Green of Tektronix to discuss your proposed modification and to recommend the above alternate modification. Mr. Green indicated in that conversation that EPA's recommended modification may resolve Tektronix's concerns. However, Mr. Green has already ordered 5,000 copies of the form with the Tektronix modification included on it and the order cannot be rescinded. Mr. Green requested EPA's concurrence on using those copies if the additional space was voided. He emphasized that future printings would not include this additional space. Because Oregon is an authorized State, its rules apply in lieu of EPA's. Therefore, you must discuss the use of existing forms with the Oregon Department of Environmental Quality (DEQ). I suggest that you contact Mr. Mike Downs, Administrator of DEQ's Hazardous and Solid Waste Division (503-229-5356).

I trust that this letter adequately addresses your concerns on this subject. If you have other questions concerning the UNEM, I suggest that you call Carolyn Barley (202-382-2217).

Sincerely Yours,

Marcia Williams
Director
Office of Solid Waste

Enclosures

cc: Mike Downs, Oregon DEQ
Charles Findley, EPA Region X

WH-563:CB:cc:10-3-85:382-2217:CC's disk8,doc38
Controlled Correspondence OSW-183

UNITED STATES ENVIRONMENTAL PROTECTION AGI
WASHINGTON, D.C. 20460

9452.1986(01)

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONS

Mr. Jeffrey L. Dauphin
Waste Systems Institute of Michigan, Inc.
470 Market, S.W.
Suite 100-A
Grand Rapids, MI 49503

Dear Mr. Dauphin:

This letter responds to your request, dated April 1, 1986, for clarification of the waste minimization certification requirement for small quantity generators of hazardous waste.

The waste minimization certification requirement was created by the Hazardous and Solid Waste Amendments of 1984 (HSWA), signed by the President on November 8, 1984. Section 3002(b) of HSWA requires that generators of hazardous waste regulated under Section 3002(a)(5) certify, on the Uniform Hazardous Waste Manifest, that they have in place a program to reduce the quantity and toxicity of the hazardous waste they generate, to a degree determined by the generator to be economically practicable and that the proposed method of treatment, storage, and disposal is that practicable method currently available which minimizes present and future threats to human health and the environment. This statutory provision does not apply to generators of less than 1000 kg per month.

The HSWA also required EPA to establish standards for generators of 100-1000 kg per month. These standards were promulgated on March 24, 1986. On the same day, EPA proposed that the waste minimization certification requirement also apply to 100-1000 kg/mo generators. If the Agency finalizes this proposed requirement, the waste minimization certification statement in item 16 of the Uniform Hazardous Waste Manifest will apply to 100-1000 kg/mo generators just as it applies to generators of greater than 1000 kg/mo. I have enclosed copies of both Federal Register notices, for your information.

The certification contained in item 16 of the manifest form consists of two parts, the waste minimization certification and the general certification of accuracy. Only one signature is required.

The waste minimization certification requirements of HSWA do not authorize EPA to "interfere with or to intrude into the production process by requiring standards for waste minimization;

rather, it specifically provides that the substantive determinations of "economically practicable" and "practicable methods currently available" are to be made by the generator in light of his own particular circumstances. Thus, from an enforcement perspective, the Agency will be concerned primarily with compliance with the certification signatory requirement. Each generator subject to the waste minimization requirement should make a good faith effort to minimize the amount and toxicity of waste generated and to select a means of treatment, storage, or disposal most likely to minimize the present and future threat to human health and the environment (50 FR 28734). The legislative history of HSWA makes clear that "judgements made by the generator [for the purpose of the waste minimization certification] are not subject to external regulatory action (S. Rep. No. 284, 98th Cong. 1st Sess. 67 (1983)).

The HSWA, however, require the EPA to submit a report to Congress, by October 1, 1986, on the feasibility and desirability of: (1) establishing standards of performance or of taking additional action under the Act (RCRA) to require the generators of hazardous waste to reduce the volume or quantity and toxicity of the hazardous waste they generate; and (2) establishing with respect to hazardous wastes required management practices or other requirements to assure such wastes are managed in ways that minimize present and future threats to human health and the environment. In addition, the report shall include any recommendations for legislative changes which EPA determines are desirable and feasible to implement the national policy of minimizing the generation and the land disposal of hazardous waste by encouraging process substitution, materials recovery, properly-conducted recycling and reuse, and treatment.

The Agency supports all environmentally sound strategies for reducing the amount of hazardous waste which must be disposed of, including waste exchanges. The Agency's position on waste exchanges, therefore, remains consistent with that expressed in John Skinners' March 1, 1985 letter to you.

I hope that this answers your questions about the waste minimization certification requirement. Thank you for your interest in the hazardous waste program.

Sincerely,

Marcia Williams
Director
Office of Solid Waste

Enclosures

Dear State Hazardous Waste Director:

On March 24, 1986, the U.S. Environmental Protection Agency (EPA) promulgated final regulations for small quantity generators of between 100 and 1000 kilograms of hazardous waste in a calendar month (51 Federal Register 10146). Effective September 22, 1986, this rule requires these generators to use the multi-part "round-trip" Hazardous Waste Manifest (form 8700-22 and 22A) for all off-site shipments of hazardous waste.

In a Federal Register notice accompanying the March 24, 1986 final rule, the Agency explained that since it had not specifically addressed the issue of waste minimization in the proposed rule for small quantity generators, it was requesting public comment on whether these generators should be required to certify to waste minimization on the Uniform Hazardous Waste Manifest. As explained in the March 24, 1986 final rule, the requirement that generators of 100-1000 kg/mo certify to waste minimization on the manifest would automatically go into effect on September 22, 1986, the date these generators became subject to the Section 3002 generator standards, unless the Agency acted to exempt them.

On September 22, 1986, the Administrator of EPA signed a final rule explaining its decision not to exempt small quantity generators from the waste minimization requirement (see enclosed rule). In response to comments, the Agency has instead modified the waste minimization statement on the manifest as it applies to small quantity generators to require only a good faith effort to minimize waste generation and selection of what they believe to be the best available and affordable treatment, storage, and disposal alternative.

In addition to modifying the manifest form to include the new waste minimization language for small quantity generators, EPA has also modified the form to include a technical correction to the waste minimization statement applicable to generators of 1000 kg/mo and a new OMB expiration date and form number. The revised form is effective immediately.

Enclosed are camera-ready copies of the revised manifest form. Camera-ready copies are also being sent to the manifest coordinators in those States which currently print and supply the manifest (see enclosed list). Although your State may not print and supply the form, we anticipate that many generators in your State, including small quantity generators and private printing firms, will request copies of the revised form.

If you have any questions about the new manifest form or about the waste minimization requirement, please contact Bob Axelrad on (202) 382-4769 or Carolyn Barley on (202) 382-2217.

Sincerely,

Marcia Williams
Director
Office of Solid Waste

Enclosures

cc: State and Regional Manifest Coordinators
bcc: George Garland, State Programs

Mr. Robert Fixter
Assistant Environmental Manager
S&W Waste Inc.
115 Jacobus Avenue
South Kearney, New Jersey 07032

Dear Mr. Fixter:

Thank you for your letter of January 15, 1986, requesting clarification of the term "waste minimization" as it appears in the Hazardous and Solid Waste Amendments (HWSA) of 1984. In particular, your letter requests guidance as to whether the following practice would be considered a waste minimization program.

> A commercial treatment, storage, and disposal (TSD) facility accepts waste solvents and oils from off-site, the TSD blends these wastes on-site to meet certain specifications for use as a fuel extender by off-site Resource Conservation and Recovery Act (RCRA) permitted industrial furnaces. The wastes are subsequently recycled, as fuel extenders and reused in an economically beneficial manufacturing program.

The HSWA establishes a national policy for minimization of hazardous waste, and requires that waste minimization considerations be addressed in RCRA transport manifests, biennial reports, and on-site TSD permits. The Agency has not developed guidance on what constitutes a waste minimization program or a waste minimization activity and, at this time, has no plans to do so. It is hoped that activities such as source reduction and recycling will be explored by individual generators to reduce the volume or quantity and toxicity of hazardous waste generated.

The reports that accompanied the HSWA spelled out Congress' intent with regard to the waste minimization requirements in HSWA. As the report states, both waste minimization requirements for the transport manifest and biennial report refer to a certification by the generator that a program is in place to reduce

the volume or quantity and toxicity of hazardous waste to the degree determined by the generator to be economically practicable, and that the proposed method of treatment, storage or disposal is that practicable method currently available to the generator which minimizes present and future threats to human health and the environment. While the requirement to make the waste minimization certification is mandatory, the nature of the criteria for such certification and the determination of compliance with those criteria are to be made solely by the generator.

This makes it clear that Congress' objective for waste minimization program certification is to encourage generators to seek voluntarily ways or programs to reduce the quantity and toxicity of generated waste. The reports further state that recycling pollutants, contained in effluents, emissions, wastes, or other pollution streams is one, but by no means the only, way of implementing this national policy of waste minimization. A fundamental premise of RCRA is and continues to be to encourage the reuse of materials.

As the legislative history suggests and as the Environmental Protection Agency (EPA) has stated, generators that recycle wastes on-site or send their waste off-site to be recycled are engaging in an activity which may be considered waste minimization.

The Agency appreciates your concern with the waste minimization program definition. If you should have any further questions, please contact James R. Berlow, Manager of the Treatment, Recycling, and Reduction Program at (202) 382-7917.

Sincerely,

Original signed by
[illegible]

Marcia Williams
Director
Office of Solid Waste (WH-562)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9452.1987(01)

FEB 24 1987

Mr. Phillip J. Sparta
Assistant Managing Director
Environmental Technology Southeast
1819 Albert Street
Jacksonville, Florida 32202

Dear Mr. Sparta:

This is in response to your letter of January 21, 1987 regarding the participation of a wastewater treatment unit in the manifest system.

Although you were previously informed that a generator of hazardous waste may designate a wastewater treatment unit on the manifest as a facility allowed to accept this waste, we now believe the previous interpretation is incorrect. In particular, under 40 CFR §§264.1(g)(6) and 270.1(c)(2), the substantive requirements of Part 264 and the permit requirements of Part 270 do not apply to owners or operators of wastewater treatment units. The interim status requirements of Part 265 also do not apply to such units. (See 40 CFR §265.1(c)(10).)

EPA's manifest system regulations (40 CFR §§262.20(b) and 263.21) require that a generator send hazardous waste only to a "designated facility." As provided in §260.10, a designated facility must have an EPA permit, interim status, or a permit from an authorized State, or must be a facility regulated under the special provisions of §261.6(c)(2). Because wastewater treatment facilities, other than publicly owned treatment works (POTWs) that are permitted-by-rule under §270.60, meet none of these conditions, they cannot be listed as a designated facility, and therefore, they cannot receive hazardous waste from off-site.

I apologize for any problems our previous interpretation may have caused you. Please contact Michael Petruska or Carolyn Barley of my staff at (202) 475-8551 if you have additional questions on this matter.

Sincerely,

Marcia E. Williams
Director
Office of Solid Waste

APR 30

Gregory Zak
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Dear Mr. Zak:

Thank you for your letter of February 10, 1987, in which you request concurrence from EPA on Illinois' decision not to allow use of the continuation sheet (form 8700-22A) to the Uniform Hazardous Waste Manifest.

The instructions to the manifest (Appendix to 40 CFR Part 262) state that the continuation sheet must be used if more than two transporters are used in transporting the waste or if no space is required for the DOT description and related information. However, from my conversations with various States, I am aware that the the use of more than two transporters is rare. Further, since implementation of the Uniform Hazardous Waste Manifest form in September 1984, the DOT has simplified procedures for shipping "lab packs" (50 FR 11700, March 25, 1985, enclosed) which in some instances eliminates the need to list each sample on the manifest. As a result, a continuation sheet is often unnecesary.

EPA views Illinois' decision not to allow the use of the continuation sheet but rather to require an additional manifest for any shipment which consists of more than two transporters or more than four DOT proper shipping names as being consistent with the Federal program. Please call me on 202-382-2217 if you have further questions on this matter.

Sincerely,

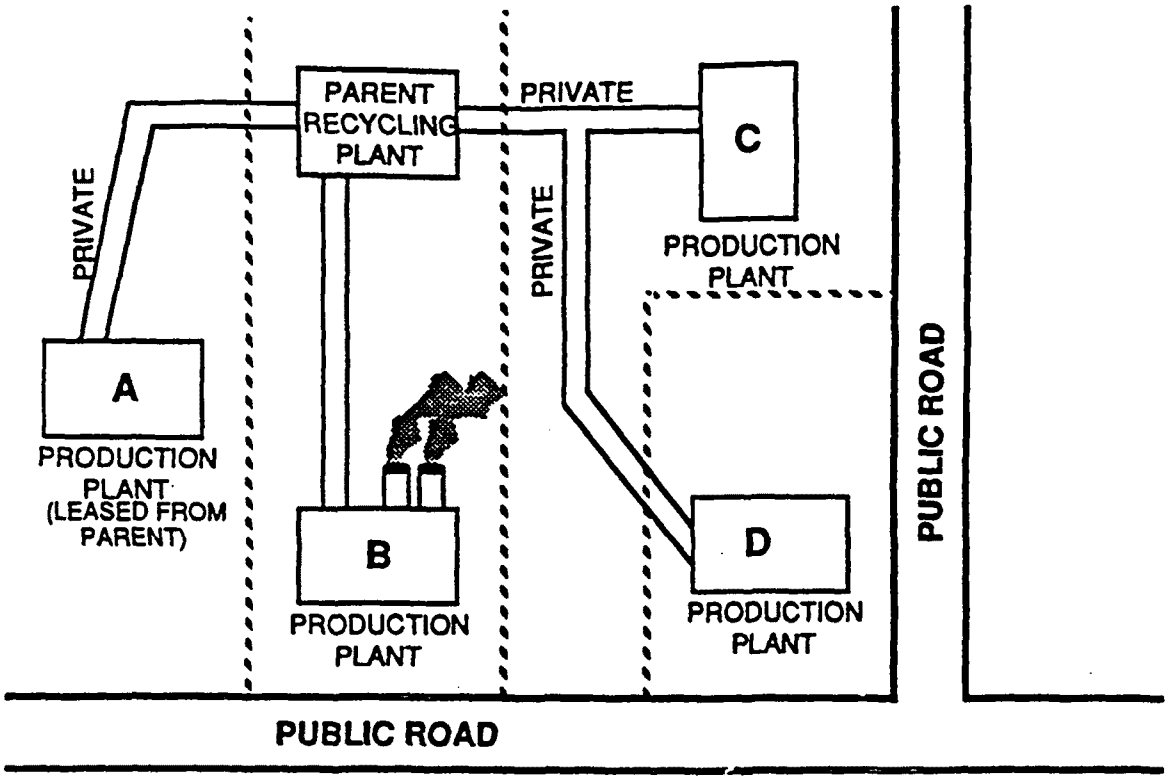
Carolyn Barley

Enclosure

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
SEPTEMBER 1989

1. Manifest Requirements and the Off-Site Definition

Within an industrial park, a corporation leases four contiguous plots of property to wholly owned subsidiaries on one large piece of land. As all the companies use similar solvents, the corporation has built a central recycling facility which would accept transported spent solvents from each of the different production plants. While each of the four companies has a separate EPA ID Number, all facilities are connected via private roads on the corporation's property. If the solvent wastes are trucked from one company, over another's leased property in order to get to the central recycling facility, do the manifest regulations apply?



When wastes are moved within a corporate park without use of public roads, the waste is not considered to be transported off-site. Therefore, a manifest is not required. Section 262.20 of 40 CFR requires "a generator who transports, or offers for transportation, hazardous waste for off-site treatment... must prepare a Manifest... ." The definition of "off-site" is interpreted as that which is not on-site. Section 260.10 defines "on-site" to mean, "the same or geographically contiguous property which may be divided by public or private road...Non-contiguous properties owned by the same person but connected by a right of way which he controls and to which the public does not have access, is also considered on-site property." As long as the right of ways are controlled by the lessors, and the public access is restricted, the movement of hazardous waste does not constitute transportation "off-site"; a manifest, therefore, is not required.

2

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
FEBRUARY 1990

1. Manifesting Requirements and EPA Identificaton Numbers

Two facilities, one a nuclear power plant and the other a conventional coal burning power plant, are owned by the same company and occupy adjacent tracts of land divided by a river. The company owns a dam on the river that connects the two tracts. For safety reasons, the dam is not utilized for the transport of hazardous waste between the facilities. A public highway forms the boundary of the properties along one edge. Transport of hazardous waste between the facilities occurs via this public highway. The two facilities currently share one EPA identification number. Can the facilities continue to share one identification number or must each have its own number? Is a manifest required to transport hazardous waste between the facilities?

Each of the facilities will be required to obtain its own EPA identificaton number. Due to the safety hazard associated with using the dam to move wastes from one facility to the other, no effective company-controlled connecting right-of-way exists. The facilities are two individual sites. Hazardous wastes transported along the public highway from one site to the other must be accompanied by a manifest in accordance with 40 CFR 262.20, which states that a generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a manifest.

9452.1991(01)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 26 1991

Brian Engel
U.S. Pollution Control
515 West Greens Road, Suite 500
Houston, TX 77067

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Dear Mr. Engel:

Thank you for your letter of June 10, 1991, which requested clarification on some of the instructions for completing the Uniform Hazardous Waste Manifest. Specifically, you described a situation in which waste is transfered from rail to highway on its way to the designated facility. You asked whether an agent of the generator, acting in the generator's behalf, would be allowed to choose the highway transporter from among a group of pre-approved transporters at the point of transfer from rail to highway. You proposed this procedure as an option to replace the current practice in which the highway transporter chosen by the generator and listed on the manifest is replaced by another pre-approved transporter, thereby requiring that the manifest be altered en route, making the document difficult to read.

Although your option has merit from the point of neatness and legibility of the manifest, I do not believe that it fits in with the functional purpose of the manifest which is to track the movement of the waste from the point of generation to the point of disposal. If the generator leaves the Transporter #2 block on the manifest empty when the waste is transported from his site, there would be no indication that the generator knew how the waste would get from the rail to the facility. That could presumably be addressed by the generator's indication on the manifest of a limited number by the rail transporter to the designated facility. We still however, consider the generator responsible for knowing who is transporting the waste, so we would require that the generator be notified before the waste was transferred to one of the approved final transporters and that the selection (and approval by the generator) is noted on the manifest.

This procedure might better reflect the actual situation at the time the generator signs the manifest than the current requirements. It would, however, require at least as much space on the manifest as the current procedure of putting down the most likely transporter and then modifying the manifest if necessary, and would require the same step of communication with the generator before making the notation of the actual transporter on the manifest. For that reason, we think the existing requirements are sufficient.

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We appreciate your making a helpful suggestion. At some point we would like to reexamine the manifest forms and a variety of issues that arise in their use, but we are unable to commit our resources to that at the moment. We will keep your suggestion on file for reconsideration if we get the opportunity to complete a reexamination of the manifest forms. For now, we cannot approve the approach you recommend.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 28 1993

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

James C. Ross
Logistics Manager
Sanyo Energy (U.S.A.) Corporation
2001 Sanyo Avenue
San Diego, CA 92173

Dear Mr. Ross:

Thank you for your letter of January 4, 1993. In your letter, you asked a number of questions regarding movements of hazardous waste nickel cadmium batteries from Mexico to Japan via the United States.

You asked if hazardous waste generated in Mexico shipped under a U.S. Customs bond through the United States to Japan is subject to the Resource Conservation and Recovery Act (RCRA). Regardless of where hazardous waste is generated or its Customs tariff classification, it is subject to RCRA and RCRA regulations while within U.S. jurisdiction, namely, within U.S. borders. With regard to imported hazardous waste, from the moment the hazardous waste enters the U.S., it is subject to and must be in compliance with all applicable provisions of the RCRA Subtitle C hazardous waste program. This means that the U.S. importer for the hazardous waste must possess an EPA identification number; must use appropriate DOT packaging, labels, and markings for hazardous waste shipments; must prepare a hazardous waste manifest for use during transportation in the U.S.; must use a transporter which also possesses an EPA identification number; and must comply with other requirements found in 40 CFR Part 262. Transporters transporting hazardous waste in the U.S. are subject to 40 CFR Part 263.

If the shipments of hazardous waste are then exported from the U.S. to Japan, then export provisions found at 40 CFR Part 262 Subpart E also apply. These include requirements to submit a notification of intent to export to EPA; to attach an EPA Acknowledgement of Consent to the shipment's manifest once consent is received from the importing country government; to submit an annual report documenting the shipment; and other Subpart E requirements.

You also ask if the hazardous waste batteries would qualify for an exemption from regulation found at 40 CFR Part 261.6(a)(3)(ii). Section 261.6(a)(3)(ii) states "The following recyclable materials are not subject to regulation under parts

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262 to 266 or parts 268, 270 and 124 of this chapter, and are not subject to the notification requirements of section 3010 of RCRA: (ii) Used batteries (or used battery cells) returned to a battery manufacturer for regeneration;...". Unfortunately, your letter does not provide sufficient information for such a determination to be made, saying only that the batteries will be sent to Japan for recycling, rather than being sent to a manufacturer for regeneration, as stipulated in the exemption. However, based on your telephone conversation with Angela Cracchiolo of my staff, the operations to be conducted in Japan would include smelting of the nickel cadmium batteries, an activity not within the scope of the 261.6(a)(3)(ii) exemption. In addition, Part 262.11 requires that the generator of a solid waste make the determination if that waste is a hazardous waste.

The hazardous waste manifest for a shipment of hazardous waste batteries going from Mexico to Japan via the U.S. would be prepared showing the name and address of both the U.S. importer and the foreign (Mexican) generator and the EPA identification number of the U.S. importer in the generator block and the name and site address of the foreign (Japanese) consignee in the designated facility block.

If you have any questions regarding this response, please contact Angela Cracchiolo of my staff at (202)260-4779. Thank you for your interest in safe and effective management of hazardous waste.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 29 1993

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Stephen C. Okosisi
3281 S. Highland, Suite 807
Las Vegas, Nevada 89109

Dear Mr. Okosisi,

Thank you for your letter dated January 21, 1993, concerning the Resource Conservation and Recovery Act (RCRA) regulations. Specifically, you requested clarification about how certain hazardous waste manifest and biennial reporting requirements apply to a mixture of several federal RCRA hazardous wastes with different waste codes. Let me first address your question about the hazardous waste manifest.

Information entered in Section J of the Uniform Hazardous Waste Manifest (EPA Form 8700-22) is not required by federal law, but may be required by state regulations. The federal RCRA regulations require that a generator determine if the state to which the waste is being sent supplies a manifest and requires its use; if not, then the generator must check with the state in which the generator is located. If neither state supplies a manifest and requires its use, then the generator may obtain a manifest from any source (40 CFR 262.20). If the manifest in your specific situation is required by a state, you should contact that state to determine the most appropriate way to enter multiple waste codes on a single manifest. Also, federal RCRA regulations do <u>not</u> require that RCRA waste codes be entered in line 11a of the manifest; however, a RCRA waste code may be required in Line 11a if the waste code is part of the proper DOT shipping name.[1]

With respect to your question on biennial reporting, the federal biennial reporting requirement is not contingent upon

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[1]Aside from how the manifest is filled out, it may not be appropriate to classify the mixture described in your letter (i.e., a mixture of D001 waste and several U-listed wastes) as only D001; based on your letter, the waste mixture carries all of the listings, and is also D001 if the mixture continues to exhibit that characteristic. You should note that some regulatory requirements, e.g., the Part 268 Land Disposal Restrictions, are keyed to the waste codes, and you must comply with all requirements made applicable by the waste codes.

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which waste codes happen to appear on the hazardous waste manifest, but on which hazardous wastes are generated by the reporter during the reporting period.

Please understand that the regulatory agency (i.e., EPA Region or State) responsible for implementing the RCRA program in the State where the generator is located should be contacted on any RCRA requirements with which you may have questions. If you have any questions on the information I have described in this letter, please call Ross Elliott of my staff at (202)260-8551. Thank you for interest in the safe management of hazardous waste.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

cc: Mr. Jeffrey Zelikson, Director
Hazardous Waste Management Division, Region IX

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9452.1993(03)

OCT 20 1993

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Jeff R. Bowman, REA
Operations Manager
Environmental Dynamics
1916 Grandstand Drive
San Antonio, Texas 78238

Dear Mr. Bowman:

Thank you for your letter dated July 16, 1993, regarding the hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA). I will also take this opportunity to respond to the letter you attached from Mr. Andrew B. Wallace dated March 31, 1993. I apologize for the delay in responding to both letters. In both letters, specific questions were asked regarding the hazardous waste identification and generator regulations, and I have attempted to answer each one based on the federal RCRA regulations using the information you have provided. For convenience, I have enumerated the answers to match the incoming questions.

