

United States  
Environmental Protection  
Agency

Solid Waste and  
Emergency Response  
(OS-343)

EPA/530-SW-91-062B  
August 1991

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# **RCRA Permit Policy Compendium**

## **Volume 2**

9420.1980 - 9434.1990

### **Hazardous Waste Management System (Part 260)**

- **General**
- **Definitions**
- **Petitions**

**DISCLAIMER**

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## General OSW Policy And Procedures

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**9420 – RESERVED**

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## Hazardous Waste Management System (Part 260)

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# **9431 – GENERAL**

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## **Part 260 Subpart A**

PERMIT POLICY Q & A REPORT  
DEFINITION OF UPPERMOST AQUIFER  
SEPTEMBER 10, 1984

PERMIT POLICY QUESTION & ANSWER  
QUARTERLY REPORT

Groundwater Protection Standards

1. Question: Do the definitions of "uppermost aquifer" and "aquifer" include the top most saturated clay layer even though that stratum is not used as a groundwater resource? 40 CFR 260.1G.

Answer: The 26 July 1982 preamble suggests that "significant yield" of groundwater is determined on a case by case basis, depending on site specific factors. Significant yield in the Southwest is likely to be a much lower quantity than significant yield in the East. In addition, the flow from a number of well systems can be totaled in order to reach the level of significance. Thus, if the saturated clay layer can produce a significant yield of groundwater from a single well or from a combination of wells, then that layer may meet the definition of an aquifer. If that layer is also the formation nearest to the natural ground surface or is hydraulically interconnected to such a surface, it meets the definition of uppermost aquifer.

9431.01(84)

JUNE 87

## A. RCRA PROGRAM

Waste Minimization Requirements

What is the basis for waste minimization and what is required?

In the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) (Section 3002), Congress stated that as a matter of national policy, the generation of hazardous waste should be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored or disposed of so as to minimize the present and future threat to human health and the environment.

HSWA required that generators of a hazardous waste submit a biennial report to the Regional Administrator which would include: 1) efforts undertaken during the year to reduce the volume and toxicity of waste generated, and 2) the changes in volume and toxicity of waste actually achieved during the year in comparison with previous years (Section 3002(a)(6)(A-C)). Effective September 1, 1985, generators had to use a manifest containing a certification by the generator that he had a program in place to reduce the volume or quantity and toxicity of hazardous waste to the degree determined by the generator to be economically practicable. The program must include a practicable method currently available to the generator which minimize the present and future threat to human health and the environment. Also effective September 1, 1985, any permit issued under Section 3004 of the Solid Waste Disposal Act for the treatment, storage or disposal of hazardous waste must require that the permittee certify no less often than annually that he has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable. The permittee's proposed method of treatment, storage or disposal must include a practicable method currently available to him which minimizes the present and future threat to human health and the environment.

The term "waste minimization" has been defined differently by different organizations. The U.S. EPA, in its October 1986 Report to Congress on the minimization of hazardous waste, defined waste minimization as:

"The reduction, to the extent feasible, of hazardous waste that is generated or subsequently treated, stored, or disposed of. It includes any source reduction or recycling activity undertaken by a generator that results in either: (1) the reduction of total volume or quantity of hazardous waste or (2) the reduction of toxicity of hazardous waste, or both, so long as the reduction is consistent with the goal of minimizing present and future threats to human health and the environment. Waste minimization does not include treatment of hazardous waste."

Source: Elaine Eby (202) 475-7237  
Research: Carla A. Rellergert

JUNE 87

2. EPA Waste Minimization Program Activities

What is EPA currently doing in the area of waste minimization?

For the past two years, the Office of Solid Waste has been actively involved in the area of waste minimization. In a 1986 report to Congress required under Section 8002(r) of RCRA, EPA stated that incentives for waste minimization are strong and growing. Since data was scarce on existing waste minimization programs, EPA stated that it would report back to Congress in 1990 on the need for "command and control" regulations for waste minimization. Under Section 8002(r) Congress had asked EPA to look at desirability and feasibility of "command and control" regulations.

As it is presently structured, the Agency's waste minimization program has two principle objectives: (1) evaluate the need for regulations for waste minimization and present this evaluation along with appropriate recommendations in a report to Congress in 1990, and (2) foster the use of waste minimization through technology transfer and information dissemination activities. In order to achieve these goals, OSW developed its 1987 and 1988 Fiscal Year programs to focus on gathering information and data to determine waste minimization trends and to develop information dissemination and technology transfer activities.

Presently, OSW activities include:

- (1) Revising the requirement for a narrative statement for waste minimization in biennial reports. The current format consists of a "blank page" with instructions to provide a "narrative description" of waste minimization activities. The revised biennial report will consist of yes/no questions which will indicate generators' awareness of waste minimization, specific questions about waste minimization techniques, and volume of toxicity of data.
- (2) Initiating a computerized data and information retrieval system for waste minimization.
- (3) Developing waste minimization policy statements which will be non-binding and reflect EPA's ideas on what does and does not constitute waste minimization.
- (4) Co-Sponsoring two meetings "National Roundtable of State Waste Reduction Programs" and Woods Hole III "Waste Minimization - The Hurdles Ahead".

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JULY 87

4. Laboratory Audit Inspection

What is the Laboratory Audit Inspection (LAI) Program?

The Resource Conservation and Recovery Act (RCRA) requires the owner/operator of a surface impoundment, landfill or land treatment unit that is used to manage hazardous waste to implement a ground water monitoring program capable of determining a facility's impact on the uppermost aquifer. The Environmental Protection Agency has developed guidance titled, RCRA Ground Water Monitoring Technical Enforcement Guidance Document (TEGD), which details the technical aspects of ground-water monitoring system design and operation deemed important by the Agency to assist a ground water monitoring system to meet the goals of the RCRA program. Once it has been established that the owner/operator has adequately designed and constructed the ground water monitoring water systems and that these systems are providing representative ground-water samples, EPA must confirm that these samples are being properly analyzed.

The Office of Waste Program Enforcement (OWPE), RCRA Enforcement Division, is developing a RCRA Laboratory Audit Inspection (LAI) program. The goal of the inspection program is to enable the owner/operator to determine whether the laboratory that the owner/operator is using for ground water sample analyses is properly equipped, maintained, and staffed, and whether samples are properly logged and tracked throughout the laboratory.

This inspection does not constitute a laboratory certification for purposes of the RCRA program. It is simply designed to confirm that the laboratory is capable of performing quality analysis work for the owner/operators ground-water monitoring program.

Source: Ned Pryor (202) 475-7033  
Research: Caroline Danek

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

JANUARY 88

1. Definition of Used Oil

Number 2 fuel oil is used to clean air filters and then is burned for energy recovery. Is "used oil" subject to the regulations of 40 CFR 266, Subpart E? If the substance used for cleaning the air filters was gasoline, and then was burned for energy recovery, would it be considered "used oil"?

Currently, there is no more specific definition of "used oil" than that found in RCRA Section 1004 and in 40 CFR 266.40(b). When the "used oil" technical standards are proposed, a more specific definition of "used oil" will be included in that proposal. EPA's current position is oil that has been refined from crude oil, used as a lubricating hydraulic or heat transfer fluid, and has become contaminated through use, is a "used oil." Petroleum distillates which have been used only as cleaning agents, or only for their solvent properties, would not be regulated as "used oil" when burned for energy recovery or recycled in some other manner. It is important to note that "used oil" does not need to be a solid waste per Section 261.2 in order to be regulated under RCRA Subtitle C, because the authority to regulate "used oil" is found in Section 3014 of RCRA.

Source: Dave Tompton (202) 382-2550  
Research: Becky Cuthbertson

JANUARY 88

3. Disposal of Mixed Radioactive and Hazardous Waste

A generator of a mixed radioactive and hazardous waste, which is a listed hazardous waste with a pH below 2, disposes of it on-site in a land disposal unit. The disposal began in early 1986 and ended in the summer of 1987. The owner never submitted a Part A or Part B permit application. The State in which the facility is located became authorized for RCRA in late 1985, but is not authorized to enforce HSWA provisions, and is not authorized to regulate mixed waste. However, the State has its own

regulations regarding mixed waste. If the owner wants to close the land disposal unit, will he be required to submit a Part B permit application and conduct groundwater monitoring?

According to the Federal Register of July 3, 1986 (51 FR 24504), mixed radioactive and hazardous waste is subject to RCRA regulation. In a state which is authorized to implement Subtitle C, the mixed waste will not be subject to the Subtitle C authorized program until the state becomes authorized to regulate mixed waste; however, state regulations enforced under state law would apply to the mixed waste. In addition, if the facility contained a RCRA-regulated unit, and was applying for its permit, EPA could use RCRA Section 3004(u) authority for releases of hazardous constituents from solid waste management units (the mixed radioactive and hazardous waste would be a solid waste, per Section 261.2(b)).

Once the State receives authorization to regulate mixed radioactive and hazardous waste, the disposal unit would become subject to the State's authorized program regulations, and would become subject to the HSWA provisions (which would be enforced by EPA until the State gained authorization to implement HSWA authorities).

If the disposal unit was closed and was an inactive facility prior to the date chosen by the State to be the interim status "in existence" date, the disposal unit might not be subject to State Subtitle C regulation unless the waste was subsequently managed in a manner that would constitute treatment, storage, or disposal. However, if State law does not otherwise prohibit it, the State could elect not to grandfather any inactive mixed waste units. A State could do this because a State RCRA program can be broader in scope than the Federal program. Thus, a State could choose to regulate inactive units in some manner.

If the disposal unit was still an active facility on the date the State selects as its interim status "in existence" date, which can be no later than the date on which the State's authorization to regulate mixed waste became effective, the facility would need to submit a

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3. Disposal of Mixed Radioactive and Hazardous Waste  
(Cont'd)

Part A permit application within the timeframe specified in the State's regulations or statute to qualify for interim status.

Depending on the regulatory dates selected by the State, closure of the disposal unit could occur while the facility was under interim status. State law on closure, post-closure permits, and groundwater monitoring will control.

Source: Betty Shackleford (202) 382-2221  
Research: Becky Cuthbertson



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

9431.1989(01)

JUN 26 1989

7/2/89

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Peter R. Simon, M.D., M.P.H.  
Assistant Medical Director  
Division of Family Health  
Cannon Building  
Davis Street  
Providence, Rhode Island 02908-5097

Dear Dr. Simon:

Thank you for your letter of April 20, 1989, regarding the potential effect of the leach testing procedure on programs designed to remove lead-contaminated soils from residential areas.

Under existing solid waste regulations, if a contaminated soil is removed from a site, the generator must determine whether the soil is contaminated by a hazardous waste and thus must be managed as a hazardous waste. (Contaminated soil that is left in place is not subject to any hazardous waste management requirements, including any testing.) This determination can be made either by testing the waste containing soil or through knowledge of the composition of the waste soil. If the soil is deemed to contain a hazardous waste, it must be managed under the Subtitle C regulations of the Resource Conservation and Recovery Act (RCRA).

RCRA requires that regulatory decisions regarding a hazardous waste take into account the potential risks to human health and the environment posed by mismanagement of the waste. The Environmental Protection Agency (EPA) has determined that a municipal landfill, which does not have design and operating standards as stringent as those under Subtitle C of RCRA, is not an appropriate site for disposal of hazardous waste. Under the existing statutory and regulatory framework, hazardous waste generated as a result of cleanups at industrial and residential sites are subject to the same management standards.

As you know, EPA also has authority to clean up releases of hazardous materials under the Comprehensive Environmental Response, Compensation and Liability Act, more popularly known as "Superfund." Superfund, like RCRA, requires cleanups to protect human health and the environment. Furthermore, unless certain exceptions apply, Superfund cleanups must comply with requirements from other environmental statutes, such as RCRA, when those requirements are "applicable" to the Superfund activities. The Superfund statute also encourages compliance with these other laws where they do not apply, but are "relevant" or "appropriate" to the clean-up action. Currently, EPA follows the rules outlined above to determine whether the hazardous material at a Superfund site is a RCRA hazardous waste -- in other words, we test the material or determine whether it is hazardous based on knowledge of its composition. If the material were a RCRA waste, RCRA standards would probably be "applicable," and disposal in a municipal landfill would not be acceptable.

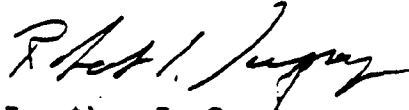
You have expressed concern that EPA has proposed to change its regulatory test for determining whether a waste is toxic hazardous waste. Section 3001(g) of the 1984 amendments to RCRA specifically directed EPA to examine the extraction procedure (EP) toxicity test as a predictor of the leaching potential of waste and to make necessary changes to improve its accuracy. In June 1986 (see 51 FR 21648), the Agency proposed to require a new, more precise, leaching procedure, using a buffered solution instead of an acid titration, to determine whether a waste is characteristically hazardous based upon its toxicity. This test, the toxicity characteristic leaching procedure (TCLP), is more precise than the original EP toxicity test. A second Federal Register notice (53 FR 18792, May 24, 1988) provided additional information and opportunity for comment on the TCLP. When the toxicity characteristic proposal is promulgated as a final rule, the TCLP will supersede the EP test.

We are aware that under certain conditions the TCLP may be somewhat more aggressive than the EP toxicity test. For this reason, we are gathering information on the relationship between the two test procedures. We would like to ensure that the test procedures we use to determine whether a waste is hazardous appropriately model our reasonable worst-case mismanagement scenario -- in the case of the toxicity characteristic, management of a hazardous waste in a municipal landfill.

At this time, we are working closely with EPA Region I officials to assess the possible implications of applying the TCLP to lead-contaminated soils. I encourage you to provide us with any information you may have that compares the results of the two procedures on identical lead-contaminated soil samples. We will be using these data in our continuing efforts to improve the accuracy and reproducibility of our test procedures.

Thank you for sharing your concerns with us. To keep up to date on our progress regarding this matter, we suggest that you contact Gerry Levy, Branch Chief of Massachusetts Waste Management, in our Region I office. Mr. Levy can be reached at (617) 573-5720.

Sincerely yours,



*for* Jonathan Z. Cannon  
Acting Assistant Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9431.1989(02)

SEP 26 1989

Mr. Jeffrey J. Wells  
Regulatory Consultant  
HazMat Environmental Group Inc.  
P.O. Box 676  
Buffalo, NY 14217

DISK: D.N.B.J

Dear Mr. Wells:

Thank you for your letter of July 24, 1989, requesting verification of your interpretation regarding the wastewater treatment unit exemption. Specifically, you are seeking confirmation that a facility, which operates a wastewater treatment unit that discharges to a POTW as defined in section 260.10, may also receive and treat wastewater from any off-site source and not affect the exemption under which the unit operates.

DISK: D. N. B. J.

As you pointed out in your letter, in the September 2, 1988 Federal Register notice (53 FR 34079), EPA stated that the applicability of the exemption does not depend on whether the on-site wastewater treatment facility also treats wastewater generated off-site. As long as the facility accepting and treating the wastewater from an off-site source does not violate the conditions of its NPDES permit or pretreatment agreement, it is the Agency's intent to allow a facility to operate with this exemption. Of course, as also discussed in the same notice, any storage or treatment tank system used to manage the wastewater at the generator's facility, prior to shipment to the off-site exempted wastewater treatment unit, is not eligible for the wastewater treatment unit exemption.

Please accept my apology for the delay in responding to your letter. If you should have any further questions regarding this issue, please call me at (202) 475-9614.

Sincerely,

William J. Kline  
Environmental Scientist

cc: Chester Oszman, PSPD  
Kirsten Engel, OGC  
Randy Hill, OGC

June 5, 1989

MEMORANDUM

SUBJECT: Management of Test Samples as Hazardous Waste

FROM: Howard Wilson, Manager  
Environmental Compliance Program

TO: Environmental Compliance Managers

This memo is intended to clarify a letter from the EPA's Office of Solid Waste on the management of laboratory samples under the Resource Conservation Recovery Act (40 CFR Part 261).

According to 40 CFR Part 261.4 (d)(1), samples collected solely for the purposes of testing are exempted from the regulations for hazardous waste management. I would like to emphasize that this is a qualified exemption. The samples are exempt from regulation as long as they meet any of the following conditions contained in 261.4 (d)(1)(i..vi):

- (i) Being transported from the collector to the laboratory
- (ii) Being transported from the laboratory back to the collector following testing
- (iii) Being stored at the collector waiting to go to the laboratory
- (iv) Being stored at the laboratory before being tested
- (v) Being stored at the laboratory after being tested but before being returned to the collector
- (vi) Being stored at the laboratory for a specific purpose after being tested (i.e. for a court case in which the sample is evidence, etc.)

Regulation 261.4 (d)(3) states that the exemption does not apply if the laboratory determines the waste is hazardous and the conditions listed above are no longer being met.

According to 40 CFR Part 261.5 (a), facilities that generate less than 100 kg/mo of hazardous waste or 1 kg/mo of acute hazardous waste are exempt from hazardous waste regulations. This exemption is also conditional, based on a generator's compliance with the following:

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- o Determining if their waste is hazardous; this is required by 261.5 (b), which references 261.5 (g), which cites 262.11.
- o Disposing of their waste at a facility authorized to accept it; this is required by 261.5 (f)(3) and 261.5 (g)(3).

Generators of less than 100 kg/mo of hazardous waste would also be subject to RCRA requirements under regulation 262.34 if they accumulate, for the purpose of disposal, greater than 1000 kg of hazardous waste.

In summary, samples held for testing need not be managed as hazardous waste while they are being tested. Once they are determined to be waste, a determination of whether the waste is hazardous must be made if it hasn't been already. If the waste is determined to be a hazardous waste, it must be managed in full compliance with all applicable regulations, including 40 CFR Parts 261.5 and 262.11.

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# **9432 – DEFINITIONS**

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## **Part 260 Subpart B**



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

FEB 11 1986

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

OSWER Directive # 9432.00-1

MEMORANDUM

SUBJECT: Totally Enclosed Treatment

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

TO: David Stringham, Chief  
Solid Waste Branch, Region V  
SHS-JCK-13

This is the regulatory clarification you requested on December 30, 1985 for the application of the totally enclosed treatment facility exemption to a tank treating emission control dusts at a scrap metal recycler. The system you describe is not totally enclosed because of the reasons given below.

Your description of the Grede foundry indicates that it heats scrap in a cupola. Emissions from the cupola rise into a hood which is connected to a baghouse via ducts. Ms. Randi Kim of your staff pointed out that hazardous waste is not generated prior to the baghouse unit, and the hood is not directly connected to the cupola. The emission control sludge captured in the baghouse is EP toxic for lead, and possibly chromium, according to Jim Roberts of the Michigan Department of Natural Resources. Grede Foundries proposes to directly connect a mixing tank to the baghouse by pipeline where the dust will be rendered nonhazardous by mixing with nonhazardous foundry waste sands and dusts containing bentonite clay. Since the mixing tank does not exist, we cannot determine whether the tank can technically prevent release of hazardous waste into the environment during treatment through use of traps, recycle lines, etc. Therefore, the central issue you raise is whether the mixing tank can be considered directly connected to the industrial production process, satisfying one condition of a totally enclosed treatment facility as defined in §260.10.

The definition in §260.10 of totally enclosed treatment facilities specifies that the treatment must be directly connected to an industrial production process. In your foundry example,

the cupola is part of the industrial production process, since it produces reusable metal; and the baghouse is part of the waste treatment process, since the sludge is not associated with product or raw materials, i.e., the sludge is disposed of, not recovered for further recycling. Therefore, the treatment that occurs downstream of the baghouse cannot qualify for a totally enclosed treatment exemption, since the cupola is open to the air before the hood collects the dust.

Although our preliminary information indicates that adsorption to clay can be an acceptable treatment method, you should pursue the question of whether the specific clay adsorption process proposed for this facility will provide the effective treatment that would allow it to be permitted as a treatment facility. Carlton Wiles, ORD/Cincinnati, FTS 684-7871, may be able to provide you with further guidance on clay adsorption treatment standards that should be incorporated into the treatment permit to assure effective treatment.

With alternate management practices, the emission control sludge would not be defined as a solid waste, and, therefore, would not be a RCRA hazardous waste. If the fines were returned to the cupola for metal recovery, the entire process would be viewed as closed loop recycling, and the baghouse sludge would not be considered to be a solid waste according to §261.2(e)(1)(iii). If the sludge were reclaimed elsewhere, it also would not be considered to be a solid waste, according to §261.2(c)(3). Sludges being reclaimed are not considered to be solid waste unless specifically listed by EPA, and this particular sludge is not so listed.

Alternatively, the system could be engineered differently. By connecting the hood directly to the cupola, the system could then meet the criteria for being directly connected to an industrial production process. The system may then qualify as a totally enclosed treatment system if the treatment met the technical standards for being closed to the environment.

Since mixing the baghouse dust with bentonite clay as described would require a RCRA permit for treatment, Grede Foundries may wish to pursue one of these other approaches that are not regulated under RCRA. According to data from the 1981 mail survey, many waste streams of K061 and K069 sludge are recycled both on and off site, so Grede may find that recycling is a cost effective management strategy. If you have any questions about this matter, you can contact Irene Horner of my staff at FTS 382-2550.

cc: Solid Waste Branch Chiefs  
Regions I-IV and VI-X  
Jim Roberts, Michigan DNR

December 30, 1980

Lawrence W. Beirlein, Esq.  
Council for Safe Transportation  
of Hazardous Articles  
910 Seventeenth Street, N.W.  
Washington, D. C. 20006

Dear Mr. Beirlein:

This is in response to your letter of December 8, 1980, requesting written clarification of whether puncturing, crushing or shredding of aerosol cans prior to disposal is a treatment process subject to our RCRA hazardous waste management regulations.

As you know, we clarified our regulations as they pertain to containers which hold or have held hazardous wastes in amendments published in 45 Federal Register 78524-78529, November 25, 1980. In those amendments, we clearly indicated that our regulations are directed at controlling the management of hazardous wastes or hazardous waste residues in non-empty containers as opposed to controlling the management of the containers per se. Accordingly, with respect to aerosol cans, our regulations are confined to regulation of the contents of the cans, not the cans themselves.

Based on this and the definition of "treatment" in §260.10 of our regulations, the puncturing, crushing or shredding of non-empty aerosol cans which contain hazardous wastes does not constitute hazardous waste treatment. Treatment is defined as "any method, technique or process, . . . designed to change the physical, chemical or biological character or composition of any hazardous waste . . . ." Although puncturing, crushing or shredding of an aerosol can changes the physical character of the can, the can is not the hazardous waste. The materials in the can are the hazardous waste and the puncturing, crushing or shredding of the can does not change the physical, chemical or biological character or composition of these materials. Accordingly, the puncturing, crushing or shredding of such aerosol cans does not require a RCRA permit or does not need to comply with other requirements of our hazardous waste management regulations.

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Although this is beyond your request, I hasten to point out that the materials removed from aerosol cans that are punctured, crushed or shredded and the residues remaining on such cans, in some cases, may be subject to our regulations. Let me discuss several situations where this may be true.

The first set of situations involve aerosol cans which hold commercial chemical products listed in §261.33(e) and (f) of our regulations. Where these chemicals are removed from aerosol cans when they are punctured, crushed or shredded, they are subject to our regulations if they are discarded or intended to be discarded; (if they are recovered for re-packaging and beneficial use or recovered for other beneficial uses or legitimate recycling or reclamation, which is their normal manner of use they are not solid wastes and therefore not subject to our regulations. If the removed chemicals are kept segregated from the punctured, crushed or shredded cans, the regulated management of those wastes would not involve management of the cans (except see discussion below relative to §261.33(e) chemicals). If the removed chemicals are not kept segregated from the punctured, crushed or segregated cans, one has a "mixture" of chemicals and cans (see §261.3(a)(1)(ii)) and this mixture is subject to our regulations. Finally, even if the removed chemicals are kept segregated from the cans but the chemicals are §261.33(e) chemicals, then the residue on the punctured, crushed or shredded cans (and, for all practical purposes, the cans themselves) are subject to our regulations until they are triple-rinsed or equivalently decontaminated (see §261.7(b)(3) at 45 Federal Register 78529, November 25, 1980).

The other type of situation is where the cans hold products which are not listed in §261.33(e) or (f) but which are to be discarded (therefore are solid waste) and exhibit one or more of the characteristics of hazardous waste (therefore are hazardous waste). If those waste products are kept segregated from the punctured, crushed or shredded cans, then, as above, their regulated management would not involve management of the cans. If segregation is not accomplished, then the mixture of these products and the punctured, crushed or shredded cans would have to be managed as a hazardous waste if the mixture also exhibits one or more of the characteristics of hazardous waste. Of course, if the product removed from the punctured, crushed or shredded cans is not to be discarded but, instead, is to be beneficially used or legitimately recycled or reclaimed, then our regulations do not apply.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460  
OFFICE OF SOLID WASTE

JUN 28 1981

OFFICE OF WATER  
AND WASTE MANAGEMENT

Mr. Chris Howell  
Chemical Processors, Inc.  
5501 Airport Way South  
Seattle, WA 98108

Dear Mr. Howell:

I am in receipt of your letter of June 1, 1981 to Mr. Ken Schuster regarding your request for a working definition of a "liquid" waste.

As you are aware, the Agency is actively working to develop improved laboratory procedures for defining both "ignitable" and "liquid." In the interim you may employ the following working definition of a "liquid" when evaluating wastes:

A liquid is any material that will pass through a 0.45 micron filter at a pressure differential of 75 psi. If the material to be evaluated consists of 2 or more phases then the phases should be separated by centrifugation or other means prior to evaluating whether any of the phases meet the above definition. "Free liquids" as defined in §260.10(a)(25) are a subset of this broader class of liquids.

Any waste or phases of a waste found to meet the above definition of a "liquid" should then be evaluated for ignitability using the procedures in §261.21. All such wastes which contain or consist of liquids which have a flash point below 60°C are to be considered as ignitable wastes.

I hope this response serves to answer your question. If you would like further information please feel free to give me a call at (202) 755-9187.

Sincerely,

*David Friedman*

David Friedman  
Manager  
Waste Analysis Program  
Hazardous and Industrial Waste Division (WH-565)

I think this covers all of the situations that may be encountered.  
I hope this is helpful to you.

Sincerely yours,

Gary N. Dietrich  
Associate Deputy Assistant Administrator  
for Solid Waste

bcc: Filomena Chau w/incoming  
Jack Lehman  
Alan Corson  
Dotz Darrah  
Regional A&HM Division Directors, EPA Region 1, III-X

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

9432.1982(01)

AUGUST 82

(2)

Resolution of Difficult Questions - RCRA 9432.01 (82)

1. Question: The definition of "existing portion" (40 CFR 260.10) refers to the "original Part A permit application." Does this mean the first Part A submitted (before November 19, 1980, for most facilities) or the last amended Part A submitted during interim status?

Resolution: The term "original Part A" means the first Part A submitted which fulfilled the requirements for interim status.

Source: Fred Lindsey, OSH  
Research: Karen Gale

February 18, 1983

Mr. Duane W. Marshall  
Regulatory Affairs Program Manager  
NCASI  
260 Madison Avenue  
New York, New York 10016

Dear Duane:

The subject of what is and what is not a Totally Enclosed Treatment Facility has come up a number of times since we discussed the issue in July 1980. In the course of answering these questions, we prepared the enclosed Regulatory Clarification, which we now send to everyone that asks. It treats the subject generally, but I think it answers your questions.

If I can provide any further clarification please let me know.

Sincerely yours,

John P. Lehman  
Director  
Hazardous & Industrial Waste Division (WH-565)

Enclosure

bcc: Fred Lindsey

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TOTALLY ENCLOSED TREATMENT FACILITY  
Regulatory Clarification

I. Issue: From questions asked since promulgation of the regulations on May 19, 1980, it is clear that the definition and practical application of the term "totally enclosed treatment facility" require clarification.

II. Discussion: The definition appears in §260.10(a) as follows:

Totally enclosed treatment facility means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

A facility meeting this definition is exempted from the requirements of Parts 264 and 265 (See §§264.1(g)(5) and 265.1(c)(9)) and, by extension, the owner or operator of that facility need not notify nor seek a permit for that process. The purpose of this provision is to remove from active regulation those treatment processes which occur in close proximity to the industrial process which generates the waste and which are constructed in such a way that there is little or no potential for escape of pollutants. Such facilities pose negligible risk to human health and the environment.

The part of the definition which has generated the most uncertainty is the meaning of "totally enclosed." The Agency intends that a "totally enclosed" treatment facility be one which is completely contained on all sides and poses little or no potential for escape of waste to the environment even during periods of process upset. The facility must be constructed so that no predictable potential for overflows, spills, gaseous emissions, etc., can result from malfunction of pumps, valves, etc., associated with the totally enclosed treatment or from a malfunction in the industrial process to which it is connected.

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Natural calamities or acts of sabotage or war (earthquakes, tornadoes, bombing, etc.) are not considered predictable, however.

As a practical matter, the definition limits "totally enclosed treatment facilities" to pipelines, tanks, and to other chemical, physical, and biological treatment operations which are carried out in tank-like equipment (e.g., stills, distillation columns, or pressure vessels) and which are constructed and operated to prevent discharge of potentially hazardous material to the environment. This requires consideration of the three primary avenues of escape: leakage, spills, and emissions.

To prevent leaking, the tank, pipe, etc., must be made of impermeable materials. The Agency is using the term impermeable in the practical sense to mean no transmission of contained materials in quantities which would be visibly apparent. Further, as with any other treatment process, totally enclosed treatment facilities are subject to natural deterioration (corrosion, etc.) which could ultimately result in leaks. To meet the requirement in the definition that treatment be conducted ". . . in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment . . . ." the Agency believes that an owner or operator claiming the exemption generally will have to conduct inspections or other discovery activities to detect deterioration and carry out maintenance activities sufficient to remedy it. A tank or pipe which leaks is not a totally enclosed facility. As a result, leaks must be prevented from totally enclosed facilities or the facility is in violation of the regulations.

A totally enclosed facility must be enclosed on all sides. A tank or similar equipment must have a cover which would eliminate gaseous emissions and spills. However, many tanks incorporate vents and relief valves for either operating or

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emergency reasons. Such vents must be designed to prevent overflows of liquids and emissions of harmful gases and aerosols, where such events might occur through normal operation, equipment failure, or process upset. This can often be accomplished by the use of traps, recycle lines, and sorption columns of various designs to prevent spills and gaseous emissions. If effectively protected by such devices, a vented tank would qualify as a totally enclosed treatment facility.

When considering protective devices for tank vents, the question arises as to whether the protective device is itself adequate. The test involves a judgment as to whether the overflow or gaseous emission passing through the vent will be prevented from reaching the environment. For example, an open catchment basin for overflows is not satisfactory if the hazardous constituents in the waste may be emitted to the air. Similarly, it may also not be satisfactory if it is only large enough to hold the tank overflow for a brief period before it also overflows. However, even in this situation, alarm systems could be installed to ensure that the capacity of the catchment basin is not exceeded. Where air emissions from vents or relief valves are concerned, if the waste is non-volatile or the emissions cannot contain gases or aerosols which could be hazardous in the atmosphere, then no protective devices are necessary. An example might be a pressure relief valve on a tank containing non-volatile wastes. Where potentially harmful emissions could occur, then positive steps must be taken. For example, the vent could be connected to an incinerator or process kiln. Alternately, a sorption column might be suitable if emission rates are low, the efficiency of the column approaches 100 percent, and alarms or other safeguards are available so that the upset causing the emission will be rectified before the capacity of the column is exceeded. Scrubbers will normally not

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be sufficient because of their tendency to malfunction and efficiencies typically do not approach 100 percent.

Tanks sometimes have floating roofs. To be eligible as a totally enclosed facility, such tanks should be constructed so that the roof has a sliding seal on the side which is designed to prevent gaseous emissions and protect against possible overflow.

The part of the definition requiring that totally enclosed treatment facilities be "directly connected to an industrial production process" also generates some uncertainty. As long as the process is integrally connected via pipe to the production process, there is no potential for the waste to be lost. The term "industrial production process" was meant to include only those processes which produce a product, an intermediate, a byproduct, or a material which is used back in the production process. Thus, a totally enclosed treatment operation, integrally connected downstream from a wastewater treatment lagoon would not be eligible for the exemption because the process to which it is connected is not an "industrial production process." Neither would any totally enclosed treatment process at an off-site hazardous waste management facility qualify, unless it were integrally connected via pipeline to the generator's production process. Obviously, a waste transported by truck or rail is not integrally connected to the production process.

Hazardous waste treatment is often conducted in a series of unit operations, each connected by pipe to the other. As long as one end of a treatment train is integrally connected to a production process, and each unit operation is integrally connected to the other, all qualify for the exemption if they meet the requirement of being "totally enclosed." If one unit operation is not "totally enclosed" or is not "integrally connected," then only unit operations upstream from that unit

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would qualify for the exemption. The unit and downstream process would require a permit.

The device connecting the totally enclosed treatment facility to the generating process will normally be a pipe. However, some pipes (e.g., sewers) are constructed with manholes, vents, sumps, and other openings. Pipes with such openings may qualify as totally enclosed only if there is no potential for emissions or overflow of liquids during periods of process upset, or if equipment (sorption columns, catchment basins, etc.) has been installed to prevent escape of hazardous waste or any potentially hazardous constituent thereof to the environment.

This exemption for totally enclosed treatment facilities applies only to the facility itself. The effluent from that facility may still be regulated. If the waste entering the totally enclosed treatment facility is listed in Subpart D of Part 261, then the effluent from the facility is automatically a hazardous waste and must be treated as such, unless it is "delisted" in accordance with §§260.20 and 260.22. If, on the other hand, the waste entering the totally enclosed treatment facility is hazardous because it meets one of the characteristics described in Subpart C of Part 261, then the effluent waste is a regulated hazardous waste only if the effluent meets one of the characteristics. Since the totally enclosed treatment facility is exempted from the regulatory requirements, it is only the effluents from such processes which are of interest to the Agency. Thus, whether the waste in a totally enclosed treatment facility must be considered towards the 1000 kg/month small quantity generator limit, depends on whether it is a regulated hazardous waste as it exits the totally enclosed treatment facility.

Finally, it is important to note that if the effluents from a totally enclosed treatment facility are discharged to a surface

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water body (lake or stream) or to a publicly owned treatment works or sewer line connected thereto, then these wastes are not subject to the RCRA hazardous waste controls at all but are, instead, subject to the Clean Water Act and regulations promulgated thereunder (See 45 FR 76075).

III. Resolution: In sum, a "totally enclosed treatment facility" must:

- (a) Be completely contained on all sides.
- (b) Pose negligible potential for escape of constituents to the environment except through natural calamities or acts of sabotage or war.
- (c) Be connected directly by pipeline or similar totally enclosed device to an industrial production process which produces a product, byproduct, intermediate, or a material which is used back in the process.

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MEMORANDUM

SUBJECT: Recent Court Decision on RCRA Applicability to  
Storage Facilities

FROM: John Skinner, Director  
Office of Solid Waste (WH-563)

TO: Hazardous Waste Division Directors, Regions I-X

In a recent decision, Environmental Defense Fund v. Lortonier, 714 F.2d 331, the United States Court of Appeals, Fourth Circuit, declared that a person in control of a site where dumped hazardous wastes are held is engaged in "storage" of hazardous waste under RCRA even though all the wastes were placed at the site before November 19, 1980. The defendant had argued he was not covered by the RCRA regulations because he had not placed any wastes in storage after the date the regulations went into effect. The court, citing the definition of storage in 40 CFR 260.10, held that the fact that no wastes had been placed in storage after November 19, 1980, was "immaterial" because the defendant had continued to store wastes deposited before that date.

This decision supports previous guidance we have issued on this subject (attached). It is particularly significant because it was delivered by a court which has traditionally taken a narrow view of EPA's authority. Please note this decision and ensure that both technical staff and Regional Counsel are aware of it.

Attachments

cc: SE Branch Chiefs  
Permits Contacts  
Mark Greenwood

WH-563:CMiller:CM:rm.S243D:382-4692:11/25/83:Miller's disk #5

January 27, 1984

MEMORANDUM

SUBJECT: Determination of Operator at the DOE Oak Ridge Facility

FROM: Bruce R. Weddle, Acting Director  
Permits and State Programs Division (WH-563)

TO: James H. Scarbrough, Chief  
Residuals Management Branch  
Region IV

I am writing in response to your letter of December 30 regarding who should be the operator in the pending permit for the DOE facility at Oak Ridge, Tennessee. My staff has been in contact with your staff and other HQ offices concerning the issues in this case. It is my understanding that the Office of General Counsel has requested copies of the permit and related documents and has asked your Office of Regional Counsel to delay any decisions in this matter until OGC has reviewed these documents. You should also be advised that the generic issue of contractors serving as RCRA permittees has been raised in the negotiations between EPA and DOE Headquarters. We will let you know of any developments in these negotiations and we urge you to keep us advised of developments in the Oak Ridge case.

I have two general comments at this time regarding the Oak Ridge operator issue.

First, the decision as to which party should be the operator in the permit should be made by the Regional Office, based on application of the definition of "operator" in §260.10. As general guidance in such determinations, I suggest that you consider the role of the contractor in making major decisions at the facility. If the contractor has considerable autonomy to make such decisions without DOE involvement, then the contractor could be considered the operator. If on the other hand, DOE retains responsibility for major decisions, then DOE could be considered the operator. Obviously, there will be cases where the contractor's responsibility is less precisely defined; in those cases, the Region should exercise judgement given the factual situation. (OGC may have additional guidance in this area following their review of the Oak Ridge situation. In particular, OGC will examine the contract language and site

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management practices at Oak Ridge in respect to the §260.10 definition.)

Second, your letter states that the Region may deny the DOE permit if the disagreement with DOE is not resolved. I suggest that you consider, instead, making a determination as to who is the "operator" and issuing the permit. (This assumes that the application demonstrates compliance with RCRA and is signed by the proper owner and operator.) If the permittee objects to permit conditions, he may appeal those conditions. But I'm not sure whether there are grounds to deny the permit and I doubt that such an action would help resolve the larger questions. (Again, OGC may have some suggestions in this regard as well.)

Please let me know if we can provide additional assistance on this issue.

cc: Gene Lucero  
Peter Guerrero  
Terry Grogan  
Elizabeth Cotswoth  
Susan Schmedes (OGC)  
Tony Baney (OWPE)  
Sandy Williams (OPA)

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*This document has been retyped from the original.*

APR 26 1984

MEMORANDUM

SUBJECT: Permit Policy for Decanning and Crushing Operations

FROM: John H. Skinner, Director  
Office of Solid WasteTO: James H. Scarbrough, Chief  
Residuals Management Branch, Region IV

This memorandum is in response to your April 5, 1984, request for a headquarters policy interpretation on permitting of hazardous waste decanning and crushing operations.

Based on our understanding of the process at Shulton, Inc., the toiletry crushing operation clearly meets the definition of "treatment" as specified in §264.10. It is therefore subject to permitting under Parts 264 and 270. We have based our conclusion on the following:

- a) The addition of wastewater in the crushing operation serves to reduce the potential for fires and explosions, and also dilutes the alcohol to a non-hazardous state. This is consistent with the treatment definition, which extends to any "process...designed to change the physical, chemical or biological character or composition of any hazardous waste...so as to render such waste non-hazardous, or less hazardous, or safer to transport, store or dispose of...." That the water may serve other purposes, such as keeping the gears of the mechanism clean and cleaning the container residuals, does not alter the fact that treatment of the hazardous wastes is taking place. We also would disagree with your suggestion that the use of the washwater is "incidental" (and thus does not constitute treatment) by virtue of the fact that washwaters are used in other similar crushing operations that do not involve hazardous wastes.
- b) The memorandum of April 2, 1981, which dealt with a liquid Silvex decanning operation, was not intended to be interpreted as applying to all decanning and crushing operations. The Silvex decanning process in question

Fagan B

4/25/84

Due Date:

Control No. OSM-032

was designed simply to aggregate the wastes into larger containers. The wastes were not rendered non-hazardous or less hazardous, and any change in the wastes' characteristics (such as a possible change in concentration) was in this instance truly incidental. Changes in a waste's characteristics cannot be presumed to be incidental simply because they occur in a crushing or decanning process.

Please let me know if you have any further questions on this issue.

cc: B. Weddle  
A. Lindsey  
P. Guerrero  
T. Gruyan  
E. Costworth  
A. Corson

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MAY 84

A. RCRA 9432.04(24)

1. Can a tanklike portable filter press used in a wastewater treatment facility be excluded from regulation if the filter press meets all of the 260.10 criteria under "wastewater treatment unit" despite the fact it is not a stationary device?

Yes; the filter press would be excluded from regulation by 265.1(c)(10) and 264.1(g)(6) as a wastewater treatment unit.

NOV 25 1984

MEMORANDUM

SUBJECT: Definition of Treatment; Application to  
Great Lakes Carbon Corp.

FROM: John H. Skinner, Director  
Office of Solid Waste (WH-562)

TO: James Scarbrough, Chief  
Residuals Management Branch  
EPA Region IV

We have reviewed and interpreted the definition of treatment as defined in 40 CFR 260.10, Subpart B - Definitions. The definition is made up of two parts: the change in the waste's character effected by treatment and the purpose of the change. Based on this definition, the process proposed by Great Lakes Carbon Corporation (GLCC) does not constitute treatment. GLCC's plan to add water to the cyanide contained in dissolvable plastic bags will change the physical character of the cyanide waste. However, the purpose of this change is to facilitate disposal. The change will not make the waste safer to dispose. None of those purposes listed in the definition, that is to neutralize; to recover energy or material resources; to render such waste non-hazardous or less hazardous, safer to transport, store, or dispose; or amenable for recovery, amenable for storage, or reduced in volume, apply to the process proposed by GLCC.

If you have any questions, please contact Mr. Thomas Raugh of the Waste Treatment Branch at FTS 382-2550.

RECEIVED NOV 25 1984 11:11 AM U.S. E.P.A. REGION IV

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

NOVEMBER 84

4. The RCRA regulations define an "aquifer" as a "...formation capable of yielding a significant amount of groundwater to wells or springs" (5260.10). For the purposes of the RCRA program, has "significant amount" or "significant yield" been defined?

Significant yield has not been assigned a discrete number because significance can vary from location to location. Significant yield is dependent, in part, on geologic and hydrologic conditions. For instance, one location may have abundant surface and groundwater resources with uppermost geologic strata yielding only very small amounts. Another location may have similar upper strata but without such rich resources. Decisions on the "significance" of the yield from these similar strata must be made in light of such regional considerations. Because of this variability, the Agency has not established a minimum significant yield figure. Some EPA Regions have found that 20 gallons per day (gpd) to be appropriate. Other Regions have used local definitions or ranges (e.g., 5-50 gpd). A discussion of significant yield is in the July 26, 1982, Federal Register (47 FR 32289).

Sources: Burnell Vincent (202) 382-4658  
George Dixon (202) 382-4494  
Research: Gordon Davidson

9432.06(84)

94  
DEC 21 1984

DEC 21 1984

**MEMORANDUM**

**SUBJECT:** Request for Guidance/Clarification of Wastewater Treatment Unit Definition

**FROM:** John E. Skinner, Director  
Office of Solid Waste (WH-562)

**TO:** James H. Scarbrough, Chief  
Residuals Management Branch  
Waste Management Division  
E.P.A. Region IV

Your memo of December 11, 1984 is one of several requests for guidance that OSW has received from the Regions since the wastewater treatment unit exemption was promulgated on November 17, 1980.

The case on which you requested guidance involves tanks storing hazardous wastewaters that are then trucked across the Department of Energy Oak Ridge reservation to a treatment facility that has an NPDES permit. You asked whether a direct mechanical connection between the components of the treatment facility were necessary for the tanks to be part of the wastewater treatment facility.

For the purposes of this exemption, a wastewater treatment unit is defined in 40 CFR §260.10 as:

- (1) a tank,
- (2) which is part of a wastewater treatment facility subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act, and
- (3) which receives and treats or stores an influent wastewater that is a hazardous waste or which generates, accumulates, treats, or stores a wastewater treatment sludge that is a hazardous waste.

In providing guidance on implementation of this rule, we have been basing our interpretations on the intent of the exemption as well as on the wording of the regulation.

You acknowledge that the DOE reservation is a "facility," and we have followed this interpretation in accepting their Part A RCRA application. Because there is no requirement that components of the wastewater units in a facility be connected, there is no reason why wastewater could not be piped, trucked, or otherwise conveyed from one wastewater unit to another. Therefore, the wastewater tanks in question are part of a wastewater treatment unit, exempt under 40 CFR §264.1(g)(6).

Further, this office has acknowledged that if wastewater is stored and treated in a tank at one facility prior to shipment to a POTW, the tank is exempt under 40 CFR §264.1(g)(6) (see the attached memorandum).

If you have any questions, please call Donald White (362-7917) of my staff.