1. Assuming that the waste you have described is a solid waste (as defined in 40 CFR 261.2), and that this waste does not meet the other definitions of ignitable in 40 CFR 261.21(a)(2) through (4), this waste does not appear to meet the definition of ignitability in 40 CFR 261.21(a)(1). You are correct in asserting that the absence of free liquids precludes the application of the ignitability characteristic as defined in 261.21(a)(1).[1] However, you should be aware that EPA has recently proposed amending SW-846 with respect to how the presence of free liquids is determined when testing a waste for ignitability and corrosivity. I have enclosed a copy of this proposed rule, dated August 31 1993, and encourage you to comment on it if you wish. [Note: this response is applicable to the questions raised in the March 31, 1993 letter from Mr. Wallace.]

2. The relative proportions of the chemicals you described in the paint stripper add

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[1]I should also point out that although there may be instances where a solid waste does not contain free liquids (and therefore would not be classified as D001 under §261.2(a)(1)), some type of flashpoint determination may still be required by waste management facilities as a condition of accepting the waste.

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up to only 90 percent. Assuming that the other 10 percent consists of inert materials that do not contribute to the function of the product, the paint stripper being disposed that you described would be classified as U080 if the methylene chloride were the sole active ingredient of the product, or as U220 if the toluene were the sole active ingredient. In each of these cases, the hazardous characteristics of this waste would need to be evaluated in order to comply with the Part 268 LDRs (see 40 CFR 262.11(c)). If both methylene chloride and toluene are active ingredients, neither listing applies and the material would need to be evaluated as to whether or not it exhibits any RCRA characteristic.

3. If the material described were used to strip paint, it would be classified as F002 and F005, due to the presence of at least 10 percent before use of each of these chemicals. The hazardous characteristics of this waste would need to be evaluated in order to comply with the Part 268 Land Disposal Restrictions (LDRs) (see 40 CFR 262.11(c)). If this particular paint stripper contains any amount of a solvent listed under F003 as well, that listing would also apply.

4. The federal RCRA regulations do not specifically address this situation. The regulations in 40 CFR 262.20(d) describe the general situation where hazardous waste shipped under a Uniform Hazardous Waste Manifest is redirected to an alternate facility. Because you are asking about compliance with a State hazardous waste manifest (the use of which is mandated by that State), I would recommend contacting the RCRA-authorized State(s) where the alternate TSD facilities are located, as well as the State in which the generator is located. Where a State is not RCRA-authorized, the EPA Regional office would be the appropriate contact for making situation-specific determinations such as these.

5. The federal RCRA regulations do not specifically address this situation. The proper labelling and marking of containers is outlined in 40 CFR 262.31, 262.32, and 262.34(a). I would suggest that you label and mark containers holding hazardous waste clearly and in a manner that avoids any confusion.

6. I cannot make any generic determinations as to whether or not the situation you described is a violation of RCRA. The federal RCRA regulations do not specify the number of drums that may be open at any one time in a container storage area. If a facility has a RCRA Part B storage permit, this permit might delineate specific procedures tailored to that particular facility. Otherwise, generators must comply with the requirement in 40 CFR 265.173(a) that containers remain closed except when adding or removing hazardous waste.

7. See number 6 above.

8. The RCRA generator regulations do not preclude the consolidation (or bulking) of several small containers into a larger container, provided the large container is clearly labelled and marked, and the wastes are compatible. If you planned to ship the large container containing the smaller containers, you would need to

ensure that this configuration meets applicable State and federal DOT requirements, and that the manifest identifies all applicable EPA hazardous waste codes.

9. The generator must designate on the manifest all of the transporters that will be used to transport hazardous waste. The federal RCRA regulations do not address the situation where, for whatever reason, another transporter not identified on the original manifest is needed to continue the transportation of the shipment. The regulations in 40 CFR 263.20(d) describe the requirements for one transporter delivering a manifested shipment to another transporter.

10. The regulation at 40 CFR 262.11(c) requires that generators must determine whether or not any listed hazardous waste also exhibits a hazardous characteristic, for purposes of compliance with the Part 268 LDRs. This is because the LDRs require that if a listed waste also exhibits one or more hazardous characteristics, the waste must be treated to meet the treatment standard for each of the waste codes, with one exception. Where the Part 268 treatment standard for a listed hazardous waste also addresses the characteristic(s) exhibited by that waste, the treatment standard for the listed waste operates in lieu of the standard for the relevant characteristic(s). I have enclosed a copy of some preamble language from one of the final rules on LDRs (June 1, 1990 Federal Register; 55 FR 22659) that explains in more detail the overlap of listed and characteristic waste codes.

    With regard to how waste codes should be entered on the manifest, please note that information in the section of the Uniform Hazardous Waste Manifest for Waste Number (Section I) is not required by Federal law, but that States may require one or more waste codes in this section. Of course, the RCRA waste code(s) may be part of the proper U.S. DOT Shipping Description, and should be entered in Line 11 if required by DOT. If you have additional questions on the U.S. DOT regulations, please contact the DOT helpline at (202)366-4488.

11. See Number 10 above.

12. See Number 10 above.

13. The Uniform Hazardous Waste Manifest requires that the information required in Item 11 of the manifest be entered for each waste. If additional space is needed, use the appropriate continuation sheet.

Please be aware that under Section 3006 of RCRA (42 U.S.C. Section 6926) individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the federal program. When States are not authorized to administer their own program, the appropriate EPA Region administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) States retain authority to promulgate

regulatory requirements that are more stringent than federal regulatory requirements.

I hope that the answers I was able to provide will help clarify some or most of your questions. In some cases I could not provide a complete answer; many of your questions appear to be derived from specific circumstances at your facility or facilities, or those of your clients. I would therefore recommend that to the extent any of your questions are situation-specific, and particularly for the questions that I did not address completely, that you contact the State agency authorized for the hazardous waste program in the State where your facility, or your client's facility, is located. Where a State is not RCRA-authorized, the EPA Regional office would be the appropriate contact for making situation-specific determinations such as these.

If you have any additional questions concerning the information I have provided, please contact Ross Elliott of my staff at 202/260-8551. Thank you for your interest in the safe management of hazardous waste.

Sincerely,

for Bruce Weddle
Acting Director
Office of Solid Waste

cc: Mr. Andrew B. Wallace, Environmental Dynamics, Inc.

Enclosures (2)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9452.1993(03)

OCT 20 1993

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Jeff R. Bowman, REA
Operations Manager
Environmental Dynamics
1916 Grandstand Drive
San Antonio, Texas 78238

Dear Mr. Bowman:

Thank you for your letter dated July 16, 1993, regarding the hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA). I will also take this opportunity to respond to the letter you attached from Mr. Andrew B. Wallace dated March 31, 1993. I apologize for the delay in responding to both letters. In both letters, specific questions were asked regarding the hazardous waste identification and generator regulations, and I have attempted to answer each one based on the federal RCRA regulations using the information you have provided. For convenience, I have enumerated the answers to match the incoming questions.

1. Assuming that the waste you have described is a solid waste (as defined in 40 CFR 261.2), and that this waste does not meet the other definitions of ignitable in 40 CFR 261.21(a)(2) through (4), this waste does not appear to meet the definition of ignitability in 40 CFR 261.21(a)(1). You are correct in asserting that the absence of free liquids precludes the application of the ignitability characteristic as defined in 261.21(a)(1).[1] However, you should be aware that EPA has recently proposed amending SW-846 with respect to how the presence of free liquids is determined when testing a waste for ignitability and corrosivity. I have enclosed a copy of this proposed rule, dated August 31 1993, and encourage you to comment on it if you wish. [Note: this response is applicable to the questions raised in the March 31, 1993 letter from Mr. Wallace.]

2. The relative proportions of the chemicals you described in the paint stripper add

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[1]I should also point out that although there may be instances where a solid waste does not contain free liquids (and therefore would not be classified as D001 under §261.2(a)(1)), some type of flashpoint determination may still be required by waste management facilities as a condition of accepting the waste.

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up to only 90 percent. Assuming that the other 10 percent consists of inert materials that do not contribute to the function of the product, the paint stripper being disposed that you described would be classified as U080 if the methylene chloride were the sole active ingredient of the product, or as U220 if the toluene were the sole active ingredient. In each of these cases, the hazardous characteristics of this waste would need to be evaluated in order to comply with the Part 268 LDRs (see 40 CFR 262.11(c)). If both methylene chloride and toluene are active ingredients, neither listing applies and the material would need to be evaluated as to whether or not it exhibits any RCRA characteristic.

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4. The federal RCRA regulations do not specifically address this situation. The regulations in 40 CFR 262.20(d) describe the general situation where hazardous waste shipped under a Uniform Hazardous Waste Manifest is redirected to an alternate facility. Because you are asking about compliance with a State hazardous waste manifest (the use of which is mandated by that State), I would recommend contacting the RCRA-authorized State(s) where the alternate TSD facilities are located, as well as the State in which the generator is located. Where a State is not RCRA-authorized, the EPA Regional office would be the appropriate contact for making situation-specific determinations such as these.

5. The federal RCRA regulations do not specifically address this situation. The proper labelling and marking of containers is outlined in 40 CFR 262.31, 262.32, and 262.34(a). I would suggest that you label and mark containers holding hazardous waste clearly and in a manner that avoids any confusion.

6. I cannot make any generic determinations as to whether or not the situation you described is a violation of RCRA. The federal RCRA regulations do not specify the number of drums that may be open at any one time in a container storage area. If a facility has a RCRA Part B storage permit, this permit might delineate specific procedures tailored to that particular facility. Otherwise, generators must comply with the requirement in 40 CFR 265.173(a) that containers remain closed except when adding or removing hazardous waste.

7. See number 6 above.

8. The RCRA generator regulations do not preclude the consolidation (or bulking) of several small containers into a larger container, provided the large container is clearly labelled and marked, and the wastes are compatible. If you planned to ship the large container containing the smaller containers, you would need to

ensure that this configuration meets applicable State and federal DOT requirements, and that the manifest identifies all applicable EPA hazardous waste codes.

9. The generator must designate on the manifest all of the transporters that will be used to transport hazardous waste. The federal RCRA regulations do not address the situation where, for whatever reason, another transporter not identified on the original manifest is needed to continue the transportation of the shipment. The regulations in 40 CFR 263.20(d) describe the requirements for one transporter delivering a manifested shipment to another transporter.

10. The regulation at 40 CFR 262.11(c) requires that generators must determine whether or not any listed hazardous waste also exhibits a hazardous characteristic, for purposes of compliance with the Part 268 LDRs. This is because the LDRs require that if a listed waste also exhibits one or more hazardous characteristics, the waste must be treated to meet the treatment standard for each of the waste codes, with one exception. Where the Part 268 treatment standard for a listed hazardous waste also addresses the characteristic(s) exhibited by that waste, the treatment standard for the listed waste operates in lieu of the standard for the relevant characteristic(s). I have enclosed a copy of some preamble language from one of the final rules on LDRs (June 1, 1990 Federal Register; 55 FR 22659) that explains in more detail the overlap of listed and characteristic waste codes.

    With regard to how waste codes should be entered on the manifest, please note that information in the section of the Uniform Hazardous Waste Manifest for Waste Number (Section I) is not required by Federal law, but that States may require one or more waste codes in this section. Of course, the RCRA waste code(s) may be part of the proper U.S. DOT Shipping Description, and should be entered in Line 11 if required by DOT. If you have additional questions on the U.S. DOT regulations, please contact the DOT helpline at (202)366-4488.

11. See Number 10 above.

12. See Number 10 above.

13. The Uniform Hazardous Waste Manifest requires that the information required in Item 11 of the manifest be entered for each waste. If additional space is needed, use the appropriate continuation sheet.

Please be aware that under Section 3006 of RCRA (42 U.S.C. Section 6926) individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the federal program. When States are not authorized to administer their own program, the appropriate EPA Region administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) States retain authority to promulgate

regulatory requirements that are more stringent than federal regulatory requirements.

I hope that the answers I was able to provide will help clarify some or most of your questions. In some cases I could not provide a complete answer; many of your questions appear to be derived from specific circumstances at your facility or facilities, or those of your clients. I would therefore recommend that to the extent any of your questions are situation-specific, and particularly for the questions that I did not address completely, that you contact the State agency authorized for the hazardous waste program in the State where your facility, or your client's facility, is located. Where a State is not RCRA-authorized, the EPA Regional office would be the appropriate contact for making situation-specific determinations such as these.

If you have any additional questions concerning the information I have provided, please contact Ross Elliott of my staff at 202/260-8551. Thank you for your interest in the safe management of hazardous waste.

Sincerely,

for Bruce Weddle
Acting Director
Office of Solid Waste

cc: Mr. Andrew B. Wallace, Environmental Dynamics, Inc.

Enclosures (2)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9452.1996(01)

JUN - 4 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Stephen T. Smith
Koppers Industries, Inc.
436 Seventh Avenue
Pittsburgh, PA 15219-1800

Dear Mr. Smith:

Thank you for your letter of May 10, 1996 regarding the clarification of requirements involving the counting of wood preserving waters that are hazardous waste and the completion of the Biennial Report as required under the Resource Conservation and Recovery Act (RCRA) of 1976. Specifically, you request that the Biennial Report and instructions be corrected to comply with the requirements of 40 CFR 261.5(c)(3) for determining generator status and the requirements at 40 CFR 262.41 for the Biennial Report.

You stated in your letter that hazardous wastewater from wood preserving plants (listed as F032, F034, and F035) is either returned to the preservative process for reuse or is pretreated and discharged to a POTW. You refer to provisions at 40 CFR 261.5(c)(3) to support your assertion that these hazardous waste waters are reused and are therefore not subject to the quantity determination of part 262 and should not be reported on the Biennial Report.

The provisions at 40 CFR 261.5(c)(3) pertain to making a quantity determination and explain what must be counted when determining generator category. These provisions state that "when making the quantity determination of this part and 40 CFR part 262, the generator must include all hazardous waste that it generates, except hazardous waste that....is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 40 CFR 261.6(c)(2)..."

If the process you describe meets the conditions of 40 CFR 261.5(c)(3), i.e., the material is recycled without prior storage or accumulation in an on-site process subject to regulation under 40 CFR 261.6(c)(2), then the waste is not subject to the quantity

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determination; nor is it required to be counted in determining generator status. However, if the waste is stored or accumulated prior to reuse, it is subject to the quantity determination and must be counted when determining generator status. Should this process not meet the conditions of 40 CFR 261.5(c)(3), it may meet the conditions of 40 CFR 261.5(d)(3), which states that "in determining the quantity of hazardous waste generated, a generator need not include spent materials that are generated, reclaimed and subsequently re-used on site, **so long as such spent materials have been counted once.**" (Emphasis added.)

I understand from my staff that they are currently working with Pam Rogers at AWPI to set up a meeting with you to discuss Biennial Report requirements pertaining to the counting of hazardous wastewaters.

Thank you for your continued interest in this issue.

Sincerely,

Michael Shapiro, Director
Office of Solid Waste

FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 10 1996

9452.1996(02)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Scott Kuhn, Manager
Corporate Compliance Communications
Laidlaw Environmental Services, Inc.
220 Outlet Pointe Boulevard
Columbia, South Carolina 29210

Dear Mr. Kuhn:

Thank you for your letter of June 6, 1996, in which you requested a clarification of an apparent conflict between two sections of the hazardous waste regulations: the waste characterization requirements in 40 CFR 262.11 and the LDR notification requirements in 40 CFR 268.9(a). This letter will also serve as a followup to a telephone conversation held on July 15, 1996, between you and Allen Maples, of my staff.

Though you mention that a possible conflict exists between these two sections of the regulations, your question was more related to which waste code should be used on the RCRA manifest. You referred to the situation where a waste stream has a specific listing code and also exhibits a characteristic for one of the constituents which make up the waste code. To use your example of wastewater treatment sludges from electroplating operations, this waste stream has the **listing** code of F006, but is also characteristic for cadmium, which would have the **characteristic** waste code of D006.

Your specific question was which of these waste codes should then appear on the RCRA Manifest? For manifest purposes, it really does not matter which waste code is shown, the listing waste code or the characteristic waste code. The RCRA manifest is primarily a shipping and transportation document and what is important is that the waste code selected most accurately identify the waste for emergency response purposes. Therefore, the generator/shipper is in the best position to decide which waste code to use. Since state regulations might differ, it would be important to contact the State agency where the waste shipment is being sent.

With regard to how waste codes should be entered on the manifest, please note that information in the section of the Uniform Hazardous Waste Manifest for Waste Number (section I) is not required by EPA regulations, but that States might require one or more waste codes in this section. The RCRA waste code(s) may be part of the proper U.S. DOT shipping description and should be entered in Line 11, as required by DOT (see 40 CFR 172.203). If you have additional questions about the U.S. DOT regulations, please contact the DOT helpline at (202) 366-4488.

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Thank you for your interest in the RCRA hazardous waste program. I hope that this letter has helped to clarify your questions. If you have any additional questions, please contact Allen Maples, of my staff, at (703) 308-8798.

Sincerely yours,

David Bussard, Director
Hazardous Waste
Identification Division

9453 – PRE-TRANSPORTATION REQUIREMENTS

Part 262 Subpart C

AUG 31 1982

MEMORANDUM

SUBJECT: 90-Day Accumulation of Hazardous Waste in Tanks

FROM: John H. Skinner
Acting Director
Office of Solid Waste (WH-562)

TO: Thomas W. Devine
Director
Air and Waste Management Division, Region IV

This is in response to your memorandum of June 29, 1982 regarding the 90-day accumulation of hazardous waste in tanks. In your memo, you requested headquarters' rationale for allowing generators to accumulate hazardous waste in tanks under 40 CFR 262.34. You pointed out that accumulation in tanks is virtually the same activity as storage in tanks, and therefore it seems inconsistent to apply different standards to the two activities.

Section 262.34 allows generators who accumulate hazardous waste as a normal part of their manufacturing or industrial processes to do so for short periods of time without obtaining a RCRA permit for storage or qualifying for interim status. This distinction between accumulation and storage was made for practical and administrative reasons. EPA determined that generators should not be burdened with the RCRA permitting process for short-term accumulation that is incidental to their operations. We allow generators to accumulate hazardous waste in both containers and tanks because we believe that if generators adhere to the standards in Part 265 Subparts I and J that they can safely accumulate hazardous waste for 90 days or less without having to obtain a permit. The requirements of §262.34 were designed to be consistent with both goals of relieving generators of RCRA permitting procedures applicable to storage facilities while ensuring protection of human health and the environment during accumulation.

Regarding your comment that "an empty tank has not been defined", the preamble to the January 11, 1982 final rule on 90-day accumulation (47 FR 1250) gives the following guidance: "A tank will be considered 'empty' when it's contents have been drained to the fullest extent possible. Since many tank

designs do not allow for complete drainage due to flanges, screens or syphons, it is not expected that 100% of the wastes will always be removed." As you suggest, there may be cases where a tank is never "completely empty." We recognize this problem but believe a deviation from "completely empty" is a satisfactory compromise in a real world of day-to-day operations.

Finally, you stated in your memo that the preamble to §262.34 in the May 19,1980 FR said "Part 264 requirements will be added" as requirements for accumulation. The preamble states that "Part 262 may be amended again to include the Part 264 final standards for tanks when they are promulgated." We have no immediate plans to amend §262.34 to incorporate Part 264 Subpart I and J standards for storage in containers and tanks. However, we are re-evaluating the 90-day rule as part of the Regulatory Impact Analysis (RIA). We intend to complete our analysis of the 90-day rule, including an analysis of standards for accumulation in tanks, within 12 months.

Please call Amy Mills or my staff at 382-4755 if you have further questions.

MAY 18 1984

Mr. Michael A. Verde
Technical Sales Representative
CECOS International
7321 Kenmore Avenue
Buffalo, New York 14207

Dear Mr. Verde:

Thomas Charlton of the Department of Transportation has forwarded a copy of yor letter of April 2, 1984, to me and has asked me to respond to your question regarding the applicability of EPA's hazardous waste marking requirement (§262.32) to State regulated wastes.

PCB's are not defined as hazardous wastes in 40 CFR Part 261 - Identification and Listing, therefore they are not subject to EPA's marking requirement under Section 262.32. On the other hand, States may have a regulatory program which is more stringent or broader in scope than the Federal program. Many States have expanded their universe of regulated wastes to cover additional wastes not defined as hazardous under the Federal program. In addition to regulating a broader range of wastes, some States also require that other regulations such as marking requirements apply to State regulated wastes. Thus, New York State may require that containers of PCB's be marked according to EPA's requirements under §262.32 even though the wastes are not included in the Federal universe of hazardous waste under RCRA.

If you have questions regarding New York State's requirements for hazardous wastes, I would suggest that you write to Mr. Norman H. Rosenchuck, Director, Division of Solid Waste, Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-0001 or call him at 518-457-6603. If you have

other questions on EPA's regulations, please write to me at the following address:

Permits and State Programs Division (WH-563)
U.S. Environmental Protection Agency
401 M Street SW
Washington, DC 20460

As an alternative source of help on questions of this type, you may wish to call the RCRA/Superfund Hotline on 800-424-9346.

Sincerely yours,

/s/

Bruce R. Weddle
Acting Director
Permits and State Programs Division
(WH-563)

cc: Norman Nosenchuck
Thomas Charlton

WH-563/CBarley/08 MAY 84/382-4697/CD's Disk #12 Doc #21
REWRITTEN: Barley/5-9-84/cd:Thompson/5-11-84/cd:
bcc: Dan Derkics:Bruce Weddle:Thompson:Barley:Levy

RCRA/SUPERFUND HOTLINE SUMMARY

MAY 84

3. F006 (wastewater treatment sludges from electroplating operations) is shipped to a company that puts the waste right into a smelter to dewater it. The dewatered waste is held until a load is accumulated and then shipped to a metals reclaimer. The fines produced from smelting are held and later sent off-site for disposal.

   A) Does the smelting company need a permit for storage?
   B) Is the dewatered waste still F006?
   C) Must the smelting company be a storage facility to hold the dewatered sludge after smelting?
   D) Are the fines from smelting subject to storage standards since they were derived from F006 which is subject to storage standards when stored off-site from the generator?

   A) Since the smelting company puts the waste right into the smelter for recycling, no storage permit is needed to accept the F006.
   B) No; the material after reclamation is no longer considered a solid waste.
   C) Since the dewatered sludge is no longer a waste, a storage permit is not needed.
   D) No; the production of the fines is viewed as the generation of F006 per 261.3(c)(2) and the fines can be accumulated for less than 90 days per 262.34 without needing a storage permit.

   Source: Matt Straus
   Research: Denise Wright

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

DECEMBER 84

6. A company owns several facilities which generate waste solvents. The company is considering using an outside contractor with a mobile recycling unit to go to each facility on a regular basis to recycle the waste solvents on-site. The contractor would generate from the recycling process a useable solvent product and still-bottom wastes. The contractor would leave both the product solvent and still-bottom waste at the facility in which the recycling took place. Under RCRA, who is considered the generator of the still-bottom wastes; the facility or the contractor with the mobile unit? Also, would the generator be allowed 90-day accumulation of the still-bottom wastes per §262.34?

   This situation where one person owns and operates a manufacturing unit and another person is used to reclaim spent solvents and spent catalysts is addressed in the October 30, 1980 Federal Register (45 FR 72024). The definition of generator in §260.10 is "... any person, by site, whose act or process produces hazardous waste..." Thus, both the owner/operator of the facility and the operator of the mobile recycling unit could be considered generators of the still-bottom hazardous wastes. However "the Agency ... recommends that where two or more parties are involved, they should mutually agree to have one party perform the generator responsibilities. Where this is done, the Agency will look to that designated party to perform the generator duties. If EPA does not know which party by mutual agreement is appointed to carry out the generator duties, the Agency will ... initially look to the operator of the unit to fulfill the generator duties..." (45 FR 72020). The 90-day accumulation period would apply in this case per §262.34.

   Source: Carolyn Barley (202) 382-2217
   Research: Gordon Davidson

WH-562B/JBELLIN/pes/475-8551/2-15-85/Disk JB0120

MAR 12 1985

Dr. Alex Katona
Occidental Chemical Corporation
360 Rainbow Boulevard South
Box 728
Niagara Falls, New York 14302

Dear Dr. Katona:

Thank you for your letter of February 5, 1985, which was referred to me by Dr. Bellin. In your letter, you state that the Grand Island, NY Research and Development Laboratory Complex of Occidental Chemical Corporation performs analytical work on samples that contain TCDD. The laboratory, therefore, generates laboratory wastes consisting of used rubber gloves, contaminated disposable clothing, used disposable glassware, etc. that are contaminated with TCDD at the ppt level. You requested clarification of certain questions relating to RCRA permitting requirements.