Attachment

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MAY 85

Generator Determination

5. While on maneuvers, a U.S. Naval vessel generates various hazardous wastes on board, such as spent listed solvents and reactive wastes. These wastes are placed in containers while still on the vessel. The vessel docks at a shipyard and the wastes are unloaded from the ship and placed on the pier. The owner/operator (o/o) of the shipyard stores the wastes for up to 90 days without a storage permit and then manifests the waste for shipment off-site. Is the naval vessel or the shipyard operator the generator of the waste? If the shipyard operator is considered the generator, is he entitled to the 90 day accumulation time per §262.347

The naval vessel is considered the site where the waste is generated. Language in the October 30, 1980, Federal Register (45 FR 72024) states that in certain cases a waste is not generated until it is removed from a product or raw material transport vessel. This naval vessel is not a product or raw material transport vessel; it is the site where a process produces a hazardous waste and is the generator according to the definition in §260.10. The shipyard operator is not the generator and is not authorized to store wastes for up to 90 days without a permit.

Source: Carolyn Barley (202) 382-2217

9432.02(85)

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MAY 85

Free Liquids 9432.03(85)

1. Section 3004(c)(3) of RCRA as amended by the Hazardous and Solid Waste Amendments of 1984 states that "Effective twelve months after the date of enactment...the placement of any liquid which is not a hazardous waste in a landfill for which a permit is required under Section 3005 (c)...is prohibited." There is no mention of "free liquids" in this prohibition. How is EPA going to define "any liquid"?

EPA believes that Congress intended the term "liquid" in Section 3004(c)(3) to encompass free liquids (as defined in §260.10) as well as liquids. The legislative history to Section 3004(c) indicates that Congress meant EPA to develop a uniform definition of "liquid" and to prescribe a test to determine when a waste contains liquids and free liquids. See S. Rep. No. 284, 98th Cong., 2d Sess. 22 (1983). In addition, the legislative history shows that Congress generally used the term "liquid" to include both liquids and free liquids.

Hence, the Agency intends to use the paint filter test for the purpose of determining whether a material is a liquid under Section 3004(c)(3). The paint filter test is an appropriate test method to determine the presence of free liquids. The April 30, 1985, Federal Register (50 FR 18370) contains and discusses the final rule which requires the use of the paint filter test. The paint filter test will be the new method 9095 as set out in "Update II to SW-846," (Test Methods for Evaluating Solid Wastes).

Source: Paul Cassidy (202) 382-4682



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

AUG 30 1985

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. John Quarles  
Morgan, Lewis & Bockius  
1800 M Street, N.W.  
Washington, D.C. 20036

Dear John:

This is in response to your letter of June 25, 1985, requesting clarification as to whether above-ground portions of landfills in which waste is placed only within the lateral boundaries of the unit are considered to be "existing units" under the Hazardous and Solid Waste Amendments (HSWA) of 1984.

Section 3015 of HSWA requires new units, lateral expansions of existing units, and replacements of existing units, to comply with the minimum technological requirements set out in Section 3004(o). The Environmental Protection Agency (EPA), has interpreted Section 3015 to provide that for a unit to qualify as an existing unit, it must have received waste by November 8, 1984, and must also have been fully "operational" by that date. In order to be considered operational, the unit must have been constructed to comply with all federal, State, and local requirements, including licenses and permits, in effect prior to November 8, 1984, so that as of that date there was no legal impediment to the operation of the unit. See 50 Fed. Reg. 28707 (July 15, 1985).

Your June 25, 1985, letter suggests that while under some circumstances an above-ground area must be classified as a new unit, such an area may be exempt from the new requirements if it is part of an existing unit. We agree that the statute provides for such a distinction.

The boundaries of an existing unit are limited by the specifications in operating or closure plans, permits, etc., that were applicable on November 8, 1984, that describe a final elevation or maximum capacity of the unit. The elevation or capacity limitation will restrict the maximum allowable height of the existing unit. If a State permit, for example, placed an interim restriction on the height of the unit, only the height

allowed in the permit on November 8, 1984, is included in the existing unit. Additional placement of waste would constitute a new unit.

An above-ground area must also be considered a new unit if a new or modified State or local permit would be required prior to receipt of waste in that area after November 8, 1984. We believe that such areas do not qualify as existing units nor as portions of existing units. This is because such vertical expansions do not meet the existing unit criterion of being "operational" on November 8, 1984, since there was a legal impediment to the operation of the unit on that date.

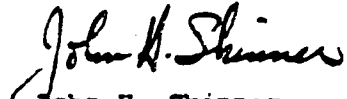
On the other hand, an above-ground portion will be considered part of an existing landfill unit if (1) the owner or operator, prior to November 8, 1984, had been granted the legal authority to expand vertically, i.e., all required permits and licenses for the vertical expansion had been obtained by that date, and (2) no further State or local approval is needed for such vertical expansion after November 8, 1984. Placement of waste vertically in such existing landfill units, including vertical expansions that involve additional construction of berms, liners, leachate collection systems, or other physical structures or appurtenances, constitute portions of existing units provided that the additional waste is placed only above waste placed within the lateral boundaries of the existing landfill unit; i.e., there must be no lateral placement of waste. If required construction features added after November 8, 1984, would result in expanded lateral placement of waste (i.e., would result in a lateral expansion), Section 3015 would require that this expanded area be in compliance with the new minimum technological requirements.

We will very shortly clarify to our Regional Offices that the minimum technological requirements are applicable to above-ground landfill areas if such areas constitute new units, as described above.

We have not yet completed a detailed review of the information we have received regarding your client's facility in Deer Park, Texas. In fact, we have not yet received from you all of the information I requested in my letter of August 9, 1985. Specifically, as requested in my previous letter, we need drawings that clearly identify which portions of the unit were constructed and where the liner and leachate collection system were located on November 8, 1984. In addition, it is possible that we will need even more information regarding this unit before a final determination can be made. Hence, we express no opinion here about whether your client's unit would qualify as an existing unit under the definition and guidance set out above.

I hope that the information contained herein is helpful to you, and look forward to receiving the information we are requesting regarding your client's facility.

Sincerely yours,

A handwritten signature in cursive script, reading "John H. Skinner". The signature is written in dark ink and is positioned above the printed name and title.

John H. Skinner  
Director  
Office of Solid Waste

08 AUG 85

Definition of Existing Portion

9432.05(85)

1. The definition of "existing portion" in Title 40 CFR §260.10 refers to the land surface area of an existing waste management unit included in the original Part A permit application on which wastes have been placed prior to the issuance of a permit. If a landfill unit has waste placed over fifty percent of the surface area of such unit, is the whole unit considered the "existing portion?"

The whole unit is not considered the "existing portion." Only the fifty percent covered surface area would meet the definition of "existing portion." Hence, at permit issuance, the non-covered fifty percent portion would have to have a single liner as required by §264.301. If the uncovered area was also covered with waste prior to permit issuance, the whole unit would then meet the definition of "existing portion."

The Hazardous and Solid Waste Amendments (HSWA), in effect, limit the applicability of the "existing portion" concept to those units that are "existing units" under HSWA. This is because units that are not "existing units" under HSWA must meet the minimum technological requirements of HSWA (i.e., landfills and surface impoundments that are not existing units must have double liner and leachate collection systems, and waste piles that are not existing units must have single liner and leachate collection systems). See the guidance entitled "Draft Guidance on Implementation of the Minimum Technological Requirements of the Hazardous and Solid Waste Amendments of 1984", dated May 24, 1985.

Source: Les Otte (202) 382-4654

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9432.1985(07)

NOV 19 1985

Mr. Lewis D. Walker  
Deputy for Environment, Safety and  
Occupational Health  
OASA (I&L)  
Room 2E613  
Pentagon  
Washington, D.C. 20310-0103

Dear Mr. Walker:

My staff and I have reviewed the Technical Document dated 27 June 1985, which was submitted by the U.S. Army Chemical Agent/Munitions System (CAMDS) Directorate, to consider the CAMDS site at Tooele Army Depot in Tooele, Utah as a "totally enclosed treatment facility" and thereby exempted from RCRA Subtitle C requirements. The substance of this document was presented to technical, policy, and legal EPA staff at a meeting on September 5, 1985, by several Department of Defense (DoD) personnel.

A "totally enclosed treatment facility" under RCRA is defined in 40 C.F.R. §260.10 as:

... a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

The CAMDS facility does not meet this definition for two reasons. First, the objective of CAMDS is to destroy obsolete chemical munitions; this activity constitutes treatment as defined in §260.10 and is not directly connected to an industrial production process. Second, this treatment involves incineration of hazardous waste, thus releasing emissions of hazardous constituents to the environment. These emissions (e.g., byproducts of the combustion process during normal operation and during upset conditions before the wastefeed is shut off) are inherent in the normal operation of a hazardous waste incinerator. Even a highly efficient incinerator will not destroy 100 percent of all constituents of the hazardous wastes that are fed into it. The regulatory exclusion of a totally enclosed treatment facility pertains only to treatment that prevents releases of both hazardous wastes and their constituents.

We realize that DoD may soon be mandated to completely destroy 90 percent of the military stockpile of lethal chemical agents and munitions by September 30, 1994 (H.R. 1872, 131 Cong. Rec., No. 87, June 26, 1985). Consequently, DoD intends to use the CANES facility to develop and demonstrate the incineration technology to accomplish this proposed statutory objective. In view of the structural modifications and/or operating changes necessary to provide DoD and Congress with information about the effectiveness of incineration to demilitarize chemical agents and munitions at the CANES facility, we recommend that the U.S. Army apply for a research, development, and demonstration (RD&D) permit under 40 C.F.R. §270.65; a full RCRA incinerator permit issued under 40 C.F.R. Part 264, Subpart C would not provide flexibility in modifying the design and operation of the facility.

All intended modifications to the facility must be identified in the RD&D permit. However, unlike a Subpart C permit, a trial burn for each modification is not required to demonstrate compliance with §264 requirements since this would be counter to the intent of an RD&D permit. You should note, however, that before the facility may be operated outside the conditions specified in the RD&D permit (i.e., structural or operational modifications) the RD&D permit must be re-drafted to reflect the modifications required and must be made available for public notice and comment for 45 days (§270.41). Therefore, I recommend that attention be given to planning the project so that it is not delayed for this reason.

RD&D permits are limited to one year of operation (365 days of actual operation treating hazardous wastes), may be renewed three times, and must specify the type and quantities of hazardous waste intended for treatment (§270.65(a)(1) and (2)). The Congress and EPA intend to limit these quantities of hazardous waste to the minimum necessary to demonstrate the feasibility of the incinerators. In order to expedite the review and issuance of the RD&D permit, the EPA Regional Office can tailor the RCRA permit application and procedural requirements of 40 C.F.R. Parts 124 and 270 (except for the public participation procedures and financial assurance requirements) to the research objectives of the CANES facility (§270.65(b)).

Until the RD&D permit is issued, the CANES facility can continue to operate under interim status, providing it continues to operate according to the requirements of §270.71. During the RD&D testing, CANES could apply for a full RCRA incinerator permit if you intend to continue using the incinerators to demilitarize stockpiles of chemical agents and munitions following the term of the RD&D permit; in this case, data from the PRF activity may be submitted in lieu of a trial burn (see enclosure 1, Research Plan "H").

To assist the Regional Office, we reviewed the information in the Technical Document and made a preliminary determination about the additional type of information necessary to prepare a complete RD&D application (see enclosure 1). We also described the type of performance data, which would be necessary in lieu of conducting a trial burn, thereby accelerating the permitting of similar hazardous waste incinerators based upon the RD&D demonstrations. Also, we are enclosing a copy of the draft Guidance Manual for Research, Development, and Demonstration Permits, dated October 3, 1985, to assist you in preparing an RD&D application (see enclosure 2).

The Agency is encouraging the development and demonstration of new and alternative technologies and processes to treat and minimize hazardous wastes. We recognize the critical need for DoD to demilitarize chemical agent munitions, particularly in view of the limited technical data on processes and technologies and the lack of facilities to treat these wastes.

You should contact Mr. Larry Wapensky at (303) 293-1662, Chief, RCRA Permits Section, EPA-Region VIII about processing the RD&D application.

Sincerely,

Marcia E. Williams  
Director  
Office of Solid Waste

Enclosures

cc: Bruce Weddle  
Peter Guerrero  
Truett DeGeare  
Art Glazer  
Nancy Pomerleau  
Robin Anderson  
Dov Weitman (LE-1325)  
Ken Gray (LE-1325)  
Jack Lehman  
Warren Hull (A-104)  
Larry Wapensky, Region VIII  
Dale D. Parker, Ph.D., State of Utah  
Regional Hazardous Waste Branch Chiefs, Regions I-X

20 NOV 85

SUBJECT: Reicholds Chemicals in Elizabeth, NJ

FROM: Robin Anderson (WE-563)  
Permits Branch

TO: John Brogard  
Region II

As you requested, I have reviewed the heat recovery unit for Reichold Chemicals in Elizabeth, New Jersey, to determine if it should be classified as a boiler and, thereby, exempt from RCRA regulations under 40 CFR 261.6 based on energy recovery. The applicant has requested that a variance be granted under 40 CFR § 260.32 to classify the unit as a boiler. The request is primarily based on the efficiency of the heat recovery unit (i.e., 65% heat recovery), the fact that 100 percent of the thermal energy generated is used throughout the year, and because the applicant claims the system provides better destruction of hazardous constituents than boilers as defined under § 260.10.

Although the intent of the operation appears to be legitimate energy recovery under §261.6, the boiler variance cannot be granted because the heat recovery unit, which is the Dear Energy Recovery System, is an add-on device. Further, the the classification of such a unit would set a precedent which may be contrary to EPA regulations to be proposed in June 1986. The combustion system is properly classed as an incinerator, and must be permitted as such under RCRA Subpart C to ensure the adequate treatment of the hazardous waste. The definition of a "boiler" under § 260.10 requires the energy recovery system to be of integral design to the combustion chamber and specifically excludes a unit in which the combustion chamber and the recovery chamber is joined by ducts or connections carrying flue gas. The variance procedures should not be used to evade a restriction definitely stated. The procedure was meant to apply to devices not fully considered by the definition and, therefore, such variances should be few.

With regard to the destruction efficiency of a "boiler" as defined under § 260.10, the Agency agrees that some boilers may pose a hazard when burning certain hazardous wastes, and is developing regulations for boilers. The Hazardous and Solid Waste Amendment of 1984, Section 3004(q), requires the Agency to develop standards for the burning of hazardous waste as a fuel within two years of enactment. As part of this activity the Agency has proposed regulations (50 FR 1684-1724, January 11, 1985) to provide administrative control of hazardous waste burned in boilers. The final rule, to be published shortly in the Federal Register, will prohibit the burning of hazardous waste in non-industrial boilers (e.g., boilers used in a residential, commercial, and institutional setting) unless such activity was permitted as a hazardous waste incinerator under RCRA. Other regulations are presently being developed which would regulate the burning of hazardous waste in industrial boilers and industrial furnaces regardless of the purpose of the activity.

The Reichold system was also reviewed by Marc Turgeon of the Waste Treatment Branch and he is in agreement that the system cannot be classified as a boiler under RCRA for the reasons presented above. Please call me on FTS 382-4498 if further clarification of this issue is needed.

cc: Peter Guerrero  
David Sussman  
Art Glazer  
Marc Turgeon  
Incinerator Permit Writers Work Group

DEC 30 1985

Mr. Frank J. Fox, Jr.  
Jones, Day, Reavis & Pogue  
2300 ITV Center  
Dallas, Texas 75201

Dear Mr. Fox:

In your letter of December 13, 1985, you requested our opinion as to whether the Lubrizol combustion unit at Painesville, Ohio is of integral design under 40 CFR 260.10.

After reviewing the engineering drawings, which you provided, our staff has concluded that the combustor is a rotary bed furnace with secondary combustion to which a waste heat boiler has been attached. It appears that the entire unit was designed at one time, and that it incorporates some unique design features, most particularly the use of firebrick lining in the secondary combustion chamber. It does appear that the unit was designed to burn a slurry material with high ash content.

However, the Painesville design does not meet the integral design standard given in the boiler definition, and does not fall under the fluidized bed or process heater exemptions to the integral design criterion. Specifically, we consider the boiler section connected by a duct to a furnace outside the meaning of the "integral design" definition. Thus, we consider the unit an incinerator. We believe your argument that the secondary combustion chamber (labeled "flue" in the blueprints) is not a duct if accepted would also allow commercial rotary kilns with heat recovery boilers to be classed as boilers, defeating the main purpose of the definition.

We also believe the variance procedure under 260.32 is not appropriate for furnaces ducted to heat recovery boilers.

Please call Mr. Robert Holloway or Mr. Marc Turgeon at (202) 382-7934 if you have any further questions on this matter.

Sincerely,

John P. Lehman  
Director  
Waste Management and  
Economics Division (WH-565)

cc: Region V  
Waste Management Division

06 JAN 86

Mr. Philip, ...  
...  
... Management, Incorporated  
2300 Highway 70 East  
Hot Springs, Arkansas 71901

Dear Mr. Philip:

In your letter of December 5, 1985 you requested that the Agency identify the Resource Conservation and Recovery Act (RCRA) status of sludge dryers that are part of a "conventional treatment system" not regulated by RCRA. You questioned whether adding a sludge dryer to a wastewater treatment unit exempted from RCRA permitting will jeopardize the exemption. The RCRA-Superfund Hotline correctly identified sludge drying for you as a treatment process according to the definition of treatment in 40 CFR §260.10. However, when sludge dryers meet the definition of wastewater treatment units, they qualify for the wastewater treatment exemption of §§264.1(g)(6), 265.1(c)(10), and 270.1(c)(2)(v). In your case, adding a sludge dryer to treat sludge generated by a treatment system operating under a wastewater treatment exemption does not subject the treatment system to RCRA permitting.

As you know, sludge dryers must meet the three criteria in the definition of wastewater treatment unit in order to be part of a wastewater treatment exclusion. First, the information you sent shows that your sludge dryer qualifies as a tank as defined in §260.10; that is, it is designed to contain hazardous waste and is constructed primarily of nonearthen materials that provide structural support. Furthermore, the Agency has clarified the definition of tank--for this exemption--to include unit operations such as presses, filters, sumps, and many other types of processing equipment. (See the attached memorandum dated July 31, 1981, from John Lehman to Region I.) In addition, the preamble of the November 17, 1980, proposed rule (45 FR 76077-76078) clarified the definition of a wastewater treatment unit as follows:

This definition...covers...the sludge digesters, thickeners, dryers and other sludge processing tanks... in which hazardous wastewater treatment sludge is treated; and any...tanks used for the storage of such sludge.

Second, the sludge dryer treats or stores a wastewater treatment sludge which is a hazardous waste as defined in §261.3 (i.e., the sludge itself is a listed waste, derived from treatment of a listed waste, or is hazardous on the basis of characteristics identified in §261 Subpart C). This means that the treatment of sludges generated from wastewater treatment units is also exempt from regulation under the RCRA treatment standards.

Tanks (here a sludge dryer) that do not themselves have any discharge subject to regulation under Sections 402 or 307(b) of the Clean Water Act, but that are part of the wastewater treatment system, qualify for the exemption if other tanks in the treatment train have discharges that are subject to these Clean Water Act provisions. So the third condition, being part of a wastewater treatment unit subject to regulation under Section 402 or 307(b) of the Clean Water Act, can be met by sludge dryers in certain circumstances. However, as the November 17, 1980 preamble stated (45 FR 76077), even the proposed regulations...."may not provide adequate environmental protection where treatment of the hazardous wastewater tends to result in the escape of hazardous waste constituents into the atmosphere (e.g., the treatment of highly toxic volatile wastes in open tanks)." Unless the Administrator promulgates regulations covering wastewater treatment units, wastewater treatment tanks that qualify for exemption under current RCRA standards may volatilize their contents and retain the exemption.

Sludge dryers may be used as part of a program to meet the waste minimization requirements of Section 3002(b) of RCRA without requiring permitting if the above conditions are met. Of course, although exempted from permitting requirements in the wastewater treatment units, any hazardous waste sludge that is removed from the tanks is subject to applicable regulations under §§260-266, such as manifesting off site, permitted storage after 90 days, and so on. If you have any additional questions regarding this exemption for wastewater treatment units, please do not hesitate to call Irene Horner at 202-382-7917.

Sincerely yours,

J. Winston Porter  
Assistant Administrator

Enclosure

cc Jack Lehman, EPA  
Bruce Meddle, PSPD  
Gene Lucero, OWP  
Mark Greenwood, OGC  
Hazardous Waste Division Directors,  
Regions I-X

cc Irene Horner  
Jim Berford  
Nancy Pomerleau  
Tina Parker  
Ken Gray

JAN 3 1986

MEMORANDUM

SUBJECT: University of South Alabama Heat Recovery Unit

FROM: ~~Jack W. Porter~~  
Jack W. Porter  
Deputy Assistant AdministratorTO: Thomas Devine  
Director, Air and Hazardous  
Materials Division  
Region IV

This is in reference to a November 22, 1985, memorandum from James H. Scarbrough to J. Winston Porter requesting comments on a petition to classify a heat recovery unit at the University of South Alabama as a boiler.

We understand from your memo and conversations with your staff that the University plans to build a solid waste combustion unit equipped with a heat recovery boiler. The device would also burn hazardous wastes at a maximum rate of less than 4 percent on a heat input basis. Recovered steam would be used in a hospital laundry at the University.

This device cannot be classified as a boiler because it fails the fundamental and objective criterion for a boiler -- that the combustion chamber and heat recovery unit must be of integral design. The variance procedure provided by 40 CFR 260.32 is intended to consider classifying as boilers devices not anticipated during development of the rules. The definition of a boiler and the variance procedure criteria, however, were structured specifically to classify incinerators with waste heat recovery boilers as incinerators. I am not aware of any characteristics of this case that indicate that this is a type of design not anticipated by the Environmental Protection Agency (EPA) when it adopted the basic definition of boiler and variance procedure on January 4, 1985 (see 50 FR 661-662).

It is important to be able to clearly distinguish between incinerators and boilers because they are subject to different standards. Owners and operators of hazardous waste incinerators are subject to permit requirements under Subpart O of Parts 264

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and 265. The burning of hazardous waste in industrial boilers and industrial furnaces is currently exempt from regulation. Permit standards to control emissions from these devices are under development, however, and are scheduled to be proposed in June 1986. Even though we plan to model the boiler and industrial furnace standards generally after the incinerator standards, it still may be necessary to distinguish between incinerators, boilers, and industrial furnaces because standards or permit procedures may be somewhat different (e.g., we are considering an automatic waiver of trial burns for boilers operated under specified conditions that would ensure 99.99% destruction and removal efficiency of toxic organics).

In addition to being a clear, unambiguous test to distinguish between boilers and incinerators, the integral design criterion has environmental significance. Devices where the combustion chamber and heat recovery unit are of integral design recover energy more efficiently. Thus, such devices are more likely to be operated for the primary purpose of energy recovery and, in turn, more likely to be operated and maintained to achieve peak combustion (and destruction) efficiency (see 50 FR 626).

I should also point out that the final rule establishing administrative controls on blending and burning hazardous waste and used oil fuels published in the Federal Register on November 29, 1985, prohibits the burning of hazardous waste fuels in nonindustrial boilers (copy attached). Even if the University's combustion unit were of integral design and otherwise determined to be a boiler, it would be considered a nonindustrial boiler under that rule. Thus, hazardous waste could not be burned in the device, unless the University complied with an exception to the prohibition provided by that rule for nonindustrial boiler owners and operators who comply with the hazardous waste incinerator standards under Subpart O of Parts 264 or 265. When the technical, permit standards for boilers and industrial furnaces are ultimately promulgated, any nonindustrial boilers burning hazardous waste under the interim status incinerator standards of Part 265 would become subject to the standards for boilers. We expect that few nonindustrial boiler owners and operators will elect to continue (or begin) burning hazardous waste fuels under these requirements.

As a final note, you may want to consider whether the hazardous wastes to be burned are eligible for the exemption from many of the incinerator standards for wastes that are ignitable, reactive, or corrosive, and that contain no or insignificant levels of Appendix VIII compounds. See 62CFR.340(b and c) and 62CFR.342(b).

If you have questions or comments on any of these points, please give Bob Colwell or Marc Turcotte a call at 302-7917.

Attachment


JAN 9 1986

Mr. Robert C. Funke  
Olson's Greenhouses, Inc.  
590 South Street  
Paynham, Massachusetts 02767

Dear Mr. Funke:

We have considered your December 18, 1985, request for determination as to the regulatory status of your greenhouse boilers. We agree that boilers used in greenhouse operations are "industrial" boilers within the meaning of the November 29, 1985, EPA used oil fuel rules. The main factor influencing this determination is that the energy is used in the process of producing a product, in this case plants. Greenhouse operations are thus considered more like manufacturing facilities than non-industrial commercial, institutional, or residential facilities.

Sincerely,

  
John P. Lehman  
Director  
Waste Management and  
Economics Division (WP-565)

c: Hazardous Waste Division  
Directors, Regions I-X



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

JAN 21 1986

9432.1986(04)

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Gary L. Ford  
Senior Attorney  
Stauffer Chemical Company  
Westport, Connecticut 06881

Dear Mr. Ford:

This is in response to your December 17, 1985, request that we confirm that "combustion devices used in the recovery of sulfur values from spent sulfuric acid" are industrial furnaces subject to the administrative controls on burning waste fuels published in the Federal Register on November 29, 1985.

As you know, EPA defined industrial furnaces in the January 4, 1985, Federal Register (50 FR 661, §260.10) as any of the specifically identified and listed devices that are "enclosed devices that are integral components of manufacturing processes and that are controlled flame devices to accomplish recovery of materials or energy". The definition also includes criteria that the Administrator may use to add other devices to the list. That list includes sulfur recovery furnaces and other furnaces that were inadvertently omitted from the list of industrial furnaces provided in the November 29 notice on pages 49194 and 49211.

Notwithstanding those omissions, sulfur recovery and other furnaces included in the definition of industrial furnaces under §260.10 are industrial furnaces subject to the November 29 rule.

Sincerely,

Robert Holloway  
Environmental Engineer

cc: Hazardous Waste Division  
Directors, Regions I-X

FEB 5 1986

Vice Admiral Peter J. Rotz  
Chief, Office of Marine Environment  
and Systems  
United States Coast Guard  
2100 2nd St., S.W.  
Washington, D.C. 20593

Dear Vice Admiral Rotz:

We have been asked by members of your staff to clarify the applicability of EPA's regulations under the Resource Conservation and Recovery Act (RCRA) to operational wastes from ships. The Coast Guard's Reception Facility Requirements for Waste Materials, Retained On Board, issued under Annex I of MARPOL 73/78 (50 FR 36768, September 9, 1985), have raised a number of questions regarding the status of ships and terminals/ports under the RCRA regulations. In particular, we have been asked to determine who is the generator of oily waste that is produced on ships and required under the Coast Guard's September 9, 1985 regulations to be discharged to reception facilities at ports and terminals.

We have determined that, as a general matter, for any oily waste that is produced in product or raw material vessel units, such as those used for bulk shipment of oil, both the ship and, in some circumstances, the operator of the central facility involved in removing the waste from the ship 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.

#### 1. Generator requirements

The RCRA regulations define a generator as any person, by site, whose act or process produces hazardous waste identified or listed in 40 CFR Part 261 or whose act first causes a hazardous waste to become subject to regulation. 40 CFR §260.10. Any person who generates a solid waste must determine if that waste is hazardous, and if so, must receive an EPA identification (ID) number before treating, storing, transporting or disposing of the waste. If the generator plans to move the waste off-site for treatment, storage or disposal, he must comply with certain requirements in Part 262, including preparing an EPA manifest, marking the waste, keeping records and filing reports. In addition, a generator may accumulate hazardous waste on site for up

to 90 days without a permit if he complies with the requirements of §262.34(a)(1-4).

## 2. Types of waste subject to regulation

The oily wastes subject to Coast Guard regulation under MARPOL Annex I generally are produced in two ways. The first is through bulk shipment of oil, whereby sludges and sediments that settle out in the oil storage tank or unit must be periodically removed. Oil tankers also need to periodically dispose of oily ballast water and tank cleaning water. The second type of waste is produced from the use of oil as a fuel and lubricant in a ship's propulsion and auxiliary system. Bilge water that accumulates in engine rooms often contains high concentrations of oil from lubricant drippings and other routine losses. The bilge water may also be contaminated with other types of wastes. Both types of waste are solid wastes under §261.2.

Whether these wastes are hazardous wastes would be determined under §261.3. In general, the waste would have to be either (1) listed in Subpart D of Part 261; (2) identified in Subpart C of Part 261 (e.g., exhibits ignitability characteristic); (3) a mixture of solid waste and a listed hazardous waste; or (4) is derived from treating a listed hazardous waste. Under current EPA regulations, used oil is not listed as a hazardous waste,\*/ and therefore, would have to meet (2), (3) or (4) above. We do not anticipate many situations in which one of these criteria would be met, with the possible exception of contamination of bilge water with spent solvents. (§261.31) However, even this possibility can be minimized if the bilge waters are segregated from other wastes generated on the ship.\*\*/

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\*/ EPA's recent proposal to list used oil as a hazardous waste, if finalized, will change its current status under the RCRA regulations. See 50 Fed. Reg. 49212 (November 29, 1985).

\*\*/ Under EPA's spent solvent listing, since a solvent is considered "spent" when it has been used and is no longer fit for use without being reclaimed or reprocessed, it is likely that solvents dripping from machinery and collecting in bilge water would not cause the wastewater to be hazardous. See 50 Fed. Reg. 53315, 53316 (December 31, 1985).

### 3. Regulation of oily waste under RCRA

The two types of oily waste from ships - - waste produced in product transport units and waste produced in the propulsion and auxiliary systems - - are treated differently under the RCRA regulations. Under §261.4(c), a hazardous waste generated in a product or raw material transport vessel is exempt from regulation until it exits the unit in which it was generated or unless it remains in the unit more than 90 days after the unit ceases to be operated for storage or transportation of the product or raw materials. These wastes are sludges and residues produced in tanks or holds that carry products or raw materials, where the products or raw materials are not in themselves hazardous wastes. See 45 Fed. Reg. 72024, 72026-27 (October 30, 1980).

As a result of this exemption, parties who remove the waste from the ship at a central facility by either emptying the product-holding unit or cleaning the holding tank are deemed to be generators under 40 CFR §260.10 because their actions cause the hazardous waste to become subject to regulation. In addition, the actions of both the operator and owner of the vessel and the owner of the product or raw material result in production of the hazardous waste. Thus, these parties, and any others that fit the generator definition, are jointly and severally liable as generators. See id. at 72026.

The Agency looks primarily to the central facility operated to remove sediments and residues to perform the generator duties, since it is the party best able to perform such generator duties as determining whether the waste is hazardous. Where the wastes are not removed at a central facility, however, the Agency looks to the operator of the vessel to perform the generator duties. Id. at 72027.

Engine-related wastes are treated quite differently in that they are regulated from the moment they are produced. Since the operation of the ship's propulsion system produces the oily wastes, the ship's owner and/or operator are generators. The facility involved in removing this waste from the ship is not a generator because it is not causing the waste to become subject to regulation - - this waste is already subject to regulation when produced in the ship. The facility may be a transporter (Part 263) or a treatment storage or disposal (TSD) facility (Parts 264-265), depending upon the actions it takes.

The Coast Guard's requirement that certain ports and terminals be certified to have available adequate reception facilities for ships' oily wastes does not necessarily determine the role of the

port or terminal in the RCRA regulatory scheme.\*/ For example, a port or terminal that has available an independent waste hauler who transfers engine room waste directly into a tank truck does not appear to fit the definition of generator, transporter or TSD facility. The waste hauler, or whoever is engaged in the offsite (i.e., off the ship) transportation of the waste, would be deemed the transporter.

Of course, if the manifested waste is stored for any period of time in tanks or containers at the port or terminal, or if the waste is removed to and stored in a barge, both the port and barge storing the waste would be deemed TSD facilities subject to the requirements of Parts 270, 264 and 265. If whoever is transporting the manifested waste from the ship stores the waste in containers meeting the requirements of §262.30 at a transfer facility, such as a loading dock, the waste may be stored for 10 days without being subject to regulation under Parts 270, 264 and 265. See 40 CFR §263.12.

The ship, as the generator, is also a TSD facility to the extent that it is storing hazardous waste on board. Under §262.34, a generator may accumulate hazardous waste on site for 90 days or less without having a permit provided certain requirements are met. EPA is currently finalizing a proposed regulation that would extend this accumulation period for generators who generate between 100 - 1000 kilograms of hazardous waste per month. See 50 Fed. Reg. 31278 (August 1, 1985).

The Agency believes that the application of the RCRA regulations in this way will be workable for the ships and reception facilities subject to Coast Guard regulations. In situations where ships' owners or operators are unable to perform the generator duties, ships' agents that are available at ports or terminals to handle fueling and other necessary functions, such as carrying out Customs requirements, may perform these duties on behalf of the ship. The Agency would expect the shipping company or agent handling the required manifesting and record keeping functions to retain records either at its U.S. business headquarters or at the local agent's office located near the port or terminal where the ships have their waste removed.

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\*/ Similarly, potential liability of parties under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) is not necessarily determined by RCRA responsibilities. For example, under CERCLA §107, persons who arrange for transportation, disposal or treatment of hazardous substances are liable for certain costs, so that parties who are not "generators" under RCRA may nonetheless have certain CERCLA liabilities.

Also, any parties liable for performing generator duties may designate among themselves the person who will actually carry out those functions. For example, where both the ship and a central waste removal facility are deemed to be generators, they may mutually agree that the central facility will perform the generator duties.

We hope that this has been responsive to the Coast Guard's concerns regarding the interaction between the MARPOL and RCRA regulations. Please don't hesitate to contact me or Bruce Weddle of my staff at 382-4746 if you have any further questions.

Sincerely,

Original signed by  
Marcia E. Williams

Marcia Williams  
Director  
Office of Solid Waste



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

9432.1986(06)

FEB 6 1986

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Ridgway M. Hall, Jr., Esq.  
Crowell & Moring  
1100 Connecticut Ave, N.W.  
Washington, D.C. 20036

Dear Mr. Hall:

This is in response to your letter of August 2, 1985, and our meeting with you and your client, VerTech, on September 13, 1985, asking our opinion on whether the VerTech wet-air oxidation system could be considered a totally enclosed treatment system and thus exempt from the regulatory requirements of the Resource Conservation and Recovery Act (RCRA) Subtitle C. You provided the Environmental Protection Agency (EPA) with the generic plans for a wet air oxidation process that could be directly connected to a hazardous waste generator's process equipment. Since the meeting in September, Jack Binning and Gerry Rappe provided additional details on the nature of the gaseous phase and above ground treatment units in their process in order to support your contention that the process could be considered a totally enclosed treatment facility.

After reviewing the information provided on the process blueprints, written descriptions of the treatment process, and data on treatment of a synthetic waste stream, it is our opinion that the VerTech process is not totally enclosed under RCRA. The definition in §260.10 is:

"Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized (45 FR 33076).

The May 19, 1980, Federal Register elaborated on the intent of the totally enclosed exclusion:

Commenters pointed out that in some production processes, wastes (particularly acid and alkaline solutions) are treated in-pipe, often resulting in a non-hazardous discharge.

EPA agrees that to classify "totally enclosed treatment systems," such as pipes, as hazardous waste treatment facilities...would not make a great deal of sense. These facilities by definition do not release wastes or waste constituents into the environment.... The key characteristic of such a facility is that it does not release any hazardous waste or constituent into the environment during treatment. Thus, if a facility leaks, spills, or discharges wastes or waste constituents into the air during treatment, it is not a "totally enclosed treatment facility" within the meaning of these regulations (45 FR 33218).

A review of the regulation and preamble demonstrates that the totally enclosed treatment exemption was intended to exclude from regulation a very narrow subset of treatment facilities. The regulation provides only one example: neutralization in pipes. The preamble emphasizes that a facility that discharges wastes or waste constituents to the air during treatment cannot be considered totally enclosed. Your wet-air oxidation unit, like many other types of thermal treatment units (defined in 40 CFR 260.10), does emit constituents to the air during treatment. The totally enclosed treatment exemption was not intended to exclude such units.

The enclosed regulatory clarification, prepared in July 1981, in response to an inquiry from Travenol Labs, limits totally enclosed treatment "to pipelines, tanks, and to other chemical, physical, and biological treatment operations which are carried out in tank-like equipment...." While the clarification does recognize some situations in which minor releases to the air would not preclude eligibility for the exclusion, continuous gaseous by-products emitted during treatment represent an open system that interacts significantly with the environment. In our opinion, extension of the exclusion to thermal treatment units would be inappropriate and unjustified by the rationale for the exclusion as expressed in the preamble language quoted above. We believe that thermal treatment units, like incinerators, should be subject to regulatory control to assure that they are designed, maintained, and operated at all times in a manner that protects human health and the environment.

The Agency does not have 40 CFR 264 Subpart P standards to establish a permit for VerTech's thermal treatment unit. There are, however, other types of standards that might be used to permit an underground wet-air oxidation unit and the associated aboveground treatment processes.

Section 270.65 research, development, and demonstration permits allow short-term, limited operation for processes that have no applicable permitting standards. These RD&D permits

are currently being issued for innovative technologies and would allow experimental operation of wet-air oxidation with actual RCRA wastes. A copy of the draft guidance manual for RD & D permits is being sent to you under separate cover.

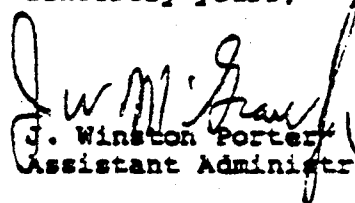
Part 264 Subpart X Miscellaneous facilities regulations are currently undergoing accelerated rulemaking development. Currently, promulgation is anticipated in December 1986. Subpart X will provide EPA with permitting standards that could be applied to thermal treatment processes.

You also may be required to meet the requirements for treatment tanks. The tank regulations proposed on June 26, 1985, 50 FR 26444, would allow treatment in underground tanks that cannot be entered for inspection, and, based on our preliminary review, the VerTech process may meet the proposed standards for secondary containment. These proposed tank regulations are scheduled for promulgation in June 1986. Presently, tank regulations do not allow permitting of an underground tank that cannot be entered for inspection.

In any case, thermal treatment that occurs one mile underground presents unique permitting requirements not specified for any RCRA unit. Section 3005(c)(3) of the Act and 40 CFR 270.65(a)(3) allow EPA or the State to add terms and conditions to permits when necessary to protect human health or the environment. Therefore, when a permit is issued under a particular subpart of 40 CFR Part 264, additional permitting standards may apply, such as the operating conditions of a thermal unit and conditions from the Safe Drinking Water Act covering aspects of construction and operation of injection wells (e.g., sealing, cementing, location, pressures, size and grade of casing, log, and reporting). The underground injection standards that may apply can be found in 40 CFR 146.12(b)(1)-(7), §146.12(d)(2), §146.12(e), §146.13(b)(1)-(4), §146.13(c)(1) & (2), and §146.14. Specific standards will be specified during the permitting process.

I appreciate your patience while we addressed the difficult policy issues created by your request. EPA welcomes the opportunity to work with you to develop wet air oxidation as an environmentally acceptable alternative to incineration and other types of chemical/physical and biological wastewater treatment systems.

Sincerely yours,

  
J. Winston Porter  
Assistant Administrator

Enclosure

April 30 1986

9432.1986(08)

MEMORANDUM

SUBJECT: Standards Applicable to Pipelines

FROM: Marcia Williams, Director, Office of Solid Waste

TO: Barry Seraydarian, Director, Toxics and Waste  
Management Division (T-1)

This is a follow-up to my interim response of March 19 (attached) concerning standards applicable to transportation by pipeline.

Since my interim response, Carolyn Barley has been in contact with Mostafa Badmand of your staff to discuss the questions you raised in your memorandum of February 21. Specifically, you ask whether transportation of hazardous waste by pipeline is acceptable under RCRA when the definition of transportation contained in 40 CFR 260.10 includes only "the movement of hazardous waste by air, rail, highway, or water."

The fact that the definition of transportation does not include pipeline as a mode for the transportation of hazardous waste does not mean that hazardous wastes via pipeline is not acceptable under RCRA. Rather, because the definition of transportation does not include pipeline transport, the provisions of 40 CFR §263 do not apply to the transportation of hazardous waste by pipeline.

While the §263 regulations do not apply to the transport of hazardous waste by pipeline, there are other provisions under RCRA and CERCLA which may apply. For example, a release of hazardous waste from a pipeline which is not immediately cleaned up could constitute an imminent and substantial endangerment to health or the environment under RCRA §7006, and, therefore, be subject to a §7003 action. Such a release may also be reportable under §103(a) of CERCLA. The generator or owner/operator of the pipeline could be liable under §107 of CERCLA for clean-up costs and damages to natural resources, and may also be subject to a §106 administrative order to clean up the release.

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*This document has been retyped from the original.*

-2-

If you have other concerns or questions regarding transportation by pipeline, please call Carolyn Barley on 8-382-2217.

Attachment

cc: Nostafa Radmand

cc: OSW  
PSPD

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*This document has been retyped from the original.*

~~4/17/86~~  
92 APR 86

MEMORANDUM

SUBJECT: Definition of Byproduct Material

FROM: Marcia E. Williams, Director Original Signed By  
Office of Solid Waste Marcia E. WilliamsTO: Thomas W. Devine, Director  
Waste Management Division  
Region IV

In response to your memorandum of March 12, 1986, we have outlined below how you and the State of South Carolina can proceed with permitting and/or enforcement actions leading to issuance of a RCRA permit at the Savannah River Plant (SRP).

Universe of Mixed Waste

EPA has seen and reviewed some of the waste stream booklets prepared by DOE facilities. We reviewed the one for SRP several years ago, but we understand that it was since revised. The booklets do not provide definitive lists of wastes that are and are not regulated under RCRA. They merely provide a starting point for negotiating with the facility to determine which wastes are regulated under RCRA.

The definition of "byproduct material" in the Atomic Energy Act (AEA) does not explicitly resolve the question of which wastes are, in their entirety, byproduct material, and are thus exempt from RCRA, and which are mixtures of byproduct and hazardous waste and are thus regulated under RCRA. The definition of byproduct in 10 CFR 20.3 which you referenced in your memorandum is merely a restatement of the statutory definition and, thus, does not provide definitive guidance to determine which byproduct wastes are regulated and which are excluded.

DOE recently proposed a revised definition of byproduct material (November 1, 1985, 50 FR 45736). The proposal did not meet with favorable public comments and it is unlikely that they will finalize the rule in the near future. The only way States will be able to judge which waste streams at any DOE facility should be regulated is to work directly with the facility to make case-by-case decisions based on the AEA definition.

However, EPA considers all mixed waste streams to be subject to general regulation under RCRA. We would expect that States with the same radioactive waste exemption as EPA would also include all mixed wastes in their regulatory universe. However, until the States are authorized for mixed wastes, it is possible that their interpretations of their statutes may differ from EPA's interpretation of RCRA.

#### Use of RCRA Authorities

The Savannah River Plant should provide to the State of South Carolina a permit application for all waste units regulated under State law. Based on that information, the State should proceed to process and issue a RCRA permit covering all RCRA-regulated units at the facility. Units containing mixed wastes (or suspected of containing mixed wastes) are currently not covered under the authorized RCRA program in South Carolina. However, if the State regulates mixed wastes under State law, units containing such wastes may also be addressed within the State permit.

The State should obtain security clearances, where necessary, and use its full range of enforcement authorities to gain access to the site and to require sampling and analysis by the facility to determine whether units should be regulated. Headquarters DOE has assured full cooperation in obtaining security clearances for State personnel.

EPA can also use its HSWA authorities to supplement an authorized State's authority over RCRA-regulated units. Under §3004(u), EPA can jointly issue a permit with the State and impose corrective action requirements on hazardous waste management units and solid waste management units (SWMU's) at facilities that contain RCRA-regulated units. Although mixed waste units are not RCRA-regulated under authorized State RCRA programs, mixed waste will be considered to be a "solid waste" for purposes of corrective action at solid waste management units.

The Federal definition of "solid waste" is to be used in determining what units are SWMU's, because State definitions were not scrutinized in evaluating applications for State authorization (except as was necessary to assess the adequacy of the State's universe of hazardous waste).<sup>\*</sup> Because mixed waste is considered a solid waste under the Federal RCRA program, units containing mixed wastes are SWMU's and are subject to corrective action if there is another unit requiring a RCRA permit at the facility.

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<sup>\*</sup> Therefore, in order to obtain authorization for corrective action, States must obtain authorization for their definition of solid waste, which may not exclude mixed waste.

As noted earlier, a mixed waste unit is not a RCRA-regulated unit in an authorized State. Therefore, there must be at least one non-mixed, hazardous waste unit at a facility in order for EPA to subject mixed waste units to corrective action requirements under §1064(u).

Similarly, EPA may issue an order under §1068(h) requiring monitoring, investigation of releases and corrective action, but the order can apply to mixed waste units only if there is one or more unit subject to interim status requirements at the site.

#### Response to Specific Questions

In response to the three bullets and the three numbered items on page 2 of your memorandum, we have the following answers:

- If you suspect that Part B's have not been submitted for all RCRA units, EPA and/or the State should take immediate enforcement action. You and the State should determine who should appropriately take enforcement action. If there are mixed waste units in question, EPA cannot enforce submission of the Part B's in an authorized State. While EPA cannot issue penalties to another Federal agency, the dispute resolution process described in the revised Federal Facility Compliance Strategy may be used.
  - Review of the Part B submitted by SRP may provide you and/or the State with sufficient information to make such a determination. However, if it does not, then EPA and/or the State should require SRP, through enforcement action, to make such a determination through sampling and analysis or whatever other method (e.g., application of knowledge of waste generation process) may be appropriate.
  - As stated earlier, the booklets only provide a starting point for negotiations. EPA HQ will not be reviewing or approving the individual facility booklets.
1. The May 10 letter to DOE did not delegate any authority. Therefore, it need not be withdrawn.
  2. The AEA definition of byproduct is the only appropriate and legally enforceable definition that can be used. You should use that definition to make case-by-case decisions, as described on page 2 of this memorandum.
  3. There is no documentation available of the EPA review of the SRP waste stream booklet.

I hope this sufficiently clarifies your and the State's current authorities with respect to permitting and enforcement actions you might take at SRP. We will continue to work with you to resolve any remaining issues, and would appreciate being kept informed about the progress you and the State of South Carolina are making in resolving these issues with SRP.

cc: Jim Scarbrough, Region IV  
Richard Campbell, Region IV  
Joe Freedman, OGC  
Tony Baney, OMPE  
Peter Guerrero, OSW  
RCCA Division Directors, Regions I-III, V-X (with incoming)  
RCRA Branch Chiefs, Regions I-III, V-X (with incoming)

bcc: Henry Elsen, Regional Counsel (613),  
Region X (with incoming)  
State Programs Branch

JUL 28 1986

Mr. Ronald D. Conte  
Operations Coordinator  
Petroswill Chemicals, Inc.  
2523 Mogadore Road  
Akron, Ohio 44312

Dear Mr. Conte:

I am responding to your letter of June 27, 1986, which requested clarification of the definition of several terms in 40 CFR 270.2.

The terms "holding" and "temporary period" are not explicitly defined in the RCRA regulations. Holding in context of these regulations means containment. Storage, as defined in RCRA means "the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste." The term disposal (the opposite of storage or containment) is defined in RCRA (and in the RCRA regulations) as "the discharge, ... leaking, or placing of any waste into or on any land...so that such...waste...may enter the environment." The types of "holding" devices (i.e. containers, tanks, surface impoundments, and waste piles) are defined in the regulations.

The term "temporary period", although not explicitly defined, is indirectly limited in the regulations by the closure plan and financial responsibility requirements. These require the facility owner/operator to specify up front the operating period (closure time) and the maximum amount of waste in storage at any time and at closure. This defines the extent of the "temporary period" and storage activity. At closure, the waste must be removed from all storage units.

All hazardous waste storage units, including storage units at recycling facilities, are regulated by the RCRA rules unless exempted in Part 261, 264, or 265. Items associated with storage units that are used to transfer hazardous waste, such as pipes, funnels or hoses, are regulated as part of the storage unit.

- 2 -

I understand that you recently met with staff in EPA's Region V to discuss these definitions as well as the applicability of the requirements in 40 CFR Parts 264, 265 and 270 to your facility. Since implementation of our regulations is the responsibility of our Regional offices I urge you to continue working with Region V. However, if you need additional help please feel free to contact me.

Sincerely,



Marcia Williams, Director  
Office of Solid Waste

cc: Y.J. Kim, Region V  
Lisa Pierard, Region V

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AUG 6 1986

Honorable Matthew J. Rinaldo  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Rinaldo:

Thank you for your July 1, 1986, letter on behalf of your constituent Mr. Paul DeCosimo. Mr. DeCosimo requests an interpretation as to whether he would be considered a co-generator of hazardous waste as a result of recycling solvent at a generator's site using a mobile treatment technology. Based on the information provided by Mr. DeCosimo, we do not believe that he would be considered a co-generator for regulatory purposes under most circumstances.

A generator is defined in Section 260.10 of the hazardous waste regulations as, "...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." Since the spent solvent is presumably already a hazardous waste prior to Mr. DeCosimo coming onto the generator's site, and since the solvent is likely to have been accumulated prior to being recycled, the hazardous spent solvent would already have been subject to regulation under the accumulation provisions of Part 262 of the hazardous waste regulations. Thus, none of the actions taken by Mr. DeCosimo would appear, in the limited circumstances described in his letter, to cause him to become subject to RCRA liability as a RCRA hazardous waste generator.

Mr. DeCosimo should, of course, be aware that if he transports a hazardous waste off of the generation site, he would be considered a hazardous waste transporter subject to regulation.

If you have any further questions, please call Bob Axelrad at (202) 382-5218.

Sincerely,

  
J. Winston Porter  
Assistant Administrator

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9432.1986(14)

SEP 3 1985

Ms. Suzann M. Unger  
Radiation Safety Officer  
Merrell Dow Research Institute  
9550 N. Zionsville Road  
P.O. Box 68470  
Indianapolis, IN 46268 - 0420

Dear Ms. Unger:

This is in response to your letter of August 18 in which you proposed to incinerate on-site a waste that is both a by-product material and hazardous.

After reviewing the information presented in your letter, EPA has concluded that the waste stream in question would be considered a radioactive mixed waste (see enclosed Federal Register notice, which sets forth EPA's interpretation of this term and RCRA's jurisdiction over it). As the Federal Register notice discusses, in the past, EPA has not made authority to regulate the hazardous components of radioactive mixed waste a prerequisite to a State obtaining authorization to run the Federal RCRA program. The notice changes this, but requiring States to pick up this piece of RCRA if they wish to become, or remain, authorized. Since the currently authorized Indiana program does not include authorization for mixed wastes, these wastes are not now subject to the RCRA regulations in Indiana, and RCRA approval is not required for your proposed incineration.

However, you are still subject to whatever regulations the State of Indiana may have adopted pursuant to State law that are applicable to the hazardous components of radioactive mixed wastes. Therefore, I recommend that you work closely with the State of Indiana to discuss the appropriate management of these waste streams under Indiana law. You should contact:

Mr. David Lamm, Assistant Commissioner  
for Solid and Hazardous Waste Management  
Indiana Department of Environmental Management  
105 S. Meridian Street  
Indianapolis, IN 46225  
(317) 243-5026

Once the State receives authorization under RCRA for radioactive mixed wastes, you will then also be subject to the RCRA regulations.

(1)

If you have any additional questions please feel free also to contact Jim Michael, State Programs Branch, Office of Solid Waste, at (802) 862-2231.

Sincerely,

Garcia L. Williams  
Director  
Office of Solid Waste

Enclosure

cc: Jim Michael  
David Lamm  
David Stringham

DEC 22 1986

Mr. Frederick M. Swed, Jr.  
RMT, Inc.  
Suite 124  
1406 East Washington Ave.  
Madison, Wisconsin 53703-3009

Dear Mr. Swed:

Thank you for your letter of November 10 requesting guidance on application of the totally enclosed treatment exemption to the treatment prior to disposal of baghouse dust generated in the foundry industry. Your letter addressed a generic case in which an emission control baghouse system and the treatment equipment are directly connected to a cupola furnace through a closed system of ducts. The Agency does not believe that the totally enclosed treatment exemption applies to the system you describe, subject to the conditions described below.

As you stated, totally enclosed treatment is defined in 40 CFR 260.10 as (1) being directly connected to an industrial production process and (2) constructed and operated to prevent the release of hazardous waste and any constituent thereof into the environment during treatment. In addition, the regulatory interpretive letter issued July 27, 1981 to Travenol Laboratories (RIL 84) further clarified what constituted totally enclosed treatment.

In the March 25, 1986 letter from Region 5 to Grede Foundries, EPA found that the specific configuration of the Grede baghouse did not qualify as totally enclosed because the hood collecting emissions was not directly connected to the cupola, only to the baghouse. As part of that determination, EPA stated that a foundry cupola qualifies as an industrial production process, but that the baghouse is an air pollution control device associated with waste treatment prior to disposal.

However, our answer to Grede may have been misleading. Connecting the ductwork to the cupola only fulfills half of the totally enclosed treatment requirement. The question remains as to whether a system that includes a baghouse qualifies as totally enclosed treatment. Since baghouses do not remove 100% of the hazardous constituents, treatment downstream of a baghouse is not part of a totally enclosed treatment train.


You suggested that the baghouse is part of the production process because the cupola cannot be operated without the baghouse. While your system might require modification in order to operate without the baghouse, I do not believe that the baghouse is inherently necessary to the operation of a cupola furnace. In fact, prior to the development of air quality standards, cupolas typically operated without baghouses. Baghouses limit emissions from units subject to Clean Air Act standards. Therefore, the Agency still maintains that the baghouse is not part of a production process, but is associated with waste treatment.

You asked whether adding the treatment reagents prior to the baghouse would qualify as totally enclosed treatment. Since we agree that the point of hazardous waste generation is typically the bottom of the baghouse hoppers, any processing that occurs prior to that point would not be treatment subject to RCRA requirements.

You are also correct in stating that even if a production unit is open to the atmosphere, the unit downstream could still qualify as totally enclosed. As stated in a preamble to the §261.4(c) amendment, "Except for surface impoundments and non-operating units, EPA did not intend to regulate...manufacturing process units in which hazardous wastes are generated." (45 FR 72025, October 30, 1980) In your case, however, the production unit is the cupola, not the baghouse, so treatment that occurs downstream of the baghouse is not totally enclosed treatment.

In summary, although production units may not necessarily prevent releases of constituents to the environment, units downstream may still qualify for the totally enclosed treatment exemption. However, while cupolas are production units, baghouses are not considered to be production processes. Furthermore, baghouses release hazardous waste or constituents thereof to the environment during normal operation as a waste management method. Therefore, dust treatment downstream of a baghouse system directly connected to a cupola does not perform totally enclosed treatment under the Federal program. In addition to this Federal determination, of course, the States would have to be consulted for State hazardous waste and air quality standards that apply to these systems. I apologize for any inconvenience that arose from your reading of the EPA letter to Grede Foundries.

Sincerely,

  
Marcia Williams  
Director  
Office of Solid Waste

cc: Hazardous Waste Branch Chief, Region V

bcc: Hazardous Waste Branch Chiefs, Regions I-IV, VI-X  
RCRA/Superfund Hotline  
Irene Horner, WTB

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY  
DECEMBER 86

13. BDAT for Wastewater

Best Demonstrated Available Technology (BDAT) for solvent wastes includes three waste treatability groups (spent solvent wastewaters, wastewaters from the pharmaceutical industry and other solvent wastes). How are wastewaters defined?

EPA has established a separate treatability group for spent solvent wastewaters. Wastewaters are defined as solvent-water mixtures containing total organic carbon (TOC) of one percent or less [51 FR 40609].

MAR 17 1987

M. 2

MEMORANDUM

SUBJECT: Total Enclosed Treatment and the Steel Industry

FROM: Marcia E. Williams, Director *15/*  
Office of Solid Waste

TO: James H. Scarbrough  
Chief, Residuals Management Branch  
Region IV

I have reviewed your memorandum of February 4, 1987, regarding our guidance to RMT, Inc., advising that its baghouse dust treatment system does not meet the requirement of a totally enclosed treatment system. It is unfortunate that Region IV apparently has reviewed a similar facility in Alabama and reached the opposite conclusion. Although I understand your reasoning in that decision, I cannot concur with it. I believe this interpretation would unnecessarily broaden the exemption and create new problems in the definition of what constitutes a treatment unit.

The concept of a totally enclosed treatment unit in 40 CFR §260.10 was designed to prevent the need for a permit for treatment that occurred in pipes exiting a process unit. As a result, this definition made clear that the treatment units must be connected directly to an industrial production process. By not adhering strictly to this principle, your interpretation would broaden the universe of exempt units beyond what was intended for this exemption.

As you note in your memo, the baghouse is not part of the production process. Therefore, as stated in my December 22, 1986, letter to RMT, the dust fixation system cannot be considered directly connected to the process because the baghouse is open to the environment. Although listed waste is not generated until the emission control dust is collected in the baghouse hopper, this does not change the fact that there is an opening between the production unit and the fixation system. I recognize that this

means that any treatment provided downstream of a baghouse cannot be totally enclosed treatment. To find otherwise, however, would require us to find that the baghouse is a process unit. I think this would hopelessly confuse the definition of treatment units and process units and complicate enforcement by introducing how a unit is used into the definition.

Therefore, I believe that despite its possible environmental advantages, this unit should not be exempted from permitting as a totally enclosed treatment unit. Based on your extensive involvement in the design and construction of this system, I expect permitting will not create an unreasonable barrier to the use of the closed fixation technology on baghouse dusts. Expedited permit review would seem appropriate.

I also would note that treatment in 90-day accumulation units is currently exempt from permitting. Management within 90 days could make this issue moot for the Alabama facility at this time.

APR 2 1987

MEMORANDUM

SUBJECT: Regulatory Classification of Three and  
Four-Sided, Floored Structures, OSW-185

FROM: Marcia E. Williams, Director /5/  
Office of Solid Waste

TO: Karl Bremer, Acting Director  
Region V Solid Waste Branch (5HS-JCK-13)

Thank you for your patience in waiting for our response to your memorandum of April 23, 1986, requesting guidance on how nine examples of three and four-sided, floored structures should be regulated -- as tanks or waste piles. As you noted, the ramifications of these decisions are significant since tanks and waste piles are subject to different regulatory standards. For example, waste piles are subject to the land disposal restrictions and have lost interim status unless the November 7, 1986, certification deadlines were met.

We have been having a great deal of trouble and have spent a great deal of time in an effort to develop a methodology that could be used to identify these various odd-shaped units. We believe that such an approach is necessary to ensure that similar units located throughout the country can be classified on a consistent basis by Regional and State permitting authorities. Unfortunately, there is a great deal of overlap with respect to the definitions of "tank" and "pile" found at 40 CFR 260.10. This overlap can create a problem when it is necessary to identify certain specific units such as those described in the attachment to your memo. We concluded that the only viable long-term solution is a regulatory "fix" that will be described in detail below.

For the short term, on the advice of our Office of General Counsel and the Office of Waste Programs Enforcement, we would advise that individual units be identified identically to the applicant's Part A designation unless the unit clearly cannot be

a specific type of unit (e.g., flowing liquids cannot be managed in piles; primarily earthen units cannot be tanks). If permitting or closure requirements are deemed inadequate, we would use the corrective action (assuming there is a permitted unit at the facility) and omnibus authorities to impose additional requirements, as necessary, to protect human health and the environment. The advantage of this approach is that it provides the most legally defensible position in view of the ambiguities of the various regulatory definitions. The disadvantages include our inability to use omnibus authorities for 90-day accumulation and wastewater treatment tanks that do not require RCRA permits, and our inability to apply corrective action requirements to these same units at facilities with no other permitted units.

As explained above, our long-term strategy for dealing with these units would be to make regulatory changes as needed. In that regard, we are considering a regulatory fix that we would pursue as expeditiously as possible. This approach involves reviewing the various definitions found in 40 CFR 260.10 including those for (a) tanks, (b) piles, and (c) surface impoundments, and miscellaneous units under Subpart X. While various definitions tend to overlap (for example, both tanks and piles can accept solid, non-flowing waste), we are able to make certain distinctions. For example, the definition of tank states that tanks contain materials; the definition of a pile states that a pile is a noncontainerized accumulation of solid, non-flowing hazardous waste.

Therefore, our approach to classifying these units would be to focus on the terms "contain" and "noncontainerized." The methodology that we have developed to classify these units is to first review the regulatory definitions. In general, this enables one to distinguish tanks and piles from surface impoundments and Subpart Q or Subpart X units. However, there is considerable overlap in the definition of tank and pile. Where either definition might apply, we would ask the question -- Is containerization a function of the structure or is it a function of the waste itself? If the waste is contained within the unit by virtue of the fact that it is a cohesive solid, the unit is a pile. If the unit would contain any waste, including a free-flowing liquid, it is a tank.

We would describe this approach in a Federal Register notice and, in the same notice, would propose to amend the regulatory definitions of pile and tank, as required, so that this methodology could be employed nationally. For your information, we are providing an attachment that classifies each of the nine units based on our use of the proposed methodology.

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We welcome your input in critiquing our long-term strategy. Additionally, if you would like to discuss this matter in more detail, please have your staff contact either Bob Dellinger, Bob April, or Bill Kline of my staff at (202) 382-7917.

Attachment:

cc: Hazardous Waste Branch Chiefs, Regions I-IV, VI-X  
Lloyd Guerri, RCRA Enforcement  
Matt Hale, Permits Branch  
Robert Tonetti, Land Disposal Branch  
Mark Greenwood, Office of General Counsel

## ATTACHMENT I

### Proposed Long-Term Approach Applied to Nine Specific Units

Unit 1 is a four-sided structure used to store dry waste on a floor that slopes towards the part of the building that has three doors designed to admit front-end loaders and dump trucks. The building floor is not designed to contain the waste (that is, if the material being stored in the structure were a liquid, it could escape). Although the company has designated the unit as a 90-day storage tank, our methodology would classify this unit as a waste pile with some wind dispersion control.

Unit 2 is a four-sided structure with windows and a 20-foot opening partially closed with a 3-foot removable steel barrier. This unit was originally identified on Part A of the permit application as a storage waste pile, and Region V correctly denied a subsequent request to redesignate the unit as a tank. Applying our methodology, we would classify this unit as a waste pile. If the waste were a liquid, it could escape; thus, only the characteristics of the waste allow it to be contained. The structure is not designed to contain waste.

According to a consent order between the State and the company, Unit 3, when built, will either treat reactive waste in gondolas or in free form on the floor by adding water to the unit. If the unit treats reactive waste in gondolas, the unit serves as a §264.175 containment system for containers and should be subject to the Subpart I container regulation. If the wastes are treated in free form on the floor, the unit cannot be a waste pile since the unit will be flooded with water, with the water contained during waste treatment. Therefore, the unit is a tank when waste is managed on the floor in such a manner that all the waste is kept within the unit. However, if the waste is mounded higher than the retaining sides or highest level of the floor, then the unit would be subject to the Subpart X regulation, proposed on November 7, 1986 (51 FR 40726). Specifically, applying our methodology, Unit 3 could be operated, at times, as a containment area, a tank, or a miscellaneous unit. While operating as a particular type of unit, the specific unit standards would apply; thus the permit would contain standards for each operating mode for which the unit would be used. To do this, the most stringent design and operating standards that would apply in each of these situations would be incorporated into the permit. For example, this unit would eventually have to be closed under the most stringent closure requirements applicable to any of its operating modes. Should the permittee maintain that the unit is always operated as a tank, it could be permitted as such. In a case where the height of the waste was found to exceed the height of

the walls, the Region would have a choice of enforcement actions. The Region would either enforce against an improperly operated tank (no freeboard) or a false permit application.

Unit 4 was initially a four-walled concrete tank that flooded a reactive waste with water to render the waste nonreactive. However, one wall has been removed, and the fourth side is now bermed with sand while the unit is inundated with water to render

a reactive waste nonreactive. After treatment, the berm is broken, and the liquid flows into a drain in a concrete slab also bermed with sand. Since the sand berm is not stationary when emptying the unit, the unit is not a tank. Although the waste is nonflowing when covered with water, the unit is not a pile because piles are not designed to contain liquids. Therefore, using our approach, we would classify the unit as an interim status Subpart Q unit, which will eventually be permitted under the Subpart X standards.

Unit 5 is designed to solidify sludges that contain free liquids. From the limited amount of information available about the unbuilt unit, the unit would have a roof, 3 walls, a sloping floor, and a leak detection system. Applying our methodology, this unit would be classified as a tank or a pile depending on its operating mode. If wastes are always kept lower than the floor and wall height, the unit would be a tank. However, if the waste is managed in such a manner that the wastes pile up above the floor and wall height, the unit would be a pile. The containment that is provided in the latter case would partially be a function of the waste being managed, not solely of the design of the structure.

Unit 6 mixes noncontainerized wastewater treatment sludges with lime when the sludge contains free liquids. The floor of the unit slopes towards catch basins which collect the liquids that separate from the piles. Applying our methodology, Unit 6 would be a waste pile. The unit is managed so that waste exceeds the height of the retaining walls. If this waste were a liquid, it could escape the unit. Therefore, we would argue that the structure is not designed to contain waste; the properties of the material allow it to be contained in this unit.

In Unit 7, hazardous waste sludges and nonhazardous wastes would be mixed with sand and coal ash to eliminate free liquids. The proposed unit has a run-off control drainage system that is designed to collect liquids draining into floor drains from the waste pile. This design has a 12-inch reinforced floor over a 6-mil polyethylene sheet, a leak detection system, and a 10-inch reinforced concrete slab underneath. Under our proposed approach, this unit would be a waste pile. Liquids are controlled by drains, not contained. As with Units 1, 2, and 6, the structure is not

designed to contain the waste, in that slope of the floor is not sufficient to qualify as the fourth side of a four-sided tank.

Unit 8, which is to be closed, contains EP toxic metal dust that has been premixed in a cement truck with another waste to control fugitive dusts. A front-end loader mixes in foundry sand (which contains clays) to render the waste nonhazardous. The unit is concrete, below grade, and has three concrete walls with metal wall extensions that rise eight feet above the sloping floor. Applying our methodology, this unit could either be a tank or a pile depending on how wastes are managed. If waste is never piled up higher than the highest floor level, it would be a tank. However, if waste is piled higher than the level of the concrete wall, it would be a pile.

Unit 9 managed listed and characteristic waste in solid, semi-solid, and liquid form in a below grade, three-walled structure with a sloped concrete floor and a pump-out sump at the bottom. According to the dimensions of the unit, utilizing the maximum capacity of the unit would fill the unit over to the top of the sloping floor. Therefore, under our proposed methodology, it would not be a tank. Although the unit handled liquid waste, the unit would be closed as a waste pile if the waste was kept solid and nonflowing. Otherwise, the unit would need to close as a miscellaneous unit.

In summary, applying our methodology, Units 1, 2, 6, and 7 appear to be waste piles; Unit 4 is a Subpart Q treatment unit. Depending on the mode of operation, Unit 3 would either be a containment system for containers, a Subpart X miscellaneous unit, or a tank. Units 5 and 8 would be either tanks or piles, depending on how wastes are managed, and Unit 9 would either be a waste pile or a miscellaneous unit.

MAY 1 1987

Mr. Anthony Sasson  
Technical Assistance and  
Engineering Section  
Division of Solid and Hazardous  
Waste Management  
State of Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, Ohio 43266-1049

Dear Mr. Sasson:

Your letter of January 7, 1987, requested an opinion from this office on the regulatory status of evaporators used to remove water from hazardous wastes. First, you asked whether evaporation would be considered treatment, as defined in 40 CFR 260.10. Second, you asked whether, if evaporation is considered to be treatment, an evaporator would be eligible for an exclusion from permitting under the generator 90-day accumulation exclusion or the totally enclosed treatment exclusion.

You are specifically concerned about the "Nordale Fluid Eliminator," a device that in one circumstance would be used to remove water from aqueous waste that is hazardous because of its metal content. We consider that this unit is a treatment unit because it meets the definition of "treatment" contained in 40 CFR §260.10; i.e., it reduces the volume of the waste. Additionally, for the reasons described below, the Nordale units do not appear to meet the criteria established for totally enclosed treatment.

A totally enclosed treatment facility is defined in 40 CFR §260.10 as a facility that is "...directly connected to an industrial production process and...which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment." As operated, the Nordale unit discharges vapor directly into the environment. Since neither the definition contained in 40 CFR §260.10 nor the preamble (45 FR 33218) distinguishes between hazardous and nonhazardous constituents in the hazardous waste, a totally enclosed treatment system can not release any constituents into the environment. Although the waste you describe is hazardous on the basis of its metal content,

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evaporation could release volatile organics as well as water vapor into the environment. Therefore, we believe the Nordale units do not meet the criteria of totally enclosed treatment.

With regard to the 90-day accumulation exclusion, generators who accumulate hazardous waste on-site for 90 days or less in a tank do not need a permit if they meet the requirements of 40 CFR §262.34. This policy is stated in the preamble to the small quantity generator regulations that were promulgated on May 24, 1986, (51 FR 10168). The "Nordale Fluid Eliminator" meets the definition of a thermal treatment unit in that it is a device that "uses elevated temperatures as the primary means to change the chemical, physical, or biological character of the hazardous waste" (see 40 CFR §260.10). However, our review of the manufacturer's literature leads us to the conclusion that this specific evaporative unit also meets the definition of "tank" as that term is used in 40 CFR §262.34. Therefore, generators could remove water from hazardous wastes using the Nordale units without obtaining a RCRA permit provided they comply with the provisions of 40 CFR §262.34.

I want to make you aware of the fact that the Agency is currently developing regulations that would apply to air emissions from treatment, storage, and disposal facilities. The first phase of this rulemaking effort was published in proposed form on February 5, 1987, (see enclosed 52 FR 3748). Additionally, we are considering modifying the 90-day accumulation standards as discussed in an advanced notice of proposed rulemaking that appeared in the Federal Register on July 14, 1987, (see enclosed 51 FR 25487). Thus, in the future, we would regulate air emissions from evaporative equipment if we were to determine that emissions from these units posed an unacceptable risk to human health and the environment.

If you would like to discuss this matter in more detail, please contact Robert Dellinger, Chief of the Waste Treatment Branch, at (202) 382-7917.

Sincerely,

Marcia E. Williams  
Director  
Office of Solid Waste

Enclosures  
cc: Suzanne Rudzinski  
Matt Hale

## RCRA/SUPERFUND HOTLINE MONTHLY SUM

JUNE 87

5. Mobile Wastewater Treatment Units

Wastewater treatment units, as defined in 40 CFR 260.10, are excluded from the permitting requirements per §270.1(c)(2)(v). In order for a unit to meet the "wastewater treatment" exclusion, it must meet the three criteria set in §260.10.

- (1) It must be part of a wastewater treatment facility that is subject to §402 or §307(b) of the Clean Water Act;
- (2) It must receive and treat or store a wastewater or wastewater treatment sludge that is a hazardous waste, or generate and accumulate a hazardous wastewater treatment sludge, and
- (3) It must be a tank as defined in §260.10.

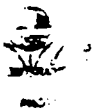
Wastewater treatment units, by definition, must be tanks. A tank is defined in §260.10 as "a statutory device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials... which provide structural support."

A potential application of mobile treatment unit technology is for a mobile treatment unit to be used for wastewater treatment (e.g., dewatering sludges). Is it possible for a mobile treatment unit to be a tank as defined in §260.10?

Yes. A mobile treatment unit could be a tank as defined in §260.10. Although §260.10 defines a tank as "a stationary device", EPA has determined that a mobile tank could be a "tank" provided that it is intended to be stationary when in operation and that it meets the definition of a tank in all other respects (See 52 FR 20919).

In addition, EPA proposed regulations in the June 3, 1987 Federal Register (52 FR 20914) for permitting of mobile treatment units (MTUs) that are subject to RCRA. According to the proposed rule, MTU would obtain a state-wide technical permit and a site specific permit that would allow it to operate. EPA is also requesting comments on the Hazardous Waste Treatment Council's suggestion to exclude certain "low risk" treatment units, such as evaporation or dewatering units, from the permitting process.

Source: Robin Anderson (202) 382-4498  
Research: Jennifer B. Planert



UNITED STATES ENVIRONMENTAL PROTECTION  
WASHINGTON, D.C. 20460

9432.1937(06)

JUL 2 1987

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Marc R. Wolman, P.E.  
EnerGroup, Inc.  
The Thomas Block  
116 Commercial Street  
Portland, Maine 04101

Dear Mr. Wolman:

This letter is in response to your letter of June 19, 1987, in which you request an opinion on the regulatory status of a hypothetical waste treatment facility. Since the premises you provided in your example stipulate that the facility neither receives nor generates hazardous waste, none of the RCRA Subtitle C hazardous waste rules would apply (*i.e.*, the hazardous waste rules only apply to the management of "hazardous waste"). However, if the facility was subject to the hazardous waste rules, incineration would not be considered "totally enclosed treatment" because some emissions would inevitably be released to the environment. (In your example, the incineration is of nonhazardous waste, so the point is moot.) You should also note that EPA does have RCRA Subtitle D guidelines for solid waste incinerators at 40 CFR Part 240; these guidelines are implemented through State regulations.

If you have any further questions in this area, please call Mike Petruska at (202) 475-6676.

Sincerely,

*Marcia Williams*

Marcia E. Williams  
Director  
Office of Solid Waste

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9432.1987(07)

JUL 17 1987

Major Jesse Cabellon  
U.S. Army Material Command  
5001 Eisenhower Avenue  
Alexandria, VA 22333-0001

Dear Major Cabellon:

This letter is in response to your request to Sonya Stelmack concerning confirmation of the Environmental Protection Agency's (EPA's) policy on deactivation (popping) furnaces. As we have stated verbally and in past correspondence (copies enclosed) to the Department of Defense and Region VII, EPA classifies popping furnaces as incinerators.

Under 40 CFR 260.10, "incinerator" is defined as "any enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace." Popping furnaces meet the definition of incinerator because the process that occurs in the enclosed unit is controlled flame combustion. The reaction which occurs is initiated by controlled flame heating and the resulting detonation products are combusted.

Existing units are thus subject to the 1989 statutory deadline for permitting of incinerators. Section 3005(c)(2)(C) of RSWA states that interim status shall terminate on November 19, 1989, for incinerators which have not been permitted, and for which a permit application was not submitted by November 19, 1986. According to information provided by your office, there are two popping furnaces (Lake City Army Ammunition Plant in Missouri and McAlester Army Ammunition Plant in Oklahoma) for which Part B applications have not been submitted, and which plan to burn only munitions classified as non-hazardous. These facilities should be in touch with their permitting authorities regarding closure requirements associated with the cessation of hazardous waste burning.

The Agency explained its reasoning in the definition of solid waste rule making. In the preamble to the April 4, 1983 proposed amendments to the recycling provisions at 48 FR 1448 we stated: "Second, we wish to clarify that materials being burned in incinerators or other thermal treatment devices, other than boilers and industrial furnaces, are considered to be abandoned by being burned or incinerated under §261.2(a)(1)(ii), whether or not energy or material recovery also occurs... In our view, any such burning (other than in boilers and industrial furnaces) is waste destruction subject to regulation under either Subpart O of Part 264 or Subpart O and P of Part 265." In the preamble to the January 4, 1985 final rule at 50 FR 625, we reiterated that incinerators are built to destroy hazardous wastes, and so are normally used for this purpose.

Therefore, the unit at the Drew Metalex facility is subject to RCRA regulation as an incinerator, which is defined at §260.10 as "any enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace." The Drew Metalex Corporation does have the option of petitioning to have their unit listed as an industrial furnace under §260.10. That rule establishes out criteria under which thermal combustion devices classified as incinerators could be reclassified after agency rulemaking.

If you have any questions on this matter, please contact me at FTS 382-4500.

cc: Bruce Weddle  
Susan Bromm  
Suzanne Rudzinski  
Matt Straus  
Bob Holloway  
Hazardous Waste Branch Chiefs, Regions I-X  
Incinerator Permit Writer's Workgroup

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9432.1987(08)

AUG 3 1987

Mr. Dic Olsen, Sales Manager  
Fenton Company, Inc.  
1608 N. Beckley  
Lancaster, Texas 75134

Dear Mr. Olsen:

Thank you for your letter of June 30, 1987, in which you requested information on the regulatory status of sludge dehydration equipment which is part of a wastewater treatment facility.

Your understanding of the requirements contained in 40 CFR 270.1(c)(2)(v) is correct. Sludge dehydration equipment that is part of a wastewater treatment system is excluded from the need to obtain a RCRA permit provided the equipment meets the definition of wastewater treatment unit as defined in 40 CFR 260.10, and actually is used to evaporate water from the sludge.

It is important to note that the exclusion provided by §270.1(c)(2)(v) does not apply to conventional incinerators. Such devices are subject to Subpart O of Parts 264 or 265 even when part of a wastewater system.

I must caution you that various States have requirements that are different from the Federal standards. Under their own authorities, States can establish requirements that are more stringent than the Federal requirements. In this instance, the owner or operator is required to comply with the more restrictive requirements. Thus, I encourage you to contact an appropriate State official to determine what the requirements will be for a specific unit.

If you have any further questions regarding the Federal requirements, please contact Mary Cunningham of my staff at (202) 382-7935.

Sincerely,

*DP for MW*

Marcia E. Williams  
Director  
Office of Solid Waste

cc: Mary Cunningham  
Steven Silverman, Esq.

bcc: R. Holloway  
B. Weddle  
S. Rudzinski  
R. Dellinger  
M. Hale  
G. Garland  
D. Perla

August 19, 1987

9432.1987(09)

Mr. R.J. Barnhart, Ph.D.  
Technical Manager  
American and Chemicals, Inc.  
Buddy Lawrence Drive  
P.O. Box 4912  
Corpus Christi, CA 73469

Dear Mr. Barnhart:

This letter is in response to your July 12, 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 WCRA, 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

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*This document has been retyped from the original.*

AUG 28 1987

Mr. Marc R. Wolman, P.E.  
ENER GROUP, Inc.  
The Thomas Block  
116 Commercial St.  
Portland, Maine 04101

Dear Mr. Wolman:

This letter is in response to your letter dated July 9, 1987 sent to Mike Petruska, Office of Solid Waste. Your questions concern the applicability of the totally enclosed treatment exemption for your ash treatment facility and the applicability of other RCRA regulations for your facility. Your letter addresses a hypothetical waste treatment facility that includes incineration for purpose of energy recovery. The ash from the incinerator is mixed with a non-hazardous reagent, which you state substantially reduces metal leachability and EP toxicity levels. You also state that the reagent addition vessel and mixing apparatus prevent releases of any hazardous material into the environment. The Agency does not believe that the totally enclosed treatment exemption applies to the system you describe, for the reasons explained below.

The definition of a totally enclosed treatment is defined in 40 CFR 260.10 as (1) being directly connected to an industrial production process and (2) constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. For your information, I have enclosed the regulatory clarification of a totally enclosed treatment facility issued by EPA in 1981.

In your hypothetical waste treatment process, you state that the incinerator is considered an industrial process. The Agency disagrees with your interpretation and instead, considers the incinerator as a waste treatment process. Therefore, the ash treatment cannot qualify as a totally enclosed treatment facility because (1) it is not connected to an industrial process and (2) the incinerator stack is open to the air which would inevitably release some hazardous constituents to the environment.

As you have requested, the other applicable RCRA regulation that would apply to your facility is the small quantity generators rule (40 CFR 261.5). This rule allows generators of 100-1000 kg/month to accumulate waste on-site in tanks or containers for up to 180 days (or 270 days if they must ship their waste over 200 miles for treatment or disposal). Generators of more than 1000 kg/month only are allowed to accumulate waste in tanks or containers for up to 90 days. In either case, the generator would be exempt from the permitting process for treatment that occurs in the accumulation tank (see 51 FR 10146).

In summary, your hypothetical treatment facility would not meet the totally enclosed treatment facility exemption because the incinerator is not considered an industrial process. Therefore, the ash system is not connected to an industrial process but connected to a waste treatment process that produces a hazardous material as a residual. However, some flexibility with respect to permitting your treatment system may exist if it can be described as treatment in an accumulation tank as described in the preamble to the small quantity generators rule. If you should have any questions or clarification, please contact Monica Chatson of my staff at (202) 475-7236.

Sincerely,

James Berlow, Chief  
Treatment Technology Section

cc: Robert Dellinger  
Robert April  
Michael Petruska

SEPTEMBER 87

4. Treatment of Infectious Waste

There is growing national concern over proper infectious waste management. What are some of the treatment methods currently used for infectious wastes?

Although RCRA section 1004 includes wastes with infectious characteristics in the definition of hazardous waste, there are presently no Federal regulations for management of infectious waste under RCRA Subtitle C. Instead, regulation of infectious waste has been left up to the States' discretion. EPA has, however, issued a guidance manual entitled EPA Guidance for Infectious Waste Management (May 1986), available through NTIS (publication number PB-86-199130) which describes numerous methods for effective treatment of infectious waste. Many treatment methods employ some form of heat or chemical sterilization.

Steam sterilization uses steam at a temperature high enough to kill infectious agents in combination with pressurization in a vessel such as a steam sterilizer, autoclave, or retort. Steam sterilization is an effective treatment method for low-density wastes such as plastics. A method that can be used for most types of infectious waste is incineration. Incineration converts combustible wastes into a noncombustible ash while combustion gases are vented to the atmosphere. A third type of heat-related treatment is thermal inactivation. For liquid wastes, thermal inactivation heats the waste at a set temperature for a designated period of time. Solids may be chemically inactivated by heating them in an oven, typically at 320 degrees to 380 degrees Fahrenheit for two to four hours.

Chemical treatment methods include gas/vapor sterilization and chemical disinfection. In gas/vapor sterilization, the infectious waste is fumigated with a gaseous or vaporized chemical such as ethylene oxide or formaldehyde. Chemical disinfection (the name is self-explanatory) is effective for liquid wastes but may also be used for solid wastes.

A technology that may be used in the future is sterilization by irradiation. Ionizing radiation has already been used to sterilize other materials such as food and medical supplies.

Source: Jacqui Sales (202)475-8933  
Research: Jennifer B. Planert

T 28, 1987

Mr. Richard A. Uhlar  
International Chemical Workers Union  
1655 West Market Street  
Akron, OH 44313

Dear Mr. Uhlar,

Thank you for your letter of September 17 regarding the definitions of "owner" and "operator" under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Recovery Act (CERCLA). You have asked whether your members can share in any liability for RCRA or CERCLA violations that occur at a plant.

Although RCRA does not contain a statutory definition of "owner" or "operator," the regulations at 40 C.F.R. Section 260.10 state the following:

"operator" means the person responsible for the overall operation of the facility.

"owner" means the person who owns a facility or part of a facility.

Section 101(20)(A) of CERCLA provides:

"[O]wner or operator" means . . . in the case of an onshore facility or offshore facility, any person owning or operating such facility . . . . Such term does not include a person, who, without participating in the management of a facility, holds indicia of ownership primarily to protect his security interest in the . . . facility.

It is clear that one must hold an ownership interest in a facility in order to fall within the definition of "owner" under either RCRA or CERCLA. With regard to the definition of "operator," the courts have consistently held under either statute that this term requires some degree of participation in the management of the facility or authority to make decisions regarding the handling or disposal of hazardous substances.


Therefore, non-management workers of a plant would typically not fall under the definition of an "owner" or an "operator" under either statute.

You should be aware, however, that the civil enforcement provisions of RCRA Section 3008(a), which is the basic permit enforcement authority, extend to all persons. Nonetheless, to date, there have been no civil enforcement actions taken under RCRA (or CERCLA) against employees below the level of corporate officer or manager. Of course, individual employees may be criminally prosecuted for knowing violations of RCRA under Section 3008(d) and (e).

Finally, depending on applicable state law, an employer may also "pass through" civil liability to employees by including indemnification provisions in employment contracts. In such a case, the employer's right to indemnification or contribution would not be governed by RCRA or CERCLA.

I trust this information is responsive to your inquiry. If you have additional questions, feel free to contact Anna Thode in the Office of Enforcement and Compliance Monitoring at (202-475-8212) or Frank McAlister in the Office of Solid Waste at (202-382-2223).

Sincerely,

  
Marcia Williams  
Director  
Office of Solid Waste

NOV 4 1987

MEMORANDUM

SUBJECT: Office of Solid Waste Activities for Persistent Marine Debris

FROM: Marcia Williams, Director  
Office of Solid Waste *W*

TO: Cynthia Dougherty, Deputy Director  
Office of Marine Estuarine Protection (WH-556F)

The Office of Solid Waste has no activities or programs that relate directly or indirectly to persistent marine debris. However, we would like to stay abreast of any activities that may be pursued with respect to such material because of the impact or interrelationship with our ongoing program for effective management of solid waste. Please add Michael Flynn (WH-565) as your contact point for this office; he may be reached at 382-4489.

Under the definitions of the Resource Conservation and Recovery Act (RCRA)--and the regulations developed in response to it--the term "disposal" includes deposition of solid waste into or on any land or water. Thus, debris deposited on or into rivers or continental waters of the United States is subject to control under RCRA. To date we have taken regulatory action only on those wastes that we have defined as hazardous; some guidance-type regulations have been issued for non-hazardous wastes. We are developing additional control approaches for non-hazardous waste and welcome any information or options you may offer. As part of that developing program for non-hazardous waste we did conduct a study of the municipal waste stream. A copy of the report is attached.

Please let Mike know if you need anything else. We look forward to participation in your program.

Attachment

cc: Jeffrey Denit, OSW



9432.1987(13)

UNITED STATES ENVIRONMENTAL PROTECTION  
WASHINGTON, D.C. 20460

NOV 10 1987

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Elihu I. Leifer, Esq.  
Sherman, Dunn, Cohen, Leifer & Counts  
1125 Fifteenth Street, N.W.  
Suite 801  
Washington, D.C. 20005

Dear Mr. Leifer:

Thank you for your letter of October 19, 1987, in which you requested guidance and a clarification of our position regarding the regulatory status of the spent pickle liquor to be generated at the USS/POSCO facility at their plant in Pittsburg, California. Since we have been involved, the Agency has reviewed information provided by both the Contra Costa Building and Construction Trades Council and USS/POSCO. This information was provided to assist us in reaching a decision as to whether the spent pickle liquor at the POSCO facility was considered a hazardous waste and subject to the Resource Conservation and Recovery Act (RCRA) hazardous waste rules. We regret that we could not provide an answer before the Council's October 20 meeting.


While we appreciate and understand your desire to resolve this matter as soon as possible, the Court of Appeals decision in American Mining Congress v. EPA, 824 F.2d 1177 (D.C. Cir. 1987), has complicated our decision. In particular, the court held that EPA's authority over hazardous waste recycling activities is limited to those activities that, in some sense, involve discard. In addition, the court indicated that EPA has no authority under Subtitle C of RCRA regarding those activities involving the recycling of hazardous secondary materials that are recycled in on-going, manufacturing-type processes. The activity to be conducted at the USS/POSCO facility in Pittsburg, California, may involve such type of recycling. The Agency intends to deal with questions regarding the scope of the court's opinion by issuing Federal Register notices interpreting the opinion and clarifying which portions of the existing rules must be amended. Because these issues affect the entire regulated community, and not just individual facilities, we believe that use of rulemaking procedures is a fairer and more appropriate way of proceeding. As we have indicated previously, we expect to publish these notices within the next one to three months. However, we will provide an update in three to four weeks.

In the meantime, we have reviewed the available information to determine whether the spent pickle liquor generated at the USS/POSCO facility is abandoned by being incinerated. We believe the spent pickle liquor is being processed in an industrial furnace to produce the usable products hydrogen chloride and ferrous oxide. Therefore, the spent pickle liquor is not being incinerated. We consider the reclamation furnace to be an industrial furnace under the expansive definition of "smelting, melting, and refining" furnaces designated as industrial furnaces under 40 CFR 260.10. Specifically, we believe the furnace is an integral component of the finishing process. We also believe that the finishing process is an extension of the smelting, melting, and refining process because it processes on-site intermediary products produced by those operations. The pickle liquor recovery unit is an integral component of the finishing operation because the feedstock, pickle liquor, is generated on-site by the finishing process, and one or more products produced by the recovery unit are reintroduced into the smelting, melting, or refining (or finishing) processes.

We believe that an expansive definition of smelting, melting, and refining furnaces is justified. The recovery unit clearly meets the criteria for designation as an industrial furnace. It produces usable products -- hydrogen chloride and ferrous oxide. The unit is not used to destroy a waste by incinerating organic compounds. In addition, in 1985, when EPA changed the definition of an incinerator from a test based on the primary purpose of the combustion device (i.e., use for destruction of wastes) to a test based on the physical characteristics of the device (i.e., enclosed device using controlled flame combustion but not meeting the definition of a boiler or industrial furnace), the Agency stated that "this change is essentially a clarification of the existing rules which should have little effect on the number or identity of units already subject to [regulation as incinerators]". (See 50 FR 617 (January 4, 1985).) Given that the primary purpose of the recovery unit is not to destroy waste but, rather, to produce products, the Agency did not intend to regulate the unit as an incinerator. This unit is not used to destroy abandoned materials, but rather to recover usable products.

In closing, I want to assure you that we are closely examining the issue at USS/POSCO and will do our best to get an answer to you as soon as possible on EPA's authority to regulate the spent pickle liquor.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. Winston Porter". The signature is stylized with a large initial "J" and a long, sweeping underline.

J. Winston Porter  
Assistant Administrator



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

FEB 11 1988

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Regulatory Interpretation

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

TO: Judy Kertcher, Acting Chief (SHS-13)  
Solid Waste Branch, Region V

As requested by Chevron Chemical Company, a meeting was held on October 23, 1987 with Chevron representatives and members of my staff to discuss the possibilities for reversing an earlier interpretation made by the Agency that a still bottom waste generated at their polystyrene production facility in Marietta, Ohio, is a F005 hazardous waste. (See attached memo EPA/OSW to EPA Region V, September 1, 1987).

During the meeting, the Chevron attendees agreed to forward our office additional information that would support their opinion that their waste is a process waste contaminated with toluene (4%) and does not meet the definition of a spent solvent (EPA Hazardous Waste No. F005).