Before we respond to your specific questions, however, we would like to clarify the scope of the listing. In particular, wastes resulting from laboratory operations such as contaminated clothing, glassware, etc., are not currently subject to the dioxin hazardous waste listing.* Unused portions of the specific EPA hazardous wastes that are analyzed by a laboratory however, are EPA hazardous waste and are subject to the new regulation. With this in mind, the answers to your questions are as follows:

- Is the exclusion (40 CFR 262.34) from the RCRA permitting requirements available for generators who accumulate dioxin-containing hazardous waste on-site for less than 90 days?

  - Yes. Generators who store their wastes in either a tank or a container and are able to ship their waste off-site within 90 days can take advantage of the requirements in 40 CFR 262.34 (i.e., they do not need a RCRA permit).

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* Although these wastes are not currently included in the January 14, 1985 dioxin listing, we would suggest that you manage them in a very careful manner (i.e., as if they were listed wastes).

- If we determine that we cannot realistically take advantage of the less-than-90-day-accumulation-time exclusion for dioxin-containing waste, we will also be required to submit a Part A application for Interim Status storage of the other hazardous waste that we generate in the laboratory complex and which we have been shipping to date without need for an Interim Status permit?

  - No. Any waste that you are able to ship off-site within 90 days that is stored in either a tank or a container can still take advantage of he requirements in 40 CFR 262.34, whether or not you need a permit for any other part of your operation.

I hope this answers your questions. If you need further clarification, you may wish to call Dr. Bellin at (202) 382-4787.

Sincerely,

Matthew A. Straus
Chief
Waste Identification Branch (WH-562B)

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

NOVEMBER 85

4. Hazardous Waste Fuel Marketers

Section 266.34 outlines the requirements of Hazardous Waste Fuel Marketers. This section states that generators who "market" fuel directly to burners are subject to prohibitions under Section 266.31(a), notification under §3010, applicable storage requirements under §262.34 and A through L of Parts 264 and 265, and certain recordkeeping and reporting requirements.

A generator ships hazardous waste fuel to a burner without the occurrence of a monetary transaction. Will the generator be considered a marketer under Section 262.34?

Yes; the absence or presence of monetary transactions under Part 266 has no bearing on a marketer's status. The act of initiating a shipment of hazardous waste from a generator directly to a burner for legitimate energy recovery constitutes marketing. A hazardous waste fuel blender/processor initiating a shipment to a burner for energy recovery is also marketing hazardous waste fuel.

Source: Bob Holloway (202) 382-7936

DEC 5 1985

Mr. Francis Torres-Fernandez
Cepeda, Sanchez-Betances & Sifre
Attorneys at Law
Suite 700
Banco Central Building
Hato Rey, Puerto Rico 00917-1866

Dear Mr. Torres-Fernandez:

I am responding to your letter of November 2, 1985, in which you raised the following two issues:

1. Can a generator of hazardous wastes that operates a TSD facility isolate from its waste stream a particular hazardous waste and accumulate it on-site in a tank for a period not exceeding 90 days and thus benefit from the provisions under 40 CFR 262.34, although in the past it handled that waste in the same TSD unit it operates?

2. Can an operator who owns a tank or a container having interim status use that same tank solely to accumulate hazardous waste under 40 CFR 262.34 without having to comply with the RCRA provisions other than those specified therein?

In both situations, the answer is "yes". In the first situation we assume the tank used to accumulate the "isolated" waste stream was previously used for accumulating hazardous waste for more than 90 days, but it will no longer be used for that purpose. The applicant should check with the Regional Office (or authorized State) to determine the closure requirements for their facility.

Where facilities previously filed a RCRA permit application that included the units that are now to be used for less than 90-day accumulation, the applicant should notify the Regionl Office

(or authorized State) about the change in operation so the Agency will not include this activity in the permit. Also, the applicant should make it clear to on-site personnel, via a notice or sign, that these units can not be used for accumulating hazardous waste for more than 90 days and they must be operated in compliance with the provisions of 40 CFR 262.34.

Please contact me if you have any further questions.

Sincerely,

Peter Guerrero
Chief, Permits Branch
Permits and State Programs Division

cc: Barry Tornick, Region II, w/incoming

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

DECEMBER 85

Satellite Accumulation

3. Section 262.34(c) codifies the satellite accumulation provision promulgated in the December 20, 1984, Federal Register (49 FR 49568). This provision allows a generator to accumulate up to 55 gallons of hazardous waste (or one quart of acutely hazardous waste) in containers at or near any point of generation without a storage permit or interim status, and without complying with the provisions of §262.34(a) and (b). Does this provision allow the generator three days after the accumulation limit is exceeded to transport the excess waste to the designated 90-day storage area? When does the 90-day storage period begin, the day the accumulation limit is exceeded or the day the waste arrives in the designated §262.34 storage area?

   The satellite accumulation provision in 262.34(c) allows the generator three days after the 55-gallon accumulation limit is exceeded to transport the excess waste to the §262.34(a) storage area. Section 262.34(c) states that a generator who accumulates waste in excess of the accumulation limits "must, with respect to the amount of excess waste, comply within three days with paragraph (a) of this section or other applicable provisions of this chapter." Section 262.34(a) states that "a generator may accumulate hazardous waste on-site for 90 days or less without a permit or interim status provided that the requirements of §262.34 (a)(1)-(4) are met." Thus, within three days of accumulating over 55 gallons, the generator is required to comply with all applicable RCRA requirements with regard to that excess, including §262.34(a). The 90-day storage period begins as soon as the three day period has expired when the excess amount becomes subject to the §262.34(a) requirements.

   Source: Chaz Miller (202) 382-2220

April 16, 1986

Mr. W. Ernst Minor, Vice President
Government Affairs
Solid Tek Systems Incorporated
4412 Aicholtz Road
Cincinnati, Ohio 45245

Dear Mr. Minor:

Thank you for your letter of February 24, 1986, regarding our regulatory program pertaining to the solidification/fixation of containerized hazardous liquids.

You expressed concern about the permitting requirements applicable to generators who use solidification or fixation to treat hazardous waste which is accumulated on-site for 90 days or less in conformance with 40 CFR §262.34. The current rules do not require a permit for a generator who treats a waste when it is in an accumulation tank or container in compliance with §262.34. As the Agency has explained in the preamble to the recent rule-making on small quantity generators, nothing in §262.34 precludes a generator from treating waste in an accumulation tank or container covered by §262.34 and Subparts J or I of Part 265. See 40 Federal Register 10168 (March 24, 1986). Therefore, a generator is not required to have a permit or interim status if the only on-site management the generator performs is solidification/fixation (or other treatment) in an accumulation tank or container during the period of accumulation.

You also inquired about a contradiction that you perceive in our regulations. You stated that §262.10(b) allows a generator to treat, store, or dispose of hazardous waste on-site and only comply with specific sections of part 262. Therefore, you believe that §262.10(b) may allow on-site solidification/fixation without a permit. On the other hand, you point out that the "Note" after §262.10(f) states that a generator who treats, stores, or disposes of hazardous waste on-site must meet applicable standards and permit requirements.

A generator who treats, stores, or disposes on-site must comply with all applicable standards and permit requirements in 40 CFR Parts 264, 265, 266, and 270. Section 262.10(b) provides that a generator who treats, stores, or disposes on-site must only comply with certain of the generator (Part 262)

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requirements for ignitable, reactive, or incompatible waste under Subparts I and J of Part 265 (referenced by §262.34).

Finally, EPA notes that treatment often renders waste less or nonhazardous, or more amenable for further treatment, recycling, etc. The hazard posed by waste shipped off-site can thereby be reduced, and recycling can be promoted. A requirement to obtain a permit for any on-site treatment would very likely discourage such practices.

2. Treatment in containers. Although nothing in §262.34 specifically precludes treatment in containers, 90-day generators are subject to the container management standards of Part 265, Subpart I. One provision of Subpart I (§265.173(a)) requires that containers be kept closed during storage, except when adding or removing waste. Other sections of Subpart I provide that containers must be handled to prevent leaks or ruptures (§265.173(b)), and address hazards pose by incompatible, reactive, or ignitable waste (§§265.172, 265.176, and 265.177). These requirements limit the extent that treatment could occur in containers. The examples you provided (burning in open drums or tanks) would be considered open burning under §260.10, and as such, would generally be recognized as a method of disposal. Disposal does change a facility's regulatory status, and is not allowed under §262.34. Further, open burning (except for certain explosive wastes) is prohibited under §265.382. Finally, if there are cases of treatment that do not appear to be adequately regulated under §262.34, EPA can take action to mitigate an imminent hazard under RCRA Section 7003.

Please feel free to contact Michael Petruska at 475-6676 if you have any further questions.

Sincerely,

Marcia Williams, Director
Office of Solid Waste

bcc: James Scarbrough, Chief
Region IV Residuals Management Branch
Hazardous Waste
Division Directors, Regions I-X

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RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

APRIL 86

2. Small Quantity Generator Accumulation

On March 24, 1985, EPA promulgated regulations allowing a generator to operate two distinct on-site accumulation areas for wastes generated at different monthly rates (51 FR 1014).

A generator has two accumulation areas on-site. In one area, the generator stores waste identified as small quantity generator (SQG) waste. According to §262.34(d), an SQG that generates between 100 and 1000 kg. in a calendar month may store this waste on-site for up to 180 days without a permit or interim status provided that the quantity of waste accumulated never exceeds 6000 kg. The SQG waste can be stored for 270 days if it is transported 200 miles or more.

In another area at the same site, the generator stores large quantity generator (LQG) waste which was produced during the months the generator exceeded the 1000 kg/month limit. A LQG may store this waste on-site for up to 90 days without a permit or interim status. Must the generator count waste stored in his LQG accumulation area when determining if the 6000 kg. accumulation limit is exceeded in (§262.34(d)(1))?

Section 262.34(d) states that a generator who generates greater than 100 kg. but less than 1000 kg. of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or interim status provided that, among other requirements, the quantity of waste accumulated on-site never exceeds 6000 kg. This provision applies only to waste streams produced during calendar months when less than 1000 kg is generated. If more than 1000 kg is generated, it is fully regulated as large quantity generator waste. The 6000 kg cap for the SQG waste stream applies to all waste accumulated on-site. "On-site" means all contiguous property (§260.10). The definition does not refer to "units" or "accumulation areas". Therefore, the generator must count all waste, including both SQG and LQG that is on-site, in order to determine compliance with §262.34(d)(1).

Source: Bob Axelrad (202) 382-5218
Maureen Smith (202) 382-7703
Research: Ingrid Rosencrantz

9453.1986(03)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 17 1986

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: On-site Treatment

FROM: Marcia Williams, Director
Office of Solid Waste

TO: Harry Seraydarian, Director
Toxics and Waste Management Division,
Region IX

The purpose of this memo is to respond to your April 9, 1986, request for clarification of a recent statement with respect to permitting of treatment activities occurring in a generator's accumulation tanks or containers.

As noted in your memo, the preamble to the final small quantity generator regulations promulgated on March 24, 1986, states that "... no permitting would be required if a generator chooses to treat their hazardous waste in the generator's accumulation tanks or containers in conformance with the requirements of Section 262.34 and J or I of Part 265." This interpretation is applicable to all generators subject to Section 262.34.

This statement is based upon a legal interpretation of what the existing rules allow at this point in time rather than a deliberate and significant shift in Agency policy with respect to accumulation or treatment. The preamble discussion continues, "Nothing in Section 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision (emphasis added)." The interpretation is predicated on the fact that the Agency has allowed certain types of storage to occur at generation sites (i.e., accumulation for periods of 90, 180, or 270 days, depending on generator type) without the requirement for permitting or interim status. Since the Agency has never developed standards specific to treatment in tanks and containers, the same technical standards applicable to such storage (i.e., Subpart I or J of Part 265) would also be applicable to treatment.

In choosing to communicate this legal interpretation in the small quantity generator final rule, OSW sought to avoid forcing small firms to stop conducting beneficial treatment of small quantities of hazardous waste in their accumulation tanks and containers by requiring them to either cease treatment or expend significant resources to obtain a RCRA permit. We do not believe that allowing some treatment to occur while wastes are being accumulated prior to subsequent management, in full compliance with applicable tank or container standards, is currently prohibited under the existing regulatory scheme.

With respect to the limits of treatment which may occur without a permit on-site, this legal interpretation only applies to treatment occurring in a generator's own accumulation tanks or containers subject to, and in compliance with, Section 262.34. This means that the tank or container in which treatment occurs must be appropriately marked with the date the accumulation period began, the tank or container must be completely emptied every 90 days (or 180/270 days for generators of 100-1000 kg/mo), and must be operated in strict compliance with Subparts I or J of Part 265. Any amendments to these Subparts which may be promulgated in the future would also apply. Treatment in other than tanks or containers (e.g., incineration, land treatment or treatment in surface impoundments) would continue to require a permit.

We would expect that generators that treat hazardous waste on-site in tanks or containers and who have obtained interim status, a full permit, or have a Part B application pending might wish to exit the permit process on the basis of this interpretation. Since such on-site treatment without a permit has never been legally precluded under RCRA, those who now wish to avail themselves of this interpretation may do so, provided they comply with all applicable rules respecting withdrawal of permit applications. If however, a unit that now qualifies for Section 262.34 has, in the past, been subject to regulation because it did not qualify for the Section 262.34 exemption, the Region should determine whether the unit has residual obligations under Part 264 or 265 (e.g., closure requirements). In addition, the fact that such a unit was once under interim status provides a basis for action under Section 3008(h), where appropriate.

However, we would caution these generators, as well as those who may wish to alter their accumulation practices in order to conduct treatment without a permit, not to rely upon the continued existence of this legal interpretation in making process changes requiring substantial capital outlays. Specifically, OSW is now considering publication

of an advanced notice of proposed rulemaking that would seek comment on a number of issues related to the 90/180/270 day accumulation provisions. Should the Agency decide at some time in the future to either modify the 90 day accumulation rule in some manner or to write specific standards for treatment, the obligations of generators with respect to treatment in accumulation tanks could change.

cc: Regional Division Directors
Eileen Claussen
Bruce Weddle
Jack Lehman

July 25, 1986

Kevin A. Lehner
RMT, Inc.
Suite 124
1406 East Washington Avenue
Madison, Wisconsin 53703

Dear Mr. Lehner:

Thank you for your letter of April 4, 1986, requesting clarification of the Agency's recent statement with respect to permitting of treatment activities occurring in a generator's accumulation tanks or containers.

As noted in your letter, the preamble to the final small quantity generator regulations promulgated on March 24, 1986, states that "... no permitting would be required if a generator chooses to treat their hazardous waste in the generator's accumulation tanks or containers in conformance with the requirements of Section 262.34 and J or I of Part 265." Although this statement did appear in the small quantity generator regulations, it is applicable to all generators who accumulate waste in compliance with Section 262.34.

The following information may help to place this interpretation in context and assist you in advising your clients as to the most appropriate course of action. First, you should be aware that this statement is based upon an interpretation of what the existing rules allow at this point in time rather than a deliberate and significant shift in Agency policy with respect to accumulation or treatment. As the preamble states, "Nothing in Section 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision." The interpretation is predicated on the fact that the Agency has allowed certain types of storage to occur at generation sites (i.e., accumulation for periods of 90, 180, or 270 days, depending on generator type) without the requirement for permitting or interim status. Since the Agency has never developed standards specific to treatment, the same technical standards applicable to such storage (i.e., Subpart I or J of Part 265) would also be applicable to treatment.

Thus, we do not believe that allowing treatment to occur while wastes are being accumulated prior to subsequent management, in full compliance with all §262.34 requirements,

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including applicable tank or container standards, is currently prohibited under the existing regulatory scheme.

Since the term "accumulation" is not defined in the regulations, the Agency would not distinguish between accumulation for handling other than treatment and accumulation for the sole purpose of on-site treatment. Thus, each of your process descriptions do not appear to be subject to permitting at this time, provided all of the Section 262.34 requirements are met.

With respect to the limits of treatment which may occur without a permit on-site, this interpretation only applies to treatment occurring in a generator's accumulation tanks or containers subject to, and in compliance with, Section 262.34. This means that the tank or container in which treatment occurs must be appropriately marked with the date the accumulation period began, the tank or container must be completely emptied every 90 days (or 180/270 days for generators of 100-1000 kg/mo), and must be operated in strict compliance with Subparts I or J of Part 265. Treatment in other than tanks or containers (e.g., incineration, land treatment or treatment in surface impoundments) would continue to require a permit.

We would expect that generators that treat hazardous waste on-site in tanks or containers and who have obtained interim status, a full permit, or have a Part B application pending might wish to exit the permit process on the basis of this interpretation. Since such on-site treatment without a permit has never been precluded under RCRA, those who now wish to avail themselves of this exemption may do so, provided they comply with all applicable rules respecting withdrawal of permit applications. Specifically, these facilities will need to comply with Part 264 or 265 facility closure requirements unless they can demonstrate that their treatment tank or container has always been operated in strict conformance with the requirements of Section 262.34. In addition, these generators would also be subject to Section 3008(h) corrective action provisions.

Finally, we would also caution those generators who may wish to alter their accumulation practices in order to conduct treatment without a permit, not to rely upon the continued existence of this exemption, particularly where making process changes requiring substantial capital outlays may be involved. Specifically, EPA has recently published an advance notice of proposed rulemaking that discusses eliminating the accumulation exemption for large quantity generators. Should the Agency decide at some time in the future to either modify the accumulation rule in some manner or to write specific standards for treatment, the obligations of generators with respect to treatment in accumulation tanks could change.

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If I can be of any further assistance, or if you have additional questions, please do not hesitate to contact me.

Sincerely,

Marcia E. Williams
Director
Office of Solid Waste

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RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 86

4. Releases from 90-Day Accumulation Tanks

Are releases of hazardous waste from 90-day accumulation tanks (40 CFR 262.34) regulated under RCRA?

Such releases are not generally covered by the RCRA regulations. The generator is not subject to corrective action under Section 3004(u) of RCRA unless the generator is engaged in other activities which would require that he obtain a permit. Section 3004(u) only applies to permitted facilities. Section 3008(h) administrative orders only apply to facilities with interim status. Therefore, the existing RCRA corrective action authorities do not apply to releases from 90-day accumulation tanks unless other units at the facility require interim status or a permit.

A leaking 90-day tank which is not cleaned up could be considered open dumping under RCRA and could be covered by Section 7003, the imminent hazard provision of RCRA.

EPA published an Advance Notice of Proposed Rulemaking (ANPRM) in the July 14, 1986 Federal Register (51 FR 25487) requesting comments on the possibility of requiring permits for 90-day storage tanks.

Source: Dave Fagan (202) 382-4740
Research: Betty Wilson

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

NOVEMBER 86

3. Prohibition on Storage of Restricted Wastes

The land disposal restrictions rule for listed solvents and dioxin wastes was promulgated in the November 7, 1986 Federal Register (51 FR 40572). 40 CFR 268 Subpart E establishes prohibitions on storage of restricted hazardous wastes. The wastes restricted as of November 8, 1986 are those meeting the F001 through F005 listings under §261.31 except for wastes generated by a small quantity generator of 100 - 1000 kg/mo, or a CERCLA response action or corrective action required under RCRA, or a solvent-water mixture or sludge, solid, or soil containing less than one percent total F001 through F005 constituents listed in Table CCWE of §268.41 (51 FR 40642). According to §268.50(a)(1), generators who store hazardous waste solely for the purpose of accumulation of quantities as necessary to facilitate proper recovery, treatment, or disposal beyond the 90-day limit set in §262.34(a) may qualify for interim status under §270.70 and must apply for a permit. Section 268.50(a) does not mention the possibility of obtaining a 30-day extension due to extenuating circumstances, as provided in §262.34(b). Does this mean that the option of obtaining a 30-day extension no longer exists for generators storing restricted wastes?

No, the generator may still qualify for an extension under §262.34(b) if the waste must remain on-site for more than 90 days because of unforeseen, temporary, and uncontrollable circumstances. The new land disposal restrictions regulations do not delete or amend §262.34(b), but rather impose new restrictions on storage that apply in addition to the requirements in §262.34. Section 262.34 specifies the circumstances under which a generator can store hazardous wastes without interim status or a permit, while §268.50 requires that storage of prohibited wastes during that time must be for the specific purpose stated above. In addition, according to §270.10(e)(1)(ii), the generator has thirty days from the date he first becomes subject to Part 265 standards to submit a Part A permit application, so it is conceivable that a generator may obtain an extension and still apply for a permit. The final decision to grant an extension under §262.34(b) on a case-by-case basis still rests with the Regional Administrator.

Source: Mitch Kidwell (202) 382-4805
Research: Jennifer Brock

DEC 5 1986

Ms. Janet L. Weller
Cleary, Gottlieb, Steen and Hamilton
1752 N Street, N.W.
Washington, DC 20036

Dear Ms. Weller:

Thank you for your letter of November 19, 1986, requesting an interpretation of the activities allowed under 40 CFR 262.34.

In your letter, you refer to the preamble discussion in the March 24, 1986 final regulations for small quantity generators which states that no permit would be required if a generator chooses to treat its hazardous waste in a tank or container that is fully in compliance with all of the requirements imposed by §262.34. You are correct in noting that this interpretation applies to all generators subject to §262.34.

Enclosed for your information is a memo which further clarifies the scope and limitations of this interpretation. If you have any further questions on this issue, please feel free to contact Bob Axelrad, of my staff, at (202) 382-4769 or Maureen Smith in the Office of General Counsel at (202) 382-7703.

Sincerely,

/s/ Marcia Williams

Marcia Williams
Director
Office of Solid Waste

Enclosure

DEC 2 4 1986

Mr. J. Alex Barber
Director
Division of Waste Management
Commonwealth of Kentucky
Department for Environmental Protection
Fort Boone Plaza
18 Reilly Road
Frankfort, Kentucky 40601

Dear Mr. Barber:

My apologies for the delay in getting back to you on your letter of August 27, 1986, concerning the treatment of hazardous waste in a generator's accumulation tanks and containers.

As you know, the Agency stated in the preamble to the final small quantity generator regulations in the March 24, 1986, Federal Register that treatment could occur in a generator's accumulation tanks and containers without a permit, provided the treatment was performed strictly in accordance with 40 CFR 262.34. While I can appreciate the points you raise in your letter with respect to consistency of interpretation, I believe that this policy discussion was, and remains, appropriate for several reasons.

First, while it appears on the surface to be a major shift in policy, it represents a long-standing opinion of our Office of General Counsel that consistency dictates that treatment and storage which is regulated identically at permitted facilities also be regulated identically at generation sites. At this time, we do not have special treatment standards in the regulations for any treatment activities except for incinerators. Thus, when we permit treatment facilities, or permit storage facilities, the identical standards apply. If the storage or treatment occurs in a tank, the tank standards must be met. If the activity occurs in a container, the container standards apply. It is true that additional permit requirements, including financial responsibility and corrective action, are imposed at both treatment and storage facilities where permitting is required and I fully agree that this appropriate.

While we have differentiated in the regulations between long term storage and accumulation at generation sites, they are nevertheless at their core identical activities. We have chosen to exempt from permitting requirements (as well as associated financial responsibility and corrective action provisions) storage (i.e., accumulation) which occurs at generation sites for less than 90 days (or 180 or 270 days in the case of small quantity generators). Since the regulations do not impose additional standards for treatment when it occurs in a storage facility, there is no basis for regulating treatment at an exempt storage facility.

Whether or not the §262.34 exemption from permitting for storage, as well as treatment, is appropriate is an issue which we are now beginning to re-examine. As you know, we published an advance notice of proposed rulemaking on July 14, 1986, which sought comment on various aspects of the exemption. Should we change the §262.34 regulations for on-site accumulation, it would of course affect the status of treatment as well. Similarly, if we develop treatment standards for additional activities which we believe warrant special standards, these activities would also lose their exemption from permitting.

We ultimately chose to communicate this legal interpretation in the small quantity generator regulations because we believe that it is essential that treatment not be unduly discouraged under our regulations, particularly at a time when disposal options are being severely limited under a variety of statutory and regulatory provisions. In particular, we were concerned that a substantial amount of treatment was occurring at generator sites which were unregulated prior to the September 22, 1986 effective date for small quantity generator regulations. It was important to clearly state the Agency's position on this matter.

As a practical matter, although this policy will allow some treatment which has been carried out without a permit up to this point to continue, we believe it will have little or no impact at permitted or interim status treatment facilities. While permitted or interim status treatment units at generator sites may now become strictly accumulation units and thus exit the permit process, we would assume that these tanks or containers have not been operated strictly in accordance with the accumulation provisions in the past (e.g., emptied every 90 days) and thus have been legitimately and appropriately brought into the permit system. Furthermore, exiting the permit process must be accomplished strictly in accordance with the procedures already established (e.g., in compliance with the closure rules).

Again, let me assure you that I understand your misgivings with respect to this discussion. However, I must also point out that it is our position that this is and has been the legal situation with respect to treatment in accumulation tanks and containers since the §262.34 provisions were promulgated.

I hope that this has helped to clarify our position on this issue. If you wish to discuss the issue in more detail, please feel free to contact Maureen Smith in the Office of General Counsel at (202) 382-7703 or Bob Axelrad, of my staff, at (202) 382-4769.