After careful review of the information that has since been forwarded, our Office agrees the waste is not the F005 hazardous waste as was interpreted earlier. Chevron uses toluene as both a solvent (i.e., to solubilize small quantities of additives) and a feedstock (i.e., a chain transfer agent) in their process. The primary purpose of the toluene, however, is to control the rate of reaction as a chain transfer agent. During the reaction, polymer chain growth proceeds until it is stopped by some event such as an encounter between two "growing" ends of a chain resulting in mutual termination or utilization of a readily removable group from another molecule (chain transfer agent). Every toluene molecule utilized in this chain transfer activity then becomes a "seed" and an inherent part for the growth of a new polymer chain, and, as a result, is partially consumed. The excess toluene is recovered for reuse in the process. Chevron claims that years of research indicate that toluene is used in lieu of other chemical agents because it is the ideal chain transfer agent for their process and is safer to use.

A similar issue was reviewed by the Agency several years ago. In that case, toluene, methanol, and m-cresol (common solvents) were used as reactants in the production of pesticide products. The quantities of these materials fed into the process were of such excess, that large amounts of the chemicals did not react and had to be removed from the process as waste. The Agency concluded that these wastes were not the listed spent solvent wastes because toluene, methanol, and m-cresol were used as chemical reactants in the production process. (See attached letter EPA/OSW to R. Scott, Mobay Chemical Corp., May 24, 1985).

Based on the similarities of the use of toluene in Chevron's process and the process cited above, in addition to the additional information received from Chevron; our Office has determined that the recovered toluene is not an F005 hazardous spent solvent waste. Therefore, the still bottoms that are generated from this process are also not an F005 waste.

Please advise Chevron of our interpretation and make them aware that as the generator of this waste, they are responsible for determining whether the still bottoms exhibit any RCRA hazardous characteristics (e.g., corrosivity, toxicity, reactivity, or ignitability - see 40 CFR 261.21-24). Also, you should investigate whether this waste is regulated by the state, which may have more stringent regulations. Finally, careful handling of the still bottom waste is advised because of Superfund liability that exists for wastes containing CERCLA hazardous constituents.

If you have any questions regarding this matter, or if you wish to discuss the matter further, please contact Ed Abrams, FTS 382-4787, of my staff.

JH 562B

FEBRUARY 88

4. Identification Numbers

Corporation A owns a large site. Corporation B, a wholly owned subsidiary of Corporation A, is a permitted treatment facility on the site. Corporation B has an identification

number associated with this site activity. Corporation C, another wholly owned subsidiary of Corporation A, is also located on this site and will be generating hazardous waste. Should Corporation C use the identification number which is associated with the site, although a different Corporation, or is Corporation C required to obtain its own identification number?

Section 262.12 requires a generator to have an EPA identification number before treating, storing, disposing of, transporting, or offering for transportation, hazardous waste. The definition of generator, in Section 260.10 is keyed to both person and site: "any person by site whose act or process produces hazardous waste...". The definition of person in Section 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." The definition of individual generation site in 40 CFR Section 260.10 is "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 waste but is considered a single or individual generation site, if the site or property is contiguous.

In this situation Corporation B and Corporation C are two distinct entities (i.e., persons). They must each apply for a separate EPA identification number. Even though identification numbers are usually site-specific, where different people conduct different regulated activities on a site, a person conducting each regulated activity must obtain an EPA identification number. This does not preclude an EPA Regional office or State from issuing the same number to two persons.

Source: Diane Regan (202) 382-7706  
Research: Craig Campbell

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

MARCH 88

1. Definition of Tank/Definition of Wastewater Treatment Unit

A facility includes a wastewater treatment unit that meets the definition in Section 260.10 and the Section 264.1(g)(6) exclusion. Piped directly to the wastewater treatment unit is a tank on wheels that is used to collect an EP toxic wastewater treatment sludge. When the wheeled tank is full it is disconnected from the piping and towed to the generator's 90-day accumulation area where the sludge is emptied into the generator's accumulation tanks and/or containers. The wheeled tank is then moved back to the wastewater treatment unit and reconnected. Does this wheeled tank meet the definition of a tank or a container? If it is a tank, would it also be covered by the wastewater treatment unit exemption?

The wheeled tank would meet the definition of a tank under Section 260.10 because it is stationary during operation. Devices that are typically used as part of the storage/treatment system and that are directly connected by piping to the wastewater treatment system are regarded as being stationary units. If the wheeled tank is used to accumulate a wastewater treatment sludge as part of a wastewater treatment facility, it would fall within the definition of a wastewater treatment unit per Section 260.10 and would be included in the Section 264.1(g)(6) exemption.

Source: Carrie Wehling (202) 382-7706  
William Kline (202) 382-7924  
Research: Randall Eicher



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

OFFICE OF  
SOLID WASTE AND EMERGENCY RESP

SEP 1 1988

Kurt E. Whitman, Project Coordinator  
SWInc.  
P.O. Box B  
Saukville, WI 53080

Dear Mr. Whitman:

This is in response to your July 1, 1988 letter requesting clarification on EPA's current interpretation on whether the depressurization of aerosol cans on-site would be considered treatment, requiring a RCRA permit. You also requested pertinent information on Ril #43 and on whether or not it has been rescinded. I am enclosing per your request a copy of Ril #43 and the 1985 memorandum which I believe is the one you are requesting.

You revealed in a July 26, 1988 telephone conversation with Doreen Sterling of my staff that your main interest in this issue was to determine the requirements for disposal of a wide variety of aerosol cans located at a number of Department of Defense facilities throughout the country.

The Agency is aware that conflicting interpretations have been given by the EPA Regional Offices, EPA Office of Solid Waste, and the RCRA Hotline regarding whether certain aerosol can disposal methods constitute treatment and whether or not a permit is required for this activity. The Agency is currently evaluating this problem and may decide to issue more specific guidance in the future if it is warranted. It is our policy, however, to refer issues of this nature to the Region in which the facility is located since they are normally best able to make a case-by-case determination on whether: (1) the waste in question is hazardous according to our regulations and (2) treatment is occurring.

- 2 -

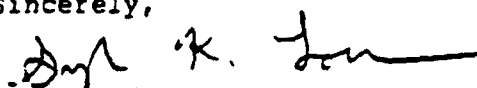
According to our regulations, cans are hazardous if: (1) they contain a commercial chemical product on the 40 CFR 261.33(e) or (f) lists or exhibit one or more of the hazardous waste characteristics, and are not empty as defined under Sec. 261.7; and/or (2) they exhibit any of the characteristics of hazardous waste identified in Part 261, Subpart C.

Treatment, as defined in 40 CFR 260.10, 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 nonhazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

It should be noted that if any of the aerosol cans are included as part of household waste (i.e., from military housing), those cans are exempt from RCRA Subtitle C under Section 261.4(b)(1).

If you have any further questions, you may contact Doreen Sterling of my staff at 202-475-6775.

Sincerely,



Sylvia K Lowrance, Director  
Office of Solid Waste

Enclosures

OCTOBER 88

### 3. Definition of Wastewater Treatment Unit

On September 2, 1988 (53 FR 34079), EPA published a clarification concerning the scope of the wastewater treatment unit exemption (see 40 CFR Section 264.1(g)(6)). One aspect of this clarification concerned whether or not a tank system is "dedicated" to an on-site wastewater treatment facility. Specifically, EPA stated, "...if a tank system, in addition to being used in conjunction with an on-site wastewater treatment facility, is used on a routine or occasional basis to store or treat a hazardous wastewater prior to shipment off-site for treatment, storage or disposal, it is not covered by this exemption [emphasis added]."

Hazardous waste tanks which are part of wastewater treatment facilities sometimes have waste removed from them for off-site disposal. Examples of this situation include hazardous waste accumulation tanks (dedicated to on-site wastewater treatment facilities) which must occasionally be cleaned out, and also those tanks which produce (on a routine basis) filter cakes or sludge residues as part of the wastewater treatment process. Does the removal of these wastes from tanks for off-site disposal preclude these tanks from qualifying for the wastewater treatment unit exemption?

EPA stated that the wastewater treatment unit exemption applies to "any tank system that manages hazardous wastewater and is dedicated for use with an on-site wastewater treatment facility" (53 FR 34080). The removal of wastewater treatment sludges or tank bottoms for off-site disposal from tanks should not disqualify these tanks from the exemption, provided that this occurs as part of normal wastewater treatment activities. The removal and off-site disposal of treatment sludges and tank bottoms are not necessarily indications that the tanks in question are being used in a manner other than for on-site wastewater treatment; on the contrary, the generation of tank bottoms and filter cakes is a common process in wastewater treatment operations. The definition of a wastewater treatment unit (Section 260.10, as amended in 53 FR 34079) includes tanks which generate and accumulate wastewater treatment sludges (either solid, semi-solid, or liquid) or tanks which treat or store wastewater treatment sludges. The intent of the September 2, 1988 notice was to clarify that the exemption does not apply to those tanks that are used to store or treat a hazardous waste/wastewater prior to shipment (either on a part-time or full-time basis) to off-site facilities rather than manage it in an on-site wastewater treatment facility.

Source: William Kline (202) 382-7917  
Research: Ross Elliott

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

AUGUST 89

**3. Clarification of Electroplating Listings**

The background document which supported the listing of F006 initially included electroless plating within the scope of the definition of electroplating. However, the December 2, 1986 Federal Register (54 FR 43351) clarified EPA's interpretation of the definition of electroplating as it pertained to the F006 listing. The clarification stated that electroless plating was not considered an electroplating process. Would electroless plating baths which contain small concentrations of cyanide meet the F007 listing when disposed?

No. Although the December 2, 1986, clarification was written specifically for the F006 listing, the definition of electroplating may be applied analogously to the F007, F008 and F009 listings. Therefore, plating bath solutions from electroless plating operations will not meet the F007 listing when disposed. The bath would be regulated, however, if it exhibited one or more of the characteristics of hazardous waste.

Source: David Topping (202) 382-7737  
Research: Kent Morey

MAY 16 1989

Mr. John R. Jacus  
Bradley, Campbell & Carney  
1717 Washington Avenue  
Golden, Colorado 80401-1994

Dear Mr. Jacus:

This letter responds to your request of March 28, 1989 for clarification of the definitions of "in existence" and "under construction." You explained that you want to evaluate the business risks associated with proceeding to install an industrial boiler to burn hazardous waste prior to the effective date of the final rule governing the burning of hazardous waste in boilers and industrial furnaces. You further expressed your desire to be "grandfathered" under existing RCRA regulations and not subject to new regulations, and your belief that being "in existence" on or before the effective date of the new regulations would allow you to do so. You cited previous Agency interpretations of "in existence" and "under construction" in the Federal Register notices of January 9, 1981 (46 FR 2344) and May 19, 1980 (45 FR 33324) and asked three specific questions related to those interpretations. I have addressed your specific questions below. However, in order to help you make an informed decision, I must first clarify the effect of the new regulations on existing boilers and furnaces burning hazardous waste.

Currently, the burning of hazardous waste in boilers and industrial furnaces is not regulated. When the proposed regulations of May 6, 1987 become final, all boilers and industrial furnaces not specifically excluded will become subject to those regulations. Thus, non-excluded boilers and industrial furnaces will be required to obtain a RCRA permit before they may continue to burn hazardous waste. However, as is true for other operations that become newly subject to RCRA permit requirements, the regulations allow for existing facilities to obtain "interim status" if they satisfy certain requirements (see §270.70). This allows continued operation while the permit application is reviewed by the Agency. During the period that the facility has interim status, it must comply with the appropriate standards in 40 CFR Part 265. Once a final RCRA permit is issued, it will impose standards pursuant to 40 CFR Part 264.

113

One of the threshold requirements to be eligible to obtain interim status, discussed in the regulations at 40 CFR 270.10(e), is that the facility be "in existence" on the date it becomes subject to the regulations. Thus, the preamble discussions in the proposed rule of May 6, 1987 on "in existence" or "existing hazardous waste management units" relate to the opportunity to obtain interim status, not, as your letter suggests, to an opportunity to avoid new regulations. The following discussion answers your questions as they relate to a newly regulated facility's ability to obtain interim status where EPA is administering the RCRA program. Authorized states may have equivalent or more stringent regulations governing qualification for interim status. Please also note that if a boiler or industrial furnace is currently operating at a multi-unit facility that itself already has interim status, 40 CFR §270.72 is applicable.

1. Under current Agency policy, is 10% of the total project cost the threshold for determining whether a potential loss due to contract cancellation is "substantial"?

Yes. As EPA stated in the preamble of the May 19, 1980 regulation, if the amount an owner or operator must pay to cancel construction agreements exceeds 10% of the "total project cost," the loss would be deemed "substantial" within the meaning of the regulatory definition of "in existence" (40 CFR §260.10). The Agency reiterated that policy in the January 9 preamble, and has not changed it since that time. It should be noted, as was discussed in the January 9 preamble, "total project cost" refers to the total cost incurred for physical construction of the project, and not to all costs that might be associated with the project.

2. What constitutes a "continuous physical, on-site program of construction"?

As was discussed in the May 19, 1980 preamble, the Agency believes that owners and operators who have commenced facility construction in good faith prior to the date they became subject to regulations should be classified as existing. The preamble also explained that a continuous on-site, physical construction program means physical site preparation, and does not mean design, non-physical, or non-site specific preparatory activities. The scenario you describe in your letter, where foundation work has started, and no substantial delays between curing of the foundation and actual equipment installation are built into the schedule, describes, on its face, a continuous, on-site, physical construction program. However, it should be noted that the decision as to whether a good faith construction project has commenced is based on the facts of each case and will be made by the Agency or the authorized State at the time the facility applies for interim status.

3. Does the term "all necessary Federal, State, and local pre-construction approvals and permits" include county building or construction permits?

No. The Agency discussed this issue in the January 19, 1981 preamble. There, the Agency stated that the permits and approvals required under paragraph (a) of the definition of "existing facility" (40 CFR 260.10) are those required under Federal, State, or local "hazardous waste control laws or regulations." This preamble clarifies that the permits required are limited to those issued under any law intended to control the management of hazardous waste, including any laws designed to regulate the treatment, storage, or disposal of hazardous wastes or the siting of hazardous waste management facilities. County building or construction permits would be included only if they satisfy this condition, which usually they do not. As the Agency also noted in the January 19 preamble, although the Federal regulations do not require the facility to obtain such local permits to have "commenced construction," the facility remains responsible under State or local law for obtaining such permits before actually beginning construction.

I hope this answers the questions you raised. If you have any further questions on this matter, please contact Barbara Foster at (202) 382-4751.

Sincerely,

15/  
Joseph Carra, Director  
Permits and State Programs  
Division

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUN 2

Honorable Bill Goodling  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Goodling:

Thank you for your May 9, 1989, letter referring the communication from your constituent, Mr. Edward E. Shott of Wellsville, Pennsylvania. Mr. Shott is interested in reclaiming palladium, platinum, and other precious metals from discarded automotive and electronic devices, and questions whether there are EPA regulations applicable to such a processing activity. Also Mr. Shott is interested in the production of deuterium oxide (heavy water).

Regarding reclamation, more information is needed to determine whether the materials in question are subject to regulations promulgated under the Resource Conservation and Recovery Act (RCRA). If the material from discarded automotive and electronic devices is scrap metal, the material meets the definition of a solid waste; however, scrap metal that is reclaimed is exempt from regulation as a hazardous waste (assuming it meets the definition of a hazardous waste). If the material is a spent material that does not meet the definition of scrap metal (e.g., a circuit board that has relatively small amounts of metals), it may be subject to RCRA regulations.

In defining hazardous waste, EPA specifically listed residuals from many types of industrial processes as hazardous wastes and has identified characteristics that when met would cause a waste to be considered a hazardous waste. Specific state laws sometimes vary from Federal law, but must be at least as stringent as Federal requirements. Thus, residuals that would be produced in metal recovery may be subject to state or Federal regulations.

The State of Pennsylvania is authorized to administer the Federal hazardous waste program. Thus, I strongly encourage Mr. Shott to contact his State regulatory agency to determine what, if any, regulations apply. In addition, Mr. Shott should contact the Nuclear Regulatory Commission to determine the regulations governing the production and distribution of heavy water.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Thank you for your interest in reclamation activities. If I can be of further assistance, please let me know. If your constituent, Mr. Shott, has any further questions, he should contact either Robert Dellinger or Mitch Kidwell of my staff at (202) 475-8551.

Sincerely yours,

Jonathan Z. Cannon  
Acting Assistant Administrator

OS-305/DELLINGER/T. MCMANUS -382-4646/CSH/5-26-89  
CONTROL # AL892312/DATE DUE: 5/30/89/DISK 25/NAME:GOODLING

FILE COPY

JUL 20 1989

Mr. Jeffrey A. Leed  
Director - Waste Management  
Exide Corporation  
P. O. Box 14205  
Reading, PA 19612-4205

Dear Mr. Leed:

In response to your recent letter, while your understanding is correct with respect to 40 CFR 261.22 defining the characteristic of corrosivity, your letter appears to indicate that there is still some confusion over the RCRA definition of a liquid.

The term liquid has three different definitions in the RCRA program depending on the specific regulatory application. In addition to the general definition used in the characteristics, the other types of liquids include "free liquid" and "releasable liquid". These other definitions of "liquid" find application in the waste management standards dealing with land disposal. Specifically, the regulations prohibit the landfilling of containerized wastes containing "free liquids". Similarly, the amendments to RCRA passed in 1984, banned the use of absorbent materials that would release liquids under the overburden pressure present in a landfill (i.e., "releasable liquids").

The specific test procedures used in identifying the different types of liquids are:

Liquid:

A "liquid" is the material (liquid phase) that is expressed from the waste in step 2 of Method 1310 (the Extraction Procedure).

**Free Liquid:**

A "free liquid" is the material that drips from the waste using Method 9095 (the Paint Filter Test).

**Releasable Liquid:**

While we have not yet promulgated a specific test procedure for defining when a waste contains "releasable liquid", a draft procedure has been developed and proposed - The Liquid Release Test - method 9096.

Therefore, the first question to answer when characterizing a waste to determine if it exhibits the 40 CFR 261.22 (a)(2) definition of a corrosive waste, is whether the waste is a liquid. For this purpose the first definition, using step 2 of Method 1310, is to be used.

I hope that this helps to clear up any misunderstanding with respect to the hazardous waste identification characteristics. If you have any additional questions relative to waste testing, please contact my office at (202) 382-4761. For general questions on the hazardous waste identification characteristics, please call the Characteristics Section at (202) 382-4798.

Sincerely yours,

David Friedman  
Chief  
Methods Section (OS-331)

cc: Devereaux Barnes  
Reva Rubenstein

DEC 5 1989

9432.1989(05)

Mr. Carl A. Evers  
Vice President  
Tricil Environmental Services  
3055 Kettering Boulevard  
Suite 400  
Dayton, Ohio 45439-1900

Dear Mr. Evers:

I am writing in regard to your August 22, 1989 letter in which you discuss your definition of a batch as it pertains to the conditional testing requirements included as part of Tricil's November 17, 1986 final exclusion. [Please note that we did not receive an original copy of this letter; we were first made aware of the letter through David Hefner's November 17, 1989 letter to us.] Based on your definition of a batch, it is clear that Tricil and the Agency interpret the term "batch" differently, and as discussed further below, this situation must be corrected.

As stated in our July 31, 1989 letter, we believe a batch should, at a minimum, be confined to the sludge contained within 1 lugger box. Under Tricil's current practices, however, 4-4 1/2 lugger boxes are represented by only a single composite sample. We believe Tricil is over-compositing the waste samples from individual lugger boxes, and thus, is not collecting and analyzing samples which are representative of the waste. As also noted in our July 31 letter, we assume that the lugger box is filled gradually over a given time period; grab samples should be taken from each of the periodic loads transferred to the lugger box. All grab samples representing wastes transferred to a single lugger box should then be composited to form a single composite sample. This composite should then be subjected to the appropriate conditional testing requirements. We suggest that this same approach be used to collect batch samples at all three of your facilities.

If you do not agree with our definition of a batch for Tricil's treatment system, then we believe it is necessary to meet with you to discuss the matter further. In particular, under such circumstances we believe it may be necessary to reopen Tricil's exclusion to include a significantly more precise definition of a batch. As we mentioned in our July 31 letter, any new proposal would also incorporate updating Tricil's conditional delisting limits. If you do agree with our definition of a batch, however, ~~when we will notify the appropriate Regional and State authorities, and the matter will be considered closed.~~

Should you have any questions or require any additional information regarding this matter, please contact Linda Cessar of my staff at (202) 475-9828.

Sincerely,

/s/

Robert Kayser, Chief  
Variances Section

cc: Linda Cessar, EPA HQ  
Jim Kent, EPA HQ



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

9432.1990(01)

FEB 16 1990

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Robert D. Wyatt  
Brobeck, Phleger & Harrison  
Spear Street Tower  
One Market Plaza  
San Francisco, CA 94105

Dear Mr. Wyatt:

I am writing in response to your letter of January 6, 1990, concerning the uses of the terms "liquid" and "aqueous" in the RCRA characteristic tests for ignitability and corrosivity. This letter will describe the background on this issue as well as our current position.

As a preliminary matter, I want to clarify that EPA has not promulgated any rule establishing a mandatory test method for use in determining whether a waste is "liquid" or "aqueous" for the purposes of ignitability or corrosivity testing. The generator of the waste may use any method for which he can provide appropriate scientific or technical justification. The Agency has in the past provided guidance indicating that it is generally willing to accept test results from the use of Method 9095, the "paint filter" test. As explained in more detail below, however, the Agency is in the process of re-evaluating its general view of the suitability of Method 9095 for characteristic testing. Mr. Friedman's memorandum is one indication of this re-evaluation.

When the Agency promulgated a rule requiring the use of Method 9095 for completely different purposes in 1985, it believed the method could also be used as a fast, inexpensive, and reasonably accurate means of obtaining the liquid to be evaluated in the ignitability and corrosivity tests. It believed that material that passed through Method 9095's mesh filter would also be a liquid under more stringent tests such as step 2 of Method 1310 (the "extraction procedure" test). Consequently, the preamble to the 1985 rule stated that Method 9095 "...may be used to obtain the liquid portion of the waste for subsequent evaluation under the ignitability or corrosivity tests." 50 FR 18370 (April 30, 1985).

Similarly, in 1986, the Agency published the proposed Third Edition of SW-846. This document, which is quoted in your letter, also endorsed the use of Method 9095 for determining the free liquid in the waste for purposes of the corrosivity test.

Subsequent experience with Method 9095 has raised concerns about its suitability for identifying liquids for characteristic testing. The Agency's concerns with Method 9095 are described in the discussion for the Toxicity Characteristic proposal of June 13, 1986 (51 FR 21681). In that notice, the Agency discussed problems with using the paint filter test for hazardous waste identification purposes. Especially serious was the fact that, in some cases, whether and how much liquid separated out of the waste depended on how the waste was poured into the filter. Under the 50 psi pressure the Agency selected as representative of a landfill environment and specified in the Toxicity Characteristic, liquid which would not pass through the paint filter might be released from a waste and cause environmental damage. We believe that landfill disposal represents reasonable worst-case mismanagement for both toxic and corrosive or ignitable wastes. Consequently, the concerns about the test's performance under landfill pressures are equally valid for these additional characteristics. Also, certain particulate materials are capable of passing through the paint filter, and using Method 9095 would lead to classification of these solids as liquids.

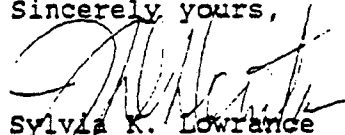
For these reasons, the Agency expects to announce in the final rule revising the Toxicity Characteristic that Method 9095 is not appropriate for determining whether a liquid is present or not for purposes of toxicity testing. The same reasoning applies to the corrosivity characteristic, and we intend to provide appropriate guidance in the preamble accompanying the final rule adopting the changes in the proposed Third Edition of SW-846. We also intend to revise the recommendation in the text of SW-846 in our next update.

With respect to your quote from the 1980 background document where we indicated we did not believe we needed to regulate solid materials, that discussion was intended to deal with materials which would "form an aqueous solution of high or low pH" (in other words dissolve) rather than materials which contained and could release liquids, which is the case here.

With respect to the issue of whether Mr. Friedman provided testimony in the Hassayampa litigation, the aforementioned memorandum was not addressed to any specific litigation. Rather, it was in response to continuing questions that his office has received on this matter and a desire on our part to reduce the confusion. The cited regulation (40 CFR 2.401 et seq.) therefore is not germane in this instance.

In conclusion, there is currently no specific test for liquids which the Agency mandates under regulation as part of the corrosivity characteristic test. Mr. Friedman's October 24, 1989, memorandum and this letter describe and explain our Office's current thinking on this issue, which we intend to include in future guidance and in the next update of the Third Edition of SW-846. We regret any confusion that may have arisen. If you have any questions on this issue, please contact Alec McBride on 202-382-4761.

Sincerely yours,



Sylvia K. Lowrance  
Director  
Office of Solid Waste

cc: Christina Kaneen  
Alec McBride  
David Friedman



UNITED STATES ENVIRONMENTAL PROTECTION  
WASHINGTON, D.C. 20460

MAR 1 1990

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Christopher J. Jaekels  
GSX Government Services, Inc.  
P.O. Box 140  
902 South Main Street  
Saukville, WI 53080

Dear Mr. Jaekels:

This letter is in response to your January 22, 1990 request for clarification of regulations applicable to bulking or containerizing compatible hazardous wastes for transportation. Specifically, you requested EPA's concurrence on your interpretation of the regulations: that bulking and containerizing practices do not constitute fuel blending, and thus, do not require permitting.

Determinations of this type are made by authorized states and EPA regional offices. In some cases authorized states have promulgated applicable regulations that differ from Federal regulations; hence, you should contact the authorized state hazardous waste office. If you need information in an unauthorized state, you may contact the appropriate EPA regional office.

However, for your information, this letter discusses in a general fashion the federal regulations which may apply. First, it is important to distinguish between bulking and containerizing different hazardous wastes for the purpose of efficient transportation and disposal from bulking and containerizing different wastes to produce a hazardous waste fuel.


The bulking of characteristic hazardous waste shipments to achieve efficient transportation may result in incidental reduction of the hazards associated with that waste mixture. However, this incidental reduction may not meet the definition of treatment (as defined under 40 CFR Section 260.10) because it is not designed to render the waste nonhazardous or less hazardous. Accordingly, such activity may not require a RCRA permit. For a specific situation a determination is made by the appropriate Regional office or authorized State based on the particular circumstances, state regulations, and policies.

There is no definition for "fuel blending" in Federal regulations. However, the March 16, 1983 Federal Register (48 FR 11157) discusses the Agency's current enforcement guidance for blenders of hazardous waste fuel. In the preamble, the Agency explains that "waste-derived fuel blenders are responsible for ensuring that low-energy value hazardous waste are not blended into fuels" (48 FR 11159). Therefore, bulking and containerizing of hazardous wastes which are intended to be burned for energy recovery (i.e., "fuel blending") are subject to RCRA jurisdiction. Specifically, a RCRA permitted storage facility consolidating compatible hazardous wastes for the purpose of burning for energy recovery must ensure that the resulting hazardous waste fuel has substantial heat value (i.e., 5,000 to 8,000 Btu) and that each consolidated hazardous waste fuel constituent possesses substantial heat value.

The Agency has clearly stated that the storage requirements of 40 CFR Parts 264 and 265 apply to hazardous waste fuel blending tanks. (See the April 13, 1987 Federal Register (52 FR 11820).) Therefore, unless the fuel blending operations are conducted in units exempt from permitting requirements (e.g., a generator's accumulation tank or container in compliance with standards for less than 90 day storage), these units are subject to RCRA permitting requirements under Federal regulations.

Again, we remind you that the final determination of the regulations that apply at a particular facility is made by the authorized states and EPA regions. Should you have additional questions regarding this letter, please contact Emily Roth of my staff at (202) 475-8551.

Sincerely



Sylvia K. Dorrance, Director  
Office of Solid Waste



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

SEP 13 1990

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Charles Winwood  
Assistant Commissioner  
Office of Inspection and Control  
U.S. Customs Service  
1301 Constitution Avenue, NW  
Washington, D.C. 20229

Dear Mr. Winwood:

Thank you for your letter of July 12, 1990 concerning the current and future regulatory status of "empty" containers under 40 CFR 261.7.

Your statement is correct that this section allows, in some cases, up to one inch of residue to remain in a container that held certain hazardous wastes and be considered empty for purposes of the Resource Conservation and Recovery Act (RCRA) regulations. However, the "one-inch" rule is only part of the definition of an "empty container" in 261.7(b). This definition has three parts and is dependent on the type of waste the container held. In other words, how one determines whether a container is empty depends on the material previously contained. Enclosed with this letter for your review, and for the use of your staff, is a discussion of the Agency's interpretation and rationale for this important provision. The current rule was our way of defining when a container no longer poses a serious hazard, but we did not have definitive data to support the conclusion.

I have asked Mike Petruska, Chief of the Waste Characterization Branch, to contact your staff. His Branch is responsible for generator and transporter issues, and I think it appropriate for them to meet as this would allow us to understand more fully your concerns and to discuss alternative regulatory definitions to rectify this situation.

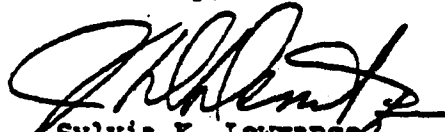
My understanding of your concern is that border inspections of containers may unknowingly expose your agents to hazardous waste through this regulatory definition. This is a legitimate concern, and you should note that this situation may be rectified through our work on the administration's Export Bill pursuant to

the Basel Agreement. When it is finalized, it is anticipated that it will subject hazardous waste that is currently exempt from Subtitle C requirements (e.g., "empty" containers) to the provisions governing the import and export of hazardous waste. My staff will continue working with your staff to ensure that situations such as this are covered in the final bill.

In the interim, EPA will continue working with Customs on training efforts such as the recently completed U.S. Customs/NEIC training of 500 customs inspectors on the Mexican border. Currently, we are discussing the feasibility of expanding this effort to include joint training of U.S. and Canadian customs officials with Environment Canada. Adequate training for inspection procedures for hazardous waste shipments is probably the best method of ensuring the continued safety of Customs employees.

Thank you for your interest in this issue, I look forward to continuing to work with the Customs Service on hazardous waste issues. If I or my staff can be of any further assistance, please do not hesitate to contact me.

Sincerely,



Sylvia K. Lowrance  
Director  
Office of Solid Waste

Enclosure

#### ENCLOSURE

The definition of "empty" containers in 40 CFR 261.7 has three parts and is dependent on the type of waste the container held. In other words, how one determines whether a container is empty depends on the material previously contained.

The first part of the definition applies to containers which held hazardous wastes other than compressed gases or acute hazardous wastes. For such containers, the regulations provide that an empty container is one from which all wastes have been removed that can be removed using practices commonly employed to remove materials from that type of container, (e.g., pouring, pumping, aspirating), and that no more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner (40 CFR 261.7(b)(1)(i) and (ii)). Additionally, in the August 18, 1982 Federal Register, the Environmental Protection Agency (EPA) provides a weight alternative to this "one-inch" rule. Specifically, the Agency allows 3 percent by weight of the total capacity of the container to remain in containers that are less than or equal to 110 gallons in size. For containers greater than 110 gallons, an empty container is one from which all residues have been removed by normal means, and no more than 0.3 percent by weight of the total capacity of the container remains in the container (40 CFR 261.7(b)(1)(iii)).

In the preamble to the August 18, 1982 Federal Register, EPA discusses the incorrect substitution, by members of the regulated community, of the word "or" for the word "and" at the end of paragraph 261.7(b)(1)(i). This substitution would lead an individual to believe that the practice of leaving one inch of residue in a container qualifies the container as being "empty", whether or not all of the waste has been removed to the extent possible using methods commonly employed. The Agency emphatically states that this is not the case. When the two paragraphs are correctly read together, it is clear that one inch of residue is an overriding constraint, to be utilized only if all wastes cannot be removed by normal practices.

The second part of the definition covers containers which have held hazardous wastes which are compressed gases. For these containers to be considered empty under RCRA, the pressure inside the container must approach atmospheric pressure.

The third part of the definition covers containers that have held acute hazardous listed in 261.31, 261.32 or 261.33(e). For such a container to meet the definition of "empty" under 261.7(b), the container must be triple rinsed with an appropriate solvent, or in the case of a container with an inner liner, the inner liner must be removed.

The EPA discusses the rationale for the definition of "empty container" in the preamble of the November 25, 1980 Federal Register (45 FR 78525). "EPA believes that, except where the hazardous waste is an acutely hazardous material listed in 261.33(e), the small amount of hazardous waste residue that remains in individual empty, unrinsed containers does not pose a substantial hazard to human health or the environment." However, EPA was still (and remains) somewhat concerned with unregulated container residues.

This concern was illustrated later in the November preamble, when the Agency set forth three options for regulation of the residues in "empty" containers and solicited comments on these options, as well as any data indicating that unregulated residues may pose a substantial hazard to human health and the environment. The three options were 1) to require triple rinsing for all containers; 2) to regulate the residue when it is removed from a container; and 3) to impose a limit on the amount of unregulated residue. Of the three options presented, EPA considered triple rinsing for all containers to offer the greatest protection to human health and the environment. This approach would ensure that the only container residues left unregulated would be trace amounts remaining after triple rinsing or an equivalent cleaning operation. Thus, if all containers were required to be triple rinsed before they were considered "empty" under RCRA, the potential for environmental and health problems associated with these containers could be substantially reduced.

The Agency addressed the comments received in response to the November 25, 1980 solicitation in the August 18, 1982 Federal Register. Most commenters found the triple rinsing option undesirable and the Agency had no data to support the proposal of the triple rinse option based on the comments received. Accordingly, the Agency has continued to implement the "one-inch" rule (or the 3 percent/0.3 percent alternative) under Federal regulations.

It is also important to note that the shipment of empty containers which have held hazardous wastes may be registered under more stringent or additional State, local, or Federal regulations. For example, under the Department of Transportation (DOT) regulations, a container which has held a hazardous material must be cleaned and purged of its contents before the hazardous material label can be removed (49 CFR 173.29).

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# **9433 – RULEMAKING PETITIONS**

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Part 260 Subpart C

10-23-84

Mr. John C. Oliver  
Porcelain Enamel Institute, Inc.  
1911 North Fort Myer Drive  
Arlington, Virginia 22209

Dear John:

As we have discussed previously, the Agency considers its July 27 interpretation (see enclosure) of the spent pickle liquor listing to be the correct reading of the hazardous waste regulations. Therefore, the spent pickle liquor (as well as any sludge generated from the treatment of the spent pickle liquor) that is generated from the porcelain enamel industry is considered to be a listed hazardous waste--namely, EPA Hazardous Waste No. K062. In order for the industry to change the regulatory status of this waste, they will need to submit an industry-wide rulemaking petition.<sup>1/</sup> At your request, we have made a preliminary assessment of the number of plants to be sampled and the specific toxicants that would need to be evaluated to support an industry-wide exclusion petition for the Porcelain Enameling Category. In addition, the petition should address the requirements cited in 40 CFR §260.20. We would not view an industry-wide petition as applying to plants that are integrated with electroplating operations and generating wastes covered by the F006-F009 listings. Wastes of this type would have to be evaluated independently.

We estimate that in order to obtain a 95% degree of confidence that you have a representative sample of the industry you will need to sample 20 integrated and 5 non-integrated facilities. (If most integrated porcelain enameling plants are integrated with electroplating operations under the circumstances described above, then we would accept samples from a lesser number of integrated facilities, since

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<sup>1/</sup> Of course, any person may submit a site-specific delisting petition pursuant to 40 CFR §§260.20 and 260.22.

the petition would not be addressing porcelain enamel plants that are integrated with electroplating operations.) These figures were determined using an approximate sampling rule developed by OSHA. This type of sampling approach has been successfully used in the past by the Institute for Scrap Iron and Steel in a similar study for EPA. The actual number of samples which should be analyzed cannot be identified as precisely. However, a sufficient number of samples should be taken from each facility which would represent the variable nature of the waste. In this regard, composited samples representing any variability in raw materials or process would be the best approach in minimizing the overall analytical burden.

Sample analysis should include determination of a limited number of both inorganic and organic constituents and tests for the four hazardous waste characteristics (i.e., ignitability; corrosivity, reactivity, and Extraction Procedure (EP) toxicity). The specific constituents that should be analyzed for in the wastes are as follows:

<u>Category</u>	<u>Constituent</u> <sup>2/</sup>
Inorganic	Chromium Lead Nickel Cadmium Selenium
<u>Category</u>	<u>Constituent</u>
Organic	Carbon tetrachloride Chloroethane Chloroform Chloromethane 1-dichloroethylene trans 1,2-dichloroethylene Dichloromethane 1,2-dichloropropane 1,3-dichloropropylene - Tetra chloroethanes Tetrachloroethylene

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<sup>2/</sup> The metals should be analyzed using the Extraction Procedure (EP) toxicity test and for their total metal content.

Trichloropropane  
Methyl ethyl ketone  
Methyl isobutyl ketone  
Benzene  
Ethyl Benzene  
Toluene  
Xylenes

The organic constituents were selected due to the likelihood that both halogenated and non-halogenated solvents are used at integrated facilities, and that these facilities are doing painting operations. However, if you have information which would indicate that some of these toxicants are not expected to be in the waste from integrated facilities, we will consider this information to determine whether analysis for these contaminants is necessary. We will require that all these contaminants (i.e., organic and inorganic toxicants) be analyzed for at the 20 integrated facilities; however, since the non-integrated facilities are not expected to contain significant levels of organics, we will only require that two of the five non-integrated facilities be analyzed for the organics. All five non-integrated facilities should be analyzed for the inorganic contaminants. Test methods for these constituents are provided in the Methods Manual "Test Methods for Evaluating Solid Waste" SW-846.

We believe it is in the industry's best interest to proceed with a delisting, whether or not it pursues the pending litigation. EPA will expedite processing of the petition no matter how the litigation is proceeding. If you decide to move forward with an industry-wide petition and need specific information on sampling and analysis methods, please call Jim Poppiti at (202) 382-4690

Sincerely,

Matthew Straus, Chief  
Waste Identification Branch

WH-562B/JPOPPITI/pes/475-8551/10-23-84/Disk JP840120



9433.1984(05)

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

DEC 11 1984

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Dave Rudder  
Vice President - Environmental/Process Control  
Seigel-Robert, Inc.  
8645 South Broadway  
St. Louis, Missouri 63111

Dear Mr. Rudder:

The purpose of this letter is to describe the test methods and standards used in evaluating cyanide levels in inorganic wastes petitioned for exclusion under §260.22 of the RCRA regulations. As explained in our telephone conversation on December 5, 1984, the Agency requires four forms of cyanide to be evaluated for the purposes of petitioning to delist an electroplating sludge. These include total, free (amenable to chlorination), leachable, and photodegradable cyanide.

Total and free cyanide in the waste is determined using Method No. 9010 "Total and Amenable Cyanide" in Test Methods for Evaluating Solid Waste. The delisting program imposes no limitations on the amount of total cyanide present in the waste other than the requirement of running the photodegradable cyanide test if total cyanide in the waste exceeds 10 ppm. Free cyanide in the waste however, is considered hazardous at levels at or above 10 ppm. The 10 ppm limitation is derived from the workroom air threshold standard of 10 ppm set by the American Conference of Governmental Industrial Hygienists (ACGIH).

Leachable cyanide is the only cyanide parameter evaluated in the extract rather than in the waste. The test method used for this determination is the EP Toxicity Test with no acetic acid adjustment. Therefore this is a distilled water extraction. The delisting program looks at all cyanide showing up in the extract as being leachable cyanide, therefore cyanide in the extract is measured as total cyanide. This total cyanide concentration in the extract is evaluated using a generalized ground water dispersion model which predicts a receptor well concentration 500 feet from the disposal site. The receptor well concentration is then compared to a health based standard - the U.S. Public Health Services' suggested drinking water standard of 0.2 ppm. If the receptor well concentration exceeds 0.2 ppm then the waste is considered hazardous. The model uses the maximum extract level reported as well as the volume of waste generated on an annual basis. The model automatically yields a ten fold dilution of the maximum extract value, therefore a waste exhibiting a maximum extract concentration at or below 2.0 ppm would be delistable while a decision on higher extract levels would depend on the volume of waste generated.

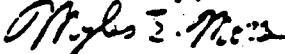
126

As indicated above, a determination of photodegradable cyanide is required when total cyanide concentrations in the waste exceeds 10 ppm. The test used for this determination is Method 9011 "Method for the Determination of Photodegradable Cyanides" in Proposed Sampling and Analytical Methodologies for Addition to Test Methods for Evaluating Solid Waste. This test measures any hydrogen cyanide gas that might be generated after irradiating the waste with a UV lamp. The concentration of hydrogen cyanide generated in this test is again compared directly to the ACGIH threshold of 10 ppm as cited above. A concentration of less than 10 ppm would be considered non-hazardous.

In wastes exhibiting high concentrations of total cyanide it is possible that artificially high free cyanide levels can be recorded. This is due to positive interferences attributable to the complexed iron cyanides in the waste. In these instances the Agency has a number of alternate test methodologies that are less prone to interferences. The most frequently used is "Test Method for the Determination of Cyanide and Sulfide Containing Wastes" (copy attached). This test measures the generation of hydrogen cyanide gas which is then evaluated in terms of the 10 ppm ACGIH threshold previously discussed. Again, a concentration of less than 10 ppm would be considered non-hazardous.

I have enclosed a background article on the ground water model now being used by the Agency in petition evaluation. A detailed appendix explaining the assumptions used in the model will appear in the Federal Register as a part of the next group of proposed delistings (hopefully in February of 1985). If you have any questions regarding any of the tests or standards described in this letter do not hesitate to call me at (202)-382-4782.

Sincerely,



Myles E. Morse  
Environmental Protection Specialist  
Delisting Program



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D C 20460

DEC 18 1984

OFFICE OF  
SOLID WASTE AND ENERGY

Mr. Tom Horvath  
Environmental Control  
Weirton Steel  
400 Three Springs Drive  
Weirton, West Virginia 26062

Dear Mr. Horvath:

As indicated in my telephone conversation with Mr. Wood on Tuesday, December 18, 1984, three additional issues regarding Weirton's delisting petition need to be resolved. These include testing representative waste samples for the EP toxic metals using the EP Toxicity Test for Oily Wastes; testing representative waste samples for photodegradable cyanide; and an explanation of where in the process 1,1,1-trichloroethane is used including analyses of representative waste samples if it is determined that this toxicant has a reasonable likelihood of being present in the waste.

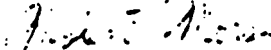
The Agency previously indicated that the EP toxicity test is not applicable to wastes containing greater than 1 percent oil and grease since the oil fraction may act as a binder. (See 49 FR 42591, October 13, 1984). Weirton has submitted data that indicate a maximum oil and grease content of 2.8 percent. Therefore the data supporting the lack of mobility of metals from Weirton's waste (as measured by the EP toxicity test), is questionable. I have enclosed a copy of the EP Toxicity Test for Oily Wastes. This test should be run on representative waste samples from the impoundments.

The Agency is concerned about the possible photodegradation of complexed cyanide to free cyanide upon exposure to sunlight. The Agency has data indicating that this conversion can occur in some wastes, resulting in the formation of free cyanide that can escape from the waste by leaching or by the generation of hydrogen cyanide gas. Due to the levels of total (complexed) cyanide in Weirton's waste (maximum concentration reported was 96 ppm), testing of representative samples for photodegradable cyanide is required. The Agency requires all petitioners to test for photodegradable cyanide when total (complexed) cyanide concentrations in the waste exceeds 10 ppm. I have enclosed a copy of this test methodology. If you have a problem locating a laboratory that is set up to run this test please call and we will assist you.

Finally, Weirton indicated that 1,1,1-trichloroethane is used in the process. The Agency must determine if this toxicant has a reasonable chance of entering the petitioned wastestream, as required by the Hazardous and Solid Waste Amendments of 1984. If Weirton indicates that 1,1,1-trichloroethane can enter the waste as alluded to by Mr. Wood, then you are required to present an explanation (including mass balance relationships) detailing why it could not be present in the waste in hazardous concentrations, or analytical test data on representative waste samples. If you find it necessary to test the waste for this toxicant, I have included the appropriate analytical method.

It is important that these issues be resolved as soon as possible so the Agency can complete its action on the petition. If you have any questions regarding the information requested above, do not hesitate to call me at (202)-382-4782.

Sincerely,



Myles E. Morse  
Environmental Protection Specialist  
Delisting Program

enclosures



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

MAY 16 1985

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: RCRA Reauthorization Statutory Interpretation # 4:  
Effect of Hazardous and Solid Waste Amendments of  
1984 on State Delisting Decisions

FROM: *Jack W. McGraw*  
Jack W. McGraw  
Acting Assistant Administrator

TO: RSI Addressees

ISSUE: What effect do the delisting provisions of the  
Hazardous and Solid Waste Amendments of 1984 have  
on State delisting decisions?

SUMMARY

Since November 8, 1984, EPA has administered all RCRA delisting programs, and will continue to do so until a State is authorized for delisting under the new provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA or the Amendments). To receive authorization, a State must conform its delisting program to the Federal program and apply to the Agency for authorization. Any temporary exclusion granted by a State before November 8, 1984, must be reevaluated using the new delisting criteria and procedures. If a final decision to grant or deny a petition has not been made by November 8, 1986, the temporary exclusion will cease to be in effect for purposes of RCRA.

DISCUSSION

Before enactment of the Amendments, EPA's evaluation of exclusion (delisting) petitions addressed only those factors considered by the Agency in listing the waste as hazardous. The regulations also allowed the Agency to grant a temporary exclusion without prior notice and comment if there was substantial likelihood that an exclusion would be finally granted. In addition, once EPA authorized a State program, EPA suspended the administration and enforcement within the

State of those parts of the Federal program for which the State was authorized. Consequently, any authorized State that had a delisting program could make delisting decisions without prior EPA review of each decision. Any delisting decision made by the State still was subject to EPA oversight, however, to ensure that the State program did not become less stringent than EPA's. (Any delisting decision made by the State was in effect only while the waste remained under State control.)

#### HSWA Effect On State Delisting Decision

The Hazardous and Solid Waste Amendments of 1984 modified both the substantive standard and the procedures to be used in evaluating delisting petitions. The Amendments require the Administrator, when evaluating delisting petitions 1/ to:

- consider factors (including additional constituents) other than those for which the waste was listed if there is a reasonable basis to believe that such additional factors could cause the waste to be a hazardous waste; and
- provide notice and an opportunity for comment before granting or denying a petition.

Furthermore, the Amendments require the Administrator to re-evaluate all temporary exclusions granted before the date of enactment (i.e., before November 8, 1984); if a final decision to grant or deny a petition has not been promulgated within 24 months (i.e., by November 8, 1986), the temporary exclusion will cease to be in effect.

Under Section 228 of the HSWA, any requirements, including the delisting requirements, imposed pursuant to the Amendments are effective in authorized States at the same time they are effective in other States. Therefore, until the States are authorized for these requirements, EPA is responsible for administering these provisions. Based on this provision:

- any further RCRA delisting decisions made by States (once authorized) will have to be based on the new delisting criteria and procedures noted above;

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1/ In evaluating a petition, the Agency does not consider the evaluation to be completed until a final decision is published in the Federal Register.

- any State delisting decision made on or after November 8, 1984, and before authorization under the new standard would not qualify as a RCRA delisting decision; and
- any temporary exclusion 2/ that was granted by the State before November 8, 1984, must be reevaluated by the State (if they have been authorized under the new delisting criteria) or by EPA. If a final decision to grant or deny a petition has not been made within 24 months of that date, the temporary exclusion will cease to be in effect.

Finally, any final exclusions that were granted by the State before November 8, 1984, are not affected by the Amendments (i.e., no additional action is required by the State or by EPA). The States, however, are encouraged by EPA to reevaluate those decisions if the other factors were not considered by the State.

The effect of the Amendments on the States is summarized on the attached table.

Attachment

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2/ Temporary exclusions are any delisting decisions which are not considered the final delisting action under the regulations of the issuing authority. For example, EPA issued a number of temporary exclusions, pursuant to 40 CFR §260.22(m). That provision explicitly states that these decisions are made "before making a final decision." Similarly, several States have mechanisms for removing a waste from regulation before promulgating a final decision, such as delistings patterned on the Federal temporary exclusion. All such exclusions are temporary.

A final exclusion is an Agency determination done in accordance with the issuing authority's regulations; e.g., with notice and comment after which no further review of the petition is contemplated. EPA issues final exclusions pursuant to 40 CFR §260.20, which requires publication of a tentative decision in the Federal Register, receipt and evaluation of public comments, and publication of a final decision in the Federal Register. Decisions not to prosecute petitioners because it was believed that a delisting later would be issued do not qualify as final exclusions.

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ATTACHMENT

SUMMARY: EFFECT OF  
AMENDMENTS ON STATE DELISTING

° FINAL EXCLUSIONS

- States do not need to reevaluate decisions made before November 8, 1984.
- States must use new delisting criteria for decisions made after November 8, 1984.
- States must provide an opportunity for comment before making a final decision.

° TEMPORARY EXCLUSIONS

- EPA will need to act on previous State temporary exclusions, unless, within 24 months of November 8, 1984, the State:
  - a) modifies its regulations;
  - b) requests and becomes authorized by EPA for delisting; and
  - c) acts on previous temporary exclusions.
- If the State (as described above) or EPA does not make a decision within 24 months of November 8, 1984, the waste is hazardous again.
- States must use new delisting criteria for decisions made after November 8, 1984.
- States must provide an opportunity for comment before making a temporary decision.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

SEPTEMBER 85

Solid Waste Variance

5. A solvent product is sent off-site for use. The solvent material becomes spent and is sent back to the production facility as a hazardous waste. The production facility reclaims the waste and then uses it as a raw material in the production process. Does this waste management scenario qualify for a variance from the definition of solid waste for a material that is reclaimed and then reused within the original primary production process in which it was generated (§260.30(b))?

No. The variance applies to a waste which is reclaimed and then reused within the original primary production process in which the waste, not the product, was generated. In contrast, the waste here is not used ultimately in the process from which it was generated. The following scenario may qualify for a variance under §260.30(b): Raw material A is put into primary production process B. In this process, raw material A becomes spent and is generated as hazardous waste A. This waste A is reclaimed and then reused in the original primary production process in which it was generated.

Source: Matt Straus (202) 475-8551

9433.1985(04)

OCT 23 1985

Mr. Ronald Panicucci  
LAN Associate  
662 Goffle Road  
Hawthorne, New Jersey 07506

Dear Mr. Panicucci:

This is in response to your letter, dated September 25, 1985, concerning the liability of an industry once a waste is delisted. In particular, you request clarification of the generator's liability if a waste that is delisted and disposed of in a non-hazardous waste landfill is, at some point in the future, considered hazardous again.

In general, after a waste has been delisted, it is no longer subject to the RCRA hazardous waste regulation. However, the generator is still liable for any damage the waste may cause and can be held responsible under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or can be sued by any citizen for damages incurred. In response to your concern over revoking a previous delisting decision, if a delisting were revoked it would not effect any waste that has already been disposed as non-hazardous, since the waste was considered non-hazardous at the time of disposal (i.e., you would not be required, under RCRA, to dig up the waste). However, as indicated earlier, you still may be held responsible under CERCLA if it is shown that your waste contaminated the environment.

Should you have any further questions regarding this matter, please contact Mr. James Poppiti at (202) 382-4788.

Sincerely yours,

J. Winston Porter  
Assistant Administrator

NOV 27 1985

Honorable Dan Glickman  
Member, United States  
House of Representatives  
U.S. Court House  
Box 403-Room 224  
Wichita, Kansas 67201

Dear Mr. Glickman:

This letter is in response to your inquiry of October 29, 1985, concerning the delisting petition filed with the Agency by Boeing Military Airplane Corporation for its Wichita, Kansas facility. The Agency has proposed (in the Federal Register, on February 26, 1985) the use of a vertical and horizontal spread (VHS) model to aid in the evaluation of delisting petitions. After addressing the public comments received on the model, this model was made final (with few adjustments) on November 4, 1985; it will be used to assist us in making delisting evaluations. The VHS model uses leachate data and waste volume estimates in order to predict waste toxicant concentrations in ground water at a downstream compliance point, and allows the comparison of predicted values with appropriate health-based numbers. The Agency's use of this model involves several reasonable worst case assumptions concerning the land disposal of hazardous wastes. These assumptions are based on reviews of the technical literature and informal surveys of States and State Solid and Hazardous Waste agencies, and are not based on site-specific factors. The Agency believes that the VHS model is quite conservative, and represents a reasonable worst case for the factors considered.

The Agency has considered the use of site-specific factors in its delisting evaluations. Specifically, the local geographical, hydrogeological, and demographic conditions were considered as factors that could affect the Agency's decisions. Once a waste is delisted, however, there is no guarantee that the waste will be managed at the site that was evaluated. That is, the generator of the waste is under no obligation to manage the waste at a particular site. Therefore, we believe the use of site-specific factors are inappropriate. The Agency also considered placing conditions on the delisting decisions that would require specific waste management. This option was also rejected since such an

evaluation would essentially be the same as the permitting process. The Agency feels that if management conditions need to be specified to ensure that a particular waste does not damage human health or the environment, the waste is hazardous and should be managed at a site that is fully permitted to handle that waste.

I would also like to point out that the Agency does consider ground-water data from a facility as part of the delisting evaluation. The lack of ground-water contamination is viewed as being supportive of a petition; however, this information is indicative of what has happened at the site receiving the waste and not what will happen. Therefore, ground-water data alone are not sufficient to determine whether a waste is non-hazardous.

I am hopeful that this response addresses your concerns. If you have any questions, please contact my office at your convenience.

Sincerely yours,

~~J. Winston Porter~~

J. Winston Porter  
Assistant Administrator

bcc: GWTF  
Nancy H. Fussell, Boeing  
Faye Sandberg, EPA Region VII  
Congressional Liaison/Craig Deremer, EPA

OCT 29 1985

Mr. Verrill M. Norwood, Jr.  
Vice President, Environmental Affair  
Olin Chemicals  
P.O. Box 248  
Lower River Road  
Charleston, Tennessee 37310

Dear Mr. Norwood:

This is in response to your letter to me dated October 8, 1985, regarding the applicability of a variance from classification as a solid waste for a spent material which is regenerated and then recycled at the facility which produced the original commercial product. Before I respond to your specific request, I would like to define the facts (as I understand them):

A commercial alkaline etchant (produced by the Philip A. Hunt Chemical Company) is distributed for use to manufacturers of printed circuits. After a period of use, the alkaline etchant is reduced below acceptable levels and therefore becomes spent (i.e., a material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing). This material (as you indicated) would be defined as hazardous because of its corrosive nature. This spent material is then returned to the manufacture of the alkaline etchant where copper is first recovered (defined as reclamation); the remainder of the etchant (after reclamation) is then used as a raw material to produce additional alkaline etchant. (Although not germane to the decision, you indicate that the recovered copper salts are sold providing additional economic benefits.)

Based on this description, I do not believe that you qualify for a variance under the modified closed-loop provision. In particular, to qualify for a variance pursuant to §260.31(b), the material that is reclaimed must be used as a feedstock within the original primary production process in which the waste was generated. You are correct that the regulations do not require that this all occur at a single production/regeneration facility; however, the material (after reclamation) must be returned to the process from which it was generated. In your

situation, the process which generated the waste is the use of the etchant by the printed circuit board manufacturer; the reclaimed material is not returned and used as an etchant but rather used as an ingredient to make additional etchant. (It should also be noted that if you were to return the etchant to the printed circuit board manufacturer after reclamation, you still would not qualify for a variance since the material is not being used as a feedstock/ingredient.) Thus, since you do not return the reclaimed material to the process which generated the waste, your particular situation does not meet the basic conditions of the modified closed-loop provision.<sup>1/</sup>

Therefore, the spent alkaline etchant is subject to regulation by the generator (which includes the manifest), must be transported by a hazardous waste transporter, and the reclamation facility must comply with the appropriate standards regarding storage of the spent alkaline etchant. I had discussed this with several of the Regions when you originally sent in your petition and, therefore, I believe we are all being consistent.

Please feel free to give me a call if you have any questions; my telephone number is (202) 475-8551.

Sincerely yours,

Matthew A. Straus  
Chief  
Waste Identification Branch

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<sup>1/</sup> Although you do not qualify for a variance pursuant to §260.31(b), the reclaimed material that is used as a raw material to produce the alkaline etchant is not a waste, and thus is not subject to regulation.

100

JAN 7 1987

Ms. Elisabeth Rose (6H-CE)  
EPA Region VI  
1201 Elm Street  
Dallas, TX 75270

Dear Ms. Rose:

This letter is in response to your recent telephone conversation with Mr. David Topping of my staff. Specifically, you requested information concerning the definition of hazardous waste contained in 40 CFR Part 261 and the delisting criteria related to leachate levels.

§261.3(a)(2)(iii) deals with wastes which are included in Subpart D solely because they meet the characteristics of hazardous waste described in Subpart C (i.e., ignitability, corrosivity, reactivity, or EP toxicity). Thus, a mixture of D002 waste (included solely for corrosivity) and a solid waste would not be hazardous if the mixture no longer exhibits the characteristic of corrosivity, nor any other hazardous waste characteristics. However, waste which are listed in Subpart D because of the presence of specific hazardous constituents (e.g., K048, K049, and K051, all of which are listed for hexavalent chromium and lead) remain hazardous unless they are excluded from the list under §§260.20 and 260.22 (i.e., delisted).

The delisting criteria include a sliding regulatory scale which dictates allowable leachate levels for specific volumes of wastes. For wastes which are typically disposed of in a landfill, this scale is described at 50 FR 7882, February 26, 1985 and 50 FR 48886, November 27, 1985. In general, the allowed leachate levels for landfilled wastes range from 32x the drinking water standards for small volumes of wastes (< 475 yd<sup>3</sup>) to approximately 6x the drinking water standards for large volumes of waste (> 5000 yd<sup>3</sup>). Also, as required by the Hazardous and Solid Waste Amendments of 1984, the Agency's evaluation of petitioned wastes is not restricted to the constituents for which the waste was originally listed. Rather, the Agency evaluates all factors (including additional constituents) which could reasonably be expected to be present and would cause the waste to be hazardous. It should also be noted that the type of leachate test to be performed may vary, depending upon the nature of the waste being evaluated. For example, oily petroleum refinery wastes are typically subjected to the EP for Oily Waste procedure rather than the standard EP leachate test.

Evaluation criteria for wastes that are subject to disposal other than in landfills (e.g., land treatment or management in surface impoundments) are currently being developed; in fact, the evaluation criteria for waste that are land treated was proposed on November 27, 1985 (50 FR 48943). While these models have not yet been made final, it is expected that the allowed leachate levels for these disposal scenarios will be more stringent than those described above for landfilled wastes.

Should you have any further questions concerning the hazardous waste definitions or the delisting program, please contact me or Mr. David Topping of my staff at (202) 475-8551.

Sincerely,

Matthew A. Straus, Chief  
Waste Identification Branch (WH-562B)

FEB 14 1986

John Ramsey  
 Kansas Department of  
 Health and Environment  
 Hazardous Waste Section  
 Forbes Field  
 Topeka, Kansas 66620

Dear Mr. Ramsey:

As per our telephone conversation, this letter summarizes the information that our office would have required for the evaluation of the filter cake from the new filter press system at Boeing's Wichita facility. Typically, we request the following items from all petitioners. We ask for a minimum of four representative samples (usually composites) to be taken over a time period sufficient to encompass any normal variations in the process system. Janis Butler had indicated to me that Boeing would likely be preparing weekly composites for analysis.

- Analyses for total constituent concentrations of the EP toxic metals, nickel, and cyanide
- EP leachate data for the EP toxic metals and nickel
- Distilled water leaching test for CN<sup>-</sup> (substituting distilled water for acetic acid in the EP test)
- Total oil and grease content of the waste (the EP Test for Oily Waste may be necessary if there is >1% O&G in the waste)
- Testing for the other characteristics of hazardous waste (i.e., ignitability, corrosivity, and reactivity)
- Average and maximum annual sludge volumes (projected if necessary--waste volume is a variable in our VHS model)
- Raw materials lists and/or Material Safety Data Sheets (to evaluate the waste for the presence of Appendix VIII constituents)
- Detailed descriptions of the production processes and waste treatment processes in operation at the facility

		CONCURRENCES			
ISOL	✓	-Descriptions of the sampling procedures, analytical procedures, and quality control procedures used in the analysis of the waste			
NAME	✓				
FE	✓				

Some of this information is probably in your files already, and there may be additional items not mentioned here for which you will want more information from Boeing.

I hope this will help your office with the re-evaluation of Boeing's waste. If you have any questions, feel free to call me at (202) 382-4783.

Sincerely,

Scott J. Maid  
Environmental Protection Specialist  
Office of Solid Waste (WH-562B)

FEB 24

MEMORANDUM

SUBJECT: Regulatory Status of Temporarily and Informally  
Delisted Wastes

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

TO: Solid Waste Branch Chiefs  
Regions (I-X)

A number of questions have arisen regarding the status of informally excluded wastes (i.e., those facilities that submitted delisting petitions and were informed via letter that their wastes would be delisted). After discussions with Enforcement personnel, the Office of General Counsel, and Congressional staff, we have determined that informal exclusions are no longer effective. This memorandum sets our current policy with regard to informal exclusions.

First, however, I would like to review where we stand with regard to petitioners with temporary exclusions. As you are aware, those facilities that were granted temporary exclusions are those that were noticed in the Federal Register (see attached list). These exclusions terminate on November 8, 1986, unless the Agency grants a final exclusion before that date. Petitioners with temporary exclusions, that have outstanding data requests, have been notified by letter that if a complete petition is not received by a certain date, we will propose to deny their petition based on insufficient data. The first notice of this kind was published at 51 FR 2526, January 17, 1986.

Informal exclusions, on the other hand, are those previous decisions where the staff of the delisting program evaluated the petition, and decided to grant the exclusion; however, the decision was never published in the Federal Register, as required under 5260.22(r). (See attached list.) The Agency informed the petitioners and Regional enforcement counsel of the anticipated delisting. We requested that the Regions exercise discretion with regard to these facilities until the decision was published in the Federal Register as a temporary exclusion. While the Agency informed petitioners and enforcement counsel that this interim period should be short, no specific time period was mentioned.

It was ultimately decided, however, not to publish the decisions in the Federal Register due to the anticipated changes in delisting criteria as a result of the Amendments (i.e., the consideration of other factors in evaluating the hazards posed by the waste). Instead, these petitioners were asked to submit the additional information, as would be required under HSWA, to evaluate the petition.

Since notices were never published in the Federal Register, legally, informal exclusions were limited to the exercise of enforcement discretion, and these wastes are still considered hazardous. Since the provisions under Section 3005 (e)(2) apply to hazardous wastes, any person who manages hazardous waste in a land disposal facility, including petitioners with informal exclusions, lost interim status on November 8, 1985, unless the requirements of the loss of interim status provision, 42 U.S.C. §6925(e)(2) are satisfied. Petitioners with informal exclusions will receive a letter very shortly clarifying this issue, and requesting that they contact you regarding the specific concerns of their facility. A copy of any letter sent to a facility in your Region will be sent to you. In addition, those facilities that manage their waste off-site must transport it to a Subtitle C facility (i.e., a facility that has been fully permitted or one that has interim status).

For those facilities with an active petition still on file with us, we are processing their petitions in an expedited manner. When a decision is made on these petitions, it will be proposed in the Federal Register as soon as possible.

If you have any questions or need any further information on delisting, please contact Matthew A. Straus or Myles Morse of my staff, at (202) 475-8551. Please direct any questions on enforcement to Lloyd Guerri at (202) 382-4808.

Attachment

MAR 10 1986

Mr. Martin Smith  
PRI-Hawaiian Independent Refinery  
PRI Tower, 733 Bishop St.  
Honolulu, HI 96842

Dear Mr. Smith:

The purpose of this letter is to inform you that the informal delisting that your facility received, with regard to the wastes identified in the petition (#0119) you submitted pursuant to 40 CFR §§260.20 and 260.22 of the RCRA hazardous waste regulations, is no longer effective. In particular, on December 3, 1981, your company submitted a petition to exclude the wastes generated (and stored) at your facility (listed as EPA Hazardous Waste Nos. K050 and K051). Based on our evaluation of the petition at that time, the delisting program recommended that your petition be granted.<sup>1/</sup> The Office of Solid Waste sent a letter to you (dated August 7, 1981) informing you that a preliminary decision had been made on your petition, and that the wastes generated (and stored) at your facility were likely to be declared non-hazardous (based on the original listing criteria). According to this letter, a notice would be published in the Federal Register in the near future that would give your facility a temporary exclusion. In the interim, however, it was suggested to the Region that your facility be allowed to handle the petitioned wastes as non-hazardous.

The Assistant Administrator for Solid Waste and Emergency Response decided, however, not to grant your facility a temporary exclusion due to the anticipated statutory changes in delisting criteria (i.e., the consideration of other factors in evaluating the hazards posed by the wastes). Instead, you were asked to submit the additional information, as would be required under HSWA, to evaluate the petition. As a result, a notice granting a temporary exclusion was never published in the Federal Register, as required under §260.22(e). Consequently, you never received a

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<sup>1/</sup> It should be noted that the Hazardous and Solid Waste Amendments (HSWA), enacted in 1984, require the Agency to address other factors (including additional constituents) when evaluating a delisting petition, if there is a reasonable basis to believe that these factors may cause the petitioned waste to be hazardous. Prior to HSWA, the evaluation of delisting petitions was based solely on the original listing criteria for the waste.

a temporary exclusion for the wastes generated (and stored) at your facility; your wastes are considered (and always have been) hazardous wastes.

You must handle your wastes as hazardous. If you ship your wastes off-site, you must transport them to a Subtitle C facility (i.e., a facility that has been fully permitted or one that has interim status). If, on the other hand, you manage your wastes on-site, you must manage them in an interim status or fully permitted facility. You should be aware that if you use a land disposal facility, and you did not comply with the provisions of Section 3005(e)(2) (i.e., submit a complete Part B permit application and certify compliance with ground water and financial responsibility requirements by November 8, 1985), you have lost interim status. Thus, if the land disposal facility is still active, you must immediately close it and submit a closure plan. If you have any inactive land disposal facilities that were used to manage these wastes, you must also submit a closure plan for these units. You may be subject to enforcement actions, including enforcement in the event of operation of land disposal units that have not complied with Section 3005(e)(2).

The petition that is currently on file with this office will be treated as an active petition for which a previous decision has not been made. Since your facility never received a temporary exclusion, the letters sent to you announcing a mandatory deadline for a final decision on your petition (November 8, 1985) are no longer valid. We plan to expedite the processing of your petition. Once your petition is complete, a decision will be made, and a notice proposing to grant or deny your exclusion will be published in the Federal Register.

If you have any questions regarding this decision, please contact Mr. Matthew Straus at (202) 475-8551. Also, please contact your regional enforcement office (see enclosure) to discuss the particular needs of your facility as a result of this action.

Sincerely,  
Original signed by,  
Marcia E. Williams

Marcia Williams  
Director  
Office of Solid Waste

Gene Lucero  
Director  
Office of Waste Programs Enforcement

9433.1986(07)

MAR 18 1985

Mr. Ronald Shiver  
Staff Engineer  
K.W. Brown & Associates, Inc.  
6A Graham Rd.  
College Station, TX 77840

Dear Mr. Shiver:

I have reviewed the ground water monitoring data you submitted on behalf of Falcon Steel, Kaufman, Texas. The increase in conductivity is not, in itself, sufficient reason to deny a delisting petition. Unfortunately, data for the remainder of the EP toxic metals and nickel (in addition to lead and chromium) were not included in the 1984 and 1985 monitoring reports; ground water data for these constituents is also necessary to insure that no contamination has occurred. As a result of the Hazardous and Solid Waste Amendments of 1984, we are required to consider all factors (including additional constituents) when evaluating delisting petitions, if these factors may reasonably cause the waste to be hazardous. (The EP toxic metals, nickel, and cyanide are reasonably expected to be present in the waste as a result of the operations performed at the facility, i.e., the tanks and steel involved).

I also, once again, reviewed the closure plan submitted in February, 1985. I want to clarify what will be required in order to submit a complete delisting petition. The following information will be needed:

- 1) all information under 40 CFR 260.22(b) and (i)(1-12);
- 2) a detailed list, description and schematic of all manufacturing processes, including surface and equipment preparation, cleaning and/or degreasing, coating or painting processes, which may have contributed waste, wastewater, painting or rinse water to the waste petitioned for exclusion;
- 3) a complete list of all raw materials used, including chemical compositions, and material safety data sheets, if available, identifying all solvents, acids, cleaners, surface preparation agents, paints, etc.,

used in the manufacturing process which may have entered the waste petitioned for delisting;

- 4) an explicit statement verifying that the number of samples collected and analyzed is representative of any variation in constituent concentrations, and the basis for such a conclusion;
- 5) a detailed description of the sampling methodology and analysis methods used on the representative waste samples;
- 6) data indicating that representative samples were tested for the ignitable, reactive, and corrosive characteristics outlined in Subpart C §261.21-13.

The following testing requirements must be performed on samples collected from each impoundment. The impoundments should be divided into quadrants; at least four core samples should be collected in each quadrant and composited (at least four composites are needed from each impoundment).

- 7) total constituent analyses of the waste (complete acid digestion) for each of the EP toxic metals, and nickel on a representative number of samples (but not less than four);
- 8) total analysis for cyanide on a representative number of samples (but not less than four); if the cyanide concentration exceeds 1 ppm, then tests should be run for free cyanide on representative samples;
- 9) an EP leachate analysis<sup>\*/</sup> of the waste for each of the EP toxic metals, nickel, and cyanide (using distilled water for the CN analyses) on a representative number of samples (but not less than four);
- 10) a determination of the total oil and grease content of the waste by testing a representative number of samples (but not less than four) using the enclosed method;
- 11) amount of waste present in each impoundment after neutralization;
- 12) describe quality assurance procedures followed during sampling and analysis. For example, results from the method of standard additions for the EP toxicity tests should be included.

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<sup>\*/</sup> If the oil and grease level of the waste exceeds one percent, the EP for oily waste methodology should be followed during analysis.

-3-

If after reviewing the data specified above, the Agency finds that organic toxic constituents or other toxic metals are used in the facilities manufacturing processes, you may be required to submit representative test data quantifying these constituents in the waste.

If you have any questions about these information requests, please call me at (202) 382-4519. In addition, the final guidance manual is available through NTIS if you have not already acquired it.

Sincerely,

Ann Burke Sarno  
Environmental Protection Specialist  
Waste Identification Branch (WH-562B)



UNITED STATES ENVIRONMENTAL PROTECTION  
WASHINGTON, D.C. 20460

9433.1966(08)

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MAR 24 1986

Mr. Samuel Mostkoff  
Legal Counsel  
Monroe Auto Equipment  
International Drive  
Monroe, Michigan 48161

Dear Mr. Mostkoff:

This is in response to your letter dated February 21, 1986, formally requesting the Agency's reconsideration of, and a rehearing on, its decision to deny, in part, Monroe's delisting petition No. 0020. Monroe also requested the Agency to stay the effective date of the final decision to deny the petition for the waste contained in Monroe's lagoon.

Monroe raises three issues as the bases for its request for reconsideration. These include: (1) Monroe's lack of an opportunity to comment on the final VHS model; (2) the Agency's evaluation of Monroe's waste using a total chromium regulatory standard rather than a standard based on the waste's hexavalent chromium content; and (3) the use of the present drinking water standard for chromium rather than the use of the proposed recommended maximum contaminant level (RMCL) in the evaluation of the petition.

The Agency has evaluated Monroe's request, and has decided that the final decision published on November 27, 1985, denying Monroe's petition for the impounded waste was correct. The Agency believes that the issues raised by Monroe do not warrant a reversal of our decision.

Monroe had an opportunity to comment on the model and its application to Monroe's waste during the comment period. The final version of the VHS model and its application to Monroe's waste consider the same elements as the proposal on which Monroe commented. The change in the VHS formula, an alteration in the vertical dispersion term, was made in response to comments, and did not alter the Agency's basic approach. Monroe had an opportunity to comment on this aspect of the proposed model.

Monroe, reiterating its April, 1985 comments, suggests that separate standards for hexavalent and trivalent chromium are appropriate. A single standard for hexavalent chromium and total chromium is currently warranted. The current maximum contaminant level (MCL) and the EP toxicity test level both refer to total chromium. The Agency has considered revising its standards to refer only to hexavalent chromium but has not done so, and is concerned that trivalent chromium may be converted to hexavalent chromium in the environment. The Agency continues to believe that total chromium is an appropriate factor to consider in its evaluation of delisting petitions.

The Agency is using the current MCL (50 ppb) set for drinking water as the health-based standard for delisting. As noted in the November 27, 1985 Federal Register, an increase has been proposed for the recommended maximum contaminant level to 120 ppb. As this new level is only proposed, and comments on this proposal are still being evaluated, the Agency intends to use the current MCL (to grant or deny petitions) until a new RMCL or MCL can be set.

Finally, the Ambient Water Quality Criteria (AWQC), referred to in your letter, are standards applying to waters of the United States, which are primarily surface waters. We have decided to use MCLs in the VHS model, which considers the potential for contamination of ground water. AWQC will only be used when no MCL or no other regulatory standard is available. The AWQC would be used in that situation, until an MCL was developed.

If you have any further questions regarding these issues please contact Mr. Steven Hirsch in our Office of General Counsel at (202) 382-7703.

Sincerely,

*Marcia Williams*

Marcia Williams

cc: Jeffrey K. Sherwood

APR 16 1986

MEMORANDUM

SUBJECT: RCRA Section 3001(f)(2)(b) and States' Exclusion  
of Wastes from Regulation as Hazardous

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

TO: Hazardous Waste Division Directors  
Regions I-X

Since November 8, 1984, EPA has administered all RCRA delisting programs and will continue to do so until States become authorized for delisting under the new provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA). A State is not required to have a delisting mechanism, and may be authorized under HSWA without one. To receive authorization, a State must conform its delisting program, if any, to the Federal program and apply to the Agency for authorization.

Effective November 8, 1986, temporary exclusions automatically expire. Any temporary exclusion granted by a State before November 8, 1984, should be re-evaluated either by EPA or a State that has been authorized to conduct delisting pursuant to HSWA. If a final decision to grant or deny a petition has not been made by November 8, 1986, the temporary exclusion will cease to be in effect for purposes of RCRA Section 3001(f)(2)(B).

Temporary Exclusions

Temporary exclusions are delisting decisions which exclude a waste from regulation as hazardous, but are not the final delisting action under the regulations of the issuing authority. For example, EPA issued a number of temporary exclusions pursuant to 40 CFR 260.22(m). That provision explicitly stated that these decisions are made "before making a final decision". Similarly, several States have mechanisms for removing a waste from regulation before promulgating a final decision, such as delistings patterned on the Federal temporary exclusion.

These temporary exclusions should be distinguished from grants of enforcement discretion, where a State did not remove a waste from regulation, but stated only that it would not initiate an enforcement action against a person treating this waste as non-hazardous. Enforcement discretion, sometimes called informal exclusions, are not temporary exclusions (nor are they final exclusions).

#### Final Exclusions

A final exclusion is an agency determination done in accordance with the issuing authority's regulations; e.g., with notice and comment after which no further review of the petition is contemplated. EPA issues final exclusions pursuant to 40 CFR 260.20 and 260.22, which requires publication of a tentative decision in the Federal Register, receipt and evaluation of public comments, and publication of a final decision in the Federal Register. States issue final exclusions in accordance with their State legal authorities.

Any final exclusions that were granted by authorized States before November 8, 1984, are not affected by HSWA (i.e., no additional action is required by the State or by EPA). EPA encourages the States to re-evaluate those decisions if all factors (including additional constituents) which could cause the waste to be hazardous were not considered by the State.

#### Actions Required

On November 8, 1986, all temporary exclusions will cease to be in effect for purposes of RCRA if a final exclusion has not been granted. States and Regions should plan to verify that the handlers of these previously excluded wastes are complying with applicable requirements after November 8, 1986. To this end, the Regions and States should begin to evaluate all State delistings to:

- (1) determine the type of State exclusion (temporary or final) that was granted before November 8, 1984;
- (2) determine whether a final exclusion has been granted or denied by EPA; and
- (3) take appropriate action to ensure full compliance with RCRA (e.g., prior to 11/8/86, you should send handlers written notification of their regulatory responsibilities.

From a practical standpoint, the expiration of a temporary exclusion will have greatest immediate impact on those who manage their waste in land disposal units. These units may be immediately subject to ground-water monitoring requirements and, on November 8, 1987, may be subject to the "loss of interim status" requirements of Section 3005 (e)(3), depending on whether other hazardous waste management activity is occurring at the facility.

Currently, there are no States authorized for the HSWA delisting authority. Even if a State were to receive the required authorization before November 8, 1986, it is highly unlikely that adequate time exists to collect and evaluate the additional information from petitioners so as to avoid termination of the temporary exclusion.

A "Reference Guide to Delisting Petitions" is compiled at EPA Headquarters and distributed weekly to the Regional delisting contacts. In turn, the Guide is distributed to the States. This reference can be used to determine if EPA is reviewing a particular petition and the status of EPA's review.

Please feel free to contact the delisting staff of the Waste Identification Branch or the Regional Liaisons of the State Programs Branch here in the Office of Solid Waste if you have any questions regarding State delistings.

cc: Matt Straus, OSW  
Truett DeGeare, OSW

APR 24 1986

MEMORANDUM

SUBJECT: Destruction of Dioxin Contaminated Soil Using Mobile Incineration

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

TO: Thomas W. Devine, Director  
Waste Management Division, Region IV

In response to your letter of February 28, 1986, you requested clarification on two issues concerning the KCRA research, development, and demonstration (RD&D) permit application for the U.S. Air Force in Gulfport, Mississippi. The issues you raised involve delisting the residues resulting from treatment and allowing site construction prior to permit issuance.

Delisting

You requested the use of delisting information from the ENSCO trial burn or EPA's burn at Times Beach to expedite NCBC's delisting petition. (During the ENSCO trial burn, trichloroethane, monochlorobenzene, and trichlorobenzene were incinerated and the DRL (at the stack) was calculated.) This information can only be used indirectly to support the NCBC petition. The delisting regulations explicitly state (see 40 CFR §260.22(k)) that "an exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility". In addition, KCRA §3005(f)(1) requires the petitioner to demonstrate, to the satisfaction of the Administrator, that the waste does not meet any of the criteria for which it is listed nor contain any other additional constituents which could cause the waste to be hazardous. The delisting demonstration, therefore, is required to be made on the waste itself, and cannot be made on surrogates (i.e., PCHC's).

NCBC may, however, incinerate a small portion of the contaminated soil from Gulfport, Mississippi on another ENSCO unit certified as achieving six 9's DRL as a basis for their

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delisting petition. NCBC would need to demonstrate that: (1) the two ENSCO units are essentially identical, and (2) the waste incinerated during the "test burn" is representative or a "worst-case" of the waste that will be incinerated during the field demonstration. Furthermore, NCBC must provide "test burn" data on a minimum of four representative samples of the solid residue and of the scrubber water. These samples must be analyzed for the characteristics of a hazardous waste and for all the Appendix VIII constituents that are reasonably expected to be present in the waste. The Appendix VIII constituents would be chosen based on the results of the analyses on the contaminated soil from Gulfport, Mississippi. Providing that the concentrations of the hazardous constituents in the waste meets the delisting requirements, the Agency could propose to grant a conditional exclusion. The conditional exclusion is needed to verify that the two ENSCO units do indeed achieve the same destruction efficiency.

#### Site Construction

RCRA §3005(a), as amended by the Hazardous and Solid Waste Amendments of 1984, requires owners and operators of all hazardous waste treatment, storage, and disposal facilities to obtain a RCRA permit prior to constructing a RCRA facility. While I can appreciate the USAF's intent to expedite the testing of the mobile incinerator, RD&D permits are also subject to this restriction. (Section §270.65(b) only allows EPA to modify or waive the permit application and procedural requirements of 40 C.F.R. Parts 270 and 124, not the statutory requirements of RCRA.) This means that the mobile incinerator can be prefabricated and transported to the proposed treatment site, but construction of the site itself, such as pouring concrete foundations and connecting the MTU to physical structures on-site cannot occur until the RD&D permit is issued (RCRA §1004(2)).

If you have any additional questions on these issues, please contact Doreen Sterling at FTS/475-6551 with regard to delisting and Nancy Pomerleau at FTS/382-4500 with regard to site construction.

cc: Bruce Weddle  
Peter Guerrero  
Art Glazer  
Nancy Pomerleau  
Doreen Sterling (WH-562B)  
Matt Straus (WH-562B)  
Ken Gray (LE-132S)  
Myles Morse (WH-562B)

100 24 PGL

Mr. Leland Herning  
Chevron USA, Inc.  
P.O. Box 7  
Cleveland, OH 45002

Dear Mr. Herning:

The purpose of this letter is to summarize the February 13, 1986, telephone conversation between yourself and Doreen Sterling of my staff and the ensuing conversations with Chris Tanner, ERM-Southwest, Inc. regarding Chevron's sampling and analysis plan. The plan was submitted on January 13, 1986, and covered both the separator sludge and pond sludge. We agree with Mr. Tanner that it is imperative that we document our position to ensure no misunderstandings in the future.

Chevron proposed to take ten grab samples of the separator sludge as it is pumped to the thickener during a five-minute pump cycle. Thus, samples would be taken every 30 seconds over the course of five minutes. Chevron further proposed to allow the samples to settle for a half-hour, and the samples which showed a "relatively significant volume of solids" would be mixed. Grab samples of the essentially solids free water pumped at the end of the cycle and the solids free water left in the line would be discarded. Chevron claims that the grab samples are "representative" of the pump cycle. A composite sample would be constructed from equal volumes of three grab samples taken over a four hour period.

The Agency is concerned that the proposed sampling plan may not result in collection of samples that are truly representative of the listed waste. In particular, we believe that the samples would consist of the listed API separator sludge diluted with a large volume of non-listed wastewater. Chevron concedes that the water, which purges the sludge from the line, is "easily" separated from the sludge and returned to the influent of the oil/water separator. The Agency has, therefore, concluded that the dilute samples taken from the separator are not representative of the waste. Although the Agency recognizes that it is the API separator sludge which is the listed waste, the Agency believes, however, that samples of the thickened sludge would more accurately represent the waste for the reasons discussed below.

Ordinarily, the combination of API separator sludge and water would be considered a mixture of a listed hazardous waste and non-listed wastewater. By virtue of the mixture rule (40 CFR §261.3(a)(2)(iv)), the resultant wastestream would be defined as hazardous. Even if the sludge is dewatered, the resultant liquid stream would be considered a hazardous waste by virtue of the "derived from" rule (40 CFR 261.3(c)(2)(i)).

According to a memorandum dated August 23, 1985 (see enclosure), however, the Agency concluded that the "derived from" rule is not uniformly applicable to the aqueous stream generated in a sludge dewatering process. The basis for this determination was that properly conducted dewatering of API separator sludge would insure that none of the listed waste is returned to the system, while simultaneously reducing the total amount of waste generated. This assumes that the non-listed wastewater came in contact but was not "mixed" with the sludge.

The burden of proof is on the facility to establish that "properly conducted" dewatering had occurred. Specifically, if the facility can demonstrate, to the satisfaction of the Regional authorities, that the return water stream is chemically equivalent to the non-listed wastewater influent to the wastewater treatment device that originally generated the listed waste, then the return water stream is not "derived from" the hazardous waste. EPA may, however, make its own evaluation and determine that the waste in question is indeed a mixture.

Chevron's four bay aerated lagoon is not currently reported as a regulated waste management unit. We, therefore presume that Chevron has satisfactorily made the demonstration, to the appropriate Regional authorities, that effective dewatering of sludge had occurred and that the return wastewater is not the listed waste. If this is correct, then the separator sludge, which is diluted with water, is not considered a mixture. Sampling of a waste, diluted with a large volume of water, does not constitute a representative sample. It is, therefore, necessary that you sample the dewatered sludge by either: (1) sampling the thickener, or (2) analyzing the sludge from the separator once the water has been removed. If you choose the latter option, the samples should be allowed to settle for ninety minutes (the calculated wastewater residence time in the separator). During settling, the samples should be properly stored to prevent the possible loss of hazardous constituents through volatilization (i.e., the samples should be capped and refrigerated).

If we have misrepresented your position that properly conducted dewatering has occurred and you believe instead that the dilute sample coming off of your separator is indeed a "mixture," you should be aware that your downstream impoundments are then hazardous waste management units. If the units in question were not included on Part A of your RCRA permit application, or subsequent modification thereof and/or were not covered in your certification of compliance

with applicable ground water monitoring and financial requirements, then these units do not have interim status under RCRA. They must cease the receipt of hazardous waste immediately and closure plans must be submitted to EPA or an authorized State agency for review, approval, and implementation (§3005(e)(2) of RCRA, see 50 FR 38946). Failure to comply may subject you to enforcement action.

If you have any further questions regarding this issue, please contact Doreen Sterling of my staff at 202-475-6775.

Sincerely,

Eileen Claussen  
Director  
Characterization and Assessment  
Division (WM-562B)

Enclosure

cc: Chris Tanner, ERM-Southwest

bcc: Ben Smith  
Lloyd Guerci, OWPE  
Dale Helmers, Region V

5. Delisting

9433.1988.11.

A petroleum refinery obtained interim status in 1980 for a surface impoundment used to treat and store K051. The facility manages no other hazardous waste. In 1981, the EPA granted a delisting for the K051 waste because the owner/operator proved that the refining process waste did not contain lead and hexavalent chromium, the constituents for which K051 was listed. Does the K051 delisting effectively mean that the facility never managed a listed hazardous waste? How would the delisting affect the facility's interim status?

A person may submit a petition to EPA, pursuant to 40 CFR §§260.20 and 260.22, to have a waste at a particular facility delisted. Prior to September 21, 1985, EPA granted only "informal" or temporary exclusions. "Informal" exclusions were suggestions to the Regions that enforcement discretion be used when a tentative decision to grant a temporary exclusion had been made. Temporary exclusions removed a waste at a particular facility from regulation, pursuant to 260.22(m) (then in effect, see 50 FR 28727-28, July 15, 1985). EPA follows the procedures set forth in 40 CFR §260.20 to grant final exclusions, which are regulatory amendments.

Wastes which were informally excluded were technically still hazardous wastes. An impoundment holding informally excluded K051 waste was subject to the Loss of Interim Status provisions on November 8, 1985.

For temporarily excluded wastes, the facility's status depends on the scope of the temporary delisting granted. If only the waste generated after the date of the temporary exclusion was delisted, waste placed in the impoundment prior to that date would still be hazardous (K051) waste. The impoundment would have had interim status and should have met Part 265 standards. The Loss of Interim Status provision applied to the impoundment on November 8, 1985.

If the temporary exclusion covered the waste already in the impoundment as well as K051 waste generated after the exclusion date, then the facility would still have interim status, but none of the Part 265 interim standards would apply to that surface impoundment. The facility would technically have been subject to the Loss of Interim Status provision, but not required to certify compliance with financial responsibility or ground water monitoring requirements, since none of these Part 265 requirements were "applicable," or to submit a Part B permit application on November 8, 1985, (50 FR 38947, September 25, 1985).

If EPA revokes the temporary exclusion, or it ceases to be in effect by operation of law, e.g., if the Agency does not make a final decision on the petition by November 8, 1986, (RCRA §3001(f)(2)(B)), the facility will become subject to the Part 265 interim status requirements. The facility must then certify compliance with financial responsibility and ground water monitoring requirements and submit a Part B permit application within 12 months or lose interim status (RCRA §3005(e)(3)).

Source: Steve Hirsch (202) 382-7703  
Research: Jennifer Brock

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

APRIL 86

MAY 27 1986

Mr. J. K. White  
President  
United Chair  
P.O. Box 96  
114 Churchill Ave. N.W.  
Leeds, Alabama 35094

Dear Mr. White:

I have received your letter dated April 17, 1985, regarding the informal exclusion issued to your Irondale, Alabama facility on May 5, 1982, and withdrawn on March 10, 1986. The issues addressed in your letter are discussed separately below.

- (1) There is an apparent conflict in the Agency's claims that United Chair received an informal delisting, but that the waste generated has always been considered hazardous and must be treated as hazardous.

There is no conflict. A temporary exclusion and an informal exclusion are very different. A temporary exclusion is a change in the regulatory status of certain wastes, from hazardous to non-hazardous. A temporary exclusion could only be granted by the Assistant Administrator for Solid Waste and Emergency Response, pursuant to 40 C.F.R. §260.22(m). In contrast, an informal exclusion was not a regulatory change at all. It was an indication by the Agency that it would not take enforcement action against a petitioner. This enforcement discretion was exercised when it was believed that a temporary exclusion would be granted, but before the petition had been processed and the temporary exclusion granted. (See enclosed memorandum from R. Sarah Compton to the Regions, January 12, 1981.)

In May 1982, a memorandum was sent from Headquarters Enforcement Counsel to our Regional contacts advising them that the Office of Solid Waste had made a preliminary decision on United Chair's petition (see enclosure). The memorandum suggested the use of enforcement discretion until the delisting was published in the Federal Register. This memorandum reflects only the use of enforcement discretion, i.e., an informal exclusion, not a temporary exclusion. As noted above, a temporary exclusion could only be issued by the Assistant Administrator for Solid Waste and Emergency Response. The Assistant Administrator never acted on United Chair's petition, and thus a temporary exclusion was never granted.

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Accordingly, your waste is, ~~consequently~~ has been, a listed hazardous

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- (2) United Chair believes that the informal exclusion was the same as a temporary exclusion and that EPA used these terms synonymously to indicate the waste's non-hazardousness.

Despite the regulatory difference between these two types of decisions, the Agency for a period of time, treated informal and temporary exclusions similarly (i.e., all wastes were allowed to be managed as non-hazardous wastes, although Agency discretion had been used with regard to informally excluded wastes). The Agency, however, cannot legally ignore this regulatory distinction.

- (3) United Chair believes that its exclusion was a temporary exclusion which would require EPA to provide notice and opportunity for public comment before effectively withdrawing this decision and further claims that HSWA under 42 U.S.C. §6921(f)(1), (f)(2)(A) requires notice and comment.