Sincerely,

/s/

Marcia Williams
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9453.1987(01)

FEB 11 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Brent C. Bradford
Executive Secretary
Utah Solid and Hazardous Waste Committee
288 North 1460 West
P.O. Box 16690
Salt Lake City, Utah 84116-0690

Dear Mr. Bradford:

Robert Duprey, Director of the Waste Management Division in Region VIII, forwarded your letter of January 8, 1987 to this Office. This letter contains our response to the questions you raised regarding issues relating to the Federal regulations for satellite accumulation under 40 CFR 262.34(c).

1. What is the intent of the Federal regulation with respect to the total amount (volume) of hazardous waste at each satellite accumulation area?

A generator may accumulate as much as 55 gallons of hazardous waste, or one quart of acutely hazardous waste, in containers at or near any point of generation where the waste initially accumulates and which is under the control of the operator of the process. EPA believes that only one waste would normally be accumulated at each satellite area, and that the exempted accumulation should be limited to 55 gallons. Although the total amount of hazardous waste that may be accumulated at any one satellite area is limited to 55 gallons, EPA intentionally did not limit the total number of satellite areas at a generator's facility nor specify the size of the containers to be used for accumulation (though we believe many facilities will use 55-gallon drums).

2. Does the Federal regulation limit the number of containers that can be placed at a satellite accumulation area?

The Federal regulations do not limit the number of containers that can be placed at a satellite accumulation area; rather, the regulations limit the total gallons accumulated to 55.

3. As described in the Utah proposed interpretation, will Utah be equivalent to the Federal regulations if the State allows more than 55 gallons of hazardous waste to be accumulated in more than one drum..., but require personnel training, preparedness and prevention and contingency plans?

No, a "satellite accumulation area" is limited to a total accumulation of 55 gallons, not 165 gallons as proposed.

4. Is Utah's interpretation of "three days" to mean three "working" days equivalent to EPA's intent?

Yes.

5. Will Utah be equivalent to EPA if we require that the date be placed on the full drum?

Yes, if a facility uses 55-gallon drums, then the date excess accumulation began must be clearly marked on the drum.

I trust that the above discussion answers your questions and concerns relating to the Federal satellite accumulation requirements. If not, Chet Oszman of my staff (202-382-4499) is willing to provide clarification as needed.

Sincerely,

Susan E Bromm

Susan E. Bromm
Acting Director
Permits and State Programs Division

cc: Kent Gray, State of Utah
Robert Duprey, Region VIII
Patricia Brechlin, Region VIII
Chester Oszman, PSPD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET—SUITE 500
DENVER, COLORADO 80202-2405

JAN 2 3 1987

Ref: 8HWM-WM

MEMORANDUM:

TO: Bruce R. Weddle, Director
Permits and State Programs Division (WH-563)

FROM: Robert V. Duprey, Director
Waste Management Division

SUBJECT: Satellite Accumulation in the State of Utah

The State of Utah has requested information from EPA Region VIII concerning the interpretation of the regulations on Satellite Accumulation. We are forwarding this request dated January 8, 1987, to you.

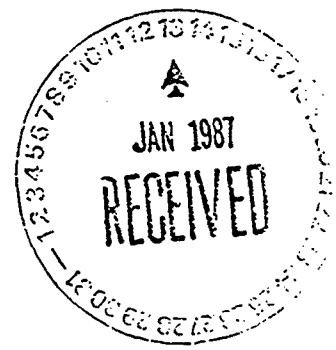
Please contact Ms. Patricia Brechlin of my staff at FTS 564-1507 if you have any questions pertaining to this matter.

Enclosure

cc: Kent Gray

Norman H. Bangerter
Governor

Suzanne Dandoy, M.D., M.P.H.
Executive Director



January 8, 1987
538-6170

Robert Duprey
EPA Region VIII
One Denver Place, Suite 1300
999 18th Street
Denver, Colorado 80202-2413

Dear Mr. Duprey:

The Utah Solid and Hazardous Waste Committee recently adopted regulations on Satellite Accumulation. These Satellite Accumulation regulations were adopted verbatim to the federal language. See 40 C.F.R. 262.34(c).

The ambiguity in both the January 3, 1983 and December 20, 1984 Federal Register preambles and in the final rule make it very difficult to produce a solid interpretation of these Satellite Accumulation regulations.

The Committee now is in the position of having regulations in-place that are open to several interpretations and thus present problems with enforceability.

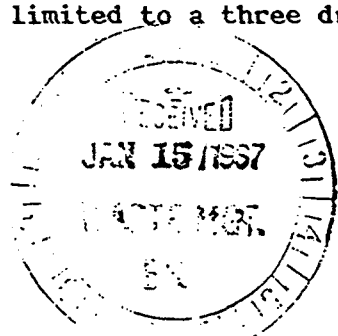
To deal with this problem, Utah is now considering clarifications to these regulations.

The following points of interpretation have been determined:

1. Two different types of satellite accumulation areas are proposed to be recognized:

   Type A: A low volume, slow accumulation point of generation which produces only one waste stream, and thus will utilize only one 55-gallon drum (as the accumulation container).

   Type B: A point of generation which produces multiple low volume, slow accumulation waste streams. Thus, more than one 55-gallon drum will be utilized, one for each waste stream. This multi-drum satellite accumulation area will be limited to a three drum maximum (165 gallons).



Kenneth L. Alkema, Director • Division of Environmental Health
288 North 1460 West • P.O. Box 16690 • Salt Lake City, Utah 84116-0690 • (801) 538-6121

2. Type A satellite accumulation areas will be subject only to the requirements as stated in 40 C.F.R. 262.34(c). Type B satellite accumulation areas will require generator compliance with all personnel training, contingency plans, and preparedness and prevention regulations at each Type B satellite accumulation area.

3. The date that will be placed on the drum will be the date the drum is full. It is this full drum that will be managed, not the "excess accumulation".

4. The generator must move the drum off-site or to central storage within three "working days" of the date that is placed on the drum.

5. The 90-day storage clock begins with the date which is placed on the drum.

6. Generators who utilize Satellite Accumulation areas must have a list available to all inspectors which identifies where hazardous waste is produced and the type of hazardous waste produced at each satellite accumulation area.

The Utah Solid and Hazardous Waste Committee is concerned with several points and requests a response to the following questions:

1. What is the intent of the federal regulation with respect to the total amount (volume) of hazardous waste at each satellite accumulation area?

2. Does the federal regulation limit the number of containers that can be placed at a satellite accumulation area?

3. As described in items 1 and 2 of the Utah proposal, will Utah be equivalent to the federal regulations if we allow more than 55 gallons of hazardous waste to be accumulated in more than one drum at a Type B satellite accumulation area, but require personnel training, preparedness and prevention and contingency plans?

4. Is Utah's interpretation of "three days" to mean three "working" days equivalent to EPA's intent? See 49 FR 12/20/84 page 49569.

5. Will Utah be equivalent to EPA if we require that the date be placed on the full drum? (ie. On which container is the date to be placed?)

Utah requests assistance from EPA on this issue. Please review the Utah proposal on satallite accumulation as outlined in this letter and provide the information by January 21, 1987. The Solid and Hazardous Waste Committee proposes to deal with this issue at it's meeting scheduled for February 4, 1987.

The Committee is interested in responding to industry concerns regarding their ability to handle hazardous wastes under this rule.

Before preparing your response, please call Kent Gray of this office to make sure that industries' concerns are adequately understood.

Questions or comments should be directed to Kent Gray of this office.

Sincerely,

Brent C. Bradford
Executive Secretary
Utah Solid and Hazardous Waste Committee

cc: Brian Buck, Chairperson; Solid and Hazardous Waste Subcommittee
Lou Johnson, EPA Region VIII
Jim Rakers, EPA Region VIII
Utah Solid and Hazardous Waste Committee Members

AMW:dt
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UNITED STATES ENVIRONMENTAL PROTECTION AGEN(
WASHINGTON, D.C. 20460

9453.1987(02)

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MAR 25 19[illegible]

Kathryn T. Allford
NL Treating Chemicals
NL Industries, Inc.
17402 Wallisville Road
Houston, TX 77049

Dear Ms. Allford:

Thank you for your letter of February 27, 1987. Your question concerning on-site treatment by a generator is covered by 40 CFR §262.34, the "90-day generator" rule. You are correct in your assessment of the rule. That is, a generator who otherwise meets the requirements of 40 CFR §262.34 need not obtain a RCRA hazardous waste permit to conduct treatment in a tank system. In your specific situation, you are well within the 90-day time limit, and as long as you meet the other requirements of §262.34, you should have no regulatory problems in setting up your treatment system.

If you have further questions, call Mike Petruska of my staff at (202) 382-4761.

Sincerely,

Marcia Williams

Marcia E. Williams
Director
Office of Solid Waste

July 1, 1987

Bernard E. Cox, Jr., Chief
Hazardous Waste Branch
Land Division
Alabama D.E.M.
1751 Federal Drive
Montgomery, AL 36130

Dear Mr. Cox:

This is in response to your letter of June 11, 1987, requesting clarification of EPA's policies concerning the regulatory status of on-site treatment by generators under 40 CFR §262.34. The following addresses, first, EPA's general policy in this area, and then the specific container-related examples you provided.

1. General policy. Although you appear to believe that EPA has amended its interpretation of the hazardous waste rules in March 1986, EPA actually discussed the relationships between storage treatment, and disposal in the preamble of the January 12, 1981 Federal Register. (See 46 Federal Register 2806-2808). In particular, EPA noted that treatment can occur either at a disposal or a storage facility and that the conduct of treatment does not affect a facility's regulatory status. (Id. at 2808.)[1/] Nothing in §262.34, or in preambles specifically related to the section (often called the "90 day generator" rule) preclude treatment. EPA believes that treatment activities should similarly not affect the regulatory status of 90-day generators.

Of course, EPA's most important consideration is protection of human health and the environment. In discussing treatment at storage facilities, EPA noted that the general requirement of §264.17, which applies to all storage facilities, addresses hazards posed by ignitable, incompatible, or reactive wastes. (See 46 Federal Register 2806; January 12, 1981.) EPA concluded, therefore, that the most serious hazards likely to be posed during treatment would be addressed under these provisions. (Id.) Ninety-day generators similarly must comply with special

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[1/]We view this preamble discussion as more definitive than the statements and guidance you quote from 1980.

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requirements. For example, such generators do not need to comply with manifest requirements since the waste is not transported off-site. Section 262.10(b) provides no exemption from our rules other than certain of the Part 262 requirements. Therefore, the statement contained in the "Note" after §262.10(f) is appropriate and accurate.

A generator who treats, stores, or disposes on-site must comply with all applicable standards and permit requirements in 40 CFR Parts 264, 265, 266, and 270. Section 262.10(b) provides that a generator who treats, stores, or disposes on-site must only comply with certain of the Generator (Part 262) requirements. For example, such generators do not need to comply with manifest requirements since the waste is not transported off-site. Section 262.10(b) provides no exemption from our rules other than certain of the Part 262 requirements. Therefore, the statement contained in the "note" after §262.10(f) is appropriate and accurate.

Finally, I would like to clarify when our containerized hazardous liquids rule will be published. The rules will be proposed this summer and then finalized about a year later.

If you have any further questions, please feel free to contact Paul Cassidy of my staff at (202) 382-4682.

Sincerely,

Marcia E. Williams
Director
Office of Solid Waste

This has been retyped from the original document.

July 14, 1987

Michael C. Weisberg
MCW, Inco., Consulting Engineers
101 Laughing Cow Road
Woodside, CA 94062

Dear Mr. Weisberg:

This is in response to your letter of May 19, 1987, in which you request an interpretation of how the EPA hazardous waste regulations apply to a generator recycling hazardous waste on-site. First, from the information you provided, we start with the premise that the generator has a spent liquid ink waste that exhibits the characteristic of ignitability. The answers to your specific questions are as follows:

(1) A generator who complies with the special accumulation provisions of 40 CFR §262.34 may treat his waste on-site in his accumulation tanks or containers without obtaining a permit or having interim status. Among other things, the rules require that the waste remain in the accumulation/treatment vessel for a maximum of 90 days. Further, a company may market treatment equipment to waste generators (or anyone else) without a permit or any approval from EPA. EPA only regulates those persons who actually manage hazardous waste.

(2) When a characteristic hazardous waste is treated so that it no longer exhibits any characteristic, the resultant waste is no longer considered hazardous.

(3) You may recycle waste at your customers' sites if you so wish. Generators of waste (your customers) are responsible for complying with 40 CFR Part 262. In addition, if they store waste in tanks or containers for more than 90 days (or store it in any other type of unit for any length of time), they would need to get a storage permit.

However, as you point out, EPA does not currently regulate the actual process of reclamation, so the distillation activity you describe would not lead to additional requirements for a waste generator.

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If you have further questions in this area, please contact Mike Petruska, of my staff, at (202) 475-6676.

Sincerely,

Marcia E. Williams, Director
Office of Solid Waste

This has been retyped from the original document.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG 12 1987

Honorable Lane Evans
House of Representatives
Washington, D.C. 20515

Dear Mr. Evans:

This letter is in response to your recent inquiry regarding the concerns of Illinois State Representative Richard A. Mautino. The issue he raises involves the temporary storage of hazardous waste by manufacturers pending disposal at a permitted treatment or disposal facility.

Under regulations implementing the Resource Conservation and Recovery Act (RCRA), generators of hazardous waste may accumulate waste on-site for 90 days or less without a permit provided that the wastes are handled in a protective manner. (40 CFR 264.34) These regulations further provide that a 30-day extension of this 90-day period may be granted if the wastes remain on-site "due to unforeseen, temporary, and uncontrollable circumstances." (40 CFR 264.34(b))

The provision allowing for a 30-day extension has not been eliminated from the Federal regulations, contrary to Representative Mautino's understanding. This Federal provision, which has also been adopted in the Illinois State program, would provide the flexibility that Mr. Mautino recommended. Mr. Mautino suggests that a hazardous waste generator should be granted an additional 30-day extension in certain cases, e.g., if the generator's special waste hauler went out of business or if a landfill closed, and the generator would need extra time to find other haulers or an alternate landfill. Both Federal and state regulations would allow this extension, if the state found that it was necessary because of "unforeseen, temporary, and uncontrolled circumstances."

Illinois, as a State authorized to administer their own hazardous waste program in lieu of the Federal program, may grant a 30-day extension when it deems appropriate without obtaining clearance from the U.S. Environmental Protection Agency.

I hope this information will prove useful to you. If I can be of any further assistance, please let me know.

Sincerely,

J. Winston Porter
Assistant Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENC.
WASHINGTON, D.C. 20460

9453.1987(07)

NOV 17 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RE

Gary Smith
Burns and Levinson
Counsellors at Law
50 Milk Street
Boston, MA 02109

Dear Mr. Smith:

This is in response to your letter of November 2, 1987, regarding labeling of steel drums.

The hazardous waste regulations under EPA's Resource Conservation and Recovery Act do not require a shipper to provide documentation listing all previous contents of a steel drum used for transportation of used automotive parts. EPA's regulations for preparation of hazardous waste for transport, found in 40 CFR Part 262, subpart C, require only that the generator comply with the applicable packaging, labeling, marking and placarding requirements under Department of Transportation (DOT) regulation (49 CFR Parts 172-179). In addition, there is no EPA requirement to list all previously contained materials on the Uniform Hazardous Waste Manifest. Furthermore, if the used automobile cores sent for remanufacture are not hazardous wastes, EPA would not regulate their transportation at all.

In summary, nothing in EPA's hazardous waste regulations supports the claims in the flyers concerning documentation of past materials held in steel drums. If such a documentation requirement exists, it may be the result of a state or local ordinance.

Sincerely,

Marcia E. Williams
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 15 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESP

MEMORANDUM

SUBJECT: Requested Re-interpretation of On-site Treatment Exemption

FROM: Marcia E. Williams, Director
Office of Solid Waste (WH-562B)

TO: Robert F. Greaves, Acting Chief
Waste Management Branch (3HW30)

This is in response to your request for a re-interpretation of the on-site treatment exemption. We have reviewed your concerns regarding our interpretation. While in general we continue to believe that treatment in tanks or containers is allowed under Section 262.34, the questions you posed indicate that the rule as currently written is unclear and should be clarified.

1. General policy. Although 40 CFR 270.1(c) does state that a permit is required for treatment, storage, and disposal of hazardous waste, please note that Section 270.1(c)(2)(1) exempts generators who accumulate hazardous waste on-site in compliance with Section 262.34 from the requirement to obtain a RCRA permit. The exemption does not depend on whether or not treatment is conducted. The reason for this general policy is as follows. First, as you have stated, Section 262.34 does not preclude treatment in accumulation units. Also, the performance standards under Part 265, Subparts I and J, apply to the generator's containers and tanks regardless of whether storage, treatment, or both processes occur in them. In addition, both Subparts I and J contain special handling requirements for ignitable, reactive, and incompatible wastes, and these requirements should adequately control treatment typically conducted in tanks or containers. Finally, treatment often renders waste less hazardous, or at least easier to transport or more amenable for recovery. For all of these reasons, OSW believes that treatment is not only allowable under Section 262.34, but also is consistent with sound waste management.

2. Thermal treatment. You raised the concern that generators could conduct thermal treatment such as detonation or open burning under Section 262.34 and thereby avoid permitting for obviously dangerous activities. Certainly, detonation and open burning were never intended to be allowed under Section 262.34. As explained above, a large part of the Agency's rationale in allowing treatment under Section 262.34 was that the same standards would apply for both treatment and storage. All thermal treatment is subject to Part 265, Subpart P; if this was not the case, the standards would not be the same, and the premise of the Section 262.34 exemption would be violated. The regulatory language of Section 262.34 is not clear on this point, and OSW is considering promulgating amendments to clarify applicability of the section.

If you have further questions in this area, please contact Michael Petruska at FTS 475-8551.

cc: Waste Management Branch Chiefs,
Regions I, II, and IV-X

DEC 1 0 1987

Eric J. Dougherty
8409 H. Morven Road
Parkville, MD 21234

Dear Mr. Dougherty:

This is in response to your November 13, 1987 letter to Robert Scarberry concerning land disposal of solvents. The answers to your questions are as follows.

First, you are correct that industrial wastewater discharges subject to the Clean Water Act (CWA) are excluded from the hazardous waste regulations, and it does not matter how the wastewater was generated. You should note, however, that only the discharge is excluded. If hazardous wastewaters are collected, stored, treated, or disposed of prior to discharge, this prior management is subject to the hazardous waste regulations (including the land disposal restrictions of 40 CFR Part 268).

Second, EPA does not have groundwater discharge guidelines per se. Facilities that have RCRA interim status or that seek a RCRA hazardous waste facility permit are subject to a number of requirements designed to protect groundwater in 40 CFR Parts 264, 265, 266 and 268, as well as the corrective action provisions of RCRA Sections 3004(u) and 3008(h). Facilities that generate hazardous waste but which are exempt from interim status and permitting requirements under the accumulation provisions of 40 CFR Section 262.34 (this is likely the case for the automotive maintenance facilities you asked about) are subject to container and tank management standards designed to prevent releases to groundwater. When releases do occur, EPA or the appropriate State agency can take enforcement action under RCRA Sections 3008(a) and 7003 to require the facility owner or operator to stop the discharge and to clean-up contaminated soil and groundwater.

If you have further questions in this area, please contact Michael Petruska at 9202) 475-8551.

Sincerely,

Marcia E. Williams
Director,
Office of Solid Waste

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JANUARY 88

2. "Lab Packs" at Generator Sites

Is a permit required for a service company (under contractual agreement to manage a generator's hazardous waste) to come onto a generator's site and re-package small containers of hazardous waste into large containers with absorbents?

> A generator may accumulate wastes pursuant to Section 262.34, and nothing in Section 262.34 precludes a generator from treating waste when it is in an accumulation tank or container provided that the performance standards under Subparts I and J of Part 265 are met (51 FR 10168), and provided that the treatment is not thermal treatment or incineration which are subject to Part 265 Subpart P and O respectively. Further, the addition of absorbent material to waste in a container or the addition of waste to a container holding absorbent material also is exempt from permitting in accordance with Section 265.1(c)(13). Because a service company may act on behalf of the generator, a permit would not be required for a service company to re-containerize the wastes and/or add absorbent material prior to shipping off-site. The Agency's current policy on treatment at a generator facility is that treatment often renders waste less hazardous or at least easier to transport or more amenable for recovery. For these reasons, EPA considers that such treatment is not only allowable under §262.34, but treatment is consistent with sound waste management (memo, dated 12/15/87, from Marcia Williams to Robert Greaves).

Source: Mike Petruska (202) 475-8551
Research: Bob Adamson

9453.1988(03)

FEB 24 1988

FEB 25 1988

K.G. Wiman
Chief, Office of Engineering
U.S. Department of Transportation
U.S. Coast Guard (G-ECV-5B)
Washington, DC 20593

Dear Mr. Wiman.

This is in response to your letter of September 23, 1987, concerning the RCRA regulations and the generation of ATON batteries. As you noted, my office recently issued an interpretive memo to EPA Region X concerning generation of these batteries. As discussed below, we do not view the memo as a departure from past EPA policy, and for that reason, it did not occur to my staff to consult with the Coast Guard.

The definition of generator for the purposes of RCRA is by site, rather than by central facility. A site may include each vessel that is a point of waste generation. EPA dealt with a situation analogous to yours when it promulgated its small quantity generator regulations on March 24, 1986. In the preamble to that rule, we clarified that off-shore drilling facilities are separate generation points, and as such are subject to the 40 CFR Part 262 generator requirements. (See 51 FR 10162.) Also, when EPA amended the hazardous waste regulations to exempt waste generated in product or raw material tanks and vessels, EPA used examples of units that would be regulated absent the exemption that included vessels (i.e., water craft). (See 45 FR 72025; October 30, 1987.) Therefore, we have always considered waste generation at-sea as potentially subject to regulation, and the July 30, 1987 memo to Region X correctly interprets current EPA regulations.

Since the July 30, 1987, memo was sent from OSW to Region X, I understand that our staffs and staff from the U.S. Navy have met and discussed this issue. From that discussion, there are three points that I would like to clarify. First, if a buoy is brought onto a ship and the ATON battery is removed, the ship can be considered the generation site (instead of the buoy.) This may help reduce paperwork for you, as each servicing vessel could

comply with 40 CFR Part 262 instead of each buoy. Second, so long as the spent batteries remain on-site, i.e., on board the ship, the 90-day accumulation provision of 40 CFR 262.34 would allow storage of the batteries if the regulatory conditions are met. Third, while it is generally true that a facility must have a RCRA permit or interim status to receive [redacted]dous waste from off-site, please note that 40 CFR Section [redacted] does allow storage of hazardous waste in DOT-approved [redacted]ainers for 10 days or less at transfer facilities without a [redacted]mit or interim status. Your shore bases may be able to operate under this "10-day rule" in lieu of becoming RCRA storage facilities.

Also, as a result of that meeting, my staff has concluded that EPA should re-evaluate the exemption in Section 261.4(c) for product and raw material vessels to determine whether it should be expanded to cover other vessels. At this meeting we also discussed resource limitations that would affect the timing of a formal reevaluation of the exemption. One way to expedite this evaluation and possible rulemaking would be for the Coast Guard to provide staff support for the project, i.e., perhaps a three day per week detail over several months. If this were possible, we could begin this effort much sooner.

If you have further questions in this area, please contact Mike Petruska of my staff at (202) 475-9888. Also, please feel free to contact Mike on whether a detail would be feasible.

Sincerely,

Jeffery D. Denit
Acting Director
Office of Solid Waste

U.S. GPO : 1989-467-853

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

APRIL 89

2. Generator Standards Applicable to Transporters

Are transporters eligible for the Section 262.34 accumulation time provision when they mix wastes?

No. The accumulation time provision only applies to generators. Mixing two or more wastes does not generate a new waste or make the transporter a generator. Therefore, transporters are not eligible for the accumulation time. The transporter may hold the waste pursuant to Section 263.12 for ten days or less at a transfer facility. Storage periods of greater than ten days will require the facility to apply for a permit or interim status.

Source: Emily Roth (202) 382-4777
Research: Joe Nixon (202) 488-1487

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 89

2. Generator Satellite Accumulation/Counting Requirements

A generator accumulates hazardous waste in a satellite accumulation area pursuant to 40 CFR Section 262.34(c) standards. The generator also generates other RCRA hazardous waste elsewhere on-site. When determining generator status, must a generator count the waste collecting in the satellite accumulation area or count it once it enters the generator storage area?