As indicated above, there is a clear regulatory definition of a temporary exclusion. If a recommendation to exclude a waste was never signed by the Assistant Administrator for Solid Waste and Emergency Response then the petitioned waste is still a listed hazardous waste. Despite the Agency's choice to exert discretion for a period of time, your waste was never legally an exempted waste, and notice and public comment are not required for the Agency to withdraw an informal decision. It should be noted that notice and an opportunity for public comment is not necessary for issuing and withdrawing enforcement discretion. 42 U.S.C. §6921(f)(1) and (2)(A) indicate that the Agency must provide notice and an opportunity for public comment before granting or denying a petition. The March 10, 1986, action withdrew our decision to exert enforcement discretion. It was not a decision to grant or deny United Chair's petition. It, therefore, was not necessary to provide notice and an opportunity for public comment.

- (4) EPA must make a final decision on United Chair's petition by November 1986, and must, in the meantime, consider the waste as non-hazardous.

The November 1986 deadline referred to only affects temporary exclusions. The Agency is not required to make a final decision on temporary exclusions by November 8, 1986. The 1984 Amendments state only that if a final decision is not made by that date, the temporary exclusion will cease to be in effect. The Agency intends, however, to make a final decision on all temporary exclusions by November 8, 1986. Again, no decision to exclude United Chair's waste was ever signed by the Assistant Administrator and, therefore, a temporary exclusion was never granted. The only statutory requirement imposed on the Agency for petitions for which a temporary exclusion has not been granted is that a decision be proposed in the Federal Register within one year of receipt of a complete petition, and that a final decision be made within two years of receipt of a complete petition, to the maximum extent practicable. We expect to meet these deadlines for your petition.

- (5) Representatives of the Alabama Department of Environmental Management (ADEM) are prepared to testify that EPA representatives had made a decision to approve United Chair's petition and had granted United Chair an informal delisting.

The Agency has never denied granting United Chair a discretionary or informal exclusion. The Agency's Regional Office correctly relayed this information to the ADEM.

- (6) An EPA letter dated September 17, 1985, requesting additional data under HSWA indicated that the data be submitted as soon as possible since all exclusions not made final by November 1986 will expire.

As indicated in #2 above, the Agency had tracked both informal and temporary decisions together in its efforts to collect additional information in a timely fashion under HSWA. The Agency, however, is not required by statute to issue a final decision on any informal decisions by November 8, 1986. Nevertheless, we would like to process your petition and issue our final decision by this date.

- (7) HSWA acknowledges that EPA had granted non-published temporary exclusions and that they are valid. ←

The HSWA reference means only that temporary exclusions were granted without a prior opportunity for comment and the full consideration of such comments (i.e., temporary exclusions were issued with a request for comment after the effective date of the exclusion).

- (8) United Chair also requests that a final decision be made no later than November 8, 1986.

The Agency expects to issue a final decision by November 8, 1986. Much of our analysis has been completed, and our tentative decision to deny is based on highly variable levels of barium and chromium in the waste and the unacceptable mobility of both barium and chromium exhibited by the population of waste samples tested. United Chair will receive a letter providing the details of this analysis in the near future.

If you have any further questions regarding these issues, please contact Mr. Myles Morse of my staff at (202) 475-8551.

Sincerely,

*J. Winston Porter*

J. Winston Porter  
Assistant Administrator

12 AUG 86

Byron R. Crary, Esq.  
Environmental Law Section  
The Dow Chemical Company  
2030 Willard H. Dow Center  
Midland, Michigan 48674

Dear Mr. Crary:

This is in reference to your rulemaking petition to classify your halogen acid furnaces (HAFs) as industrial furnaces under RCRA. Although the Agency has not yet reached a decision on the merits of your petition, our thinking has progressed sufficiently to provide you with our initial views.

I understand that you and other DOW representatives met with members of my staff and our Office of General Counsel on July 10, 1986, to exchange information. At that meeting, we provided an overview of our regulatory authority and existing and planned controls for materials that are recycled by burning. We also discussed the information you provided in your July 8, 1986, letter.

Based on our understanding of your operations as summarized in the enclosure, we believe it could be appropriate to classify those HAFs that are not currently boilers as industrial furnaces. Accordingly, we currently plan to propose to designate your non-boiler HAFs as industrial furnaces in a Federal Register notice. We hope to be able to develop the notice for publication this fall and to make a final decision early next year after considering public comment.


Please review the enclosure and correct any misunderstandings we may have about your operations. In particular note that we consider the nonboiler HAFs that we tentatively plan to propose to designate as industrial furnaces to be burning the secondary streams both as an ingredient and for energy recovery. The heat energy released from burning the materials provides substantial, useful energy to drive furnace reactions (i.e., to thermally degrade chlorinated organic compounds). (Energy recovery does not have to involve export of energy from a combustion device such as steam produced by boilers.) Accordingly, these nonboiler HAFs as

well as the boiler HAFs would be subject to regulation under the rules we are planning to propose this fall for boilers and industrial furnaces burning hazardous wastes.

Furthermore, we consider the secondary streams to be inherently waste-like and subject to designation as a solid waste under §261.2(d) when burned in the HAFs. However, given that the HAFs are considered to be burning partially for energy recovery and would be subject to the soon-to-be proposed rules for industrial furnaces, there is no need to undertake a designation at this time.

If you have questions or comments, please contact Bob Holloway, Chief, Waste Combustion Section, at (202) 382-7938.

Sincerely,

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

Enclosure

cc: Bob Holloway  
Steve Silverman, Esq.

bcc: David Garrett  
Dwight Hlustick  
Marc Turgeon

TENTATIVE BASIS FOR CLASSIFICATION OF HAFs  
AS BOILERS OR INDUSTRIAL FURNACES

1. The HAFs are fire-tube boilers modified to produce HCl from chlorine-bearing secondary streams by scrubbing HCl from combustion gases. The typical chlorine content of the streams is 20-70%.
2. Some HAFs operate as boilers and meet EPA's definition of a boiler.
3. The nonboiler HAFs meet EPA's criteria for designation as an industrial furnace (see 40 CFR 260.10) and related preamble language (50 FR at pp. 625-627 (January 4, 1985)) for the following reasons:
  - a. Although industrial furnaces normally process raw materials and, thus, there is no question that they are integral components of a manufacturing process, the HAFs are considered to be integral components of a manufacturing process because: (1) they are located on the site of a manufacturing process and the only secondary streams they handle are from that manufacturing process; (2) the HCl produced is a bona fide product in that it has a HCl content of 7-20% and is used on-site. Thus, for these reasons and others identified below, these devices are clearly distinguishable from devices used to incinerate waste where some output from the incinerator may be considered to be a marketable product (e.g., HCl-bearing scrubber water, bottom ash).
  - b. The device is designed and used primarily to accomplish recovery of material products. The devices are specially designed and operated fire-tube boilers that enable them to accept highly chlorinated feedstocks without unacceptable corrosion and to maximize HCl production and recovery. DOW has patents on the HAFs as evidence of their special design differing from normal incinerators. The materials are also burned in these nonboiler HAFs partially for energy recovery because substantial, usable heat energy is released by the material during combustion. (Energy recovery occurs when substantial, usable heat energy is provided either to drive furnace reactions or for export (e.g., steam generation by a boiler).) The materials have an as-fired heating value of approximately 9,000 Btu/lb. The heat released results in the thermal degradation of chlorinated organic compounds to form HCl. If the materials had insignificant heating value, auxiliary fuels would have to be used.
  - c. The device is used to burn a secondary material as an ingredient to make a material product. Chlorine-bearing secondary streams from chemicals manufacturing operations are burned to produce HCl.

SEP 30 1986

George Bays  
Bethlehem Steel Corporation  
Burns Harbor Plant  
Box 248  
Chesterton, Indiana 46304

Dear Mr. Bays:

Since our last telephone conversation, I have looked into the regulatory requirements that would be applicable to Bethlehem's waste should the temporary exclusion for this waste be withdrawn. Since your waste has a temporary exclusion, it may be handled and disposed as a non-hazardous solid waste. If Bethlehem were to move the petitioned sludge to a new site closer to the Burns Harbor sinter plant in order to prepare the sludge for metals recovery, a hazardous waste manifest would not be necessary while the temporary exclusion was in effect. Manifesting would be necessary in order to transport the waste to the new site after the exclusion was withdrawn.

Whenever the exclusion for this waste is lost, the waste must be managed as hazardous wherever it is located on Bethlehem's property. If the waste was re-located prior to loss of the exclusion to another site on Bethlehem's property closer to the sinter plant, then Bethlehem may be eligible for interim status as a storage facility under §3005(e) of RCRA, subject to Part A permitting requirements and compliance with storage standards (40 CFR Part 262). Please contact your Regional representative for further information.

Concerning Mr. Sapia's desire to store the waste on site for future reclamation, it may be possible for Bethlehem to do so under the conditions specified above. It may also be possible that the future management of this waste may be affected by the Agency's definition of solid waste, which contains several exemptions for the recycling and recovery of waste materials. For additional information, you should contact Mr. Matthew Straus, Chief of the Waste Characterization Branch, at (202) 475-8551.

If you have any questions concerning the delisting petition review process, please call me at (202) 382-4783.

Sincerely,

Scott J. Maid  
Environmental Protection Specialist  
Permits and State Programs Division

9433.1986(19)

- 9 DEC 1980

John B. Hagar  
 Chemist  
 Stone Industrial Division  
 J.L. Clark Manufacturing Co.  
 51st Avenue & Cree Lane  
 College Park, Maryland 20740

Re: Delisting Petition #582

Dear Mr. Hagar:

I have completed the review of the confidential business information submitted by you in support of the delisting petition that J.L. Clark Manufacturing Co. has on file here at the Agency. My concern is focused primarily on the detection limits provided for the organic constituents of the still bottom solids. These limits are expressed in units of percent by weight, and as such are too rough to allow a precise evaluation of actual waste concentrations (that is, if these rough percentages were used as inputs to the Agency's organic leaching model and VHS groundwater model, several resultant compliance-point values would be too high to consider delisting). Finer detection limits for these compounds (i.e., parts per million) must be produced in order to evaluate the organic content of the waste.

Also, inspection of the material safety data sheets has indicated the potential presence of several other toxic Appendix VIII constituents in the waste stream. These compounds must also be evaluated in the waste in a manner similar to that needed for the re-evaluation of the previously tested solvents. A list of these constituents is given below.

Phthalic acid esters  
 Methylene chloride  
 Toluene  
 Aniline  
 Toluene diisocyanate

The Agency would like to receive further clarification about the ingredients of several other compounds mentioned in the

material safety data sheets. These include fluorocarbon resins, orasol dyes, and aliphatic ketones and esters. If such information is proprietary, the Agency will make arrangements to have this information kept confidential.	
CONCURRENCES	
SYMBOL	
SURNAME	
DATE	

In order to ensure the timely review of your petition, this information should be forwarded to the Agency as soon as possible. If you have any questions, please call me at (202) 382-4783.

Sincerely, -

Scott J. Maid  
Environmental Protection Specialist  
Permits and State Programs Division

DEC 11 1986

MEMORANDUM

SUBJECT: Delisting Issues Relating to EPA's Mobile Incinerator

TO: David Wagoner Director  
Waste Management Division  
Region VIIFROM: Bruce Weddle, Director  
Permits and State Programs Division

This memo serves to summarize the questions resolved, and data to be submitted as discussed in a conference call on December 8, 1986 with Myles Morse of my staff. The questions discussed included the extent of coverage of the delisting decision for the Denney Farm site (originally proposed on June 5, 1985); redefinition of the terms of the contingency testing requirements; areas of the the original petition that would remain "grandfathered" and data requirements and scheduling for a new petition demonstration regarding waste from Syntex Corporation.

First, you asked if the residue generated from the incineration of an additional (approximately) 550 drums of waste would be covered by the original decision and therefore be considered non-hazardous under the terms of the exclusion. The wastes in these drums were described as either "derived from" wastes from the processing of the Denney Farm soil and soil from the Piazza Road site. You indicated that many of these drums contained "garbage" from these sites which may have included laboratory debris from processing samples of these wastes as well as disposable clothing worn during the sampling efforts. As Myles and Steve Hirsch of our Office of General Counsel (OGC) indicated, these wastes would be covered by the original delisting decision since they would have been implied as similarly stated in category No. 13 "Soils and other materials from clean-up from Baldwin Park" of the field demonstration categories in the proposed decision (see 50 FR 23722). The original decision, therefore, would not have to be reopened for public comment to treat these wastes. We do, however, need an accurate description of these wastes and their estimated volumes for the file and to assure OGC that this

interpretation is correct. Several other drums were described as containing solvent and stillbottom wastes. Neither Region VII nor Frank Freestone of our Edison Lab adequately described this waste or its source. Therefore, since it could not be surmised over the phone that these wastes were in any way derived from the original 13 categories of the exclusion, we could not conclude that the exclusion covered these drums. We will further evaluate whether this waste is covered by the original decision if more detailed information is sent concerning the characterization and source of this material, including your basis for believing that it is a waste derived from the original categories.

The second question regarding the original decision was whether the definition of "batch testing" for the contingency testing program could be changed, and would such a change necessitate reopening the decision for public comment. You indicated that the requirement of sampling and testing each tank of wastewater for mercury, selenium and chromium generated during the field demonstration, and the testing of daily composites of samples from each CHEAF roll and each drum of ash, were too prohibitive logistically and economically. We can propose to change these conditions to cover a less frequent sampling regime (i.e., weekly instead of daily), however, this would reopen this portion of the decision. That is, an amendment of this nature would need to be proposed Federal Register allowing a suitable public comment period. The original proposal included language that indicated if representative data on at least 10 samples were submitted and were below the limits of 0.03, 0.14, 0.68 ppm for mercury, selenium, and chromium, respectively, in the wastewater; and 0.044 and 0.22 ppm for mercury and selenium in both the CHEAF media and ash, then the Agency would drop the testing conditions. During the conference call, Frank Freestone indicated that you had collected representative test data. This data (on the wastewater, CHEAF media, and ash) should be submitted to the Variances Section. If the data indicate that these materials are consistently non-hazardous, then we can publish a notice amending the decision to drop the testing requirement completely. If the data is satisfactory we should be able to propose this change within a few weeks. This amendment would not reopen any other parts of the previous decision to public comment, that is, we will not require the application of different TCDD detection limits as a result of this amendment.

You should submit an explanation of the rise in chromium levels noted in some samples due to the chromium content of patching material used on the refractory after removal of particulate build-up in the refractory. You should also identify which samples this affected. We are not at this time indicating that this is an acceptable variation. We will need to review the data and determine if a sufficient number of samples have been tested before this decision can be made. If a suitable number of

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samples, (at least forty five if non-parametric statistical procedures are used) are presented it may be possible to use an average chromium level rather than a maximum level in our evaluation.

Your third concern was whether any new (lower) detection limits for TCDD would be applied to the original decision if reopened for either of the reasons mentioned above. As already mentioned the only situation where a different TCDD level would be considered would be in a new petition request for a waste not covered by the previous decision. The TCDD levels used in the original decision will not be changed as a result of amending the decision to remove the contingency testing conditions. The final topic of discussion was the initiation of a new petition action for the Syntex waste. It will not be necessary to resubmit descriptive data on the treatment system. You should however describe specific alterations in flow through rates, residence time, etc. The waste to be incinerated needs to be adequately characterized. This should include physical description of the waste, estimated volume and historical knowledge of the generating source, and a description of how the charge was prepared. Representative samples of this particular waste matrix must be treated and representative samples of the wastewater, CHEAF media and ash must be tested for suitable Appendix VIII parameters (including all priority pollutants). The conditions of the test burn should be described as well as the sampling procedure of the waste for treatment and the sampling procedure of the treatment residues for analysis. The volumes of treatment residues should be estimated for the total volume of Syntex waste to be treated.

Frank Freestone asked whether analytical data collected from earlier samples of the Syntex waste could be used in our evaluation. This data can be used if you can describe the sampling procedure for both the untreated waste and the treatment residues in enough detail for us to determine how representative these samples were of the waste remaining to be treated; and if the key conditions of the trial burn, (i.e., residence time) were similar enough to the actual conditions that will occur during treatment.

Using the recommended test methods in SW-545, the detection limits for all other Appendix VIII constituents other than the TCDD's do not fall below the ppb range. The Characterization and Assessment Division (CAD) is currently working with ORD and the Chlorinated Dioxin Workgroup to determine if the assumptions made about the mobility of dioxin through environmental media and subsequent exposure levels were too stringent. We will let you know if our health standards change as a result of this review. To date, we have not promulgated a regulatory standard for dioxin which is applicable to delisting evaluations. As previously mentioned we are considering using various exposure scenarios such as overland sediment and soil transport and ground-

filtration stage. The vacuum unit, which provides suction for the entire system, is attached to the outside of the hopper. The vacuum unit houses the final filtration element, which consists of three filters. This second filtration stage traps the remaining dust in the air before it is discharged into the ambient air.

The collection container is detached from the hopper and vacuum unit when it is filled to capacity with dust, two percent of which is beryllium. It is then replaced with a new container. The subsequent management practice is to stabilize/solidify the dust in cement prior to disposal. The container filled with concrete (stabilized dust) is then sent off site to a disposal facility.

The final filtration element, on the other hand, has never been replaced since the start-up of the operation. As I understand the current operating procedures, the final filtration element will eventually be discarded when gross dust contamination renders it useless.

The materials that you wish to characterize are the final filtration element, the beryllium dust, and the dust collection container. To identify the materials as hazardous waste under Subtitle C of the Resource Conservation and Recovery Act, they must first be classified as solid wastes under 40 CFR Section 261.2. Based on information you provided over the phone, the final filtration element, the solidified dust (concrete), and the container holding the concrete are abandoned by land disposal and, therefore, meet the definition of solid waste [40 CFR Section 261.2(b)(1)].

Based on the additional information you provided over the phone about the subassembly grinding/polishing and air filtration process, I have concluded that the dust is not a commercial chemical product (i.e., P015) and is not any other listed hazardous waste identified in 40 CFR Part 261, Subpart D. The solidified dust, the container holding the solidified dust, and the final filtration element contaminated with dust also are not RCRA listed hazardous wastes. If the dust does not exhibit a hazardous waste characteristic (prior to solidification) as defined in 40 CFR Part 261, Subpart C, the dust is not a hazardous waste and is not regulated under RCRA Subtitle C. Also, if the filter element contaminated with the dust does not exhibit a hazardous waste characteristic once rendered useless, it is not regulated under Subtitle C of RCRA.

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MAR 17, 1989

Mr. Joseph E. Cothern  
Environmental Protection Specialist  
Department of the Air Force  
HQ Aerospace Guidance and Metrology Center (AFLC)  
Newark Air Force Station, Ohio 43057-5000

Dear Mr. Cothern:

This letter is in response to your letter dated February 2, 1989, in which you requested an assessment and characterization of beryllium wastes generated at Newark Air Force Station.

In follow-up conversations with you on February 10, 1989 and February 13, 1989 to obtain more information related to the process involved, you indicated that the beryllium is generated in the form of a very fine dust. In order to meet the Occupational Safety and Health Administration (OSHA) worker protection standards and the National Emission Standards for Hazardous Air Pollutants (NESHAPS), the airborne dust is collected by vacuum hoods and directed through a two stage filtration system. As I understand the vacuum-filtration process, the system consists of the following components:

- vacuum hood
- 10-foot tube
- air trap
- cyclone hopper (with a bag filter located on top of hopper)
- collection container
- vacuum unit (with three filters inside)

The dust-laden air initially enters the vacuum hood located on the ceiling of the grinding/polishing room and travels up the 10-foot tube. It then enters an air trap in which heavier particulate matter is collected. The lighter air-suspended particles are then channeled into a cyclone hopper. A bag filter is situated at the top of the hopper. This is the first

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# **9434 – HAZARDOUS WASTE MANAGEMENT**

**Other Federal Facilities**

characteristic, you may provide a detailed explanation as to why the wastes do not exhibit the characteristic.

Appropriate quantification limits are given in SW-846; these limits should be met for all extract and ground-water samples. SW-846 also gives practical quantitation limits (PQLs) for other matrices. As stated in your sampling plan, the reported laboratory detection limits should be as close as possible to established drinking water standards.

The following information also should be provided:

- o A detailed description of procedures used to collect, prepare, preserve, and analyze each sample. Include the names and qualifications (a brief resume will suffice) of all personnel involved in the sampling and analysis program. Also provide a list of the names and model numbers of all sample collection, preservation, and analytical instruments used. Details of sampling, extraction, and analyses should be provided.
- o A description of all Quality Control (QC) procedures followed during collection and analyses of samples. This should include, as appropriate: 1) method blank analyses, 2) field QC analyses (i.e., field blanks, equipment blanks and trip blanks), 3) matrix spike and matrix spike duplicate analyses, and 4) one (or more) (CNEP) toxicity test run for each of the TC metals, nickel, and cyanide using the method of standard additions. Procedures for these and other appropriate QC procedures are fully described in Chapter One of SW-846. Each analytical test method in SW-846 notes laboratory QC procedures appropriate for that particular test method. In addition, all of the sample preservation procedures and holding times required by SW-846 must be followed.

limiting constituents for testing, it is not sufficient to just state that a constituent is not likely to be present. Based on the numerous historic processes contributing wastes to the units, we do not believe that you would be able to limit constituents for testing (except perhaps for special constituents, such as dioxins).

We recognize that the Appendix VIII list presents a number of analytical problems for some constituents. However, we request that any available information concerning the presence of these constituents be included as part of a complete petition. For analytical testing purposes, you must analyze the samples for those compounds which can be accurately quantified using appropriate methods from "Test Methods for Evaluating Solid Wastes - Physical/Chemical Methods," (third edition), EPA publication SW-846, November 1986. It should be noted that SW-846 analytical test methods exist for all constituents listed in 40 CFR Part 264, Appendix IX.

Representative samples of the petitioned wastes should be analyzed for the following parameters:

- o Total oil and grease content
- o Total constituent concentrations of all the TC metals, nickel, cyanide, sulfide, and any hazardous constituents that are potentially present in the wastes
- o Leachable concentrations of all the TC metals, nickel, and cyanide. Use distilled water in place of the acetate buffer in the cyanide extraction. For waste samples that contain less than one percent oil and grease, use the Toxicity Characteristic Leaching Procedure (TCLP, SW-846 Method 1311, see the TC rule in 55 FR 11798, March 29, 1990). For waste samples that contain greater than one percent oil and grease, use the Oily Waste Extraction Procedure (OWEP, SW-846 Method 1330) and substitute the TCLP for the extraction procedure in Step 7.9 of the OWEP. We plan to continue to require the OWEP for delisting demonstrations because the TCLP currently has no special provisions for oily wastes. In all cases, the TCLP should be used to determine the leaching potential of hazardous organic constituents that are potentially present in the wastes. Please note that for liquid wastes, the leachable concentration of a constituent is equivalent to the total concentration of that constituent.
- o Total concentrations of reactive sulfide and reactive cyanide, if total sulfide and total cyanide levels exceed 500 and 250 ppm, respectively.
- o Characteristics of ignitability, corrosivity, and reactivity. In lieu of testing for a particular

## ENCLOSURE II

### Analytical Parameters

The selection of constituents for testing should be dependent on the historical introduction of materials to the units. In particular, our review is not limited to the constituents in the F011 waste, but encompasses all influents (e.g., process water and surface run-off) over the lifetime of the units.

Therefore, you must provide descriptions of:

- o All historic operations, including process and non-process sources of wastewater, that contributed wastes to the three units, and the composition or characteristics of these streams. Please specify when the units were constructed and when they began receiving wastes.
- o The identification of sources of facility run-off, both from your facility and surrounding areas that could have contributed run-off to the units. We believe that run-off may contribute significant levels of hazardous organic constituents to the petitioned wastes.
- o Sources of oil and grease, including oils that are present as contaminants in run-off and in process water as a result of inplant use or from residual oils on metal received at your facility.
- o Sources of hazardous organic constituents that could be present in additives to corrosion inhibitors, cleaners, and treatment materials. All relevant material safety data sheets (MSDSs) should also be included.

Based on the information submitted thus far, you have not justified why organic analyses should be limited to the constituents listed in Section 3 of your draft sampling plan. Analytes should include all constituents listed on 40 CFR Part 261, Appendix VIII, acetone, ethyl benzene, isophorone, 4-methyl-2-pentanone, styrene, and xylene (total) that may potentially be present in the wastes. You may determine that some hazardous constituents are not expected to be present in the petitioned wastes because the constituent was not used as a raw material at the plant, is unlikely to be present as a raw material contaminant, and is not likely to be formed as a byproduct in the plant processes. You must include a justification for not analyzing other Appendix VIII constituents.

Your ability to characterize the past and present influents to the units will affect your choice of analytical parameters. Based on the process descriptions provided above, you may be able to limit the required analytical parameters. However, in

additional sampling of the sediment or the influents in the future.

#### Sample Collection

We are concerned that the full depth variability of the wastes will not be sampled. For example, depth is dependent on free liquid above the sediment, which in turn is dependent on current influents to and effluents from the units. You must demonstrate that the sampling equipment will penetrate the sediment to the bottom of the units. You have not provided sufficient information for the Agency to determine if a three-foot Shelby tube would be of sufficient length to sample the petitioned wastes. Because it is likely that the sediments are not homogeneous due to settling and due to historic changes in influents over time, it is important that the full-depth of the wastes be sampled. Please also state the overall dimensions of the petitioned units; the dimension information presented in Figures 1-2, 2-1, and page 3 of your draft sampling plan are inconsistent. Also include the waste depth and volumes in each of the three units.

In addition, any liquids present in the units are also classified as EPA Hazardous Waste No. F011. You must explain whether a significant volume of free liquids is present above the sediments and, if so, if these liquids are to be included in the scope of the petition. If you desire to include the liquids as part of your petition, you must collect and analyze samples of the liquid in a manner similar to that described for the unit sediments.

Samples to be analyzed for volatile organic compounds should not be composited in the field due to the potential loss of volatile compounds. We recommend that you either analyze grab samples separately for volatiles, or carefully composite grab samples in the laboratory prior to analysis.

The equipment decontamination procedures described in your sampling plan (steam cleaning) are adequate to prevent cross-contamination of the composite samples. However, we are concerned that the use of Shelby tubes may not adequately represent the volatile organic composition of the sediments due to the necessary sample extraction procedure. Rather, we suggest the use of a split spoon or coliwasa depending on the physical state of the sediments. Sampling equipment should be constructed of stainless steel, or be lined with other inert material, to prevent metal contamination.

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## ENCLOSURE I

### Waste Sampling Strategy

You may pursue one of two waste sampling strategies: sampling the waste in the units, or excavation of the units and subsequent sampling of the excavated materials. Regardless of which strategy you choose, sampling must account for variability resulting from historic process operations and the introduction of other wastewaters to the units.

#### Spatial and Temporal Variation

Based on the information provided in your sampling plan, we believe that you have chosen an adequate number of samples to represent the spatial variability of wastes in each unit (i.e., the collection of four composite samples from each slurry pond; the collection of eight composite samples from the flood control reservoir). We also recommend that five grab samples be drawn from each section of each waste unit to form each composite sample, as determined by random sampling methods discussed in the Guidance Manual<sup>1</sup>. We believe this approach will result in the collection of samples that are more representative of constituent variability than the perimeter sampling approach presented in your previous petition.

Variability over time, or temporal variability, must be accounted for in your sampling plan. This is dependent upon the operating characteristics of your units. For example, your petition must specify whether facility run-off, process waters, and non-process waters currently enter the units, whether liquid is discharged or evaporated from the units, and the quantity of standing liquid in the units. If the units are not presently in use, then your wastes are expected to show little or no variability in the future and thus you do not need to provide further information in this regard.

Current influents will affect the future waste composition of the units. Although waste classified as EPA Hazardous Waste No. F011 is no longer introduced into the flood reservoir, other influents will contribute sediment to the units and thus will affect the variability of the petitioned wastes over time and must be accounted for in the sampling plan. To address this concern, you may be able to show that current influents are similar in composition to influents of the past, due to similar plant operations. If influents are expected to change, or have recently changed, you must describe how these influents are expected to influence the composition of the petitioned wastes. Based on our evaluation of petition information, we may require

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<sup>1</sup> "Petitions To Delist Hazardous Wastes - A Guidance Manual," Office of Solid Waste (EPA/530-SW-85-003), April 1985.

After reviewing our comments, you may find that many of our suggestions overlap with State or Region requirements. In particular, the State or EPA Regional office may have ground-water monitoring, waste sampling, and soil sampling requirements for closure. We encourage you to investigate the applicable requirements for your units so that your sampling and analysis program might fulfill both delisting and State or EPA Regional requirements concurrently.

If you choose to pursue a delisting of the wastes, we recommend that you consider our comments regarding spatial variability, temporal variability, and sample collection procedures. These comments are presented in Enclosure I.

In addition, we are concerned that your sampling and analysis plan will not characterize all hazardous constituents that may be present in the wastes. Specifically, additional hazardous constituents are likely to be present as a result of waste management practices that allowed non-hazardous wastes and facility run-off to be discharged to the units. A discussion of analytical parameters necessary to characterize the wastes is presented in Enclosure II.

We also are concerned that issues which were grounds for our dismissal of your previous petition (#0543) are not addressed in the sampling plan. Specifically, your proposed sampling plan fails to identify how representative ground-water sampling will be conducted. The Agency has recently proposed a rule clarifying the Agency's use of ground-water monitoring data in delisting decisions (see 54 FR 41930, October 12, 1989). Our specific requirements concerning ground-water monitoring are presented in Enclosure III.

Should you have any questions concerning our review of your sampling plan or need to clarify the information required for submitting a revised sampling plan or formal petition, please feel free to call me at (202) 382-2224.

Sincerely,

Robert Kayser, Chief  
Variances Section

cc: Elizabeth Cotsworth  
Bob Scarberry  
Jim Kent  
Chet McLaughlin, Region VII  
Mike Sanderson, Region VII  
Gary B. Enloe, JMM  
Eileen Regan, SAIC  
John Vierow, SAIC

SEP 26 1990

Ms. Melinda Young  
Viking Pump - Houdaille, Inc.  
406 State Street  
Cedar Falls, Iowa 50613

Dear Ms. Young:

I am writing to inform you of the Agency's review of your sampling plan (#D0811) that pertains to a petition which, when submitted, will request exclusion of wastes from the treatment of cyanide furnace crucibles, currently listed as EPA Hazardous Waste No. F011. The subject wastes are presently contained in two slurry ponds and a flood control reservoir located at your South Main Street Plant, Cedar Falls, Iowa.

Please note that, while EPA has granted exclusions for wastes contained in land-based units, recent proposals to exclude such wastes have led to negative public comments (e.g., see 55 FR 11188, March 27, 1990). This opposition was based on the use of delisting to supersede formal closure of the units under RCRA. Therefore, to avoid the uncertainty associated with a petition for the in-place wastes, we suggest that you excavate the units and store the waste in question and pursue a delisting for the excavated materials. Further details concerning this strategy are given in Enclosure I. Excavation also more clearly defines the aerial extent and volume of the petitioned waste. An accurate estimate of the volume of the petitioned waste is critical to the evaluation. If you desire to pursue this strategy, we encourage you to confer with the State and EPA Regional office to determine the regulatory status of the residual soils remaining in the treatment units.

A key issue arising from the delisting of in-place waste is the regulatory status of the unit after delisting. Typically, when EPA delists a hazardous waste, the waste remains a solid waste and must be managed according to all applicable State solid waste regulations. If Viking is still interested in delisting the in-place waste, we suggest you provide a full explanation of the regulatory status of the unit after delisting. It would be helpful if the petitioner can demonstrate that existing State laws (or binding consent agreements) require that the unit (and any delisted waste contained therein) remains a solid waste management unit and is subject to some level of regulatory control. The distinction between "clean" closure and delisting in this case would be clearer and easier to justify.

26)

-7-

Any questions regarding our findings may be submitted in writing to Mr. James Michael of my staff.

Sincerely,

Jeffery D. Denit, Deputy Director  
Office of Solid Waste

Attachment

cc: Docket  
Bill Honker, Region VI  
Bill Gallagher, Region VI  
Randy Brown, Region VI  
Damon Wingfield, OSDH  
C. Michael Swindoll, Conoco  
Elizabeth Cotsworth, EPA HQ  
James Michael, EPA HQ

However, because the technical basis for denial already exists, we are not requesting you to provide this, or additional information on waste characterization, revised VIP modeling results, or air monitoring and modeling for particulates, that would be necessary for EPA to judge your petition to be technically complete.

Summary

As discussed above, we believe that Conoco has failed to meet the requirements of 40 CFR §268.6(a)(4) and that the results of the unsaturated zone monitoring (soil-pores) show that Conoco has failed to demonstrate, to a reasonable degree of certainty, that hazardous constituents will not migrate beyond the land treatment unit boundaries at hazardous concentrations. Conoco has also failed to meet the requirements of 40 CFR §268.6(a)(3). We will therefore recommend to the Assistant Administrator for Solid Waste and Emergency Response that the no-migration petition for your Ponca City facility be denied.

It is our practice to give petitioners the option of withdrawing their petitions to avoid a negative publication in the Federal Register. If you prefer this option, you must send us a letter withdrawing your petition and acknowledging that the petitioned wastes are still considered to be restricted wastes subject to the Third Third Land Disposal prohibitions scheduled to be effective November 8, 1990. This letter should be forwarded to the following address within two weeks of the date of receipt of today's correspondence:

Elizabeth A. Cotsworth, Chief  
Assistance Branch (OS-343)  
Office of Solid Waste  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

If you choose not to withdraw your petition, we will recommend that a proposed denial decision be published in the Federal Register.

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#### Ability to Prevent Future Migration

Conoco's December 11, 1989 letter to the OSDH provided a rationale and procedure for how Conoco will prevent future overloading and subsequent migration of phenolic compounds. We do not believe that the rationale provided by Conoco, or future testing, as proposed by Conoco, will prevent future migration of phenolic compounds or hydrocarbons (benzene, ethyl benzene, toluene, and xylenes) below the treatment zone.

First, analytical data provided in the petition (Table 3-6, page 20) indicated that phenol was not present in any of the wastes sampled using the following detection limits: 10, 20, 100, 200, and 990 ug/kg. If these data are representative of the wastes managed at the LTF, how can Conoco demonstrate which waste had or will exhibit elevated levels of phenol. Second, we note that many of the wastes sampled and analyzed contained significant concentrations of benzene, ethyl benzene, toluene, and xylene (Table 3-6, page 19); therefore, limiting phenolic content may not be sufficient to prevent future migration of these hydrocarbons (see Table 1). Lastly, assuming that Conoco screens the wastes and is able to determine which wastes have "excessive" concentrations of phenol, we do not believe that the "water leaching" test, as proposed by Conoco, is adequate to determine the leachable concentrations of phenol. The Toxicity Characteristic Leaching Procedure (TCLP) should be used to determine the leachable concentration of phenol (and the hydrocarbon constituents). At a minimum, Conoco should conduct the TCLP using distilled water. We note that Conoco should use and adhere to the analytical methods and protocols established in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Publication SW-846 (third edition), November 1986.

#### Incomplete Petition

Although the Agency limited its technical review to the soil-pore liquids and ground-water monitoring portions of Conoco's no-migration petition, we found that Conoco also failed to meet the requirements of 40 CFR §268.6(a)(3). Specifically, during our review, we noted that Conoco acknowledges that the underlying geologic unit had not been completely characterized, i.e., Conoco recognizes that the thickness of the basal sand and gravel unit and the top of the shale bedrock are still incompletely defined (Attachment 9, Page 10-4). Conoco stated that this data is scheduled to be collected in the near future, however, a specific date was not given. Without this information, we are unable to fully evaluate the design and effectiveness of the ground-water monitoring program at the facility. In addition, possible interconnections between the upper and next lower aquifer have not been thoroughly explored.

that these constituents may be contained in the soil-pore liquids and the ground water beneath the other plots at the LTF. As discussed above, Conoco's deficient soil-pore liquid monitoring system does not allow for the early detection of these constituents. EPA, therefore, is unable to clearly conclude whether these constituents are absent from the soil-pore liquids and ground water beneath the LTF. For the Agency to determine, with a reasonable degree of certainty, that no migration of hazardous constituents has occurred, we must be able to clearly conclude that these constituents are not present in the soil-pore liquids and ground water.

Our concerns that the present ground-water monitoring system is inadequate are also supported by the following information regarding the presence of hydrocarbon plumes and monitoring well construction. According to a memorandum sent by Mr. Bill Honker (EPA Region VI) to Mr. Jim Michael (EPA HQ) dated November 27, 1989, there are numerous hydrocarbon plumes in the ground water beneath the facility. Previous correspondence between the OSDH and Region VI (dated November 2, 1988) stated that one of the upgradient monitoring wells at the LTF was filled with an oily fluid, which we note Conoco contends was not released from the LTF, but rather that a hydrocarbon mound was encroaching upon the LTF. Nonetheless, we are concerned that the hydrocarbon plume(s) eventually will influence all of the upgradient monitoring wells and that Conoco will no longer be able to clearly compare the ground-water quality at monitoring wells 8A, 11, 13, and 14 to the background levels as specified in Provision VI(5)(b) of the facility's permit. Furthermore, with time, as the hydrocarbon plume continues to move beneath the LTF, it will become increasingly difficult for Conoco to differentiate whether hydrocarbons detected in the monitoring program are coming from the hydrocarbon plume or the wastes applied at the LTF. Again, for the Agency to determine with a reasonable degree of certainty, that migration of hazardous constituents has not occurred, we must be able to clearly conclude that any hydrocarbons (if detected) originated from a hydrocarbon plume and not the wastes applied at the LTF.

Lastly, in the petition, Conoco has assumed that the vast majority of contaminants found in a refinery are lighter than water and will be found at the unsaturated zone/water table interface (Attachment 9, Page 10-3). The petition, however, indicates that the monitoring wells are screened in the basal coarse sand and gravel layer of the alluvial terrace sediments overlying the shale bedrock. The depth at which the monitoring well screens were installed, therefore, does not allow for the detection of the "light" contaminants which Conoco assumed would be found at the unsaturated zone/water table interface. These inadequacies further impede the ability of the present ground-water monitoring system to fulfill the requirements of 40 CFR §268.6(a)(4).

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TABLE 1

Concentrations of Organic Constituents  
Detected in the BTZ (ug/kg)

Constituents	Bore Hole	Concentrations
Cresol	BH-10-4	9,000
	BH-17-4	35,000
Cresol, o	Plot 9	43,000
Cresol, p	Plot 9	96,000
Phenol	BH-10-4	5,000
	BH-17-4	19,000
	Plot 9	210,000
Benzene	BH-11-4 1/	300
Ethyl benzene	BH-11-4 1/	14,900
Xylene, m & p	BH-11-4 1/	119,200
Xylene, o	BH-11-4 1/	39,500

KEY: Bore Hole data identified as "BH" were obtained from the December 11, 1989 letter from D.R. Parker (Conoco) to Mr. F. Rood (OSDH).

Bore Hole data identified as "Plot 9" were obtained from the September 13, 1989 letter from D.R. Parker (Conoco) to Mr. F. Rood (OSDH).

- 1/ Text presented by Conoco in their December 11, 1989 letter indicated that detectable levels of volatile organic constituents were present in two bore holes (BH-11 and BH-18). Tabulated data were not received for BH-18.

The presence of these organic constituents below the treatment zone and other organic and inorganic constituents in the zone of incorporation and treatment zone presents several problems. First, if these or other constituents continue to migrate and are detected at the downgradient monitoring well (8A), it will be impossible for the Ponca City ground-water monitoring system to determine whether these hazardous constituents migrated from the active or inactive plots. Second, if Conoco were to install a new downgradient monitoring well, this well would have to be installed inside Plot 9. As a result, the new well would be drilled through contaminated media and could possibly act as a conduit for additional ground-water contamination. Again, we believe Conoco would be unable to distinguish whether the contamination resulted from hazardous constituents migrating from the active or inactive plots. Lastly, the detection of the constituents listed above in Table 1 in the soils beneath the treatment unit raises the possibility

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program. Conoco's petition indicates that only four lysimeters were installed in the 38 acre LTF (of which approximately 24 acres are actively used) (Figure 5-19, "Location of Monitoring Wells, Lysimeters, and Land Treatment Demonstration (LTD) Plots, page 84). This means one lysimeter monitors approximately six acres of active area. In addition, Figure 5-19 indicates that the four lysimeters were installed in the upgradient corner of Plot 1, the upgradient edge of Plot 7, and the two upgradient corners of Plot 9. Based on the locations of these lysimeters (assuming that wastes are actively applied in the LTD plots), we are concerned that these four lysimeters are subject to edge effects (e.g., reduced loadings) and, therefore, do not believe these lysimeters are capable of collecting representative samples of the active areas within the LTF. Furthermore, as a result of Conoco's anticipated closure of Plot 9, in the future there will only be two lysimeters installed at the LTF.

Given the amount of time generally required for a constituent to be detected at a downgradient ground-water monitoring well (especially an inorganic constituent), lysimeters are important in detecting constituent migration at the earliest practicable time. Neither current reliance on four lysimeters nor Conoco's reduction to two lysimeters in the future fulfill the requirements of 40 CFR §268.6(a)(4).

#### Ground-Water Monitoring System

Conoco has further failed to meet the requirements of 40 CFR §268.6(a)(4) as the result of the anticipated closure of Plot 9, which will result in the downgradient ground-water monitoring well (8A) being located more than 610 feet from the "new" outer edge of the LTF (Plot 7). The magnitude of the distance between the unit and the downgradient monitoring well means, once again, that Conoco's ground-water monitoring system for the Ponca City LTF will be incapable of detecting hazardous constituent migration at the earliest practicable time.

In addition, Conoco stated in its February 6, 1990 letter to Ms. Karen Dührberg (Oklahoma State Department of Health (OSDH)) that "a remediation plan is being developed for a part of Plot 9 where hydrocarbons and phenolics have been detected below the treatment zone." Specifically, cresols, phenol, benzene, toluene, ethyl benzene, and xylenes were detected below the treatment zone (BTZ) at the concentrations summarized below in Table 1.

Mr. Dennis R. Parker  
Conoco Inc.  
Post Office Box 1267  
Ponca City, Oklahoma 74603

Re: No-Migration Petition submitted for Conoco Inc.'s Ponca  
City, Oklahoma Land Treatment Facility (F-90-NPCP-FFFFF)

Dear Mr. Parker:

I am writing in regard to your October 12, 1989 "no-migration" petition, which requests a variance under 40 CFR §268.6 to allow Conoco Inc. to continue the land treatment of restricted wastes (EPA Hazardous Waste Nos. K049, K051, K052, and D001) at Conoco's Ponca City, Oklahoma land treatment facility (LTF). Based on our evaluation of your petition, we believe that Conoco's soil-pore liquids and ground-water monitoring systems are inadequate for the purposes of a no-migration variance and that Conoco has failed to demonstrate, to a reasonable degree of certainty, that constituents will not migrate beyond the land treatment unit boundaries at hazardous concentrations. As a result of our evaluation, we will recommend to the Assistant Administrator for Solid Waste and Emergency Response that the petition be denied.

Our decision to recommend denial of the petition is based on the lack of a monitoring plan that detects migration at the earliest practicable time. In addition, the information presented in the petition indicates that migration of hazardous constituents beneath the treatment unit has already occurred. Lastly, we believe that Conoco has failed to provide a comprehensive characterization of the disposal unit site. We discuss the results of our evaluation below.

#### Soil-Pore Liquid Monitoring System

Conoco has failed to meet the requirements of 40 CFR §§268.6(a)(4). Specifically, the facility is required to have a monitoring system capable of detecting migration of hazardous constituents from the LTF at the earliest extent practicable.

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Should you have any questions or require any additional information regarding this matter, please contact Linda Cessar of my staff at (202) 475-9828.

Sincerely,

*Devereaux Barnes*

Devereaux Barnes, Acting Director  
Permits and State Programs  
Division

For petitions submitted prior to December 31, 1990, if we believe the EP and total constituent data submitted prior to the effective date are complete and are sufficient to support a delisting decision by the Agency, then we do not plan to require retesting using the TCLP. For example, if the EP leachate data for inorganic constituents and the total constituent data for organic constituents are judged to be complete, we do not plan to require retesting. However, additional data (including TCLP data) may be requested at any time if we believe the information is needed to complete a petition or to address comments received on a proposed decision. In any case, all petitioners should plan to use the TCLP for any new sampling and analyses conducted for delisting petitions.

As part of all delisting demonstrations, we will require that the TCLP be used to predict the leaching potential of any inorganic and organic constituents (listed in Appendix VIII to 40 CFR Section 261). Therefore, the TCLP extracts should be analyzed for any inorganic or organic constituent that may be present in the waste. We will continue to also require analysis of total constituent concentrations of metals, cyanide, sulfide, and any organic constituents which may be present in your waste. Please note, if your petition is for a liquid waste (i.e., less than 0.5 percent solids), then the TCLP cannot be performed, and the TCLP requirements will not affect the delisting demonstration. Total constituent data will continue to be used to determine if a liquid waste should remain hazardous.