To determine their generator status, generators must count all hazardous waste generated at their facility in a calendar month. Wastes not included in the monthly determination are identified in Section 261.5(c). These are wastes either not subject to regulation or subject to only the notification and reporting requirements in Sections 262.11, 262.12, 262.40(c) and 262.41. Wastes stored in the satellite accumulation area are subject to certain container standards (e.g., Sections 265.171, 265.172, and 265.173(a)). These regulations are not among those listed in 261.5(c). Therefore, wastes in the satellite accumulation must be included in the generator's monthly waste quantity determination.

Source: Emily Roth (202) 382-4777
Research: Gwen Herron

UNITED STATES ENVIRONMENTAL PROTECTION AGEI
WASHINGTON, D.C. 20460

9453.1989(04)

APR 18 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESP

Mr. Eric E. Boyd
Sidley & Austin
One First National Plaza
Chicago, IL 60603

Dear Mr. Boyd:

This is in response to your letter of March 13, 1989 in which you requested clarification of the regulations that apply to still bottoms generated and removed from a recycling unit. Specifically, you inquired as to when the waste accumulation time begins in an on-site solvent recycling operation. The accumulation time for still bottoms resulting from the recycling of spent solvent begins when the still bottoms are removed from the distillation unit. The recycling unit is exempt from regulation, therefore, the still bottoms are considered to be a newly generated waste eligible for accumulation under the provisions of 40 CFR Section 262.34. They are also a "derived from" waste and carry the same EPA waste code as the spent solvent from which they were derived (40 CFR 261.3(c)(2)(i)).

The spent solvent which is recycled by your client is a hazardous waste subject to regulation. The generator must determine his generator status, i.e. conditionally exempt generator (40 CFR Section 261.5), small quantity generator (40 CFR Section 262.34(d-f)), or large quantity generator (40 CFR Section 262.34(a-b)), based on the total amount of hazardous waste he generates in a calendar month, which includes the total amount of spent solvent before recycling. The accumulation time for the spent solvent under the provisions of 40 CFR Section 262.34 is 90 days, or 180 days if your client is a small quantity generator of between 100 and 1000 kilograms of hazardous waste in a month.

If we can be of any further assistance, please contact Emily Roth at (202) 382-4777.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 21 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESPO

Mr. Stephen J. Axtell
Smith & Schnacke
2000 Courthouse Plaza NE
Post Office Box 1817
Dayton, Ohio 45401-1817

Dear Mr. Axtell:

This letter is in response to your letter of February 23, 1989, requesting clarification of the generator accumulation time requirements of 40 CFR 262.34. You ask when the accumulation time begins for an unknown waste that, upon analysis, is found to meet the definition of hazardous waste. Initially, the container was improperly labelled or not labelled at all. A sample of the contents was sent off site for analysis, and was found to be hazardous.

In your letter you relate that Chris Bryant of the RCRA Hotline indicated that the accumulation time for an unknown waste begins when the analytical results indicating that the waste is hazardous are received. Unfortunately, this information was incorrect. The correct reading of Section 262.34 in this instance follows.

Section 262.34(a) provides a limited exemption from the requirement that those who store hazardous waste must obtain permits. To obtain the exemption, a generator must comply with all the requirements of Section 262.34. If the date on which the accumulation began was not marked on the drum (Section 262.34(a)(2)) or the drum was not marked "Hazardous Waste" (Section 262.34(a)(3)), then the generator has not met the pre-conditions for the exemption from permitting requirements and is an operator of a storage facility subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270.

Where a generator does meet the conditions of Section 262.34, the accumulation time begins when a waste is generated or when it is first taken from a "satellite" accumulation area operated pursuant to 40 CFR 262.34(c). Waste is generated either when it is produced or when it is first caused to be subject to regulation (40 CFR 260.10), not when a generator first analyzes the waste. If the waste in the drum was a listed or characteristic hazardous waste when it was produced, then the one-time 90-day accumulation time could begin only at the time the waste was produced or removed from the satellite accumulation area.

If the waste was not subject to regulation when it was first stored, e.g., the material had not yet been listed as a regulated hazardous waste, then the 90-day period would have begun when the waste became subject to regulation--upon the effective date of the new listing. A generator's failure to properly analyze, label, and accumulate waste does not exempt the waste from regulation.

If we can be of any further assistance, please contact Emily Roth at (202) 382-4777.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

11 13 1989

MEMORANDUM

SUBJECT: "Satellite" Accumulation

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste

TO: David A. Ullrich, Associate Division Director
Office of RCRA
Waste Management Division (5HR-13)

In response to your memorandum of June 13, 1989, we have addressed the questions posed by Ohio EPA regarding our requirements of 40 CFR Section 262.34(c) concerning satellite accumulation.

Specifically, in the attachment to your memorandum, Ohio EPA asks if roll-off boxes meet the definition of containers and may be used at satellite accumulation areas. It is our view that if the roll-off boxes meet the definition of container found in Section 260.10 and are managed in accordance with the applicable container requirements of Sections 265.171, 265.172, and 265.173(a), they may be utilized in satellite accumulation.

Section 260.10 defines "container" as "any portable device in which a material is stored, transported, treated, disposed of or otherwise handled." A roll-off box is a portable device. The container requirements include: (1) that the container be in good condition (i.e., not leaking), (2) that the container be of a material, or lined with a material, which is compatible with the waste, and, (3) that the container be closed during storage, except to [redacted] or remove waste.

The [redacted] other requirement under Section 262.34(c)(1) states that the [redacted]ainer be marked with the words "Hazardous Waste" or other words that identify the contents. This is the extent of the physical requirements for satellite accumulation containers. Therefore, as long as the quantity limits and time limits for excess quantities are met, the roll-off box may be classified as a satellite accumulation container.

However, for containers used in off-site shipment of hazardous waste, the Department of Transportation (DOT) packaging specifications for the hazard class must be met. DOT regulations governing the transportation of hazardous materials are found in 49 CFR Parts 171 through 177.

Ohio EPA has also raised a concern about the ability of a generator to determine when the 55 gallon quantity limit for satellite accumulation of hazardous waste (or one quart of acute hazardous waste), is exceeded if roll-off boxes are used. The dimensions, or capacity, of the roll-off boxes are not mentioned in the Ohio EPA attachment. Under our regulations any type of container may be used as a satellite accumulation device provided it meets the Section 260.10 definition for container, and is used in accordance with the above-mentioned container provisions of Part 265. We ask that Ohio EPA inform us if they find that the use of roll-off boxes of various volumes and capacities contributes to a generator's inability to quantify his waste.

In addition to answering these questions, we offer the following observation. It appears that the Ohio EPA has a thorough understanding of the Section 262.34 requirements and provides an accurate interpretation of the regulations. However, you should note that, upon removal from an accumulation storage area, hazardous waste may also be managed in an on-site permitted unit (45 FR 76624, November 19, 1980).

If you have any questions regarding this memorandum, please do not hesitate to contact me or have your staff contact Emily Roth at (202) 382-4777.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 2 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

T.R. Kirk, Environmental Scientist
Fehr-Graham & Associates
660 W. Stephenson St.
Freeport, Illinois 61032

Dear Mr. Kirk:

This is in response to your letter of July 6, 1989, requesting a clarification of 40 CFR Section 262.34(c), the "satellite accumulation" provision. Section 262.34(c)(1) states that, provided certain requirements are met, "a generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in Section 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste ..." Your question concerns whether the 55 gallon limit on hazardous waste applies to the total quantity of hazardous waste accumulated at the satellite location, or if it applies to each waste stream accumulated at the satellite location.

The 55 gallon limit applies to the total of all the non-acutely hazardous waste accumulated at a satellite accumulation area. In the enclosed Federal Register notice of December 20, 1984 (49 FR 49568) EPA explicitly states that the 55 gallon limit on non-acutely hazardous waste applies to each satellite accumulation area.

Although the total amount of hazardous waste that may be accumulated at any one satellite area is limited to 55 gallons, EPA intentionally did not limit the total number of satellite areas at a generator's facility nor specify the size of the containers to be used for accumulation. A case-by-case analysis is necessary to determine whether a generator is accumulating more than 55 gallons of waste at one satellite area, or whether a generator has more than one satellite area. An example of a situation that would not be in compliance with the regulations is

given in the enclosed Federal Register notice on page 49569, column 3. The appropriate State or EPA Regional office would make these case-by-case determinations.

If you have any further questions regarding this letter, you may contact Emily Roth of my staff at (202) 382-4777.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

Enclosure

I. SIGNIFICANT QUESTIONS AND RESOLVED ISSUES—APRIL 1990

A. RCRA

1. Satellite Accumulation Standards for Small Quantity Generators

Can small quantity generators establish satellite accumulation areas according to 40 CFR 262.34(c) for their hazardous waste?

Yes, according to the March 24, 1986 Federal Register (51 FR 10146) "100-1000 kg/mo generators may accumulate up to 55 gallons of non-acutely hazardous waste in satellite areas without meeting the storage requirements being promulgated today, so long as the requirements of Section 262.34 (c) are met." (51 FR 10162) All generators subject to 40 CFR 262.34 may develop satellite accumulation areas for hazardous waste according to 40 CFR 262.34(c) provisions.

Source: Emily Roth, OSW (202) 382-4777
Research: Cynthia Hess

I. SIGNIFICANT QUESTIONS AND RESOLVED ISSUES—JULY 1990

RCRA

1. Adding Absorbent to Waste Containers

40 CFR Sections 264.1(g)(10) and 265.1(c)(13) exempt the following activity from permitting requirements: "(t)he addition of absorbent material to waste in a container...or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and sections 264.17(b), 264.171, and 264.172 are complied with." To qualify for this exemption, must a generator add absorbent to his waste the first time the waste is containerized, or may he treat or store the waste in other units before performing absorption in a specified container?

This exemption applies solely to the activity of adding absorbent to waste in a specific container. Treating or storing the waste in other tanks or containers before absorbent is added would not cause a generator to lose this exemption. Such treatment or storage, however, is not included in the exemption, and therefore must either be permitted activity or conform with the generator accumulation requirements of 40 CFR Section 262.34. According to 51 FR 10168: "(n)othing in Section 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision." Therefore, a generator following all applicable requirements of Section 262.34 could treat his waste in one container before adding absorbent in another.

Sources:	Alessi Otte, OSW	(202) 382-4654
	Bill Kline, OSW	(202) 475-9614
Research:	Ken Sandler	

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

OCTOBER 1990

1. Clarification of Section 262.34(a) Accumulation Time for Excess of 55-Gallon Limit in Satellite Accumulation Areas

The owner/operator of a manufacturing company maintains a generator satellite accumulation area pursuant to Section 262.34(c). The operator has exceeded the 55-gallon accumulation limit and according to Section 262.34(c)(2), has three days to remove this waste from the satellite area and manage it either in a 90-day storage area as a large quantity generator in compliance with Section 262.34(a), manage the waste at an on-site permitted unit, or ship the waste off-site. Does the 90-day accumulation time for large quantity generators in Section 262.34(a) begin at the time the 55-gallon limit is exceeded or after the three-day transition period in Section 262.34(c)?

1. Clarification of Section 262.34(a) Accumulation Time for Excess of 55-Gallon Limit in Satellite Accumulation Areas (Cont'd)

The owner/operator has up to a 93-day accumulation time for the excess waste generated at the satellite accumulation area (90-day clock in Section 262.34(a), plus up to three days for waste transfer). The March 24, 1986 Federal Register, which clarifies small quantity generator provisions, states "...as soon as the 55-gallon limit has been exceeded in any satellite area, any excess waste is subject to all applicable RCRA requirements within three days. This means that the 180/270 day on site accumulation provision for 100-1000 kg/mo. generators applies to any excess waste three days after the 55-gallon limit has been exceeded." (51 FR 10162). If the generator chose to remove the waste from the satellite area before the three-day transfer provision expired, he would subject the waste to the 90-day clock provisions. For example, if the above operator chose to move his excess waste from the satellite area after just one day, the 90-day accumulation time in Section 262.34 would begin as the waste entered the 90-day accumulation area, not after three days. The generator has chosen not to utilize the other two days that were available for transfer.

Source: Emily Roth, OSW (202) 382-4627
Research: Mic LeBel, GRC

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JUNE 1991

2. Withdrawal of an Interim Status Part A Permit Application

A generator is treating hazardous waste that exhibits a toxicity characteristic on-site in its 90-day accumulation tanks. Prior to the effective date of the Toxicity Characteristic rule, he/she filed a Part A application for 40 CFR Part 265 Interim Status. The generator subsequently discovered that a permit is not required for treatment in accumulation tanks provided that the tanks are operated strictly in compliance with all applicable standards referenced in 40 CFR 262.34. (51 FR 10168) What procedures should be followed for the Part A permit application to be withdrawn? Would the generator be subject to interim status standards until the application is withdrawn?

In an internal 1983 memorandum, EPA clarified the protective filer procedures for withdrawal of a Part A application. The memorandum stated that filings for facilities which have not been regulated under interim status standards should be returned to the owner or operator, preferably after EPA has (1) obtained written confirmation that the facility was not subject to the permitting requirements, and (2) possibly conducted an investigation to verify the data.

Such a facility is not subject to the Part 265 standards until the application is withdrawn. Section 3005(e) of RCRA states that the interim status standards apply to any person who owns or operates a facility required to have a permit under that section. If the facility, in fact, has not managed hazardous waste in a manner that would subject it to regulations, then the Part 265 standards would not be applicable, even if a Part A permit application had been mistakenly submitted (as in the case of protective filers). Thus, the generator would not have to operate or close in accordance with interim status standards.

Source: Wayne Roepe/OSW (202) 475-7245
Research: Amy Norgren

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 20 1991

Mr. Thomas McCarley
Hazardous Technical Information Services
Directorate of Technical Operations
Defense Logistics Agency
Defense General Supply Center
Richmond, Virginia 23297-5000

Dear Mr. McCarley:

This letter is in response to a July 24, 1991 inquiry from Mr. Allen J. Osborne of your office about the treatment of hazardous wastes by large quantity generators under the Resource Conservation and Recovery Act (RCRA).

Mr. Osborne cited a March 24, 1986 Federal Register notice (51 FR 10168) which promulgated final regulations for generators of between 100 and 1000 kilograms of hazardous waste per month (small quantity generators). In that notice, the Environmental Protection Agency (EPA) stated that generators could treat hazardous wastes on-site in accumulation tanks or containers without a RCRA permit if the treatment were in conformance with the requirements of 40 CFR Part 262.34 (accumulation time), and with Subparts I and J of 40 CFR Part 265 (standards for containers and tank systems). Mr. Osborne apparently desired clarification that large quantity generators were included in this statement. He also asked which kinds of hazardous wastes could be treated by different categories of generators.

The Agency has not restricted treatment of any hazardous waste to large or small quantity generators. However, all generators who choose to treat their wastes in accumulation tanks or containers must comply strictly with the requirements of 40 CFR Part 262.34 and with Subparts I and J of 40 CFR Part 265. For example, the tank or container in which the treatment occurs must be marked with the date the accumulation period began. The tank or container must be completely emptied every 90 days (or every 180 or 270 days for small quantity generators). If these requirements are met, no RCRA permit is required for large or small quantity generators. Treatment other than that conducted in tanks or containers (e.g., incineration, land treatment, or treatment in surface impoundments) would continue to require a permit.

In addition, 40 CFR Part 268.7(a)(4) states that generators who treat wastes in accumulation tanks or containers to meet applicable land disposal restrictions (LDRs) must prepare a waste analysis plan. Treatment of hazardous waste must also not violate the dilution prohibition standards of 40 CFR 268.3.

The interpretation in this letter reflects the Federal regulations governing hazardous waste. States with authorized RCRA programs may impose more stringent requirements.

I hope this letter has addressed your concerns. If you have any further questions, please contact Mitch Kidwell of my staff at (202) 260-~~4770~~ 8551.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 21 1992

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. John D'Aloia Jr.
311 West Alma St.
St. Marys, KS 66536

Dear Mr. D'Aloia:

Thank you for your letter to Rajni D. Joglekar dated June 12, 1992. In your letter you ask whether our 1986 policy allowing generators to treat wastes in accumulation containers or tanks without interim status or a permits continues to be in effect.

In your letter you quote from the preambles of two Federal Register notices, the first from the May 20, 1992 notice regarding the listing determination of used oil and the second from the March 24, 1986 notice modifying standards for small quantity generators. Your first citation pertains to the definition of treatment:

> "It should be noted that mixing characteristic hazardous waste with another material to render the waste nonhazardous constitutes treatment of hazardous waste subject to **applicable standards** [emphasis added] under 40 CFR parts 264-265 and 270, and the notification requirements of section 3010 of RCRA" (Footnote 5, 57 Federal Register 28528-9 (May 20, 1992)).

Your second citation pertains to the Part 264 and 265 facility standard issues under the small quantity generators rule:

> "Therefore, generators of 100-1000 kg/mo are not required to obtain interim status and a RCRA permit if the only on-site management which they perform is treatment in an accumulation tank or container that is exempt from permitting during periods of accumulation (180 or 270 days)..." (51 Federal Register 10168, (March 24, 1986)).

Our position on whether hazardous waste generators may treat hazardous wastes on-site in accumulation tanks or containers without having to have either a permit or interim status has not changed. These generators may conduct such treatment provided that accumulation tanks or containers conform to standards in Subparts I or J of Part 265.

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The footnote to the used oil rule that you cited states that when a characteristic waste is mixed with another material to render it nonhazardous, that activity constitutes treatment of that waste. This footnote also states that such activity is subject to "applicable requirements" under 40 CFR Parts 264, 265 and 270 which may or may not require interim status or permitting. To reiterate, when a generator is treating hazardous waste on-site in accumulation tanks or containers conforming in Subparts I or J of Part 265, permitting and interim status are inapplicable.

However, please be aware that under Section 3006 of RCRA (42 U.S.C. Section 6926) that individual states can be authorized to administer and enforce their own hazardous waste programs in lieu of the federal program. When states are not authorized to administer their own program, the EPA Region that the state is located in administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) that states retain authority to promulgate regulatory requirements that are more stringent than federal regulatory requirements.

If you have any additional questions regarding this matter, please contact Paul Borst of my staff at (202) 260-8551.

Sincerely,

David Bussard, Director
Characterization and
Assessment Division

Enclosure

[illegible] the Agency has decided to manifest requirements on these [illegible]erators, except in the case of certain reclamation agreements. The existence of a State-approved collection center does not, on its own, provide assurance that the waste would be transported or handled properly prior to or during transportation to such a facility, or indeed, that the shipment would ever reach such a facility. Consequently, development of some recordkeeping and transportation requirements would be needed which would offset any potential savings of such an exemption.

E. Part 264/265 Facility Standard Issues

The requirements for facilities that treat, store, or dispose of hazardous waste are contained in Parts 264 and 265 of the hazardous waste regulations. The Part 265 standards are applicable to facilities under interim status, a condition which allows a facility to continue operating until it receives a full RCRA permit. (See HSWA section 3005(e)). The Part 264 standards establish the minimum standards to be incorporated into a full RCRA permit by EPA or a State with an EPA authorized hazardous waste program.

[illegible]ection 261.5(b) previously exempted [illegible]ators of 100–1000 kg/mo of [illegible]rdous waste from the facility requirements of Parts 264 and 265 that cover the on-site treatment, storage, or disposal of hazardous waste, provided the facility is at least approved by a State to manage municipal or industrial (non-hazardous) solid waste and no more than 1000 kg of hazardous waste were accumulated at any time. Under the rules promulgated today, this exemption will continue to apply only to generators of less than 100 kg/mo of hazardous waste. Generators of 100–1000 kg/mo of hazardous waste will be subject to full regulation under Parts 264 and 265 if they accumulate hazardous waste on-site for greater than 180 (or 270) days, exceed the 6000 kg accumulation limit, engage in waste treatment in other than tanks, or manage their waste in surface impoundments, waste piles, landfills, or land treatment facilities. In addition, those State-approved municipal or industrial waste facilities that manage wastes only from generators of 100–1000 kg/mo will also no longer be exempted from the Part 264 and 265 permit requirements. In the proposed rule, the Agency requested comments concerning the application of uniform Part 264 and 265 [illegible]uirements to generators of 100–1000 kg/mo and to the treatment, storage, and disposal facilities that accept waste from the generators.

1. Activities Requiring Permits

Under today's final rules, 100–1000 kg/mo generators will be required to obtain a permit if they treat or dispose of hazardous waste on-site (except for treatment in tanks or containers during the 180/270 day accumulation period in conformance with Subparts J or I of Part 265, respectively) or accumulate hazardous waste on-site in tanks or containers for more than 180 (or 270) days.

A number of commenters agreed with the need to manage wastes from generators of 100–1000 kg/mo at fully permitted facilities. They argued that no special exemptions or requirements should be applied to the management of waste from these generators because the characteristics of the waste, not the source of the waste, poses the threat to human health and the environment.

Two commenters opposed the requirement for generators of 100–1000 kg/mo who accumulate waste on-site for longer than 180 (or 270) days to obtain RCRA permit, and argued that the accumulation time limit before permitting is required should be extended. One of the commenters also maintained that determining the maximum quantity of hazardous waste that may be accumulated at a non-permitted facility should be based on the degree of hazard posed by the waste and the generator's capacity to transport the waste off-site. The EPA disagrees with both of these positions. As noted in Unit III.C.4.a. of today's preamble, the HSWA of 1984 clearly limit Agency discretion in this matter. The Agency carries a heavy burden in extending the time limits established under section 3001(d)(6), and except for emergency circumstances, the Agency does not believe there to be sufficient justification for extending the limits Congress has established.

Another commenter opposed any permitting requirement due to the economic burden that would be placed on a small number of generators. While some generators of 100–1000 kg/mo may be burdened financially by the requirements promulgated today, Congress has already judged that outside of the accumulation limits allowed for in Section 3001(d)(6), disposal of wastes from these generators at permitted facilities is necessary to protect human health and the environment. In addition, since the rules allow generators to manage their hazardous wastes off-site, they are able to avoid the cost of acquiring a RCRA permit, if they so choose.

Several commenters suggested exemptions from the RCRA permitting requirements or reduced permit requirements for on-site waste treatment. Some commenters stated that there is a need to encourage on-site treatment to reduce the amount of wastes sent off-site and that the permitting requirements may hamper the ability of generators to treat wastes at their facilities.

The Agency disagrees that on-site treatment should be encouraged by exempting those generators of 100–1000 kg/mo from the RCRA permitting requirements. To the extent that these generators are conducting the same treatment/storage or treatment/disposal as other permitted facilities, their on-site treatment activities pose a potential risk to human health and the environment. Therefore, reduced or eliminated permitting requirements would be inappropriate.

Of course, no permitting would be required if a generator chooses to treat their hazardous waste in the generator's accumulation tanks or containers in conformance with the requirements of § 262.34 and Subparts J or I of Part 265. Nothing in § 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision. Under the existing Subtitle C system, EPA has established standards for tanks and containers which apply to both the storage and treatment of hazardous waste. These requirements are designed to ensure that the integrity of the tank or container is not breached. Thus, the same standards apply to a tank or a container, regardless of whether treatment or storage is occurring. Since the same standards apply to treatment in tanks as applies to storage in tanks, and since EPA allows for limited on-site storage without the need for a permit or interim status (90 days for over 1000 kg/mo generators and 180/270 days for 100–1000 kg/mo generators), the Agency believes that treatment in accumulation tanks or containers is permissible under the existing rules, provided the tanks or containers are operated strictly in compliance with all applicable standards. Therefore, generators of 100–1000 kg/mo are not required to obtain interim status and a RCRA permit if the only on-site management which they perform is treatment in an accumulation tank or container that is exempt from permitting during periods of accumulation (180 or 270 days).

Two commenters suggested that a mechanism should be created to tailor RCRA permits to the circumstances of individual facilities. For example one commenter specifically asked for a simplified and streamlined permit for the incineration of spent paint spray

accordingly, unless the filter will be reclaimed.

IV. Final Listing Determination

A. General

EPA regulations, based on RCRA sections 1004(5) and 3001, at 40 CFR 261.11 set forth the technical criteria to determine whether a solid waste should be listed as a hazardous waste. EPA used the technical criteria in 40 CFR 261.11 (a)(1) and (a)(3) in making today's used oil listing determinations. Subsection (a)(1) of 40 CFR 261.11 allows the Administrator to list a waste as hazardous if the waste exhibits any of the characteristics of hazardous waste. According to 40 CFR 261.11(a)(3), a waste shall be listed as hazardous if it "contains any of the toxic constituents listed in appendix VIII and, after considering the following factors, the Administrator concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed. * * *" The factors to be considered in making this determination include toxicity, fate and transport, mobility and persistence, and bioaccumulation potential of the constitutents in the waste, as well as plausible mismanagement scenarios (40 CFR 261.11(a)(3)(vii)) and other federal and state regulatory actions with respect to the waste (40 CFR 261.11(a)(3)(x)).

In making a listing determination for used oil destined for disposal, EPA gave considerable attention to the current federal regulations governing used oils. EPA evaluated the technical criteria for listing in light of the current regulatory structure controlling the management of used oils and concluded that any plausible mismanagement of used oil that is destined for disposal is addressed by current requirements.

As implied in Option Three of 1991 Supplemental Notice, EPA preserved its ability to maintain the status quo if the Agency's analysis of existing regulations showed that actions have been taken to control the mismanagement of used oil. EPA finds that the current regulatory structure controlling the management of used oil destined for disposal provides adequate controls so that used oil will not pose a substantial threat to human health or the environment.

Current regulations governing the management of used oils destined for disposal include: Those of EPA and the U.S. Coast Guard for oil discharges into navigable waters; U.S. Department of Transportation requirements; EPA regulations for polychlorinated biphenyls (PCBs) under the Toxic Substances Control Act, hazardous waste characteristics applying to used oil that is disposed under RCRA, underground storage tank requirements (UST) under RCRA; Underground Injection Control (UIC) permits under the Safe Drinking Water Act; Spill Prevention, Control and Countermeasures (SPCC) plans and National Pollutant Discharge Elimination System (NPDES) storm water regulations under the Clean Water Act; and the phase down of lead in gasoline under the Clean Air Act. In combination, application of these controls imposed by EPA and other federal agencies prevent the mismanagement of used oil to such an extent that used oil destined for disposal is unlikely to pose a substantial present or potential hazard to human health and the environment.

EPA also recognizes that several states regulate used oil as a hazardous waste, and some states regulate it as a special waste. Several states ban the disposal of used oil in municipal solid waste landfills (MSWLFs). A used oil handler must comply with all state requirements applicable to used oil in his/her state, in addition to any Federal requirements that apply.

B. No List Determination for Used Oil Destined for Disposal

In making the no list determination for used oil that is destined for disposal, EPA used the technical criteria discussed in Section IV.A.

1. Toxicity of Used Oil

In the 1991 Supplemental Notice, EPA proposed to expand the basis for listing gasoline-powered engine crankcase used oil to reflect the presence of three toxic polynuclear aromatic hydrocarbons (PAHs): Benzo(a)pyrene, benzo(b)fluoranthene, and benzo(k)fluoranthene. EPA based this expansion on the analysis of two samples of automotive crankcase used oil analyzed for benzo(k)fluoranthene and four samples of automotive crankcase used oil analyzed for benzo(a)pyrene and benzo(b)fluoranthene. With respect to the presence of PAHs in used oil, EPA believes that the current regulatory structure can control the mismanagement of recycled used oil containing toxic PAHs.

Based on the 1989/90 sampling and analysis effort the Agency tentatively determined that a high proportion of used oils from gasoline-powered engine exhibited the TC for lead and benzene. Other categories of used oil did not exhibit the TC in such a high proportion and, in fact, did not meet the criteria for listing since they did not contain constituents of concern (constituents of the TC) at levels that could pose a risk to human health and the environment. The phase down of lead in gasoline under the Clean Air Act has resulted in subsequent reduction in lead concentrations in used oil. In addition, in accordance with the Clean Air Amendments, additional phase downs are scheduled to occur, thus further reducing the lead concentration. The lowered lead concentrations in used oil reduce the potential for harm to human health and the environment from mismanagement.

2. Regulations Governing the Plausible Mismanagement of Used Oil Destined for Disposal

Regulatory programs currently in place control used oil generators, transporters, collectors and recyclers. Since 1985, EPA has promulgated several regulatory programs that directly affect the management of used oil destined for disposal (*e.g.*, the TC, the UST program, the MSWLF rule, the NPDES Storm Water program, and the Land Disposal Restrictions (LDRs). Also, several other regulatory programs that were in place even prior to 1985 continue to control some used oil management practices (*e.g.*, U.S. Department of Transportation (DOT) shipping and handling requirements). After assessing the extent and potential success of current regulatory programs and their effect on the disposal of used oil, the Agency believes that the existing network of regulations provides protection from plausible disposal mismanagement scenerios, as discussed below.

a. Overview of RCRA subtitle C regulations applicable to used oil destined for disposal. Used oils exhibiting one or more of the characteristics of hazardous waste and which are destined for disposal continue to be regulated as hazardous wastes in accordance with all applicable subtitle C regulations, except when stored in RCRA subtitle I underground storage tanks as discussed in subsection b. of this section. Mixtures of used oils and listed hazardous wastes are listed hazardous wastes, and used oil mixed with a characteristic hazardous waste must be managed as a hazardous waste if it still exhibits a characteristic.[5] Such

[5] It should be noted that mixing characteristic hazardous waste with another material to render the waste nonhazardous constitutes treatment of hazardous waste subject to applicable standards under 40 CFR parts 264–265 and 270, and the

Continued

mixtures must be managed in accordance with all applicable subtitle C regulations. Those generators identified in 40 CFR 262.34[6] and storers of hazardous used oil destined for disposal are subject to the tank system requirements at subpart J of parts 264 and 265. Used oils are also subject to the corrective action requirements of RCRA subtitle C, including sections 3004(u) and 3008(h), which apply to solid waste management units at RCRA treatment, storage, or disposal facilities.

Further, if used oil exhibits a characteristic of hazardous waste and is destined for disposal, facilities that store such used oil are subject to the tank system requirements at 40 CFR parts 264 or 265, subparts J. These requirements are designed to prevent ground water contamination and other releases to the environment and include requirements for daily inspection, tank integrity, and secondary containment. If used oil destined for disposal exhibiting a characteristic of hazardous waste is stored for greater than 90 days, the facility must be permitted under RCRA as a hazardous waste storage facility.

It is important to note that used oils exhibiting the characteristic of EP toxicity (prior to its revision) currently are prohibited from land disposal unless they meet the applicable treatment standards. Treatment standards for these wastes were promulgated with the Third Third rulemaking on June 1, 1990 (55 FR 22520). Used oils exhibiting the new TC, but not the characteristic of EP toxicity are not currently prohibited from land disposal, even if the constituent causing the waste to exhibit the TC is also controlled by the EP. LDR treatment standards for the newly identified TC wastes (including the 26 newly listed organic constituents) are scheduled to be promulgated by April 1993. Used oil which is mixed with a listed hazardous waste must meet the LDR standard for the listed waste.

b. Applicability of RCRA subtitle I regulations to used oil destined for disposal. For USTs located at permitted hazardous waste facilities subject to section 3004(u) of RCRA, the subtitle C corrective action statutory authorities supersede subtitle I corrective action requirements to avoid overlap in regulatory authority (see 40 CFR 280.60). For facilities without a final HSWA permit, subtitle I corrective action standards will apply to releases from all petroleum and hazardous substance USTs. UST corrective actions underway at a facility having interim status under RCRA subtitle C may be subject to review by permit writers during the development of the final HSWA permit. These ongoing corrective action activities may be incorporated into the facility's final RCRA permit (53 FR 37176).

As discussed in the September 1991 supplemental proposal, EPA presumes that used oil stored in underground storage tanks is destined for recycling and currently exempt from subtitle C (40 CFR 261.6(a)(3)(iii)); thus such tanks are subject to subtitle I. The Agency continues to believe that the subtitle I standards are sufficient to protect human health and the environment from the potential releases of used oil from USTs. In conclusion, the Agency continues to view subtitle I as applicable to used oil, with the exceptions noted in the preceding paragraph where RCRA subtitle C authority is in place.

c. Applicability of RCRA subtitle D regulations to used oil destined for disposal. Nonhazardous used oil may be disposed of in an industrial solid waste landfill or a MSWLF. EPA recently promulgated final disposal criteria for MSWLFs (October 9, 1991, 56 FR 50978). The revised criteria were promulgated at 40 CFR part 258 and included location restrictions, faciltiy design and operating criteria, ground-water monitoring requirements, corrective action requirements, financial assurance requirements, and closure and post-closure care requirements. In addition, many states have design and operating requirements governing industrial non-hazardous waste landfills.

d. CERCLA reportable quantitites (RQs) and used oil destined from disposal. Any waste identified as a hazardous waste (either by listing or by characteristic) under RCRA generally becomes a hazardous substance under CERCLA. Such designation subjects the hazardous waste to the section 103 reporting requirements for releases equal to or exceeding the assigned reportable quantity (RQ) of that hazardous substance. In addition, constituents in the used oil that are not defined as hazardous waste under RCRA may be designated hazardous substances under CERCLA (see 40 CFR part 302). Therefore, in accordance with § 302.6(b) concerning mixtures or solutions, immediate notification is required when an RQ or more of any of the hazardous substances are released.

e. Toxic Substances Control Act regulations and used oil destined for disposal. Section 6(e) of the Toxic Substances Control Act (TSCA) mandates that EPA control the manufacture (including import), use, processing, distribution in commerce, and disposal of PCBs. Because of the potential hazards posed by the uncontrolled use and disposal of PCBs, EPA has established a comprehensive program to control PCBs from manufacture to disposal. A primary use of PCBs, a viscous oil, was as an insulating material for electrical equipment (dielectric). PCBs were almost always mixed with mineral oil, silicone, or other oily materials when used as insulating material. TSCA regulations prohibit the use of waste oils (including used oils) containing PCBs for dust suppression. Prohibited uses include, but are not limited to, use in road oiling, use in general dust control, use as a pesticide or herbicide carrier, and use as a rust preventative on pipes (40 CFR 761.20(d)). Used oil applied for dust suppression must meet the requirements of both RCRA and TSCA.[7]

Further, a release of 1 pound of PCBs into the environment must be reported immediately to the National Response Center in accordance with section 103(c) of CERCLA. Further, under the TSCA PCB Spill Cleanup Policy, any spill of material containing 50 ppm or greater PCBs into sewers, drinking water, surface water, grazing lands, or vegetable gardens must be reported immediately (40 CFR part 761, subpart G). If a used oil contains PCBs, the most stringent, applicable reporting requirement must be followed.

f. Clean Water Act regualtions and used oil destined for disposal. In addition to the UST requirements discussed above, the storage of used oil at many petroleum-related storage facilities is subject to SPCC regulations.[8] Under section 311(j)(i)(c) of the Clean Water Act, EPA established the SPCC program (38 FR 34165, December 11, 1973) to protect surface waters and adjoining shorelines from petroleum and

notification requirements of section 3010 of RCRA. For example, mixing spent mineral spirits used as a solvent (exhibiting the characteristic of ignitability or toxicity) with used oil to render the mineral spirits nonhazardous constitutes treatment.

[6] This regulation identifies regulated generators by quantity of waste generated duration of time accumulated.

[7] Congress banned the use of any hazardous waste as a dust suppressant under RCRA § 3004(1). Therefore, as noted above, any used oil that exhibits one or more of the characteristics (other than the characteristic of ignitability) of hazardous waste is banned from use as a dust suppressant.

[8] The SPCC regulations (40 CFR 112) currently apply to on-shore and off-shore non-transportation related facilities that have the potential to discharge oil into navigable waterways and have underground storage tank capacities greater than 42,000 gallons or aboveground storage tank capacities of more than 660 gallons in a single tank or an aggregate of greater than 1,320 gallons.

9453.1993(01)

FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

FEB 23 1993

Mr. D. B. Redington
Director, Regulatory Management
Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167

Dear Mr. Redington,

Thank you for your letter dated December 15, 1992, concerning the hazardous waste storage regulations under the Resource Conservation and Recovery Act (RCRA). In your letter, you requested a clarification of the satellite accumulation provisions for hazardous waste generators (40 CFR 262.34(c)(1)), particularly for the types of wastes you described as being "generated from diverse sources throughout a facility."

We have a policy of allowing EPA Regions, and states authorized to implement the RCRA hazardous waste program, to answer site-specific inquiries about the hazardous waste regulations. However, the types of wastes you described in your letter (e.g., post-consumer items such as used nickel-cadmium batteries that exhibit a characteristic of hazardous waste), are the same types of wastes that are under consideration in an ongoing rulemaking effort within the Office of Solid Waste (OSW). Therefore, we feel it would be appropriate for us to provide you with some clarification regarding these "universal wastes" and the satellite accumulation provision under the existing generator requirements.

Based on your description of how and where these waste types are generated, it is evident that the phrase "at or near the point of generation where wastes initially accumulate"[1] requires clarification. We agree that there may be circumstances where certain hazardous wastes, which by their mode of use are generated in small amounts throughout a facility or part of a facility, could be accumulated under the reduced requirements described at §262.34(c)(1), provided that the conditions of this regulation are met. For like wastes generated from many individual locations (e.g., nickel-cadmium batteries), we would interpret the "at or near the point of generation..." language to include a specific satellite area designated by the generator that facilitates the

[1]Defines the satellite accumulation "area".

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accumulation of this material prior to moving it to a designated hazardous waste storage area. A generator should be able to define the locations of waste generation being served by a satellite accumulation area (within a generator facility or part of a facility). This is to ensure that a determination can be made as to when the 55-gallon limit has been reached for a particular satellite area.

The condition that wastes accumulated under the satellite provision "be under the control of the operator of the process generating the waste" is still applicable. However, we would view this condition as being satisfied for certain "universal wastes" provided the generator demonstrates that the personnel responsible for generating and/or accumulating the waste have adequate control over the temporary storage of these wastes. The EPA recognizes that for many of these "universal wastes," the person who first takes an item out of service (e.g., an employee who replaces a dead battery used in a calculator) may not be the same person responsible for the accumulation of all of these wastes; rather, another worker may have the responsibility of overseeing the temporary storage of maintenance-related wastes. Alternatively, a maintenance worker who replaces mercury thermostats throughout a factory might also be assigned responsibility for the location at which the accumulated used thermostats are temporarily stored.

I would like to emphasize that the satellite accumulation provision was intended to accommodate situations where relatively small amounts of hazardous waste are unavoidably accumulated throughout a facility prior to placing them in designated hazardous waste storage areas; the goal is that this temporary accumulation is performed responsibly and safely, with adequate oversight and control. I would also note that we have not defined the term "universal waste" in this letter[2], but have instead used some examples of these wastes to clarify the satellite accumulation provision. The applicability of the satellite accumulation provision will always depend upon a generator's particular set of circumstances, which are site-specific; therefore, any questions regarding specific wastes at specific facilities are best answered by the agency implementing the RCRA program for that particular facility.

Lastly, as was mentioned above, EPA is developing standards to streamline the regulatory requirements for some of these types of "universal wastes," to facilitate the separation of these materials from the municipal waste stream, and to encourage proper treatment and/or recycling. This rule was recently published, and we have enclosed a

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[2]The term is at this point, as you described, an "emerging term."

copy of it for your convenience. We would encourage you to read it and submit to us any comments you may have. If you have any questions on this rulemaking effort, or on any other issue discussed in this letter, please call Charlotte Mooney or Ross Elliott of my staff at (202) 260-8551. Thank you for your interest in the responsible management of hazardous waste.

Sincerely,

Sylvia K. Lowrance,
Director
Office of Solid Waste

Enclosure

cc: EPA Regional Waste Management
Division Directors, I-X

COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 23 1993

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Ron Jones
Environmental Consulting
15 Hollow Road
Watertown, CT 06795

Dear Mr. Jones:

Your January 25th, 1993 letter to Wendy Grieder inquiring whether a characteristically hazardous sludge defined using the TCLP is subject to Federal RCRA export regulations under 262.53 when exported for the purpose of being reclaimed was referred to my office.

Your letter makes specific reference to a recoverable metal-bearing baghouse dust or filter cake which qualifies for an exemption from the definition of solid waste under 261.2 and inquires as to whether such secondary materials are subject to RCRA hazardous waste export regulations. A characteristic sludge being reclaimed does not meet the definition of a solid waste under 261.2(c)(3), and therefore may not be considered a hazardous waste. Since 262.53 applies only to wastes that meet the RCRA definition of hazardous waste, it does not apply to characteristic sludges being reclaimed.

Finally, you asked that we take note of the reference to recycling under 262.53(a)(vi). This reference applies to wastes that are defined as hazardous wastes under RCRA and are therefore subject to regulation under 262.53 and that are being exported for recycling operations. It does not refer to characteristic sludges being reclaimed or other secondary materials exempt from the definition of solid waste.

Thank you for your interest in hazardous waste export and recycling regulations under RCRA. If you have any further questions, please contact Denise Wright of my staff at 260-3519.

Sincerely,

Sylvia K. Lowrance, Director
Office of Solid Waste

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2. Containment Buildings as Generator Accumulation Units

On August 18, 1992 (57 FR 37194), EPA promulgated regulations for treatment and storage of hazardous waste in containment buildings. Section 262.34(a) allows large quantity generators to use containment buildings as hazardous waste accumulation units without obtaining a permit or interim status. May small quantity generators (generators of 100-1,000 kg. per month of hazardous waste) accumulate hazardous waste in containment buildings and still be eligible for the reduced requirements of 40 CFR §262.34(d)?

A small quantity generator may not accumulate hazardous waste in containment buildings and remain eligible for the reduced requirements of §262.34(d). The provisions for small quantity generators in §262.34(d) and (e) allow accumulation of hazardous waste for 180 (or 270) days provided that the generator complies with the specific requirements of §§262.34(d)(1)-(5). The reduced requirements in §262.34(d) limit small quantity generators to accumulation in containers and tanks. Only those generators who comply with the requirements of §262.34(a) may use containment buildings as accumulation units without obtaining a permit or interim status. A small quantity generator who chooses to accumulate hazardous waste in containment buildings does not meet the conditions of §262.34(d). Therefore, in order to use containment buildings as accumulation units without a permit or interim status, the small quantity generator must comply with the more stringent requirements in §262.34(a). These include the personnel training requirements of §265.16; the contingency plan requirements of Part 265, Subpart D; and the closure requirements of §§265.111 and 265.114. These regulations also limit a generator's on-site accumulation without a permit or interim status to a maximum of 90 days.

9454 – RECORD KEEPING AND REPORTING

Part 262 Subpart D

ATK1/1104/25 kp

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MARCH 84

4. Do generators in interim authorized States send biennial reports to the State and/or the Region?

   In interim authorized States, the State program is operating in lieu of the Federal program (271.121(b)). The Phase I program under 271.128 covers generator and interim status facility reporting requirements. Hence, the State report (which may be a biennial, annual, or even quarterly report) is sent to the authorized State and not to the Region. However, since North Dakota's Phase I authorization does not include reporting, generators in North Dakota must send a biennial report to Region 8.

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RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JANUARY 86

2. Hazardous Waste Fuel Brokers

A waste broker makes purchase arrangements between generators and burners of hazardous wastes fuel. Although the broker never physically possesses the waste nor stores it on his property, he does own it temporarily and handles all billing and invoices. The generator ships the waste directly to the burner. Is the broker a marketer of hazardous waste fuel, even though he never possesses it?

Sections 3010(a)(3) and 3004(q)(1)(C) of RCRA, as amended, require marketers or distributors of hazardous waste fuel to notify the EPA of hazardous waste fuel activities (see §266.34(b) and 50 FR 49204). Because the broker does own the waste at one point, he is responsible for the waste fuel during the time he owns it. Ownership, rather than physical possession, is the criterion used in determining if one is a marketer because it is possible to possess or handle the waste without owning it. For example, some transporters possess a waste during transportation but do not actually own it at any time. Therefore, the broker in this situation is a marketer or distributor of the waste fuel and must comply with all applicable marketer requirements set forth in §266.34 (50 FR 49204).

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

FEBRUARY 86

3. Specification Used Oil Fuel

The final rule for the burning and marketing of used oil fuel was published in the November 29, 1985 Federal Register (50 FR 49164). The preamble (example 3.A. on page 49199) explains that a marketer who blends off-specification used oil fuel to meet specifications must only keep records of the facility to which the specification fuel is first sent. What happens if the first facility to receive the specification fuel does not burn it, but markets it to someone else? Is that subsequent marketer regulated?

The marketer who first claims that the used oil fuel meets specification must keep records of the analysis (or other information) and records of each shipment including the name and address of the receiving facility, the shipment date, and the quantity shipped, according to 40 CFR 266.43 (b)(6). The marketer (as burner) who receives the specification used oil fuel shipment is not regulated by Part 266 Subpart E, per §266.43(a)(2). He is not required to notify EPA of his waste as-fuel activities, analyze the oil, or keep records. If, however, the subsequent marketer mixes the specification used oil with off-specification used oil or with hazardous waste, he becomes subject to regulation as a marketer of used oil or hazardous waste fuel.

Source: Bob Holloway (202) 382-7936

AUG 13 1986

MEMORANDUM

SUBJECT: State/Regional Biennial Reports

FROM: Marcia Williams, Director
Office of Solid Waste

TO: David Stringham, Chief
Solid Waste Branch, Region V

This is in response to your July 29 memorandum recommending that the additional items required for inclusion in 1985 State Biennial Program Reports be delayed until 1987. While I am sympathetic to your concerns about already strained State and Regional work loads, it is my desire to maintain the requirements that were added to the State Program reporting forms for 1985.

I would like to note initially that we carefully considered State and Regional workloads in assessing the need for changes in the State Biennial Program Reports for 1985. As you are well aware, the information provided to us in the 1983 reports proved to be insufficient to enable us to prepare a national summary report. Considerable attention has already been directed at EPA's failure to produce a 1983 report, particularly from key members of Congress. The General Accounting Office is currently completing an extensive investigation into the causes of this system breakdown and our actions to improve the system for 1985 and beyond. I am personally committed, as are members of my staff, to ensuring the production of a national report summarizing the information developed through the biennial reporting process in 1985. As noted in my July 3 memorandum, the requirements added to the 1985 State reporting forms are designed to help produce this national summary report.

Note also that the number of items actually added to the State reporting forms for 1985 has been reduced from the number of items specified in my July 3 memorandum. Two items that were listed as additional reporting requirements in my memorandum (the quantity of hazardous waste shipped off-site by each generator and the quantity received from off-site by each facility) were deleted from the 1985 State reporting forms that accompanied my

memorandum and will not be required for the 1985 reporting cycle. The decision not to require these items for 1985 was due, in large measure, to our own desire to minimize the additional workload imposed by our changes to the State reporting forms.

We do not see the additional items required for the 1985 State program reports to be unduly burdensome, nor do we see them imposing significant additional work loads on State or Regional personnel responsible for completing the reports. Specifically, the quantity generated by each generator and the quantity managed by each facility are items that would have to be calculated anyway in order to report the total quantity of hazardous waste generated in each State in 1985.

All that we are asking is that these already calculated quantities be provided to us as part of the lists of generators and facilities. For States employing automated data management systems, this requirement poses virtually no additional burden on reporting personnel. For states that complete the reports manually, the only additional burden imposed is that associated with simple transcription of a single previously calculated figure for each generator and facility.

Finally, Regional staff preparing reports for unauthorized States will be using the FOCUS Biennial Report Data Entry and Retrieval System. This software system was developed using headquarters contractor support and is currently being expanded to automatically complete this section (individual quantity generated and managed) and other sections of the State biennial program reports. Completing these first two additional items using the Focus system will, therefore, pose no additional workload on the regions.

Moreover, the value of these first two additional reporting requirements is substantial. Provision of figures for the quantities generated and managed by individual generators and facilities will enable us to evaluate the accuracy of the State-total-quantity-generated figures already reported under a separate item. Our understanding, based upon telephone conversations with Regional Project Officers (including Region V's RPO), is that the Regions will not be able to provide assistance in reviewing and evaluating the accuracy and quality of the State Program Reports. These additional reporting items will enable headquarters personnel to ensure the accuracy of the State-by-State quantities. Without this minimal quality control check, our ability to produce a reliable national summary report would be severely hampered, as evidenced by the 1983 problems.

In addition to their role in QA/QC efforts, these two items will help in carrying out our planned survey of hazardous waste generators in 1987. By obtaining quantities for each generator

from the biennial report, we will eliminate the need for a screening survey to define the generator universe, saving considerable time and resources for EPA as well as eliminating reporting burdens on the regulated community.

The second two new items, lists of non-regulated and non-reporting generators and facilities, are essential in order to assess compliance with the 1985 biennial reporting requirements. Without these additional lists, we are unable to determine whether the quantities reported through the process represent all of the quantities that we regulate or whether they represent a mere "convenience sample" (a sample of those who found it convenient to report). The inability to make such an assessment was one of the major reasons we were unable to produce a credible 1983 national report.

Discussions with Judy Stone, of your office, have led us to conclude that the second part of each of these lists, the lists of non-reporting facilities and generators, can be deduced from the first two lists, the lists of reporting generators and facilities (already required) and the lists of generators and facilities reporting non-regulated status (newly required). Thus, the third list need not be submitted, if States and Regions are comfortable with officially designating entities as non-reporters (a potential compliance violation) if they are (1) listed on RWDMS as of 12-31-85 and (2) not included on either of the first two lists. Regions and States will soon be advised of this option in a Biennial Report update memorandum.

In addition, we are now preparing for Regional distribution computer lists of all RWDMS generators and facilities (as of 12-31-85), by state. These lists will allow convenient designation of reporting, non-reporting, and non-regulated status, and they should help ease any additional reporting burdens imposed by the new requirements.