For wastes which have a total oil and grease content of more than one percent and/or which are difficult to filter using the TCLP apparatus (i.e., tars), we will require use of the Oily Waste Extraction Procedure (OWEP) (SW-846 Method 1330) in place of the TCLP to determine the leaching potential of inorganic constituents. The OWEP has been used in place of the EP in the past, and we plan to continue to require its use for oily wastes because the TCLP currently has no special provisions for oily wastes. We will evaluate the applicability of the TCLP for organics in problem matrices (such as oily wastes) on a case-by-case basis. For stabilized wastes, we will continue to require use of the Multiple Extraction Procedure (MEP) (SW-846 Method 1320) in addition to the TCLP for inorganic constituents.



UNITED STATES ENVIRONMENTAL PROTECTION  
WASHINGTON, D.C. 20460

JUN 14 1990

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Dear Petitioner:

The purpose of this letter is to inform you that the Agency has finalized the Toxicity Characteristic (TC) Rule (published in the Federal Register on March 29, 1990, see 55 FR 11798). This rule replaces the Extraction procedure (EP) Toxicity test found in Appendix II to 40 CFR Section 261.24 with the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP is a more sophisticated leaching procedure that predicts leaching and expands the Toxicity Characteristic to include organic hazardous constituents. The TCLP currently is used for other hazardous waste programs, and the procedure has also been described in Appendix I of 40 CFR Part 268. The intent of this letter is to notify you that the TCLP will be required for all new testing used to support petitions submitted by hazardous waste facilities to exclude ("delist") a waste pursuant to 40 CFR 260.20 and 260.22.

We have chosen to adopt the TCLP as a requirement for delisting demonstrations in order to remain consistent with the leaching procedure used to define a characteristic waste. We believe this early notification to you of the changes will enable petitioners to prepare in advance and adjust any future sampling and testing plans accordingly. Petitioners who have recently received correspondence from the Agency should have already been informed of some of the information in this letter.

As noted in the preamble to the final TC Rule, we will soon publish a notice of our intent to require TCLP data for all delisting demonstrations. This forthcoming Federal Register notice will discuss in more detail the effects of these changes on required delisting petition information for both future and pending petitions. A copy of that notice will be sent to you upon its publication in the Federal Register. We are taking this opportunity, however, to briefly describe for you the key impacts of the change to the TCLP.

In order to minimize the impact of this change on the current schedules for individual delisting decision-making, we are establishing an effective date of December 31, 1990, beyond which we will no longer accept new petitions without TCLP data.

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 31 1990

Ms. Christine A. Mathias,  
Environmental Project Manager,  
Heritage Remediation/Engineering, Inc.  
P. O. Box 51020  
Indianapolis, IN 46251

Dear Ms. Mathias:

I have received your letter dated April 18, 1990 regarding delisting of a soil contaminated with toluene diisocyanate (TDI). In your letter, you 1) described the spill that caused the soil contamination, 2) submitted Material Safety Data Sheets for Mondur 437 (65% to 75% TDI) and ortho-toluenediamine, 3) presented results of soil analysis, and 4) requested that the Agency specify delisting levels for your use in discussion with the State of Indiana on site clean-up.

Please be advised that contaminated environmental media such as the above TDI-contaminated soil must be managed as if they were hazardous wastes until they no longer contain the listed hazardous waste, or unless they are specifically excluded from RCRA regulation. Also note that this contaminated soil is considered hazardous because it contains a substance (TDI) listed as U223 waste, but not according to the "derived from" rule as you cited. You should discuss the necessary clean-up activities and appropriate clean-up standards with the permitting authority (i.e. the State of Indiana). To have a hazardous waste excluded (or delisted), a petition must be filed with EPA Headquarters. Pursuant to 40 CFR 260.22(k), any exclusion rendered by the Agency will only apply to the specific waste generated at the individual facility covered by the petition and detailed demonstrations must be presented to show that hazardous constituents listed on Appendix VIII of 40 CFR 261 that may be present in the petitioned waste are not found at levels of regulatory concern.

You should be aware that the Agency in its delisting evaluation considers any factors (including additional constituents) other than those for which a waste was listed. Accordingly, a petitioner must demonstrate that the waste does not exhibit any of the hazardous characteristics, and does not contain any constituents at hazardous levels. Typically, we

require the use of appropriate test methods (EPA Publication  
821 "Test Methods for Evaluating Solid Waste", third edition,

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 24 1990

Jim Sherman  
U.S. Army  
Watervliet Arsenal  
Watervliet, New York 12189-4050

Dear Mr. Sherman:

We have received Mr. Russell Wells' letter of February 7th concerning the proposed substitution of magnesium sulfate for aluminum sulfate currently used as a flocculating agent for waste soluble oils in your wastewater treatment system. As discussed further below, such a substitution may result in a waste which is not covered by your 1986 exclusion.

The substitution of treatment chemicals (or any change to your 1986 exclusion) may be considered a major process change if it significantly alters the composition of your waste. We believe that the substitution of magnesium sulfate for aluminum sulfate may significantly alter the composition of the petitioned waste, particularly if the rationale for the substitution is to reduce constituent concentrations in the resultant wastewater. However, we cannot fully assess the impact this substitution might have on the exclusion status of your wastewater treatment sludge without knowing more about the flocculation step.

Therefore, if the substitution that you describe is implemented, you may be producing a new waste that is not covered under the existing delisting. In this case you would have to submit an amended petition and we would have to reopen your delisting petition for review and comment. Please note that current delisting criteria are somewhat different than those used in 1986. For example, the health-based levels used in delisting decision-making may have changed for some hazardous constituents, and petitioners with on-site units containing the petitioned waste are now required to demonstrate that the petitioned waste as not adversely impacted ground water.

If you still believe this change in process is not significant and will not adversely impact your waste, you may submit the following information to allow us to fully evaluate ~~this proposed change:~~

NOVEMBER 88

## 2. Used Oil Court Decision

On March 7, 1988, a petition was filed in the United States Court of Appeals for the District of Columbia by the Hazardous Waste Treatment Council, the Association of Petroleum Re-Refiners, and the Natural Resources Defense Council, Inc., versus the U.S. Environmental Protection Agency. The petition called for a review by the Court on a decision of the EPA concerning the regulatory status of recycled used oils under RCRA. The Court issued a decision on the petition on October 7, 1988.

Specifically, on what decision were the petitioners asking the Court to rule?

What was the Court's decision?

In its final action of November 19, 1986 (51 FR 41900), the Agency decided not to list used oil that is recycled as a hazardous waste. The Agency based this decision on its finding that such a listing would attach the stigma of the label "hazardous waste" to recycled oil, thereby discouraging recycling. Furthermore, the Agency stated that its authority to regulate used oil under RCRA is not dependent on a hazardous waste listing, under the authority of the Used Oil Recycling Act of 1980, which was redesignated as RCRA Section 3014 by the Hazardous and Solid Waste Amendments of 1984. (See the discussion at 50 FR 1691; January 11, 1985 and 51 FR 41900; November 19, 1986.)

The petitioners in this case were challenging this determination made by EPA. The petitioners argued that the Agency acted contrary to law in basing its determination on the stigmatic effects of listing. That is, the petitioners argued that the RCRA statute does not give EPA the authority to not list a waste based on the stigmatic effects of such a listing. Consequently, the petitioners requested that the court order EPA to list recycled used oils as a hazardous waste.

The Court agreed that EPA erroneously based its decision not to list recycled used oils as hazardous wastes on the stigmatic effects of such a listing, a factor not permitted by the statute. Thus, the Court is requiring EPA to determine whether any recycled used oils meet the technical criteria for listing under the law.

Source: Sarah Carney (202) 382-7932  
Research: Chris Bryant

For all of the above reasons, we consider the waste to be hazardous and subject to regulation under 40 CFR Parts 262 through 265 and to the permitting standards of 40 CFR Part 270. Accordingly, we will recommend to the Assistant Administrator that a denial notice be published in the Federal Register.

It is our practice to give petitioners the option of withdrawing their petitions 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)  
Jenny Utz, SAIC

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 any other constituents that may be present from these process waters and/or contaminated groundwater:

acenaphthalene	2-methoxy-4-methylphenol
arsenic	dibenzo(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	naphthalene
cadmium	nickel
chrysene	phenol
chromium	picoline
cyanide	pyridine
cyclohexane	silver
cresote	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 characteristic 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 VHS model, exceeds 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.

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 can not exclude these wastes or associated treatment units from regulation under 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 system (i.e., 2 aeration basins and 1 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 delist 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, cyclohexane, or naphthalene. It is not clear whether constituents from these processes may end up in the petitioned wastewater. Further, contaminated groundwater containing these and/or other constituents has been added to the

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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 K035 waste; cadmium, barium, phenanthrene, benzo(a)-pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, anthracene, chrysene, benzo(b)fluoranthene and phenol. In all cases, concentration levels at the downgradient wells exceeded the levels of regulatory concern 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 RB 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.

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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 treatment are also hazardous. The carcinogenic constituents of creosote, namely benzo(a)anthracene, benzo(b)-fluoranthene, and benzo(a)pyrene, are especially likely to be present in the treatment sludge since these constituents absorb to sediments at very high levels (App. B). Where treatment is incomplete, creosote (which is, 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' Follansbee, 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 Wassersug (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 ground-water monitoring system meeting the requirements in 40 CFR 265, Subpart F. These data must show no exceedance of regulatory standards.



9433.1967(27)

UNITED STATES ENVIRONMENTAL  
WASHINGTON, D.C. 20460

DEC 11 1987

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

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' Pollansbee, 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.

- o A list of any Appendix VIII constituents which may be formed as products of incomplete combustion in the EPA Mobile Incineration System (MIS).
- o A detailed description of the high resolution GC/high resolution mass spectrometry method which will be used to analyze the incineration residues for PCDDs/PCDFs, including a discussion of the analytical detection limits which you intend to achieve and the appropriateness of such detection limits.
- o Process information regarding the carbon filtration unit which will be used to treat the wastewater and the management of the resulting carbon filter cartridges. Also describe any other process changes which will be made so that the MIS can effectively treat the indemnified products.
- o Expected waste generation rates for each of the petitioned residues, per batch and over the entire incineration period. Also, provide a definition of 'batch' for each of the petitioned residues (i.e., solids from one day/week's run, one full tank of wastewater, 10 drums of solids). We will use these definitions in the development of the verification testing requirements for the exclusion.
- o Describe the expected residue disposal scenarios if the residues are successfully delisted.

cc: Bob Hall  
 Dick Valentinetti  
 Fred Lindsey  
 Steve Johnson



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

9433.1967(26)

OCT 28 1987

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Delisting Petition Information Requirements

FROM: Suzanne Rudzinski, Chief  
Assistance Branch (WH-563) *Suzanne Rudzinski*

TO: Judy Heckman, Chief  
Management Support Staff (TS-769C)

The purpose of this memo is to outline the critical elements of a delisting petition for the residues from the incineration of the indemnified 2,4,5-T and Silvex pesticides. Other general requirements are presented in the delisting petition guidance document; I believe you already have a copy of this document. The most important data requirements are summarized below:

- o A discussion of history behind the petition (i.e., the litigation) for inclusion in the Federal Register.
- o Identification of all Appendix VIII constituents present in the waste. This characterization is needed for each different product formulation. We believe you should be able to provide sufficiently detailed information in the format of the confidential product formulations and MSDS. We suggest that you supplement these data with one full Appendix VIII scan of both the major liquid product formulation and the Silvex product.
- o A catalog of the pesticides which will be burned, including physical state (aqueous, organic solvent-based liquid, solid, etc.), volume, and origin. If other materials are going to be mixed with the pesticides prior to incineration (e.g., contaminated soils), they must also be fully characterized (including contaminant profiles, volumes, origin, etc.).

of the Toxicity Characteristic Leaching Procedure (TCLP) and EP results); the EP assumes an acetic acid leaching media from a municipal landfill which generally will overestimate leaching potential in an aqueous impoundment, as well as a 20 to 1 dilution factor for a municipal landfill which will underestimate the dilution which is expected to occur in most impoundments and thus overestimates the leachate concentration for impoundments. We therefore believe that the VHS model is the best model currently available to evaluate data included in delisting petitions. Until, in our judgment, a more suitable model is developed for impoundments we will continue to use the VHS landfill model for delisting.

I hope that this letter addresses your concerns. If you have other questions about delisting, please call me at (202) 382-4788.

Sincerely,

Myles E. Morse, Chief  
Variances Section

OCT 26 1987

Mr. John Ramsey  
Kansas Department of Health  
and Environment  
Hazardous Waste Section  
Forbes Field, Building 730  
Topeka, Kansas 66620

Dear Mr. Ramsey:

In your telephone conversation on October 13, 1987 with Mr. Scott Maid of my staff, you requested a statement from our office regarding the models used to evaluate wastes in surface impoundments and how they differ from those used to evaluate landfilled wastes. We are glad to comply with your request.

As you are aware, our office developed the Vertical and Horizontal Spread (VHS) model based on a landfill scenario. The site characteristics at the hypothetical site were fixed at reasonable worst-case levels, which allows the model to operate using just two variables, leachate constituent concentration and waste volume. Potential ground water impacts are evaluated at a hypothetical drinking water well, called the compliance-point, located 500 feet from the disposal site.

We have, as a matter of policy, used the VHS model as it presently exists to evaluate wastes in surface impoundments. We have indicated in numerous Federal Register notices that the VHS model was used in those instances where surface impoundments were evaluated and that this use of the model was justified in the evaluation process. We believe the VHS model is sufficiently conservative to provide a reasonable degree of protection to human health and the environment when used to evaluate impounded wastes. For example, the VHS landfill model assumes no attenuation, no biodegradation, and no photolysis; each of these mechanisms may be significant in an impoundment scenario. The VHS landfill scenario also assumes the use of the EP Leachate results (or the results of the Organic Leachate Model (OLM) which is an empirical model

I hope that this explanation has addressed your concerns regarding the regulatory status of Thermex's petitioned wastes and the on-site units in which they are contained. Should you have any further questions, please feel free to contact me at (202) 382-4206.

Sincerely,

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Suzanne Rudzinski, Chief  
Assistance Branch  
Office of Solid Waste

cc: Doug McCurry, Region IV  
Allan Antley, Region IV  
Mike Cansecki, Region VIII  
Diana Shannon, Region VIII

OCT 5 1987

Ms. Nancy Stein  
Radian Corporation  
8501 Mo-Pac Blvd.  
P.O. Box 9948  
Austin, Texas 78766-0948

Dear Ms. Stein:

This letter is in response to your August 14, 1987 inquiry regarding the regulatory status of Thermex Energy Corporation's surface impoundments located at their Brooksville, FL; McCleansville, NC; and Casper, WY facilities. In that letter you requested an interpretation of the regulatory status of the surface impoundments at these facilities which contain KO44 wastes that had been temporarily excluded. This response addresses only the regulatory status of these units under the Federal hazardous waste management system but does not address whether the units have met the closure requirements of 40 CFR Part 265.

Based on the information provided by Thermex and reiterated in your letter, the subject surface impoundments, which contain wastes that were generated prior to and during the time that the temporary exclusion was in effect, stopped receiving these wastes while the temporary exclusion was still in effect. Since the impoundments at all three facilities stopped receiving wastes prior to the effective date of the final denial decision, which was November 8, 1986 (see 51 FR 25887, July 17, 1986), the surface impoundments at these facilities are not subject to hazardous waste regulation other than would typically apply to solid waste management units. The wastes in these units, however, are now considered hazardous and must be handled in accordance with Subtitle C requirements if they are ever managed in such a way as to trigger Subtitle C regulation (i.e., they are removed, excavated, shipped off-site, mixed with other wastes, or receive further on-site treatment).

The States of North Carolina and Florida are authorized by EPA to administer and enforce hazardous waste management programs pursuant to Section 3006 of RCRA, 42 U.S.C. §6926. The closure requirements of Thermex's impoundments at the facilities in these states, therefore, should be determined by the appropriate State authorities. The State of Wyoming, however, is not authorized under the aforementioned statute and therefore, the disposal unit at Thermex's Wyoming facility should comply with the applicable Federal hazardous waste closure requirements of 40 CFR Part 265.

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April 1985), one sample per each 10,000 square foot increment, or a total of twenty-six samples, should be analysed for total oil and grease, cyanides, and for total and EP leachable concentrations of the EP toxic metals, plus nickel and beryllium. In this case, the PSPD is willing to utilize a "tiered" approach to the EP analyses, whereby the total metal concentrations will first be evaluated to determine whether enough of each metal is present in each sludge sample to warrant further analysis with the EP test. The threshold value for arsenic, lead, chromium, and silver is 32 mg/kg; for cadmium and selenium, 6.4 mg/kg; for barium, 640 mg/kg; for mercury, 1.28 mg/kg; for beryllium, 128 mg/kg; for nickel, 224 mg/kg. Samples containing more than these amounts of metals must be tested with the EP test (or the Oily Waste EP, if total oil and grease is found to exceed one percent).

Once this information has been received, the evaluation of the Lagoon #6 portion of your petition may proceed. After review of these data, we will evaluate the analyses using the maximum value obtained for each constituent, in accordance with our policy.

We would also like to inform you of a related policy change made by our office. In the past, when we requested information from petitioners there would often be a significant period of time elapsed before the information would be presented to the Agency. This delay has, in turn, contributed to delays in petition reviews. In order to solve this recurring problem, our office has instituted a six-month deadline for the submission of requested information. When requested information is not received in this time frame, the petition will be dismissed for lack of information and the petition file will be closed. Specific items of information will only be requested once. A petitioner may re-petition the Agency with complete information but it will be handled as a new petition in chronological order of receipt. In Frush Wellman's case, the additional waste analyses from Lagoon #6 should be submitted no later than April 1, 1988. Should the data not be submitted by that date, your petition will be dismissed. We would provide written notification to you at that time in the event of petition dismissal.

Should you have any questions or require any additional information, please contact Scott Maid, of my staff, at (202) 382-4783.

Sincerely,

Suzanne Rudzinski, Chief  
Assistance Branch

cc: Allen Debus, EPA Region V  
Bill Muno, EPA Region V

OCT -2 1987

Mr. Richard Davis  
RCRA Coordinator  
Brush Wellman, Inc.  
South River Road  
Elmore, Ohio 43416

Dear Mr. Davis:

This letter is to inform you that the Permits and State Programs Division (PSPD) has re-evaluated its earlier decision regarding Brush Wellman's exclusion petition (#0573) submitted October 25, 1984. Based on our original policy of considering on-site management units as a single waste volume for purposes of delisting, we had indicated to you (in correspondence dated December 5, 1985) that our office would recommend a denial decision to the Assistant Administrator for Solid Waste and Emergency Response. Recent delisting policy changes, however, now would allow for exclusion of separate waste treatment units at a multi-unit facility.

Based on preliminary data in the petition, we are now considering an exclusion for Lagoon #6 only. Based on the high level of clay in the Lagoon #6 samples, however, we believe that more sampling data from this lagoon are needed before a final decision can be made. As stated in earlier correspondence, we will recommend to the Assistant Administrator for Solid Waste and Emergency Response that your petition to exclude wastes from Lagoon #3 and the Triangular Lagoon be denied. You may wish to withdraw your petition for these two Lagoons rather than have a negative decision published in the Federal Register. If you choose to do so, please advise us in writing within two weeks of receipt of this letter.

As noted in Table 4 of Brush Wellman's revised petition, which was submitted on June 14, 1985, visual inspection of the Lagoon #6 samples indicated the absence of sludge material; samples appeared to be 100% clay. Thus, these samples may not be representative of the waste because of the dilution by the clay substrata. We suggest that the samples be collected in a horizontal plane, so that contamination and dilution by clay are minimized. This will necessitate the use of a grab-sampling device, e.g., "clam-shell" type sampler, to collect sludge samples. The sample locations should be determined in the random fashion used in your original petition. As described in our previously published guidance document, Petitions to Delist Hazardous Wastes--A Guidance Manual (EPA/530-SW-85-003,

If you have any questions regarding our preliminary findings,  
please contact Mr. Myles Morse of my staff at (202) 382-4789.

Sincerely,

Bruce R. Weddle, Director  
Permits and State Programs Division

cc: Tricia Herbert, Region IV  
Allan Antley, Region IV  
Howard Pinkel, ICP Technology

WULF-PINKEL:GWH/OWM-ICP-AB-VS/09-22-87/K2-4206/hm. 2018/DISK W/10/Doc Index 17

from the disposal site. The VHS model uses the maximum annual waste generation rate to determine the amount of dilution that may occur in an underlying aquifer. The results of the model are compared with the Agency's level of regulatory concern for that particular constituent.

We also use, in conjunction with the VHS model, an organic leachate model (OLM) that was developed to predict the mobility of organic toxicants from land-disposed wastes (see 51 Federal Register 41084, November 13, 1986). The OLM generates leachate values for each organic constituent which are used as inputs to the VHS model. The calculated compliance-point concentrations are then compared with the Agency's regulatory standards for each constituent. For lead and benzo(a)anthracene we have established the levels of regulatory concern as 0.05 mg/l and  $1.0 \times 10^{-5}$  mg/l, respectively. Data presented in the petition for the sedimentation basin solids reported a maximum EP leachate value for benzo(a)anthracene as 1.6 mg/kg. Using these values for our preliminary evaluation, the OLM/VHS model predicted a maximum lead and benzo(a)anthracene concentration of 0.075 mg/l and  $5.98 \times 10^{-5}$  mg/l, respectively, in the ground water at the downgradient compliance point. Two of the four EP leachate values for lead and two of the four total constituent values for benzo(a)anthracene generate compliance-point concentrations that exceed the Agency's standards. These failing values were derived from a sampling scheme that involved compositing, thereby allowing the averaging of five separate samples (per section) of which, one or more may have exceeded the reported average values. In order to prevent double averaging, as performed by your contractors in their VHS model evaluation, we do not allow the averaging of composite samples.

Based on our preliminary evaluation of your petition, we have concluded that (1) your petition is not complete due to the lack of four quarters of ground-water monitoring data, and (2) based on the analytical data submitted as part of your petition, the wastes could present a significant hazard to both human health and the environment. We believe that the wastes should therefore be considered hazardous, and subject to regulation under 40 CFR Parts 262 through 268 and the permitting standards of 40 CFR Part 270. We will therefore recommend to the Assistant Administrator that a denial notice be published in the Federal Register.

It is our practice to give petitioners the option of withdrawing their petitions to avoid a negative publication in the Federal Register when our preliminary evaluation determines that the wastes will be denied exclusion. If you prefer this option, you must send us a letter withdrawing your petition and indicating that the wastes are considered hazardous and will be managed as such. If you send such a letter, it should be forwarded to this office 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.

ENCLOSURE: HAN/OSM-15RD-AD-VB/09-22-87/K2-4206/10m. 28119/Disk HP#10/Doc Index 17

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9433.1987(21)

Mr. John P. Gay  
Manager-Environmental Engineer  
Ashland Petroleum Company  
Division of Ashland Oil, Incorporated  
P.O. Box 391  
Ashland, Kentucky 41114

SEP 28 1987

Dear Mr. Gay:

The Permits and State Programs Division has completed a preliminary review of your petition (#0700), submitted on July 7, 1987, which requested the exclusion of EPA Hazardous Waste Nos. K048 through K052 generated at Ashland's Kentucky facility. Based on our preliminary evaluation of your petition we will recommend to the Administrator for Solid Waste and Emergency Response that the petition be denied for the reasons discussed below.

We now require all petitioners who employ on-site land-based management of petitioned waste(s) to submit four quarters of ground-water monitoring data collected from a monitoring system judged to be adequate by the Regional EPA office or authorized State (i.e., the system must comply with all of the 40 CFR §265 Subpart F requirements). We note that your petition did not contain any monitoring data characterizing the ground water at the sedimentation basin, and therefore, your petition is incomplete. Submission of ground-water monitoring data which show no existing contamination is not, in itself, sufficient grounds for the exclusion of petitioned wastes. The Agency also evaluates the analytical data for the petitioned wastes to evaluate their potential to contaminate ground water.

Despite the fact that your petition is not complete, the analytical data submitted for the sedimentation solids is statistically sufficient to characterize the petitioned wastes, and therefore, a preliminary evaluation of these data was conducted. Based on our evaluation of the EP leachate data for lead and total constituent data for benzo(a)anthracene presented in your petition, your wastes have the potential to contaminate ground water at levels which exceed the regulatory standards for these constituents. Our evaluation is based on results computed by using the vertical and horizontal spread (VHS) model (see 50 Federal Register 48886, November 27, 1985). We use this model to predict constituent concentrations in the ground water at the compliance point located 500 feet downgradient

Please keep in mind that other chlorinated fluorocarbons may manifest significantly different solubilities and/or toxicities, which could lead to different model results for those compounds.

Since you mentioned your concern for continued compliance with limits on landfilled wastes, I have forwarded a copy of your letter (and my response) to Steve Weil, Chief of EPA's Land Disposal Restrictions Branch, for his office to answer separately. They may be able to identify any potential problems with the land disposal of your freon still bottoms in conjunction with the Agency's on-going program of land disposal restrictions.

I hope this has addressed your concerns. If you have further questions, please call me at (202) 382-4783.

Sincerely,

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Scott J. Mail  
Variances Section (WE-563)

cc: Steve Weil

SEP 3 1987

C.W. Spalaris  
Technical Director  
Quadrex Recycle Center  
100 Flint Road  
Oak Ridge, TN 37830-7033

Dear Mr. Spalaris:

I have received your letter requesting a definition of the maximum concentration limit for freon (trichloro trifluoroethane) in still bottoms that would be non-hazardous. I have performed a calculation using the Organic Leaching Model (OLM) and the Vertical and Horizontal Spread (VHS) model in order to reach a general conclusion about the relative hazard posed by the disposal of a freon - containing still bottom in a landfill.

The regulatory standard for 1,1,2-trichloro-1,2,2-trifluoroethane that is in current use for delisting purposes is 1050 mg/l (in water), a relatively high value that suggests a low toxicity to humans. Based on a rough approximation of waste volume, Mr. Morse gave you a cut off of 6000 mg/l. This was likely based on a reasonable worst-case where there may be a large amount of waste. In this instance, the VHS model would assign a dilution of only 6.3 times to the waste leachate, allowing a concentration of about 6,600 mg/l in the still bottom leachate. By keeping the total content of 1,1,2-trichloro-1,2,2-trifluoroethane in the actual waste below 6,600 ppm (i.e., 6000 ppm) any potential leaching problem would be circumvented.

Since you generate a small volume of waste (<475 tons/yr.), the VHS model would assign a dilution factor of about 32.3 to your waste, which means that your still bottom leachate could contain almost 34,000 mg/l of 1,1,2-trichloro-1,2,2-trifluoroethane and still pass the VHS evaluation. Because 1,1,2-trichloro-1,2,2-trifluoroethane is only slightly soluble in water (170 mg/l), the total content of this compound in the still bottoms themselves could approach 100% and still pass the Agency's evaluation.

Thus, since we plan to deny your petition to exclude your CRP waste, we believe that the issues raised in your May 17, 1987 letter are premature for consideration. The data presented for the CRP petition indicate that the CRP may have contaminated the ground water. In addition, the data were generated from the analysis of samples that were improperly collected (unpurged wells in 1985 and filtered samples in 1986) from an inadequate system (too few downgradient wells). Therefore, the information submitted cannot support any other conclusion but denial of your petition and deferral of the concerns raised in your May 10, 1987 letter.

Accordingly, we will recommend to the Assistant Administrator that a denial notice be published in the Federal Register for your petition to exclude the CRP sludges. If you prefer, you may submit a letter withdrawing your petition to avoid the publication of a negative finding. You will have two weeks from the date of receipt of this letter to withdraw your petition.

When you have installed an appropriate ground water monitoring system (e.g., inspected and deemed compliant by the State or our Region III Office), and collected four quarters of ground water monitoring data, you may repetition the Agency for an exclusion. Until that time, the CRP waste is considered hazardous and subject to regulation under 40 CFR Part 262 through 268, permitting standards of 40 CFR Part 270, and additional regulation under 25 PA Code ff 75 260-282. (The State regulations require a ground water monitoring system that is capable of determining the facility's impact on any underlying aquifers.) We strongly recommend that you contact Peter Schaul, Chief of the Pennsylvania RCRA Enforcement Section, USEPA, Region III in Philadelphia, at (215) 597-8334 in order to explore a mutually convenient method of correcting the deficiencies of the ground water monitoring system.

As Suzanne Rudzinski discussed with Carl Batliner, of Armco, she will be glad to meet with you and Armco officials to discuss our conclusions. You should contact Ms. Rudzinski directly at (202) 382-4266 for answers to any questions or to arrange a meeting.

Sincerely,

*JD For MW*

Marcia Williams, Director  
Office of Solid Waste

cc: Peter Schaul, Region III

- o Both 1985 and 1986 data demonstrate that the CRP has increased the concentration of chlorides, fluorides, sulfates, manganese, sodium, and nitrates in downgradient wells as compared to the upgradient well MW-10. All three quarters of the 1985 data also demonstrate an increase in pH for all downgradient wells. These indicator parameters support the previously mentioned metal findings, in that they identify the CRP's impact on the aquifer.

In addition to the problems outlined above with your ground water analyses, we believe that your ground water monitoring system is inadequate. Specifically, we have evaluated well placement and construction and have concluded that your monitoring system cannot properly characterize the extent of contamination that may have been caused by the CRP. Our specific concerns are summarized below:

- o Well MW-11 (brought into service after the 1985 sampling) is not a valid downgradient well because it does not intercept ground water that flows through the CRP. Based on the map of the CRP which includes water levels, well MW-11 is laterally offset from the CRP (and thus is neither upgradient nor downgradient of the CRP).
- o As reported by our Regional Office, the wells for this unit may be monitoring more than one aquifer or are not screened at consistent depths within a single aquifer. Their information leads us to believe that: the shallow aquifer is not monitored by an upgradient well; the system lacks enough wells to monitor the ground water in each aquifer; and that the upgradient and downgradient wells are not screened at appropriate depths. Construction diagrams of wells MW-8 and 11 demonstrate that these wells may be inadequate.

The inadequacies of the monitoring system, sampling, and testing make definitive characterization of ground water quality difficult and the proposal of an exclusion impossible. It is our policy not to exclude any waste until it has been properly characterized and that the characterization demonstrates that the waste poses no past or present threat to the environment. In your case, existing data indicates that ground water contamination may exist. Accordingly, we plan to deny your petition. If you choose to refute this conclusion, additional<sup>3/</sup> data from a compliant ground water monitoring system would be necessary for proper characterization.

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<sup>3/</sup> You need at least four quarters of data that include, but are not limited to, testing for all metals expected to be in the waste.

- o The second, third and fourth quarters of the 1985 ground water monitoring results indicate that the chromium concentrations exceeded the regulatory standard for both the downgradient (MW-8&9) and the upgradient (MW-10) wells.
- o Our information indicates that the 1985 ground water samples were collected improperly. Specifically, the wells were not purged prior to sampling. As a result, the samples may reflect constituent concentrations that are either higher, lower, or the same as the concentrations of the constituents in the aquifer. These samples are, therefore, not necessarily representative of ground water quality.
- o The 1986 samples were filtered at the time of collection. This is an inappropriate method under RCRA guidelines; samples should be split when filtering is used with both filtered and unfiltered analyses submitted for evaluation.<sup>1/</sup> Since filtering tends to decrease the concentration of metal constituents<sup>2/</sup> contained in the sample, filtered samples will contain lower concentrations of metals than the leachate as it exists under the CRP. Thus, the concentrations presented for the 1986 filtered sampling are expected to be lower than the actual concentrations of these constituents in the ground water as it exists under the CRP. If the ground water contains levels of constituents that exceed regulatory standards we are unlikely to delist the waste in the CRP.

As a result, your reported 1986 ground water monitoring data raise several concerns about selenium, lead, and cadmium. No analyses for these constituents were conducted in 1985. First, a sample from the downgradient well MW-8 on November 17, 1986 contained selenium at a concentration of 0.013 mg/L which exceeded the regulatory standard.

Second, lead detection limits are reported as <0.10 mg/L. This value is twice the regulatory standard for lead. Therefore, your detection limit needs to be decreased below the standard (0.05 mg/l). Third, cadmium concentrations for the January 31, 1986 sampling round were reported as 0.01 mg/L. This value is equivalent to the regulatory standard for cadmium, however the actual unfiltered concentration may have exceeded the standard.

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<sup>1/</sup> See "RCRA Ground-Water Monitoring Technical Enforcement Guidance Document", Section 4.3, page 114.

<sup>2/</sup> Approved analytical procedures for metals require that the total metals concentration be determined. These procedures discourage filtration. See "Methods of Chemical Analysis of Water and Wastes," EPA-600/4-79-020.

AUG 7 1987

Mr. B. A. Steiner  
Manager, Environmental Engineering  
Armco Incorporated  
P.O. Box 600  
Middletown, Ohio 45043

Mr. Steiner:

In your letter of May 18, 1987, you raised several questions concerning Delisting policy as it relates to waste treatment units operated at your Butler, PA facility. The issues you raise are concerned with managing the number 5 surface impoundment wastes as hazardous. However, your delisting petition #0613 applies only to the Chrome Reduction Pond (CRP). Your petition raises two concerns: the effect the CRP has had on the underlying aquifer and the adequacy of your ground water monitoring system. Before we consider the issues raised in you May 18, 1987 letter, we must resolve the concerns raised by your petition.

The data submitted to date on the CRP's impact on ground water are mixed but indicate that the CRP has potentially leached metals (including chromium and cadmium, two metals for which the CRP waste, K061, is listed). Some of the 1985 data indicates contamination above the National Primary Drinking Water Standards (NPDWS) for some metals. The 1986 data which was filtered prior to analysis indicate metal concentrations at downgradient wells at the drinking water standards. We believe that if the samples had remained unfiltered as per EPA's recommended procedures, that these levels may have exceeded the standard.

The specific information you submitted that leads us to believe the CRP sludge has adversely affected the underlying ground water aquifer is summarized below. Metal concentrations and ground water indicator parameters for monitoring data are of particular concern.

We understand that our decisions on the Holloman situation may potentially affect your negotiations with Holloman. However, we must proceed carefully to ensure that our delisting decision considers all pertinent factors and maximizes protection of the environment. We hope to resolve these issues soon and will keep you informed of our progress.

If you have any questions, please contact Suzanne Rudzinski, (202) 382-6206, of my staff.

The present status of each of these issues follows:

#### Delisting Portions of Treatment Trains

At the February meeting, Air Force officials were informed that only the entire treatment train, not portions of it, could be subject to delisting. The Air Force believes that contamination of one impoundment in a treatment train does not imply contamination of all impoundments in that train. Thus, even though two of the impoundments are showing PCB contamination, they believe that the remaining five impoundments and two lakes should be delisted if they meet all of the Agency's delisting criteria.

We are reevaluating this issue and have not yet reached a resolution. We will inform you of our decision as soon as possible.

#### Hot Spot Removal

A final decision has not yet been reached concerning the Air Force's request to remove "hot spots" from the two contaminated impoundments and eliminate from consideration the failing samples that were collected from this area. Holloman officials believe that if these samples are not considered, that all seven impoundments will meet delisting standards.

#### Sampling and Analytical Requirements

EPA has reevaluated the Air Force's request to reduce the number of samples to be taken for analysis and agrees that the large size of the impoundments and lakes in question warrants a departure from standard procedure. A statistically valid characterization of these impoundment wastes may be achieved with a fewer number of samples. We are developing guidelines for a sampling approach that would be appropriate for the Holloman situation and hope to reduce the number of samples required.

EPA will continue to require a full Appendix VIII analysis of all samples since a complete history of the chemicals disposed in the area is not available. As noted previously, this complete analysis will be required to ensure that all hazardous constituents that have been disposed in the impoundments are properly characterized. The background information and preliminary sampling data illustrate several inconsistencies in the Air Force's disposal records; for example, there is no mention of transformer oil disposal in the impoundments, however, the waste is contaminated with PCBs and 1,2,4-trichlorobenzene, two constituents commonly found in transformer oils.

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#### Sampling:

Air Force officials were informed that to properly characterize the waste and evaluate its uniformity and variability, delisting policy would require the collection and analysis of over 1600 composite samples (439 of impoundment sludge, 439 of impoundment liquid, 723 of lake water and soils).

In addition, they were informed that, generally, any delisting decision is based on the maximum detected concentrations of hazardous constituents for which the waste is analyzed. However, a mean concentration value may be used if a sufficient number of samples is collected, but this approach would greatly increase the number of samples required for characterization.

#### Analytical:

Air Force officials were informed that they would have to analyze each composite for all Appendix VIII constituents in order to fully characterize the waste as required under the Hazardous and Solid Waste Amendments of 1984. Petitioners can deviate from this requirement only if they can demonstrate through historical records and/or raw material input information that certain Appendix VIII constituents cannot be present in the waste. Air Force officials were concerned that their records could not support such a deviation from the requirements.

#### Groundwater:

Air Force officials were informed that a complete delisting petition should include four quarters of groundwater monitoring data from a system that had been inspected and approved by EPA Region VI authorities.

The meeting concluded with the understanding that Air Force officials would evaluate this information and decide whether to pursue a delisting.

The third meeting between EPA and Air Force representatives on February 6, 1987 focused on Air Force requests for possible allowances to delisting sampling and analytical requirements due to the large volume of waste involved. EPA was not encouraging but agreed to reevaluate the issue.

We understand that in June, based on telephone communications with delisting staff, Will Focht (formerly of Region VI) informed Air Force officials that the EPA was still evaluating the remaining outstanding issues regarding delisting a portion of the treatment train, removal of hot spots, and more lenient sampling and testing requirements. In addition, it is our understanding that Holloman officials will delay submitting a formal petition pending resolution of these issues.

JUL 31 1987

MEMORANDUM

*Minor correction made*

SUBJECT: Status of Holloman Air Force Base Delisting Action

FROM: Marcia Williams, Director  
Office of Solid Wastes (WH-562) *DPB:mw*

TO: Allyn M. Davis, Director  
Hazardous Waste Management Division (6H)  
Region VI

In your memorandum of June 6, 1987, you inquired about the status of the Holloman Air Force Base (HAFB) petition to delist the waste contained in seven impoundments and two lakes. Specifically, you requested the status of policy issues that have been raised during the review of HAFB's preliminary characterization of the wastes. You were primarily concerned with the amount of sampling that would be required by the Delisting Program for proper characterization of the waste. In response to your memorandum, my staff has completed a chronology of meetings between HAFB and EPA representatives and outlined the progress that has been made concerning the major outstanding issues that were discussed at these meetings.

EPA and Air Force representatives have met three times to discuss delisting options and issues for their treatment train system. The impoundment train, which was established to treat the base's domestic sewage, also received hazardous wastes. Therefore, under the "mixture rule" [40 CFR 261.3(b)(2)], the waste contained in the seven impoundments, Lake Holloman, and Lake Stinky is considered to be hazardous.

At the first meeting on August 29, 1986, Air Force officials submitted background information and preliminary sampling data. EPA and Air Force representatives met again in November 1986 to discuss the results of the EPA evaluation of the information that was submitted at the August meeting. The meeting focused on the additional data that would be needed to complete the delisting petition. Three major issues were discussed at this meeting: sampling requirements; analytical requirements; and ground water monitoring needs.

U.S. E.D.

ENVIRONMENTAL PROTECTION

JUL 28 1987

Mr. Omar Muniz-Diaz, P.E.  
Manager-Safety, Health and  
Environmental Affairs  
Union Carbide Caribe Incorporated  
Ponce, Puerto Rico 00731

Dear Mr. Muniz-Dias:

We have received your June 24, 1987 letter asking the Agency to place Union Carbide Caribe's delisting petition on hold until it can provide additional data to the Agency. As a matter of policy, we do not allow delisting petitions to remain inactive or on "hold". Union Carbide Caribe may withdraw the petition and resubmit a new petition at such time as it can supply the additional data. Our March 19, 1987 letter to you, indicated the reasons we believe your petition should be denied and stated that we would publish our decision to deny the petition in the Federal Register unless we received a written notice of Union Carbide Caribe's intent to withdraw the petition. We will allow you two additional weeks to withdraw the petition if you so choose before we proceed with our decision to deny.

If you have any questions regarding the above decision, please contact Mr. Myles Morse of my staff at (202) 382-4788.

Sincerely,

S. Brown

for Bruce R. Weddle, Director  
Permits and State Programs Division

-3-

Attachment 1 is a listing of all pending delisting petitions, broken down by Region. Please assure that these facilities are in full compliance with all applicable RCRA regulations. If you have any questions regarding the iteration of this policy, please call Steve Heare at 382-2287.

cc: Elaine Stanley  
Bruce Weddle  
RCRA Branch Chiefs, Regions I - X

Sections 265.20 and 265.22 establish a petition process which allows a facility to demonstrate that its waste, although captured by the broad listings of Section 261 Subpart D, does not meet any criteria under which the waste was listed, including the presence of additional constituents. Decisions on waste delisting have always been based on a chemical characterization of the waste itself and of the processes generating that waste, not on facility design, management practices or site conditions. Therefore, until a final decision is made to grant the petition, the waste is hazardous and the facility remains subject to enforcement of all applicable regulations (including compliance with Subpart F groundwater monitoring requirements). Facilities that are not in compliance with RCRA regulations are subject to enforcement action.<sup>1</sup>

Concomitantly, facilities (excluding those with temporary or informal exclusions) that had pending delisting petitions on November 8, 1985, were subject to the Loss of Interim Status (LOIS) provision of the Hazardous and Solid Waste Amendments of 1984 (HSWA). Facilities that failed to validly certify compliance with Subparts F and H and submit a Part B application for an operating permit on or before November 8, 1985 were required to cease operating their hazardous waste land disposal units and submit a closure plan for those units by November 23, 1985. Facilities with pending delisting petitions that failed to retain interim status and continued to operate after November 8, 1985, and/or failed to submit the required closure plan are subject to enforcement actions under Section 3008 of RCRA.

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<sup>1</sup> Facilities whose only waste was subject to a temporary or informal exclusion were not required to meet Part 265 standards during the effective time of the exclusion. However, all temporary and informal exclusions that had not previously been acted on expired by statute on 11/8/86 (Section 3001(f)(2)(8)). Facilities that had either a temporary or informal exclusion were in one of four categories on 11/8/86: (1) the final delisting was granted and that waste is no longer subject to regulation under RCRA; (2) the petition was denied when, after repeated requests from the Agency, the facility failed to provide additional information for the petition; these facilities had to be in compliance with Part 265 regulations immediately; (3) the completed petition was denied based on the merits of the petition (i.e., the waste was determined to be hazardous); these facilities had six months from the date of publication of the denial in the Federal Register to come into compliance with Part 265 standards; or (4) the exclusion expired by statute; these facilities petitions moved back into the standard delisting process and the facilities were immediately subject to all applicable RCRA requirements.



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

9433.1967(14)

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

JUL 20 1987

MEMORANDUM

SUBJECT: Enforcement of Applicable RCRA Regulations at Facilities  
with Pending Delisting Petitions

FROM: Gene A. Lucero, Director  
Office of Waste Programs Enforcement

Marcia E. Williams, Director  
Office of Solid Waste

TO: Waste Management Division Directors  
Regions I, IV, V, VII, & VIII

Air & Waste Management Division Director  
Region II

Hazardous Waste Management Division Director  
Region III, VI & X

Toxics & Waste Management Division Director  
Region IX

The purpose of this memorandum is to restate Agency policy regarding the enforcement of applicable RCRA regulations at hazardous waste handlers that have pending delisting petitions. It has come to our attention that some Regions and States may be allowing non-compliance with some or all of the RCRA Subtitle C requirements pending a decision on active delisting petitions. We are reaffirming here that these wastes remain hazardous wastes and that they, and the units in which they are managed, are subject to all applicable RCRA regulations, including financial responsibility, groundwater monitoring and closure requirements, until the delisting is officially granted. In addition, facilities are still subject to the 1988 and 1989 statutory deadlines for permit issuance.

means that any treatment provided downstream of a baghouse cannot be totally enclosed treatment. To find otherwise, however, would require us to find that the baghouse is a process unit. I think this would hopelessly confuse the definition of treatment units and process units and complicate enforcement by introducing how a unit is used into the definition.

Therefore, I believe that despite its possible environmental advantages, this unit should not be exempted from permitting as a totally enclosed treatment unit. Based on your extensive involvement in the design and construction of this system, I expect permitting will not create an unreasonable barrier to the use of the closed fixation technology on baghouse dusts. Expedited permit review would seem appropriate.

I also would note that treatment in 90-day accumulation units is currently exempt from permitting. Management within 90 days could make this issue moot for the Alabama facility at this time.

ATTACHMENT

MR 17

MEMORANDUM

SUBJECT: Total Enclosed Treatment and the Steel Industry

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

TO: James H. Scarbrough  
Chief, Residuals Management Branch  
Region IV

I have reviewed your memorandum of February 4, 1987, regarding our guidance to RMT, Inc., advising that its baghouse dust treatment system does not meet the requirement of a totally enclosed treatment system. It is unfortunate that Region IV apparently has reviewed a similar facility in Alabama and reached the opposite conclusion. Although I understand your reasoning in that decision, I cannot concur with it. I believe this interpretation would unnecessarily broaden the exemption and create new problems in the definition of what constitutes a treatment unit.

The concept of a totally enclosed treatment unit in 40 CFR §260.10 was designed to prevent the need for a permit for treatment that occurred in pipes exiting a process unit. As a result, this definition made clear that the treatment units must be connected directly to an industrial production process. By not adhering strictly to this principle, your interpretation would broaden the universe of exempt units beyond what was intended for this exemption.

As you note in your memo, the baghouse is not part of the production process. Therefore, as stated in my December 22, 1986, letter to RMT, the dust fixation system cannot be considered directly connected to the process because the baghouse is open to the environment. Although listed waste is not generated until the emission control dust is collected in the baghouse hopper, this does not change the fact that there is an opening between the production unit and the fixation system. I recognize that this

Water Act and meets the other requirements specified in 40 CFR 260.10 for a wastewater treatment unit is eligible for the exemption. This definition does not require a permit under the Clean Water Act, only that it be subject to regulation under Section 402 or 307(b) should a discharge occur. The attached letter from John Lehman to Richard Boynton of EPA's Region I explains our interpretation in greater detail.

Finally, we do not agree with the third possible exemption, which was suggested by the company. The exemption from the definition of solid waste for reclamation requires that the water be returned to the manufacturing process. As explained in the attached memorandum on totally enclosed treatment, the emission control device is considered a treatment unit, not the manufacturing process. Therefore, the water is recycled back to another treatment unit, not back to the process. As a result, this recycle would not qualify as reclamation under the definition of solid waste.

Any questions regarding these interpretations should be referred to James Berlow, Chief of the Treatment Technology Section, on FTS 382-7917.

Attachments

JUN 12 1987

MEMORANDUM

SUBJECT: Regulatory Status of Filter Press  
at Burnham Corporation

FROM: Marcia Williams, Director  
Office of Solid Waste

TO: Judy Kertcher, Acting Chief  
Solid Waste Branch  
EPA Region V

I am responding to your May 5, 1987, memorandum requesting a determination of the regulatory status of a filter press proposed as part of a corrective action at the Burnham Corporation. You asked whether this unit could be excluded from permitting as (1) a totally enclosed treatment unit, (2) a wastewater treatment unit, or (3) as reclamation exempt under the definition of solid waste.

With respect to totally enclosed treatment, it is clear to us that this exemption is not available because the treatment is not connected to the process. EPA's position with respect to this issue was clarified in our March 17, 1987, memorandum to James Scarborough of Region IV which is attached. Further, it appears in this case that, even if direct connection to the process were somehow achieved, the filter press, as diagrammed, could be open to the environment and could release hazardous constituents to the environment. Therefore, we do not believe it could be considered totally enclosed.

Your second approach appears to provide the proper basis for exemption. OSW currently has no formal definition of wastewater. Although Agency guidance suggested that wastewater should not exceed more than a "few" percent constituents other than water, this definition was never promulgated. Therefore, our current interpretation is that any waste that is treated in a unit that is subject to regulation under Section 402 or 307(b) of the Clean

- 4 -

Thus, in terms of delisting criteria, the waste contained in these locations is hazardous and should be treated as such. If you have any questions concerning the review process, please contact me at (202) 382-4783.

Sincerely,

Scott J. Maid  
Environmental Protection Specialist  
Permits and State Programs Division

cc: Robert Aten, Keystone  
Andrew Running, Esq. (Kirkland & Ellis)  
D. Jansen, Illinois EPA  
C. Liebman, Illinois EPA  
K. Pierard, Region V  
M. Radell, Region V  
K. Palmer, SAIC

Table 1  
Constituents of Concern for Keystone Consolidated Industries

Waste Location	Constituents of concern	Number of Samples (of total) that exceed Delisting Standard for the Constituent
North Ditch	Sulfides	9 of 9
Mid Mill Ditch	Lead	1 of 5
	Tetrachloroethylene	1 of 5
	Sulfides	4 of 5
South Ditch (north half)	1,1-Dichloroethane	2 of 4
	Sulfides	4 of 4
South Ditch (south half)	Sulfides	4 of 4
North Dredge Sediment Stockpile <sup>1/</sup>	Lead	3 of 6
	Benzo(a)anthracene	1 of 6
	Benzo(a)pyrene	1 of 6
South Dredge Sediment Stockpile <sup>1/</sup>	Benzo(a)anthracene	1 of 6
	Sulfides	2 of 6
Surface Drainage Ditch	Lead	3 of 6
	Chromium	2 of 6
	Selenium	1 of 6
24-Hour Retention Reservoir	Chromium	11 of 18
	Lead	16 of 18
	Sulfides	8 of 18

<sup>1/</sup> We usually require that the Oily Waste EP (OWEP) be used as the leachate protocol for wastes that contain greater than one percent oil and grease. Several of the sampled wastes contained greater than one percent oil and grease. Because the OWEP includes an organic digestion step, the leachate concentrations are expected to be higher than EP leachate concentrations. Thus, since even EP leachate concentrations are exceeding delisting standards, we believe that the EP data may be used as a basis for petition denial.

The submitted data demonstrate that the waste may pose a threat to human health and the environment according to delisting protocol. The samples described in Table 1 were taken over a substantial geographic area and are presumed to be representative of the waste. The test data from these samples do not support Keystone's contention that the sludges are non-hazardous. We are extremely concerned about the Retention Reservoir, the final resting point of the waste. In fact, the average leachate concentration of lead in the reservoir samples demonstrated the characteristic of EP toxicity for lead (i.e., the average of 9.67 mg/l exceeded the EP toxicity standard of 5 mg/l for lead). There has been no evidence presented to suggest that other testing to evaluate the hazardous waste characteristics of these impounded wastes had been performed by Keystone at any other time. In addition, sulfide levels in the sludges for six locations exceeded our interim threshold for sulfide of 500 ppm.<sup>2/</sup> The submitted data have failed to demonstrate that the sludges at this facility are not hazardous. In fact, every portion of the system failed our analysis for either sulfides or lead. Four locations also failed our analysis for organics.

In addition, based on a preliminary review of the ground water monitoring data, we determined that the waste has affected the aquifer. Specifically, we are concerned with potential contamination of the aquifer with halogenated organics and lead. Delisting protocol requires that facilities managing wastes on-site have a ground water monitoring system in compliance with 40 CFR Part 264 or 265.<sup>3/</sup> It is our policy to require at least four quarters of ground water monitoring data before we will consider a delisting for a waste managed in an on-site, waste management unit.

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<sup>2/</sup> See internal Agency memorandum dated July 12, 1985 entitled "Interim Thresholds for Toxic Gas Generation" (in EPA public docket).

<sup>3/</sup> Additional wells would be needed for the North Ditch, Mid Mill Ditch, and the abandoned ditch (culvert). The petitioner would be requested to identify which halogenated organics were present in the ground water and the origins of these constituents.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9433.1987(09)

JUN 8 1987

Mr. Mark Grummer, Esq.  
Environmental Enforcement Section  
Land and Natural Resources Division  
U.S. Department of Justice  
Washington, D.C. 20530

Subject: Keystone Consolidated Industries

Dear Mark:

We have finished our review of the information submitted by Keystone Consolidated Industries for its facility in Peoria, Illinois. Based on the evaluation of EP leachate and total constituent data for the wastewater treatment sludges (EPA Hazardous Waste No. F006) contained in the waste management units at this facility, we have concluded that it is extremely unlikely that this waste could be granted an exclusion from regulation under 40 CFR Part 261.3 or the lists of hazardous wastes in Subpart D of Part 261. Our evaluation indicates that the waste has the potential to leach high levels of lead, chromium, selenium, and several organic constituents into ground water.

Specifically, Keystone submitted EP leachate and total constituent data for waste contained in eight locations at the Peoria facility. A list of waste locations and constituents of concern are presented in Table 1.1/

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1/ Our decision is based on an analysis using the vertical and horizontal spread (VHS) model (see 50 Federal Register 48886, November 27, 1985). We use this model to predict constituent concentrations in the ground water at a hypothetical compliance point located 500 feet downgradient from the site. The VHS model uses the waste volume and maximum leachate concentrations as inputs to determine the amount of dilution that may occur in an underlying aquifer. For Keystone, we assumed co-disposal of the wastes of the different areas and assumed a maximum waste volume of at least 8,000 cubic yards. The results of the model (i.e., the calculated compliance-point concentrations) are compared with the Agency's level of regulatory concern for each constituent.

We do not consider the Grand Blanc Landfill petition to be complete, and have serious reservations about the manner in which it was compiled. The petition does not contain any of the information stated as necessary in 40 CFR Parts 260.20 and 260.22. Instead, the petition contains manifests which document the hazards of the wastes accepted by the landfill (some of the listed hazardous wastes demonstrated the characteristic of FP Toxicity) and the results from one composite soil sample.

We will recommend to the Assistant Administrator that your petition be denied and that a public notice to that effect be published in the Federal Register, in accordance with our policy. It is our practice to allow petitioners to withdraw their petitions to avoid publication of a negative finding in the Federal Register. If you prefer that a public notice not be published, please submit a letter to our office withdrawing the petition and stating that the waste will be handled as a hazardous waste as required under 40 CFR Parts 262 through 265 and 40 CFR Part 270. Please inform us as to your decision within two weeks of receipt of today's correspondence. If the letter of withdrawal is not received by that time, a denial notice will be published in the Federal Register.

If you have any questions regarding our decision, please contact Mr. Myles Morse, of my staff, at (202) 382-4788.

Sincerely yours,

Bruce R. Weddle  
Director  
Permits and State Programs Division

Attachment

cc: Howard Finkel, ICP  
Al Debus, Reg. V  
William Muno, Reg. V

WH-563/HFinkel/SMaid/382-4783/1-30-87/S269/HP 08  
revised 4-8-87, 4-10-87

APR 24 1987

Mr. William H. Leoni  
President  
Grand Blanc Landfill, Inc.  
2277 W. Grand Blanc Road  
Grand Blanc, Michigan 48439

Dear Mr. Leoni:

The Permits and State Programs Division has completed its review of your delisting petition (#0631) for all 40 CFR Part 261 listed and non-listed hazardous wastes disposed in your landfill, located in Grand Blanc, Michigan. Based on our evaluation of ground water monitoring data presented by the State of Michigan, and the lack of representative data necessary to characterize the wastes disposed in the landfill, we will recommend to the Assistant Administrator for Solid Waste and Emergency Response that your petition be denied.

Our decision to deny the petition is based on the fact that significant ground water contamination has occurred at and around the Grand Blanc Landfill (see Attachment 1). Barium, cadmium, lead, bis(2-ethylhexyl) phthalate, di-n-octyl phthalate, benzene, and chloroform have been detected in the ground water at levels above their regulatory standards (these standards are 1.0 mg/l, 0.01 mg/l, 0.05 mg/l, 0.7 mg/l, 0.6 mg/l, 0.0012 mg/l, and 0.0005 mg/l, respectively) used by our office in petition evaluations. The above constituents were detected, in all cases (except cadmium), in higher concentrations at the downgradient monitoring wells than at the upgradient monitoring wells.

We use positive indications of ground water contamination as a basis to deny an exclusion petition. We note that it is the petitioner's burden to adequately demonstrate that the petitioned waste is not the actual source of contamination. Based on the fact that the waste disposed at the Grand Blanc Landfill contains the same constituents detected in the surrounding ground waters (based on our review of the hazardous waste manifests submitted by the petitioner), we must conclude that the waste disposed at the Grand Blanc site has contributed to the overall degradation of the ground waters.

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disposed waste upon ground water, since such data represents only a "snapshot" in time. Ground water data, therefore, is useful for evaluation of past management practice but cannot be used as a predictive tool such as the VHS model.

You requested a delisting decision for the nickel plating rinse waters and electrocleaning/bright dip rinse waters prior to their commingling with numerous non-listed waste streams in the lagoon system. These two wastewaters are not eligible for delisting. These wastewaters are not disposed wastes, but are subsequently treated in the lagoons, where wastewater treatment sludges accumulate. Because the accumulated sludges are listed (F006) wastes, it is inappropriate to delist the wastewaters prior to treatment in the lagoons. We would like to note that even if the nickel plating rinse waters were to be examined as the waste of concern, using your maximum generation rate of 36,000 gallons per month and the average cadmium concentration in this wastewater (from the petition), the VHS model indicates the compliance-point concentration for cadmium in the ground water would be 0.016 ppm, which exceeds our regulatory standard of 0.01 ppm.

Finally, meeting the BAT guidelines for rinsewaters under the Clean Water Act has no bearing on the regulation of sludges generated from the treatment of these wastewaters under the Resource Conservation and Recovery Act (RCRA), as amended. The sludges generated from these bright dip and plating rinsewaters are regulated as EPA Hazardous Waste No. F006 under RCRA.

We re-affirm our earlier decision to deny the petition for the impounded F006 wastes at the Elmore, Ohio facility. We anticipate that a denial notice will be published in the Federal Register in the near future. If you have any additional questions or concerns, please direct them to Scott Maid at (202) 382-4783.

Sincerely yours,

LS / Signed

Suzanne Rudzinski  
Branch Chief  
Assistance Branch

cc: file  
Al Debus, Reg. V  
William Munro, Reg. V

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The rationale behind the combining of your impounded wastes is that these wastes are the same (F006) waste that have been subject to a common treatment regime, contain common constituents, may possibly be disposed together, and in fact have been impacting the underlying aquifer as a single unit. The consideration of the combined wastes in the VHS evaluation would, therefore, be a reasonable worst case. We cannot restrict the disposal of the waste after it has been delisted. Our position has been that if management restrictions must be placed on a petitioned waste to ensure the proper treatment of the waste, then the waste should be considered hazardous. Consequently, the analysis of a waste for delisting must necessarily take into account all viable management practices, including simultaneous disposal of the wastes. Because of the small amount of F006 sludges accumulating in these three lagoons (less than 300 tons total), our model calculations used the maximum dilution rate of 32-fold dilution in the aquifer. No greater dilution would occur, therefore, if each lagoon was considered separately.

Our findings, as stated in the December 5, 1985 letter, indicate that lead may leach from the waste and cause ground water contamination. Although lead is not a listed constituent of F006, the Hazardous and Solid Waste Amendments of 1984 (HSWA) require the Agency to consider additional factors (other than those for which the waste was originally listed) to determine the hazardous nature of a waste. The presence of leachable lead in the impounded waste has been determined to be a significant problem, in spite of your contention that the lead may have entered the waste stream from a non-listed source. More recent evaluations of the data have indicated that beryllium, another Appendix VIII constituent, is also capable of leaching from the waste at levels which fail the VHS evaluation. The impounded wastes are defined as F006 sludges because a portion of these sludges were derived from the treatment, storage, and disposal of a listed hazardous waste. See 40 CFR §261.3(a)(2)(iv), which states that such a combination of solid wastes and listed hazardous wastes is defined as hazardous.

You have mentioned previously that ground water monitoring data for the Elmore facility shows that no hazardous constituents are migrating from the surface impoundments, and that this site-specific data should be used in the evaluation instead of the compliance-point concentrations predicted by the VHS model. Ground water data is used in the course of petition evaluation, because it is an indicator of past management practices at a site. Ground water data which indicates contamination from on-site waste management may be used as a basis for petition denial. Ground water monitoring data does not, however, offer a means by which we can evaluate potential future impacts of a

APR 13 1987

Richard Davis  
RCRA Coordinator  
Brush Wellman Inc.  
South Piver Road  
Elmore, Ohio 43416

Dear Mr. Davis:

In your letter of March 23, 1987, you indicated your concerns over our decision to deny the delisting petition (#0573) that Brush Wellman has had on file with the Agency since October 26, 1984. In our denial letter of December 5, 1985, the lancon sludges (EPA Hazardous Waste No. P006) accumulating at your Elmore, Ohio facility were deemed to be hazardous. This determination was based largely on the evaluation of the wastes with a ground water model (the vertical and horizontal spread [VHS] model), which predicted that these sludges, when land disposed, would tend to leach lead into ground water, producing contamination at levels above our levels of regulatory concern. This letter summarizes our responses to your concerns about the denial decision, as were addressed in a meeting with Ken Shuster, Myles Morse, and Scott Maid, on November 17, 1986.

Your primary contention was that each impoundment should be analyzed as a separate entity, and should not be combined with the other impoundments in the VHS analyses. Combination of impounded sludges to determine a maximum waste volume has been performed routinely in delisting decisions; examples of previously published decisions which have combined volumes of impounded wastes for VHS analysis are given below. These listed facilities have either been granted final exclusions or have been proposed by the Agency to be granted final exclusions for their wastes.

<u>Petitioner</u>	<u>Citation</u>	<u>Impoundments</u>
Watervliet Arsenal	51 <u>FR</u> 1253 (1/10/86)	2 drying beds
Bommer Industries	50 <u>FR</u> 48930 (11/27/85)	2 ponds
General Electric	50 <u>FR</u> 48949 (11/27/85)	4 ponds

application of the Agency's vertical and horizontal spread (VHS) model. Specifically, the VHS model analysis does not take into account the potability of the aquifer beneath a petitioner's facility, i.e., it is limited to waste-specific rather than site-specific evaluations. We also will not limit our analysis to K103/K104 waste constituents. Due to both the HSWA requirements and the mixture rule (40 CFR 261.3 (a)(2)(iii)) the waste must be evaluated for all hazardous Appendix VIII constituents likely to be present in the mixture, regardless of their origin. In addition, EPA has made a policy decision not to grant exclusions which are based on the future management conditions of a waste. Again, this is due to the fact that delisting decisions are based on the characterization of the waste rather than on management conditions.

E.I. du Pont requested confirmation that if it can be demonstrated that the K103/K104 wastes do not contribute to lagoon sludge generation, EPA will not consider the lagoon sludge to be hazardous. Theoretically, we believe that this may be possible and the suggested filtration and waste mixing experiments may show that the wastes, as currently generated, do not add to the lagoon sludge. Practically, however, we do not believe that this demonstration is possible. For example, you would need to demonstrate that the wastes have historically never contributed to the sludge. Because you have implemented a number of process and treatment changes over the past five years, we are skeptical that such a demonstration can be made.

If the impoundment continues to receive hazardous waste four years after the date of promulgation of the petition denial, HSWA §3005(j)(6) requires that the impoundment be retrofitted to meet minimum technology requirements. Accordingly, the deadline for installing a double liner and leachate collection system is November 18, 1990, if the unit continues to receive hazardous waste after that date.

We realize that several key questions regarding applicable requirements for continued management after the effective date have not been answered. The Agency's policy is presently being prepared and will be forwarded to you in the near future. If you have any questions regarding either the issues addressed above or our progress on resolving any outstanding issues, please call Mr. Steven Hirsch of our Office of General Counsel at (202) 382-7706.

Sincerely,

*Marcia Williams*

Marcia E. Williams  
Director  
Office of Solid Waste

206



9433.1987(06)

UNITED STATES ENVIRONMENTAL PROTECTION  
WASHINGTON, D.C. 20460

APR -2 1987

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Ms. Julia L. Phillips  
Counsel, Environmental Division  
E.I. du Pont de Nemours & Company  
Wilmington, DE 19898

Dear Ms. Phillips:

The Agency is still in the process of reviewing E.I. du Pont's request for reconsideration of our denial decision regarding the K103/K104 waste streams. I apologize for the delay in responding; however as explained in your meeting with my staff on February 19, 1987, several questions involve resolution of cross-cutting policy issues at the Agency. Therefore, this is only a partial response. The remaining issues, such as the impact on future management and closure requirements, of the date of your initial delisting and the effect of terminating input of listed wastes into the impoundment prior to the effective date of the denial on future management and closure requirements, will be resolved as soon as practicable and addressed in a separate response.

While the K103/K104 waste streams may meet the best available technology (BAT) effluent limitations established under the Clean Water Act, it is not within our regulatory purview or policy directives to consider this compliance as a basis for delisting decisions. The statutory authorities and objectives of the Clean Water Act and the Resource Conservation and Recovery Act are different and were not designed as integrated directives from Congress. Hence, the levels of concern developed under BAT and the VRS model have been derived differently with different assumptions and goals.

In your letter you also point out that your treatment methods for the K103/K104 wastes are included in the BDAT treatment technologies identified in the November 7, 1986 land disposal ban rule. Again, this is not considered in the delisting process. BDAT treatment will assure that the waste can be land disposed, but not necessarily delisted from the hazardous waste management system.

You requested that EPA reconsider its denial decision if E.I. du Pont could demonstrate that (a) the lagoon does not have the potential to leach K103/K104 constituents into potable water, and (b) the waste streams will never be transported to another location for disposal where a usable aquifer might be affected. Our current policy is not to consider site-specific factors (such as local hydrogeology and aquifer potability) in the

We conclude that the aeration basins and the materials contained therein present significant hazards to both human health and the environment. The basins should be considered hazardous and subject to regulation under 40 CFR Parts 262 through 265 and the permitting standards of 40 CFR Part 270. Accordingly, we will recommend to the Office Director and Assistant Administrator that a notice proposing to deny the petition be published in the Federal Register. Our policy is to give petitioners the option of withdrawing their petitions instead of publishing 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 aeration basins are considered hazardous and will be managed as such. If you send such a letter, it should be forwarded to this office within 2 weeks of the date of receipt of today's correspondence. If you choose not to withdraw your petition, a proposed denial decision will be published in the Federal Register. If you have any questions regarding any of the above, please contact Myles Morse of my staff at (202) 382-4788.

Sincerely,

*Susan Bromm*

Susan Bromm  
Acting Director, Permits  
and State Programs Division

cc: J. Utz, SAIC  
F. Kozak, Region II  
S. Siegel, Region II

Specifically, bromomethane, trichloroethylene, and 1,1,2,2-tetrachloroethane levels in the sludge; benzene, fluorene, phenanthrene, and tetrachloroethylene levels in the wastewater; and bromomethane, trichloroethylene, and 1,1,2,2-tetrachloroethane levels in the soils generate compliance point concentrations that exceed health-based standards (i.e., fail the OLM/VHS model analysis). A summary of our analysis is presented in the following table. This table presents the maximum allowable level (MAL) for each constituent of concern, as determined by the VHS model, that would be allowed in the sludge, wastewater, or soil. The number of samples that exceed this level and the number of samples analyzed are also presented.

	<u>MAL (ppm)</u>	<u>No. of Samples that Exceed MAL</u>	<u>No. of Samples Analyzed</u>
<u>Sludge:</u>			
Bromomethane	0.69	1	8
Trichloroethylene	0.59	1	8
1,1,2,2-Tetrachloro-ethane	0.15	1	8
<u>Wastewater:</u>			
Benzene	0.0076	6	24
Fluorene	0.013	2	14
Phenanthrene	0.013	2	14
Tetrachloroethylene	0.004	1	7
<u>Soil:</u>			
Bromomethane	0.69	3	10
Trichloroethylene	0.59	3	10
1,1,2,2-Tetrachloro-ethane	0.15	1	10

As a matter of policy, the Agency does not consider site-specific factors (such as ground water salinity and hydrogeologic site characteristics) when determining whether or not a petitioned waste is hazardous. Instead, because waste, once delisted, can be moved to any other site and be disposed, the Agency uses a model (OLM/VHS) with general applicability to evaluate the potential hazard. The model results combined with the existing ground water contamination discussed above are the basis for the Agency's intent to deny your petition.

well 15B, UCCI has claimed that the contamination of ground water in its vicinity is a result of a leak from an underground concrete transfer pipe for influent to the wastewater treatment system. We believe, however, that the tracer test conducted to investigate this claim is inconclusive. The tracer test did not demonstrate that the leaking fluid would reach well 15B under normal conditions (i.e., in the absence of the test's rigorous pumping conditions). Therefore, we cannot conclude that the leaking fluid has reached well 15B and is solely responsible for the ground water contamination.

We believe that all units of the wastewater treatment facility and management area, including the aeration basins, have contributed to the ground water contamination since a ground water mound uniformly surrounds the complex. We cannot conclude, however, that the area's ground water contamination is solely a direct result of seepage from the aeration basins since constituents similar to those found in the basins are also contained in wastes found in other units of the wastewater treatment facility and waste management area. Even though underlying ground water is not potable, we consider the existence of ground water contamination to be sufficient grounds for petition denial.

In support of delisting decisions, the Agency uses a ground water transport model, the vertical and horizontal spread (VHS) model, that was developed to predict the environmental impact of toxicants leaching from wastes.<sup>1/</sup> The Agency also has developed an organic leachate model (OLM) to predict the mobility of organic toxicants from land-disposed wastes. The OLM calculates organic leachate concentrations which may then be used as inputs to the VHS model. (See 50 FR 48944, November 13, 1985; 51 FR 27061, July 29, 1986; and 51 FR 41084, November 13, 1986.) The OLM and VHS models were used to evaluate the sludge and wastewater contained in the aeration basins, as well as the soils below the basins. This analysis predicted that levels of certain constituents at a hypothetical drinking water well will exceed regulatory standards.

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<sup>1/</sup> As a result of the Hazardous and Solid Waste Amendments of 1984, the Agency is now required to consider all toxicants and factors that may cause the waste to be hazardous. In addition to these changes, the Agency has developed new tools to evaluate petitions. The VHS model (see 50 FR 48886-48967, November 27, 1985) is one of those tools used by the Agency in making delisting decisions regarding leachable toxicants contained in a land-disposed waste. The VHS model establishes a sliding regulatory scale that is based on the volume of waste generated and extract data. The model predicts the concentration of each toxicant at a hypothetical compliance point located 500 feet from the disposal site. The Agency considers the hazards presented by the waste by comparing the compliance point concentrations of the toxicants predicted by the VHS model with a regulatory standard for each toxicant.



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

MAR 18 1987

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Omar Muniz Diaz, P.E.  
Manager - Safety, Health and Environmental Affairs  
Union Carbide Caribe, Inc.  
Firm Delivery  
Ponce, PR 00731

Reference: Delisting Petition for Union Carbide Caribe, Inc.  
(#0658)

Dear Mr. Diaz:

The Permits and State Programs Division has completed its review of Union Carbide Caribe Inc.'s (UCCI) petition requesting the exclusion of its aeration basins, which are located at UCCI's Penuelas, Puerto Rico wastewater treatment facility and are presently classified by application of the derived-from and mixture rules as EPA Hazardous Waste Number K022 (distillation bottom tars from the production of phenol/acetone from cumene). Based on existing ground water contamination and results from our evaluation of aeration basin sludge, wastewater, and soil composition data, we will recommend to the Assistant Administrator for Solid Waste and Emergency Response that your petition be denied.

We believe that UCCI's aeration basins are at least partially responsible for contamination of the ground water underlying the wastewater treatment facility based on the detection of organic and inorganic contaminants in nearby monitoring wells and on the existence of a ground water mound beneath the basins. Monitoring well data submitted in support of your petition for monitoring wells 13B and 14B, which are immediately downgradient from the aeration basins, exhibit silver, mercury, and lead levels above their respective drinking water standards. Constituents found in these wells were also found in the wastewater and sludge of the aeration basins and in the soils below the basins. These reported concentrations of heavy metals are above background levels and are most likely indicators of the downgradient ground water transport of these contaminants from the aeration basins. Other contaminants (e.g., benzene, toluene, naphthalene, dimethyl phenol, fluoranthene, anthracene, chrysene, dibutyl phthalate, barium, cadmium, chromium, and selenium) were also reported as detected in nearby monitoring wells. With respect to monitoring

## RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

FEBRUARY 87

### 5. Appealing a Petition Denial

A generator submitted a petition under §260.22 to amend Part 261 to exclude a hazardous waste produced at a particular facility, but the Agency's final decision was to deny the petition. What options does the generator have for appealing the Agency's decision to deny the petition?

A generator who has had his petition denied by the Agency may appeal to the U.S. Court of Appeals for the District of Columbia Circuit, pursuant to §7006(a)(1) of RCRA.

The generator may also wish to petition the Agency for reconsideration of the decision. Denial of a delisting petition is a final Agency action, however, and a petition for reconsideration does not extend the time to file suit in court.

Source: Steven Hirsch (202) 382-7706  
Research: Joe Nixon (202) 382-3112

This summary represents the body of information presently available concerning Nameplate. Some additional technical information on Nameplate's drainage field can be obtained from the Regional docket at the U.S. EPA Region VII Library, 726 Minnesota Avenue, Kansas City, Kansas, 66101. As more information becomes available to the Agency, this information will be made available to the public. If you have any questions please do not hesitate to contact the Agency or EPA Region VII.

Sincerely yours,

Suzanne Rudzinski  
Branch Chief  
Assistance Branch

waste management unit. The Part A permit application was submitted in February 1981, but the lagoon did not receive interim status from the State, and has, therefore, been operating as a non-permitted hazardous waste treatment unit. In 1982, after a State inspection noted several deficiencies, the State of Iowa determined that the lagoon was leaking, based on high fluoride levels in ground water at the Nameplate site.

Nameplate petitioned the Agency in December 1984 for an exclusion ("delisting") to exempt its lagoon from compliance with the federal hazardous waste program. Samples of lagoon sludges taken by EPA Region VII personnel in July 1985 indicated the presence of trichloroethylene (TCE) in Nameplate's sludge at concentrations of up to 95 parts per million (ppm). TCE was also detected, as well as barium, lead, chromium and nickel, at elevated levels in the ground water, although the data was insufficient to make any statistically valid determination about the ground water contamination at Nameplate's facility. Nameplate did not indicate in its petition that TCE was used in its process. In addition, the Agency has knowledge that highly corrosive wastes (pH < 2) were allowed to enter the lagoon from 1982 through 1983, which created conditions amenable to increased leaching of metals from the waste into the ground water.

Based on the Agency's findings, Nameplate's petition for its lagoon was proposed to be denied by the Agency (51 FR 26417, July 23, 1986) due to the unaccounted presence of TCE in the lagoon, the preliminary indications of ground water contamination, and the documented past management history of the lagoon. The etching processes at Nameplate have stopped, and the lagoon is no longer accepting hazardous waste.

In response to a request by Nameplate, Agency Headquarters personnel visited the Nameplate site in August 1986 in order to take 45 additional lagoon sludge samples and two ground water samples for analysis. Nameplate had retreated the lagoon sludge by mixing (which aerated the waste) prior to the Agency's visit in order to reduce possible levels of volatile organic constituents such as TCE. TCE levels in the sludge were found to be lower than the levels previously documented by Region VII. TCE contamination in the ground water, however, was shown to be at levels higher than previously reported. The Agency has prepared a Notice of Availability which will provide an opportunity for interested parties to review and comment upon the analytical laboratory report on the Nameplate site. Publication of this notice in the Federal Register is expected to occur during the week of February 22, 1987.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9433.1987(03)

FEB 25 1987

Harvey E. Henjum  
President  
IFS Investors Services, Inc.  
7800 Metro Parkway  
Suite 100  
Minneapolis, Minnesota 55420

Dear Mr. Henjum:

This letter is in response to your October 20, 1986 letter to Ms. Marcia Williams, in which you requested information about discharges generated by the U.S. Nameplate Company (Nameplate) and the possibility of ground water contamination at its facility in Mt. Vernon, Iowa. I am sorry that our response has been so long in coming, but the Agency has only recently been able to address the issues of concern to you.

We are aware of two types of waste management units at the Nameplate site: a drainage field and a waste lagoon. Prior to 1979, Nameplate's liquid wastes were treated in septic tanks and discharged to an on-site drainage field which flowed into a nearby creek. These acidic wastes were generated from Nameplate's metal etching operations, and wastes such as these typically contain high concentrations of several metals.

As a result of the discharge from the drainage field, Nameplate was proposed in October 1984 to be included in the National Priorities List (NPL) for future clean-up under the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or "Superfund"), based on the potential for copper, zinc, and fluoride to reach ground water. This site remains in proposed status until the Agency implements its final policy for listing sites on the NPL that are still regulated under the authority of the Resource Conservation and Recovery Act (RCRA).

After a number of citizen complaints to the State of Iowa about the drainage field, Nameplate constructed a waste lagoon to treat the wastes. The State subsequently determined that the lagoon was treating hazardous wastes and requested Nameplate to file a Part A permit application for the lagoon as a hazardous

Your letter of September 9 stated your belief that the integral design test is arbitrary and capricious. You believe that test regulates as incinerators waste heat recovery combustion systems that recover energy as efficiently as integrally designed boilers, which are exempt from regulation. EPA has considered the criticism of relying on physical criteria to differentiate between incinerators and boilers (see the preamble to the January 4, 1985, final rule on the definition of solid waste (50 FR 626)). Given, however, that significant regulatory consequences result from the distinction, EPA believes it is important that the test for the distinction be unambiguous and easy to apply. The physical test of integral design meets that need.

The Region has interpreted your petition in a manner consistent with previous decisions denying variances to units with waste heat recovery boilers. We are sending the appropriate officials in Region IV a copy of this letter for inclusion in their decision record.

Sincerely,

/s/  
Marcia E. Williams  
Director  
Office of Solid Waste

cc: James Scarbrough, EPA Region IV  
Beverly Spagg, EPA Region IV

bcc: Bob Holloway  
Marc Turgeon  
Art Glazer, Permits Branch (WH-563)  
Sonya Stelmack

JAN 7 1987

Mr. W. Frank Owen  
American Environmental  
Pollution Control, Inc.  
Post Office Box 98  
Dadeville, Alabama 36853

Dear Mr. Owen:

This is in response to your letter of September 9, 1986, regarding a petition for a boiler variance under 40 CFR 260.32, now pending before the Region IV EPA Administrator. We are sorry not to have been able to respond earlier. I understand, however, that you, with Drs. Moeller and Whittle of the University of Alabama, were able to meet with my staff on October 20, 1986, to clarify your letter and to provide additional information.

Our understanding is that the installation will use a waste heat recovery boiler to produce steam for use in drum cleaning. The unit will maintain a thermal energy recovery efficiency of at least 60 percent, and at least 75 percent of the steam will actually be used for drum cleaning or for other purposes and will not be vented.

At your meeting with my staff on October 20, 1986, you provided further information in support of arguments that the design of the facility was innovative and should be considered to be of integral design. We have since received a copy of your submission of October 27, 1986, to Ms. Beverly Spagg of EPA Region IV.

Our conclusion after considering the information before us is that the American Environmental Pollution Control combustor design as installed for Buckner Barrel and Drum does not meet the definition of boiler because it is not of integral design. We consider it to be a two-stage combustion system with a waste heat recovery boiler connected by insulated ducting. We do not believe that the special nature of the insulation is sufficiently unique to consider the boiler and combustion chamber to be of integral design.

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

DECEMBER 86

12. Variance from a Treatment Standard

Can a facility obtain a variance from the treatment standard [51 FR 40642, §268.41 and §268.42] for a particular waste stream which cannot be treated to the level (or by a method) specified by the treatment standard?

Wastes may be subject to a treatability variance in cases where the treatment standard for a particular waste cannot be met because the waste does not fit into one of the BDAT treatability groups [51 FR 40605] used to set the treatment standard. Facilities interested in obtaining a treatment variance must submit a petition in accordance with procedures set forth in 40 CFR 260.20 [51 FR 40642, §268.44 as amended].

I also believe that formaldehyde is a potential hazard and should be evaluated in the sediments based on the fact that formaldehyde was known to be influent to the waste stream. (In the Agency's evaluation process, the delisting office uses a regulatory standard of  $7 \times 10^{-5}$  mg/l for formaldehyde, which is classified as a Class A carcinogen.) The Agency, however, does not have an approved test method for formaldehyde in solids, and alternate test methods (e.g., inorganic colorimetric tests) do not offer a detection limit as low as the calculated worst-case level (0.057 ppm) presented by Keystone. A GC/MS scan may be possible if the end of the analytic spectrum is lowered to below 30 to accommodate the low molecular weight of formaldehyde; the analysis would also involve the use of a formaldehyde standard in order to identify the compound by its retention time, and a strict quality control/quality assurance program. Even if such an analysis were performed successfully, however, there is little indication that a detection limit lower than 1 ppm could be achieved. The Agency labs are working on a high resolution method for formaldehyde, but it is not expected to be available until mid-1987 at the earliest. Until the Agency has an acceptable test method for formaldehyde, I do not believe that analysis of the sediments would be worthwhile in Keystone's case. It may be necessary, however, to require Keystone to test its ground water for formaldehyde (analysis of water is much easier than analysis of solids) in order to show that none of the formaldehyde has entered the aquifer.

The other constituents (e.g., pesticides, plastics, etc.) not found on Keystone's list are not reasonably expected to be present in the sediments since they are not used (and have not been used, according to Keystone) in the production of fabricated steel wire products. Testing for these constituents is, therefore, not necessary.

Sampling for the purposes of submitting a delisting petition should begin as soon as possible. If you have questions concerning the chemical analysis of wastes, please contact Mr. Ian Phillips (of ERCO, an Agency contractor) at (617) 661-3111. If you have any questions concerning the petition review process, please contact me at (202) 382-4783.

Sincerely,

Scott J. Maid, E.P.  
Environmental Protection Specialist  
Permits and State Programs Division

30 DEC 1986

Mark E. Grummer, Esq.  
Environmental Enforcement Section  
Land and Natural Resources Division  
U.S. Department of Justice  
Washington, D.C. 20530

Re: United States v. Keystone Consolidated Industries

Dear Mr. Grummer:

I have reviewed the description of the sampling plan submitted by Keystone Consolidated Industries for the impounded hazardous sediments at its Bartonville facility. The outline of the proposed plan seems to be consistent with the methodology discussed in our earlier conference call with Keystone's representatives. I would like, however, to make some modifications to the list of organic compounds compiled by Keystone.

The list of Appendix VIII compounds presented by Keystone is not complete. After consultation with two chemists, I have determined that testing for acid-extractable (i.e., phenolic compounds) organics should be performed. Phenols are often used in degreasing operations, and could have been used by Keystone in that context. In addition, if oils are present in sludges, the oily sludges will likely contain phenolic compounds as degradation products. Keystone has proposed testing for other compounds (e.g., polynuclear aromatic hydrocarbons or PAHs) that are often associated with the presence of petroleum hydrocarbons, which suggests that Keystone is aware of the presence of some oil or grease in the sediments. The phenolic compounds can be evaluated either in separate or combined fractions with the other compounds on Keystone's list for minimal additional cost (estimated at approximately \$200/sample, about \$14,000 total).

Keystone should evaluate its sludge for total oil and grease content prior to any other analysis. If the amount of oil and grease is found to exceed one percent, then the waste should be subjected to the Oily Waste Extraction Procedure (OWEP), which involves a dual solvent extraction, instead of the conventional EP test, which uses a dilute acetic acid solution.

of no greater than 10,000 ft<sup>2</sup> each, selecting sampling points at random, and collecting complete-depth core samples has been in active use for several years. The Agency's guidance document, "Petitions to Delist Hazardous Wastes," was published in April 1985, and also describes this same method for sampling solid wastes. The requirement of four samples does not subject Keller Industries to a sampling program any more rigorous than that routinely performed by any other facility.

In response to your point that Keller's treatment system was designed to create a homogeneous waste, I wish to point out that the delisting evaluation must include an appraisal of the uniformity or variability manifested by the waste. Process variability has been found in the past to be quite substantial at a number of different facilities, as seen in test data (on file at the Agency) submitted in support of other delisting petitions. Homogeneity of a waste cannot be assumed but must be proven in a delisting petition.

You have established the presence of substantial quantities of natural vegetation in the impoundments, and have cited this vegetation as the cause of the elevated TOC levels exhibited by the subsoils. I agree that this occurrence is very likely in Keller's impoundment, and also believe that the TOC results may not accurately depict potential concentrations of toxic organic compounds. I do not believe that use of the TOC test as a screening procedure for the presence of toxic organic compounds in Keller's impoundment subsoils is effective, and do not believe that TOC levels should serve in any way as a basis for limiting sample size. My office will adhere to its previously published guidance, namely the requirement for a minimum of four representative samples.

The Agency affirms the previous information request that was forwarded to Keller Industries by TRI. In order to ensure the timely review of the petition, the information should be forwarded to this office as soon as possible. If you have additional questions concerning the review process, please contact me at (202) 382-4783.

Sincerely,

Scott J. Maid  
Environmental Protection Specialist  
Permits and State Programs Division

cc: A. McLaughlin, TRI  
Joel Karmazyn, Region III

18 DEC 1986

Jack H. Luckhardt  
Manager, Corporate Safety and  
Health/Environmental Affairs  
Keller Industries  
18000 State Road 9  
Miami, Florida 33162

Re: Delisting Petition #650

Dear Mr. Luckhardt:

I am responding to a letter dated September 30, 1986, in which you outline several reasons why Keller Industries should not have to submit additional test results (besides the single organic analysis already performed) for the impoundment subsoils at Keller's Milford, Virginia facility. I believe that the information requested in the letter sent to you by Technical Resources, Inc. (TRI), dated September 9, 1986, is necessary for the further review of the petition, and so the remaining three quadrants of the impoundment subsoils must also be evaluated for organics.

The first point you raise, that no organics would be expected in the other three quadrants if none were detected in the first quadrant sample, is fallacious. Such a procedure may not allow the evaluation of the waste in terms of prior management, accidental spills, or "hot spots," and certainly does not allow for evaluation of laboratory error. The Agency's experience is that predictions of waste consistency cannot be made on the basis of a single composite sample. Such a value is not statistically defensible and will not allow a valid estimate to be made of the variability of the waste. The federal regulations also require a minimum of four samples to be evaluated in a delisting petition (see 40 CFR §260.22(h)). The fact that the impoundment is no longer active does not excuse Keller from meeting the same delisting standards that all waste managers must meet in order to receive exclusions for their wastes.

The Agency has provided guidance on numerous occasions to petitioners to indicate how many samples must be evaluated in a petition. The Agency's method of dividing impoundments and landfills into equal-sized quadrants (a minimum of four)

DEC 13 1985

Mike Everhart  
Boeing Military Airplane Company  
P.O. Box 7730  
Wichita, Kansas 67277-7730

Dear Mr. Everhart:

This letter is in response to several recent telephone conversations I have had with you and with Janis Butler of Butler & Associates concerning the waste sampling necessary to be performed in order to complete your delisting petition (#200). Ms. Butler and I have discussed at length the sampling plan for the landfill. The waste is landfilled in trenches at the site. The trenches, as near as they can be determined, would be divided into quadrats of roughly equal size, approximately 10,000 ft<sup>2</sup> each, and 5 to 8 randomly chosen, full-depth corings would be taken from each quadrat. These corings would then be composited to produce a sample from each quadrat for analysis. This particular sampling plan would ensure that composite samples would be very representative of the process operations utilized by Boeing over the past 25 years, while at the same time minimizing the actual costs of analysis.

In order to move ahead with the delisting of the landfill, it is necessary for the landfill to be sampled as comprehensively as possible, so that a full accounting may be made of the spectrum of wastes which may be present in the landfill. Such a sampling effort must be completed as soon as possible; the Agency has a November 8, 1986 deadline for finalizing all delisting decisions for facilities holding temporary exclusions. If final decisions on these petitions are not rendered by that date, these exclusions become void. In order for our office to have sufficient time to process the data from all the affected facilities, we have requested petitioners to forward their additional information by January 31, 1986.

If you have any questions, please contact me at your earliest convenience at (202) 382-4783.

Sincerely,

Scott J. Maid  
Environmental Protection Specialist  
Office of Solid Waste (WH-562R)

water transport. If we determine that dioxin containing wastes should be evaluated using the OLM (see 51 FR 41082-41100, Nov. 13, 1986) and the VHS model (see 50 FR 48867, Appendix, Nov. 27, 1985) then a regulatory standard of 0.2 ppq and a solubility of 0.2 ppb would be used in conjunction with the volume of treatment residue to determine an acceptable dioxin level in the incineration residue. If the CAD finds that other exposure routes are more relevant for dioxin wastes than these scenarios this may result in a less conservative level of concern.

We have attached a list of maximum acceptable levels of some Appendix VIII constituents based on the health based standards and the minimum attenuation allowed through the OLM and VHS models currently used by the Variance Section. It should be noted that the attached levels only apply to a landfill waste management scenario (i.e., exposure to contaminated groundwater from landfilling of the treatment residue). It should also be noted that although the standards for some of these constituents are extremely low, we would not require detection limits below those normally achievable using the recommended extraction and analytical procedures from Test Methods for Evaluating Solid Waste (SW-846). (We can make the detection limits from SW-846 available to you if you do not have them.) Where hazardous constituents in a waste are not detected using appropriate analytical methods, we will, as a matter of policy, not use those constituents as a basis to regulate the waste as hazardous.

We will make every attempt to meet your April deadline for this new petition. However, it should be noted that if a complete petition with all necessary descriptions and test data is not received before the end of December, then achieving your April 1, 1987 deadline becomes less likely. Even if all necessary data is received by January 1, 1987, we would need to propose a decision in the FR by January 30, 1987. A thirty day comment period brings us to the first week of March, leaving us less than a month to address public comments and finalize the decision in the FR. This process usually takes 6 months from the date we receive a complete petition. We will attempt to accelerate the process as much as possible. It should be noted that petitions are handled as they are submitted (i.e. on a first come, first served basis). We are currently acting on about 150 active petitions, therefore an accelerated schedule on a new petition could have an adverse effect on the schedules of several other petitioners in your Region.

If you have any additional questions concerning the original Denney Farm decision or about information requirements for the new petition, please call Hyles Morse of my staff at FTS 382-4766.

Attachment