I hope these points serve to explain our need for these additional items and our reasons for believing the reporting burden they impose is both slight and justified. If you have any additional questions concerning these or related matters, please do not hesitate to contact Francine Jacoff (202-382-4761) or Mike Burns (202-245-3155) directly.

cc: RCRA Branch Chiefs,
Regions I-IV, VI-X

UNITE TATES ENVIRONMENTAL PROTECTIO. GENCY

9454.1987(01)

JUL 21 1987

Ms. Irene Ginsberg
Apartment 1-C
235 Fort Washington Avenue
New York, New York 10032

Dear Ms. Ginsberg:

This is in response to your letter dated June 29, 1987, regarding the promoting of source reduction. In 1976, the U.S. Environmental Protection Agency (EPA) issued a policy statement outlining its preferred hazardous waste management strategy (41 FR 35050, August 18, 1976). That strategy, which favors source reduction and recycling over treatment and land disposal, has remained intact over the past decade despite comprehensive statutory amendments and substantial expansion of the hazardous waste program.

Source reduction is generally preferable to treatment because of the following:

- Few treatment technologies are 100 percent efficient.
- Compliance with regulations under of the various environmental programs will never be perfect, even with the most stringent enforcement programs.
- In many instances, there is currently insufficient capacity to treat all of the hazardous waste streams generated in the United States.
- Source reduction encourages a more wholistic approach to designing manufacturing processes that do not generate hazardous wastes.

However, it is impractical to assume that all waste can be eliminated by source reduction. For example, certain products simply cannot be manufactured without producing hazardous wastes. Excessive waste minimization requirements could remove products from the market. Further, wastes produced by a given process may be comparatively easy to treat or destroy, yet quite difficult to minimize through source ~~reduction or recycling. Therefore, EPA also must encourage~~

The reduction of waste has long been a goal of the EPA. Our report to Congress issued last October on the minimization of hazardous waste fully considered many options do promote waste minimization. In the report, EPA has a specific definition for waste minimization, which supports the use of both source reduction and recycling (in descending order of preference). Enclosed please find a copy of this report's Ehecutive Summary. We are now in the process of acting on many of the recommendations presented in the report, including programs aimed at data collection and technology transfer.

If you have any questions on the enclosed materials, you should contact James Berlow, Chief of the Office of Solid Waste's Treatment Technology Section, on (202)382-7917.

Sincerely,

/s/

Marcia E. Williams
Director
Office of Solid Waste

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9454.1994(01)

MAY - 9 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: Recordkeeping Requirements for Small Quantity Generators Subject to Land Disposal Restrictions

FROM: Michael Shapiro, Director
Office of Solid Waste

TO: Karen V. Brown
Asbestos and Small Business Ombudsman
Office of Small and Disadvantaged Business Utilization

Thank you for your memorandum of March 23 on the Land Disposal Restrictions (LDR) program. Your memorandum makes two points: (1) Small quantity generators should not be subject to the LDR notification requirements; and (2) EPA should provide outreach material on notification requirements directed to small quantity generators.

On the first point, you suggest that the threshold for exempting small quantity generators (SQGs) from LDR requirements that are set out in the regulations at 40 CFR 268.1(e)(1) should be the generation of 1000 kg/month of hazardous wastes, "thereby exempting all SQGs from the subject Notification Requirements." Due to the requirements of the Resource Conservation and Recovery Act (RCRA), however, no legal means exist for the Agency to exempt such SQGs from the LDRs. The only relief available for small entities is the existing small quantity generator and conditionally exempt small quantity generator exemptions found in 40 CFR 262.11-12, and 261.5, respectively. These exemptions basically prescribe the generation of 100 kilograms per calendar month of hazardous waste as the limit below which one is exempted from complying with most of the RCRA hazardous waste requirements. The 100 kilogram per month limit is specified in RCRA section 3001(d). This limit has been the threshold for LDR compliance since November 1986, when the LDR program was first implemented.

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2. Biennial Reporting for Wastes Treated in Exempt Units

In February 1993, a site generated 2,000 kg of hazardous waste, of which 1,500 kg was a spent solvent classified as F001 and 500 kg was characteristically ignitable (D001). The F001 was accumulated on-site in accordance with the §262.34 generator standards and then shipped off-site for disposal. The D001 was piped directly to a wastewater treatment unit for subsequent discharge under a Clean Water Act permit (§270.1(c)(2)(v)).

In order to determine RCRA hazardous waste generator status, and applicable regulations, the site's owner/operator must count hazardous waste generated in every calendar month. For example, a site which generates greater than 1,000 kg of hazardous waste in a calendar month is deemed large quantity and is subject to full generator standards, whereas a site which generates less than 100 kg is subject to the reduced regulatory requirements of §261.5. In determining generator status, the site must count all wastes that are subject to the substantive standards related to storage, transportation, treatment, or disposal of hazardous wastes (51 ER 10153; March 24, 1986).

In this situation, the F001 was subject to substantive regulation under §262.34, therefore, the site counted the 1,500 kg in determining their generator status. The generator or owner/operator did not, however, count the 500 kg of D001 wastes, because this waste was not subject to substantive regulation (51 ER 10152; March 24, 1986). Therefore, in February, the site was classified as a large quantity generator for the month and subject to all of the standards of Part 262, including the biennial reporting requirements of §262.41. The

Biennial Report requires a description of the characteristics and quantity of hazardous waste generated during the reporting year. Must the site's Biennial Report address only wastes which are counted toward the generation rate, or must other wastes generated at the site, such as the D001, also be included?

9455 – SPECIAL CONDITIONS

Part 262 Subpart E

JUL 7 1982

MEMORANDUM

SUBJECT: Interpretation of Farmer Exemption in 40 CFR 262.51

FROM: Bruce Weddle
Deputy Director
State Programs and Resource Recovery Division (WH-563)

TO: David A. Wagoner
Director, Air and Hazardous Management Division
Region VII

I am writing in response to John Franke's May 25 memo to Rita Lavelle concerning the applicability of 40 CFR 262.51 to the University of Nebraska's (Lincoln) research farming activity. The farms which the University of Nebraska use to conduct research qualify the University for the farmer exemption, because a farmer is a person who raises crops or livestock. Section H of the 3002 Background Document includes a detailed discussion of the farmer exemption and the Agency's rationale for exempting farmers from the RCRA regulations (copy attached).

Farmers have a vested interest in their crop land and have sufficient amounts of land onto which rinsate or wash-down water may be applied. For these reasons we believe that the quantity and degree of risk associated with a single farmer's operation is minimal and deserves conditional exemption. Finally, farmers generally generate small quantities of empty containers and unused solutions relative to the size of their operation.

In evaluating the University of Nebraska's farm or farms, it is clear that their operation meets the intent of the farmer exemption activity. Although the word "research" is used to describe the University farms, this is an institutional word indicating their primary farming interest is the investigation of growth and yield information rather than production per se. Thus, the words "research farm" do not preclude them from farming but delinate an interest or activity. However, to be eligible for the farmer

exemption, a farmer must also dispose of his hazardous waste pesticides from his own use on his own property in accordance with the disposal instructions on the label (40 CFR 262.51).

I hope this answers your questions on this matter. If you have any other questions, please contact me or Rolf Hill on FTS-382-4753.

WH-563/RHill-JThomspon/23 JUNE 82/Rolf's Disk#II Doc.#22/
#516 Controlled Correspondence
Revised: Bruce Weddle/06 JULY 82

June 25, 1985

MEMORANDUM

TO: Harry Seraydarian
Director, Toxics and Waste Management Division
EPA Region IX

FROM: John H. Skinner
Director, Office of Solid Waste (WH-562)

SUBJECT: Determining Who Assumes Generator Responsibilities for Importations of Hazardous Waste

With respect to the importation of hazardous waste, you have asked who should assume generator responsibilities: the transporter or the United States facility arranging for the importation of the hazardous waste.

Under current regulations "any person" who "imports" hazardous waste must comply with the generator requirements of 40 CFR Part 262. 40 CFR §§262.50(c), 262.50(d); see also §§262.10(c), 263.10(c). This broad language suggests that more than one party may be an "importer" in a given situation. In the situation you describe, both the transporter and the Untied States facility arranging for the importation would be persons who "import" hazardous waste. Where more than one person falls within the scope of this language, all of the parties, as contributors to the importation of hazardous waste, should be held jointly and severally liable for compliance with the generator requirements of Part 262.

Through mutual agreement, however, one of the parties may assume and perform the generator duties on behalf of all the parties. In fact, EPA encourages such agreements. Where such an agreement exists the Agency will look to the designated party to perform the generator responsibilities. EPA, however, reserves the right to enforce against any of the parties if the requirements of Part 262 are not adequately met providing such enforcement is equitable and in the public interest.

In EPA's view, the party in the best position to assume the generator responsibilities should normally take on these responsibilities on behalf of other parties. In fact, EPA will initially look to such a party where no party has been designated

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or EPA is unaware of such designation. Under the specific factual situation you describe, it appears that the Untied States facility arranging for the importation of hazardous waste may be in the best position to assume the generator responsibilities. For a discussion of some relevant factors to consider in determining which party is in the best position to assume the generator responsibilities, see 45 F.R. 72024, 72025 (October 30, 1980) where an analogous situation is addressed.

You have also expressed some concern about the possibility of unmanifested or improperly manifested shipments occurring where the facility arranging for the importation is also the treatment, storage and disposal facility. Under such circumstances, the same facility must comply with both 40 CFR Parts 262 and 264 or 265 (for the receipt of waste from off-site sources). The fact that the facility receiving the waste must also assume generator responsibilities, thereby eliminating the presence of an independent treatment, storage and disposal facility to help assure compliance with the manifest requirements, should be of no greater concern than for shipments between sites owned by the same company.

cc: Hazardous Waste Division Directors, Regions I-VIII and X

This has been retyped from the original document.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

SEPTEMBER 86

2. Export of Hazardous Waste

A generator plans to send an unlisted, characteristic by-product to a reclamation facility in Mexico. How do the new hazardous waste export regulations, effective November 8, 1986, apply to the export of this recyclable material?

The hazardous waste export regulations are in 40 CFR Part 262, Subpart E. Revised export regulations, effective November 8, 1986, require notification of the Administrator, consent from the receiving country, special manifesting procedures, recordkeeping, exception reporting and submittal to EPA of an annual report for the export of most hazardous wastes. (See sections 262.52-262.57, promulgated in the August 8, 1986 Federal Register, 51 FR 28664.) According to §261.2(c)(3), Table 1, characteristic by-products are not defined as solid wastes, and thus not hazardous wastes, when destined for reclamation. Therefore, the characteristic by-product is not subject to Part 262, Subpart E, because it is not a hazardous waste. The burden of proof, however, is on the exporter to demonstrate and document that the material to be recycled is not a solid waste (§261.2(f)). The exporter should be able to demonstrate that there is a known market or disposition for the material. A copy of a recycling contract, records describing the Mexican reclamation facility, and/or evidence that the facility has a license or approval from the Mexican government would also support the exporter's claim that the recyclable material is not a solid waste (see 51 FR 28670).

Source: Carolyn Barley (202) 382-2217
Research: Jennifer Brock

JUN 19 1987

Honorable Wes Watkins
House of Representatives
Washington, DC 20515

Dear Mr. Watkins:

Thank you for your May 5, 1987 letter on behalf of your constituent Mr. Joe Bonar regarding the Environmental Protection Agency (EPA) hazardous waste export rule.

Section 3017 of the Hazardous and Solid Waste Amendments of 1984 (HSWA) prohibits the export of hazardous waste unless persons exporting such waste provide notification to the EPA. The government of the country receiving the waste has to consent to accept the waste. The final rule implementing these statutory provisions was published on August 8, 1986 (copy enclosed) and became effective on November 8, 1986.

In developing the export rule, the Agency decided that wastes which were regulated domestically should also be regulated internationally. The rationale and purpose underlying the domestic manifest requirements are similar to international notification and consent requirements. The domestic manifest notifies persons receiving or handling the waste of the nature of the materials being dealt with and affords those persons the opportunity to reject the waste or, if accepted, provides sufficient information to ensure proper handling of the waste.

Under EPA's domestic regulatory scheme, hazardous wastes are generally subject to the manifest, but certain wastes sent for recycling are exempt from the manifest requirement. Such an exemption applies to persons who send batteries for recycling. Thus, spent batteries sent to a foreign country for recycling would be exempt from the requirements to file a notification and receive written consent from the receiving country. However, the exemption only applies if the batteries are uncracked.

Notification, however, is required for exporting lead battery plates and groups (as well as other hazardous wastes requiring a manifest for domestic shipment). Notification and consent can cover a period of up to 12 months. Thus, a 60 day waiting period for approval to export applies only for the first shipment rather than each shipment of waste. While EPA anticipates a maximum of 60 days to obtain written consent from the receiving country, we believe that this time frame can be substantially shortened as we gain experience in obtaining written consents from receiving countries. Further, Section 3017 provides that an international agreement with a receiving country can take priority over the written consent provision of EPA's export rule. While bilateral agreements have been negotiated for only two countries (Canada and Mexico), other countries may also want to develop bilateral agreements with the U.S., particularly if a country wants to expedite movements of hazardous waste between the two countries.

I hope this explanation of EPA's export rule is helpful. If you have any questions about the export requirements, please contact Ms. Carolyn Barley at 202-382-2217.

Sincerely,

J. Winston Porter
Assistant Administrator

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9455.1987(02)

JUN 15 1987

Emanuel Bodner
Bodner Metal & Iron Corp.
3660 Schalker Drive
Houston, Texas 77026

Dear Mr. Bodner:

This letter is in response to your letter of May 26, 1987, to clarify the responsibilities of Bodner Metal & Iron Corp. when transporting electric arc furnace (EAF) dust (EPA Hazardous Waste No. K061) to Mexico.

Please note carefully the two enclosed documents. The Federal Register notice (51 FR 28664, August 8, 1986) is the Agency's final rule on export of hazardous wastes. Essentially, the export of hazardous waste is prohibited unless the requirements outlined in the rule are met. The second document is an Agreement of Cooperation (also called a bilateral agreement) between the U.S. and Mexico which defines terms and specifies conditions for transport of pesticides and hazardous waste between the countries.

Please be reminded that legal liability for a hazardous waste does not end when a hazardous waste exits the United States, and that hazardous wastes exported to foreign countries must be manifested and handled in accordance with the terms of consent from the receiving country.

If you have any other questions, please contact me at (202) 382-4783.

Sincerely,

/S/

Scott J. Maid
Environmental Protection Specialist
Permits and State Permits Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 27 1989

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Peter Bronner
Inversora Murten S.A.
237 Park Avenue, 21st Floor
New York, New York 10017

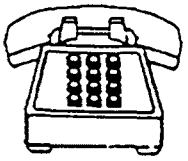
Dear Mr. Bronner:

This letter is in response to your facsimile of November 13, 1988, your telephone conversations with Wendy Grieder of the Environmental Protection Agency's Office of International Activities, and your telephone conversation with Emily Roth of my staff. In regard to the petroleum waste that you wish to export to South America, the export requirements of RCRA as found in 40 CFR Part 262, Subpart E, apply to all petroleum wastes that meet the definition of hazardous waste. Generators of solid waste must determine if their waste is hazardous waste according to 40 CFR Part 261. If the petroleum waste is not hazardous according to 40 CFR Part 261, there are no requirements under U.S. law. However, there may be other restrictions that apply, such as regulations in both the receiving country and any transit countries regarding the transboundary movement of such waste, or as you mention, the ban on the export of PCB containing oils as found in 40 CFR 761.20(c). Therefore, you should contact any country that the petroleum wastes will be exported to or through, to determine what requirements, if any, may be imposed.

If you have any further questions regarding this letter, you may contact Emily Roth at (202) 382-4777, or for questions regarding the reglatory status of the petroleum waste you may contact Ben Smith of my staff at (202) 382-4791.

Sincerely,

Matt Straus, Deputy Director
Characterization and Assessment
Division



HOTLINE QUESTIONS AND ANSWERS

December 1994

9455.1994(01)

RCRA

1. Notification Requirements for Exported Wastes

In addition to other requirements, a primary exporter of hazardous waste must comply with the special requirements of 40 CFR Part 262, Subpart E, including providing notification of intent to export to EPA's Office of Enforcement and Compliance Assurance 60 days prior to the initial shipment (§262.53(a)), and originating the hazardous waste manifest (§262.54). If a waste is not regulated as a hazardous waste in the United States but is subject to Canadian regulations, must the exporter notify EPA of the intent to export? If the waste is a hazardous waste but exempt from regulation in the United States, must the exporter still notify EPA?

Part 262, Subpart E applies only to wastes which are subject to Part 262, Subpart B manifest requirements (see also 51 FR 28664; August 8, 1986). For example, if the waste intended for export is a solid waste according to §261.3 but is not regulated as a hazardous waste subject to manifest requirements, the exporter would not be required to notify EPA of the intent to export. Wastes which are hazardous but exempt from manifest requirements would also be exempt from Part 262, Subpart E. For example, scrap metal (§261.6(a)(3)(iii)) and lead-acid batteries (§261.6(a)(2)(iv)) sent for reclamation are exempt from Subtitle C hazardous waste regulations (including the manifest requirements), and would therefore not be subject to Subpart E export requirements. Although exporters may be exempt from the requirement to notify EPA, they are advised to check with their Canadian counterparts for any applicable regulations (for example, Canadian manifest requirements) before the waste crosses the border.

9456 – IMPORTS OF HAZARDOUS WASTE

Part 262 Subpart F

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

OCTOBER 86

9. Export of Recyclable Materials

Are generators and transporters of recyclable materials used for precious metals recovery subject to the export regulations that were published on August 8, 1986 (51 FR 28664)?

Yes, exporters of recyclable materials used for precious metals recovery are subject to the export regulations in 40 CFR 262.50.

Subpart E of Part 262(§262.50) requires "primary exporters" to comply with the export requirements. A primary exporter, as defined in 40 CFR 262.50, is any person who is required to originate a manifest for a shipment of hazardous waste in accordance with 40 CFR Part 262, Subpart B, or equivalent State provision which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent. A primary exporter also includes any intermediary arranging for the export.

Generators of recyclable materials used for precious metals recovery must prepare a manifest in accordance with Part 262 Subpart B per §266.70(b)(2). If a generator exports his wastes for precious metals recovery, he meets the definition of a "primary exporter" and is subject to the export requirements in Subpart E-Exports of Hazardous Waste. These exports requirements include:

(a) written notification to EPA of intent to export 60 days prior to the initial shipment in a 12 month period;

(b) exporting only after receipt of an Acknowledgement of Consent;

(c) attaching the Acknowledgement of Consent to the manifest which is prepared in accordance with special manifest requirements of §262.54;

(d) filing exception reports, if needed;

(e) filing an annual report on his export activities and waste minimization efforts

(f) keeping records for three years

Transporters involved with exports of recyclable precious metal wastes must also meet certain export requirements. According to §266.70(b)(2), transporters of recyclable precious metal wastes must comply with the manifest provisions of §§263.20 and 263.21. The export regulations of August 8, 1986 modified the §262.20 manifest requirements for exports. Transporters must ensure that the Aknowledgement of Consent accompanies the waste shipment and cannot accept the waste without it. The transporter may not accept the waste for export if he knows the shipment does not conform to the Acknowledgement of Consent (51 FR 28685). The transporter must give a copy of the manifest to a U.S. customs agent at the point the waste leaves the U.S.

Source: Carolyn Barley (201) 382-2217
Research: Betty Wilson

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 87

5. Exporting Hazardous Waste

Are lead-acid batteries sent to Canada for recycling subject to RCRA Section 3017 requirements?

No. Lead-acid batteries sent to Canada for recycling are not subject to the export requirements of 40 CFR 262.53, which codifies Section 3017. The regulations parallel the statute, which requires that any person exporting hazardous waste shall: provide notification to the Administrator; obtain consent from the receiving country; attach a copy of that consent to the manifest; and ensure that the shipment and terms of the written consent are in agreement. The Cooperative Agreement between the governments of Canada and the United States parallels the same points outlined above. As explained at 51 FR 28669, the definition of "exporter" excludes wastes not subject to regulation through the manifest system. Because 40 CFR 261.6(a)(2) and (3) exclude lead-acid batteries that are being reclaimed or regenerated from all substantive regulation until the batteries are "cracked" or broken open, a person exporting uncracked lead-acid batteries for reclamation or regeneration is not an exporter subject to Section 3017.

Source: Paul Mushovic (202) 475-7736
Research: Laurie Huber

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 5 1991

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Thomas E. Linson
Hazardous Waste Management Branch Chief
Indiana Department of Environmental Management
105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Dear Mr. Linson:

This letter responds to your January 4, 1991 request for a regulatory interpretation regarding the export of hazardous wastes utilized for precious metals reclamation. Specifically, you question whether Federal regulations require compliance with 40 CFR Part 262 Subpart E (which regulates hazardous waste exports) when a precious metal-bearing sludge is exported for reclamation. You request this interpretation because the export requirements of Part 262 Subpart E are not specifically referenced in either section 261.6(a)(2) or 266.70. However, as Mr. Glenn Sternard of U.S. EPA's Region V office has indicated, the preamble to the August 8, 1986 rulemaking (51 FR 28664), which promulgated the export requirements for hazardous wastes, implies that the export requirements do, in fact, apply to any generator required to prepare a manifest under Subpart B of Part 262.

Mr. Sternard is correct. The export requirements of Part 262 Subpart E are applicable for precious metal-bearing sludges that are exported for reclamation. EPA agrees that a specific reference to Part 262 Subpart E in section 266.70 would clarify this requirement and we will keep this in mind during any future rule changes. As the preamble to the August 8, 1986 rulemaking discusses in depth (while not specifically referring to hazardous wastes used for precious metals recovery), the determining factor in applying the export requirements is whether or not the transportation of a particular hazardous waste requires a hazardous waste manifest. (Indeed, the preamble actually explains the Agency's position that the export requirements applies only to hazardous wastes which require a manifest, rather than to any hazardous waste, which is how some of the commenters on the proposal to this rulemaking interpreted Section 3017 of RCRA.)

Therefore, in the absence of any specific exemption from the export requirements for a hazardous waste that requires a manifest, the export requirements apply. Hazardous wastes which

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are subject to Part 266 Subpart F are not specifically exempt from the export requirements.

I hope this clarifies the applicability of the export requirements for the situation you must resolve. If you have any further questions, you may contact Mike Petruska, Chief of the Regulatory Development Branch, at (202) 475-8551.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9455.1991(02)

MAY 16 1991

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mark J. Schulz
President
Pharmaceutical Services, Inc.
Browning-Ferris Industries
757 N. Eldridge
Houston, Texas 77079

Dear Mr. Schulz:

This responds to your February 22, 1991 letter to David Bussard requesting a determination regarding the regulatory status of pharmaceutical products that are returned by the dispensers of these products to the manufacturers, wholesalers, or to a third-party service company that will facilitate the processing, crediting, and, if needed, appropriate disposal of the returned products. Currently, such products are returned directly to the manufacturer or wholesaler, who credits the dispenser for the products and determines whether the products are to be reused, reclaimed, or appropriately disposed. BFI Pharmaceutical Services, Inc. (BFI-Pharm) intends to provide this reverse distribution service to the pharmaceutical industry.

As I understand your letter, pharmaceutical products may be returned for many reasons, including, among others: 1) an oversupply at the dispenser, 2) expiration of the recommended shelf life, 3) a recall has been initiated by the manufacturer, 4) the product was received as a result of a shipping error, and 5) the product has been damaged. You state that, in general, the dispensers of the pharmaceutical products do not know whether the returned products will be reused, reclaimed, sold overseas, or disposed (i.e., they are not able to determine whether these materials are solid wastes). Because the dispensers receive credit for the returned products (either because the products actually have real value to manufacturer or because such credits are part of a competitive marketing approach), the products have a monetary value to the dispensers and they would not normally assume such materials to be wastes.

Under our current regulations, such returned products are not considered solid wastes until a determination is made to discard these materials. The returned products themselves (being "commercial chemical products" under our classification system) are considered more product-like than waste-like (until a determination is made to dispose of them) because recycling by use/reuse is generally a viable option. If the underlying assumption is that the returned products will be recycled, until the manufacturer or wholesaler determines otherwise (assuming that this determination is beyond the ability of the dispenser), then those products managed within the reverse distribution system are not solid wastes until the manufacturer or wholesaler makes the determination to dispose of them. This view is based on our understanding that the system is established as a means to facilitate the recycling of reusable pharmaceutical products, rather than a

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waste management system. We will be interested to learn if your data, which will be computerized, will support this assumption. At the current time there does not appear to be any reason for EPA to change its policy regarding this type of reverse distribution system simply because a third-party service company is involved rather than the manufacturers themselves.

I would like briefly to bring to your attention two issues that bear generally upon reverse distribution systems, although neither appear to be of concern in the BFI-Pharm situation. First, EPA does not intend for hazardous waste brokers to use a reverse distribution system to relieve generators of the responsibility for making determinations about the discarding of materials as wastes. It remains the generator's responsibility to properly identify secondary materials. Second, a reverse distribution system cannot be used as a waste management service to customers/generators without the applicable regulatory controls on waste management being in place. Of course, as I discussed above with respect to the BFI-Pharm situation, to the extent that the materials involved are unused commercial products with a reasonable expectation of being recycled in some way when returned, the materials are not considered as wastes until a determination has been made to discard them.

This interpretation is based on the current set of Federal RCRA regulations. However, as you know, authorized States may regulate or interpret the regulations differently, and State requirements are the applicable standards in authorized States. You should contact the appropriate State regulatory agencies for a more definitive regulatory determination for their respective jurisdictions.

I hope this has sufficiently answered your questions. Should you have any further questions regarding EPA's policies, you may contact David Bussard at (202) 382-4637.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 10 1991

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Jack Whalen
Hamanna Alloys Corporation
441 Lexington Avenue
New York, NY 10017

Dear Mr. Whalen:

Thank you for your letter of October 31, 1991 to Mike Petruska in which you inquired about the regulation of recovered lead and lead alloys from used batteries and other suitable sources, and the export of these components to other countries. There are potentially numerous regulations applicable to recovery of lead and lead alloys from batteries, depending on the particular situation. Based on your letter I will list the major ones here; however, please note that this list may not be exhaustive: 40 CFR Parts 124, 260.10, 260.30(c), 261.1(c)(6), 261.2(c), 261.3(a)(2)(i), 261.6(a)(3)(iv), 261.22, 262.34, 263, 264.1(g)(6), 265.1(c)(10), 266 Subpart G, 266.80(a), 266.80(b)(1)-(4), 268.7(a)(4), and 270. Because analysis of the appropriate regulatory scheme is material-specific, I cannot address lead and lead alloy recovery from "other suitable sources."

Hazardous waste export regulations are found at 40 CFR Part 262 Subpart E. The governmental notification process is generally as follows. The exporter notifies EPA's Office of Waste Programs Enforcement in writing of his/her intent to export. This notification must contain certain information (see the regulations cited above). EPA then sends the written notification to the U.S. State Department, which then cables it to the government of the receiving country. The receiving country then cables the State Department with its consent or rejection, and includes conditions for acceptance, if any. The State Department forwards the cable to EPA, and EPA forwards it to the exporter. Upon the exporter's receipt, this document is called the EPA Acknowledgement of Consent (AOC). The exporter must attach a copy of the AOC to the manifest accompanying the shipment, and must forward a copy to the U.S. Customs Service (a manifest may be obtained from your state if it has its own, or from any source if it does not). Transit countries, if any, are also notified within this process; however, if a transit country refuses the shipment it is the exporter's responsibility to make other arrangements.

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Under the terms of separate bilateral agreements with Canada and Mexico, this process is slightly different. For exports to Canada, EPA deals directly with its counterpart, Environment Canada, and the U.S. State Department and other diplomatic entities do not become involved. The consent process is "tacit" instead of written; that is, Canada has 30 days to accept or refuse a shipment after which, if no acknowledgement is made, the shipment may commence. For exports to Mexico, EPA deals directly with its counterpart, SEDUE, but copies of all relevant documents are forwarded to the State Department and normal diplomatic entities.

As you may be aware, President Bush signed the Basel Convention on the Transboundary Movement of Hazardous Wastes on March 22, 1990. This may have additional implications for hazardous waste exports depending on whether the U.S. formally ratifies Basel, and on what form the implementing legislation takes.

Sincerely,

Elizabeth W. LaPointe for

David Bussard, Director
Characterization and
Assessment Division

Enclosure

FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 17 1995

9455.1995(01)

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. James A. Lassner
Investment Recovery Manager
40 Rector Street
New York, NY 10006

Dear Mr. Lassner,

In your January 26, 1995 letter to Mike Shapiro, you asked whether a vessel transporting a RCRA regulated hazardous waste requires an EPA identification number for transport between the U.S. and Belgium.

The answer to your question is no. An EPA identification number is not required once a waste shipment is outside of U.S. jurisdiction. For a complete description of RCRA waste export requirements, please refer to the code of federal regulations, specifically 40 CFR Part 262, Subpart E-Exports of Hazardous Waste.

If you have any additional questions, please contact Denise Wright of my staff at (202) 260-3519.

Sincerely,

for Michael Petruska, Chief
Regulatory Development Branch

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HOTLINE QUESTIONS AND ANSWERS

March 1995

9455.1995(02)

RCRA

2. Export Requirements for Transportation Through Transit Countries

A facility generates hazardous waste in Alaska. The generator arranges to send the hazardous waste to a disposal facility in California. In the process of transportation, the hazardous waste will pass through Canadian territory. Will the facility be required to comply with any of the export regulations found under Part 262, Subpart E?

In this scenario, RCRA export regulations do not apply. The regulations for exports of hazardous waste in Part 262, Subpart E apply to any person who meets the definition of a primary exporter. Primary exporter is defined under §262.51 as generally, any person required to initiate a hazardous waste manifest which designates a treatment, storage, or disposal facility in a receiving country. Receiving country is subsequently defined under §262.51 as "a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal (except short-term storage incidental to transportation)". In the above scenario, there are no treatment, storage, or disposal facilities in a receiving country that are designated on the manifest, rather, the waste simply passes through a foreign country. RCRA does not require that transit countries be notified.

RCRA/SUPERFUND/OUST HOTLINE MONTHLY REPORT QUESTION
AUGUST 1992

2. Accumulation Time for Hazardous Waste Importers

A U.S. hazardous waste broker wishes to import hazardous waste by truck from Mexico into the United States. Assuming the shipment passes U.S. Customs, the broker wishes to accumulate the hazardous waste at a warehouse near the border for 45 days in order to consolidate several shipments before transporting the hazardous waste to a designated TSDF. According to 40 CFR §262.60, an importer of hazardous waste must comply with the generator requirements of 40 CFR Part 262. Section 262.20 also requires the importer to comply with certain manifesting requirements specific to imports (§262.60(b)). Once the waste is imported into the United States, can the importer accumulate hazardous waste (per §262.34) at or near the point of entry to the United States (e.g., in a warehouse) for 90 days or less without a permit or interim status prior to shipping it to the designated TSDF?

Although it is correct that importers must comply with Part 262, Standards Applicable to Generators, including the special requirements of Part 262, Subpart F, importers cannot accumulate hazardous waste under §262.34. Ninety-day accumulation under §262.34 applies only to generator accumulation on-site, and is not applicable to this situation. Sections 262.20 and 262.60 require the importer to prepare a hazardous waste manifest for the waste shipment, using the importer's name and the name of the foreign generator in the generator box. At the time the manifest is initiated (at the point of entry into the United States) the waste shipment is already in transportation, and the manifested hazardous waste must proceed to the facility designated on the manifest to accept the hazardous waste. Under §263.12, the hazardous waste may be stored during the normal course of transportation to the designated facility at a transfer facility for 10 days or less, provided that the hazardous waste is packaged in accordance with DOT packaging regulations.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9456.1994(01)

DEC 16 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Satoru Morishita
Deputy Director
Office of Marine Pollution Control
& Waste Management
Environmental Agency
Kasumigaseki 1-2-2
Chiyoda-ku, Tokyo, Japan

Dear Mr. Morishita:

I am writing in response to your to letter to Paul Borst of November 11, 1994 regarding the export from Japan to the United States of bubblers containing phosphorus oxychloride used in the production of semiconductors. In that letter you requested clarification on the EPA position that bubbler canisters containing phosphorous oxychloride are not waste when returned to the United States from Japan for regeneration. In our previous correspondence to of September 14, 1994, EPA stated that we do not believe that phosphorous oxychloride remaining in the bubbler canisters is used based on a comparison of data on the purity of that substance and new phosphorous oxychloride added to the canister. This comparison showed that the phosphorous oxychloride remaining in the returned canister is almost as pure as it was when inserted into the canister. As stated in our prior correspondence to you, under U.S. hazardous waste laws and regulations, unused commercial chemical products that are to be reclaimed are not solid wastes. Therefore, in our view, bubbler canisters containing phosphorous oxychloride when sent for regeneration are not subject to the terms of the OECD decision C(92)39/Final as far as implementation of that agreement by the United States government.Of course, other countries involved in a transboundary movement of waste might have a different national procedure for determing what is a hazardous waste. If another OECD country considered it a hazardous waste subject to the OECD council decision we would expect them to enforce the requirements of the OECD council decision.

In your letter to Mr. Borst, you request clarification on U.S. hazardous waste laws and regulations and the OECD system with respect to three different factual situations on the management of bubbler canisters containing phosphorous oxychloride. You also request technical assistance on how the remaining phosphorous oxychloride should be managed.

In the three factual situations you present, there are identical elements: 1) bubbler canisters are exported from country X to Japan for semiconductor production, 2) after the canisters are depleted they are returned to country X for regeneration. The only differences in each factual situation is the management of the remaining phosphorous oxychloride upon its return to country X. The U.S. detailed regulations on what is a hazardous waste are only legally relevant to U.S. regulations applying if one of the countries involved is United States. We cannot interpret other countries national procedures.

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In the first situation, you state that the remaining phosphorous oxychloride is removed from the bubbler canister and distilled before being reintroduced with new phosphorous oxychloride to regenerate the canisters. This is essentially what happens when the bubbler canisters are exported to the United States. For the reasons stated above, EPA would not consider the phosphorous oxychloride to be a waste and therefore the bubbler would not be subject to U.S. regulations to implement the OECD decision C(92)39/Final.

In the second situation, the remaining phosphorous oxychloride is not distilled or removed from the bubbler canister. The bubbler canister is regenerated by simply adding new phosphorous oxychloride. EPA would not consider the bubbler to be waste in this situation because the remaining phosphorous oxychloride would simply be continuing to be used as a product. Therefore it too would not be subject, in our view, to U.S. regulations implementing the OECD decision C(92)39/Final.

In the third situation, the remaining phosphorous oxychloride is removed from the bubbler canister and disposed of. The bubbler is regenerated by adding new phosphorous oxychloride. Because EPA has viewed remaining phosphorous oxychloride as an unused commercial chemical product and therefore not a waste, we would view the transport of the bubbler canisters from Japan to Country X in this situation as intended for reclamation rather than disposal. If the importer/reclaimer in Country X makes a decision to discard remaining phosphorous oxychloride rather than reclaim or reuse it as in the first two situations, EPA would view that material as being generated as a waste at the importing country's reclamation facility rather than the exporting country's facility. Since EPA would not view the remaining phosphorous oxychloride as a waste until it had arrived and the importer/reclaimer had made a decision to dispose of it, the Agency would not consider the bubbler canister to be a waste and therefore not subject to U.S. regulation to implement the OECD decision C(92)39/Final.

Finally, you ask how the remaining phosphorous oxychloride should be treated. When a decision is made by a waste handler to discard phosphorous oxychloride, EPA believes that this material is hazardous because it is reactive and possibly corrosive. It is our understanding that the phosphorous oxychloride reacts violently with water during its use and has the potential to cause an explosion. It is also our understanding that the compound is highly corrosive and can cause skin burns. Phosphorous oxychloride can be destroyed through the addition of sodium hydroxide solution. The mixture should then be cooled, neutralized and disposed. It is inappropriate for untreated phosphorous oxychloride to be land disposed or discharged to a wastewater treatment system. If you have any further questions, please contact either Paul Borst at (202) 260-6713 or Denise Wright at (202) 260-3519 of my staff if you would like to discuss this matter.

Sincerely,

David Bussard

David Bussard, Director
Characterization and
Assessment Division

ENVIRONMENT AGENCY

Government of Japan

1-2-2 KASUMIGASEKI. CHIYODA KU
TOKYO 100. JAPAN

Date: November 11, 1994

Mr. Paul Borst
Characterization and Assessment Division
Office of Solid Waste
United States Environmental Protection Agency

Dear Sir:

First of all, let me introduce myself briefly. I am responsible for implementing the OECD system and the Basel Convention in the Japan Environment Agency, competent authority of Japan. Mr. David Bussard suggested to me that I should contact you in his kind letter dated September 14, 1994 in response to my letter dated May 31, 1994 for clarifying the status under the OECD system with respect to the export from to Japan to the United States of bubblers containing phosphorous oxychloride used in the production of semiconductors.

Based on the information on the letter of Mr. Bussard, I would like to ask you to inform me of the status of your country concerning the following cases in line with both the U.S. hazardous waste laws and regulations and OECD system in order to avoid the misunderstanding.

Case 1

Waste Description	Bubblers containing a small quantity of phosphorous oxychloride
Recovery Operation	Recycling/Reclamation of other inorganic materials
Exporting Country	Japan
Importing Country	X Country (OECD member country)

These bubblers were exported from X country to a private company in Japan for producing semiconductors. After phosphorous oxychloride is depleted, they are to be returned from Japan to X country and are regenerated by distilling any phosphorous oxychloride remaining in the canister and adding new phosphorous oxychloride to the bubbler canister.

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Case 2

Waste Description, Recovery Operation, Exporting & Importing Country

Same in Case 1

After phosphorous oxychloride is depleted, they are to be returned from Japan to X country and are regenerated by adding new phosphorous oxychloride to the bubbler canister.

Case 3

Waste Description, Recovery Operation, Exporting & Importing Country

Same in Case 1

After phosphorous oxychloride is depleted, they are to be returned from Japan to X country and are regenerated by removing the phosphorous oxychloride remaining in the bubbler canister and adding new phosphorous oxychloride to the canister. The removed phosphorous oxychloride is to be disposed of.

According to the letter of Mr. Bussard, the data of Schumacher of Carlsbad indicate that the phosphorous oxychloride in the returned canister is not used. I would like to know how the remaining phosphorous oxychloride should be treated? Should it be disposed of or destroyed by the pre-treatment?

So, could I ask you to give me some advice regarding the above-mentioned cases and question? I am looking forward to receiving your kind respond on this issue. Thank you very much in advance.

Sincerely yours,

Satoru Morishita
Deputy Director
Office of Marine Pollution Control & Waste Management,
Planning Division, Water Quality Bureau
Environment Agency, Government of Japan
Address: 1-2-2, Kasumigaseki, Chiyoda-ku, Tokyo 100, Japan
Tel:+81-3-3581-4498, Fax:+81-3-3593-1438

This document has been retyped from the original.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 15 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

9456.1996(01)

Randall F. Andrews, President
Industrial and Agricultural Chemicals, Inc.
Route 2, Box 521-C
Red Springs, NC 28377

Dear Mr. Andrews:

Thank you for your letter of January 18 to Michael Shapiro in which you requested EPA's non-objection to imports of cobalt oxide-molybdic oxide spent catalysts into the U.S. for recovery at your facility.

These spent catalysts are usually non-hazardous, but can be characteristically hazardous (e.g. they have been shown to exhibit the toxicity characteristic for benzene and arsenic). In your letter, you state that the particular spent catalysts you intend to import are not RCRA hazardous waste. EPA does not have the authority to consent or object to imports of non-hazardous wastes, and generally does not object to imports of hazardous wastes except under certain circumstances. As you know, cobalt oxide-molybdic oxide spent catalysts have been proposed for listing as hazardous waste, the final rule for which is expected this fall.

As we have stated in previous letters, you should be aware that a number of countries have ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (an updated list of Parties is attached). Our understanding is that you plan to import these wastes from Venezuela and Trinidad. While Venezuela is not currently a Party to Basel, Trinidad is, and should not allow the export if they consider the wastes to be subject to Basel. In order for Basel Parties to export Basel-covered wastes to non-Parties (the U.S. is still not a Party to Basel), there must be a bilateral agreement in place which is consistent with the requirements of the Convention. We do not currently have a bilateral agreement with Trinidad.

You should also check with the appropriate regulatory agencies in the state or states in which you operate to determine whether there are additional requirements with which you must comply.

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In the future, please direct similar correspondence to Mr. Robert Heiss, Director of the RCRA Import/Export Program, Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), at the EPA address above. Mr. Heiss can be reached at (202) 564-4108. If you have further questions about this letter, please call Julia Gourley of my staff at (202) 260-7944.

Sincerely yours,

David Bussard, Director
Hazardous Waste Identification Division
Office of Solid Waste

Enclosure

cc Robert Heiss

STATUS OF RATIFICATIONSOF THE BASEL CONVENTION
AS PER GEOGRAPHIC GROUPS
OF THE UNITED NATIONS

I. STATES (As of 10 January 1996)

Africa	Asia and Pacific	V. Europe and Others	Central and Eastern Europe	Latin America and Caribbean
Comores Côte d'Ivoire Egypt Guinea Malawi Mauritius Morocco Namibia Nigeria Senegal Seychelles South Africa Tanzania Tunisia Zaire Zambia	Bahrain Bangladesh China Fed. States of Micronesia India Indonesia Iran Japan Jordan Kuwait Lebanon Malaysia Maldives Oman Pakistan Papua New Guinea Philippines Qatar Republic of Korea Saudi Arabia. Singapore Sri-Lanka Syria United Arab Emirates Vietnam	Australia Austria Belgium Canada Cyprus Denmark Finland France Germany Greece Iceland Ireland Israel Italy Liechtenstein Luxembourg Monaco Netherlands New Zealand Norway Portugal Spain Sweden Switzerland Turkey United Kingdom	Croatia Czech Republic Estonia Hungary Latvia Poland Romania Russian Federation Slovak Republic Slovenia	Antigua and Barbuda Argentina Bahamas Barbados Brazil Chile Costa Rica Cuba Ecuador El Salvador Guatemala Honduras Mexico Panama Paraguay Peru Saint Kitts and Nevis Saint Lucia Trinidad and Tobago Uruguay
16	25	26	10	20
TOTAL:	97			

II. POLITICAL AND/ ECONOMIC INTEGRATION ORGANIZATIONS

Africa	Asia	W. Europe and others	E. Europe	Latin America
		European Economic Community		
		1		
TOTAL:	1			

GEOGR.GR

Industrial and Agricultural Chemicals, Inc.
ROUTE 2 • BOX 521-C • RED SPRINGS, NC 28377
(910) 843-2121 FAX (910) 843-5789

Received
1/29/96

January 18, 1996

Mr. Michael Shapiro,(5301)
Director
Office of Solid Waste
U.S. EPA
401 M Street, SW
Washington, DC 20460

Dear Mr. Shapiro:

Our company wishes to import Cobalt Oxide-Molybdic Oxide spent catalyst into the United States. We believe that this material is nonhazardous under RCRA and it will be processed and used here at our facility. We would like to receive a letter of "no objection" from you to import this type of product. I am enclosing a copy of a previous "no objection" letter we received. We need a letter very similar to this one for the Cobalt Oxide-Molybdic Oxide spent catalyst. We would appreciate receiving this as soon as possible.

Please let me know if you have any questions regarding this matter.

Best regards,

INDUSTRIAL AND AGRICULTURAL CHEMICALS, INC.

Randall Andrews

Randall F. Andrews,
President

sj

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 16 1994

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Randall F. Andrews, President
Industrial and Agricultural Chemicals, Inc.
Route 2, Box 521-C
Red Springs, NC 28377

Dear Mr. Andrews:

Thank you for your letter of April 15 to Julie Lyddon of my staff in which you requested confirmation of the acceptability of importing into the U.S. spent nickel-containing catalysts for nickel recovery and stainless steel scrap for use in the manufacture of stainless steel.

Assuming they do not exhibit a characteristic of hazardous waste at 40 CFR Part 261 Subpart C, the nickel-containing catalysts and stainless scrap would not be considered hazardous and could therefore be imported. I would note that under 40 CFR 262.11, it is the generator's (and/or the importer's) responsibility to make this determination.

As we stated in our previous letter, you should be aware that a number of countries have ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (we attached a list to our previous letter). In order for Basel Parties to export to non-Parties (the U.S. is not a Party to Basel), there must be a bilateral agreement in place which is consistent with the requirements of the Convention. The U.S. is currently Party to three such agreements: a bilateral with Canada for recycling and disposal, a multilateral with the member countries of the Organization for Economic Cooperation and Development (OECD), and a bilateral with Mexico, both of which govern transfrontier movements for recycling only. If you plan to import from a Basel Party with which we do not have an agreement, and that country considers the catalysts or the scrap to be subject to Basel, then the country should not allow the wastes to be exported to the U.S.

Finally, you should check with the appropriate regulatory agencies in the state or states in which you operate to determine whether there are additional requirements with which you must comply.

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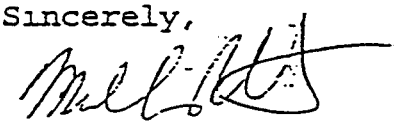
Thank you for your letter and for your interest in the safe and effective management of wastes. If you have further questions, please call Julie Lyddon at (202) 260-7944.

Sincerely,



Michael Petruska, Chief
Regulatory Development Branch
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

9456.1996(02)

JUN 17 1996

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Adam Feldman
Norman Feldman Associates
15 W. 81st St., Ste. 6C
New York, NY 10024

Dear Mr. Feldman:

Thank you for your letter of May 30 to Mr. Michael Shapiro in which you requested a letter explaining the RCRA hazardous waste import requirements. You indicated that you intend to import waste, which may or may not be hazardous, from Singapore. You should be aware that Singapore is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, while the U.S. is not a party. Under the terms of the agreement, parties cannot trade in hazardous wastes with non-parties absent an agreement pursuant to Article 11 of Basel which does not derogate from the environmentally sound management provisions of Basel. The U.S. and Singapore are not currently parties to such an agreement.

The hazardous waste import regulations at 40 CFR 262 Subpart F have not changed since the July 8, 1991 letter you received from Wendy Grieder of EPA's Office of International Activities. However, as you have requested, I will reiterate those requirements as they pertain to non-OECD imports of hazardous waste.

EPA regulations do not prohibit the importation of foreign-generated hazardous waste. However, the regulations do require that the owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the EPA Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same facility is not required (40 CFR 264.12 and 265.12).

Hazardous waste imported into the U.S. from a foreign source is regulated under the Resource Conservation and Recovery Act (RCRA) in the same manner as hazardous waste generated in the U.S. This includes compliance with manifesting, transport, treatment, storage, and disposal requirements.

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If you have further questions, please call me at (703) 308-8751.

Sincerely,

Julia L. Gourley

Julia L. Gourley
International and Special Projects Branch
Hazardous Waste Identification Division (5304W)
Office of Solid Waste

9457 – GENERATOR STANDARDS

Part 262

9457.1987(01)

25 MAR 87

Mr. Randy Bodley
Transbas Incorporation
1525 Lockwood Road
P.O. Box 957
Billings, Montana 59103

Dear Mr. Bodley:

Thank you for your letter of February 27, 1987, regarding the reuse of pesticide containers. Under the Environmental Protection Agency (EPA) regulations issued pursuant to subtitle C of the Resource Conservation and Recovery Act (RCRA), a generator of a solid waste must determine if he generates a hazardous waste, and if so, must comply with the regulations at 40 CFR Parts 260-268, 270, and the notification requirements of RCRA Section 3010. The drum rinsate you describe would probably be a hazardous waste because it contains 2, 4-D. (See 40 CFR §261.24, Table 1, "D016.") EPA has, however, made special provisions in its regulations both for farmers disposing of waste pesticides on their own property and for management of properly emptied (i.e., rinsed) containers.

First, under §262.51, a farmer disposing of waste pesticides from his own use at his farm (i.e., 2, 4-D rinsate) is not required to comply with the hazardous regulations provided that he triple rinses each emptied pesticide container and disposes of the rinsate on his own farm (in a manner consistent with the disposal instructions on the pesticide label). This appears to be the procedure that Transbas is proposing for Landmaster, and as long as farmers allow these procedures, they would be excluded from further hazardous waste regulations.

Second, EPA has provided, in §261.7(a)(1), that when a container that otherwise holds hazardous waste is properly emptied, the container is no longer subject to the hazardous waste regulations. For hazardous wasted that are not designated as "acute hazardous wastes," a container is empty if all wastes have been removed using practices commonly employed to

remove materials from that type of container (i.e., pouring), and no more than one inch of residue remains in the container. (See §261.7(b)(1).)* The procedure Transbas is proposing for Landmaster, (i.e., triple rinsing), appears to ensure that the containers would in fact be properly emptied, and as such, they can be returned to Transbas without complying with the hazardous waste manifest or any other hazardous waste regulations. You should note, however, that if Transbas (or any other party) subsequently cleans the containers, the rinsate may be hazardous waste. The party cleaning the drums must make that determination, and if the rinsate is hazardous, must comply with 40 CFR Parts 260-268, 270, and the notification requirements of RCRA Section 3010, as applicable.

Sincerely

J. Winston Porter
Assistant Administrator

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* In the case of acute hazardous waste, the container is considered empty under more stringent criteria. See §261.7 (b)(3).