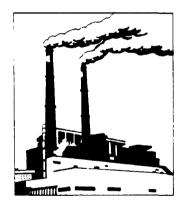
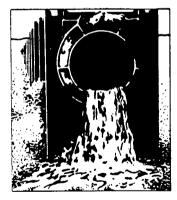
ŞEPA

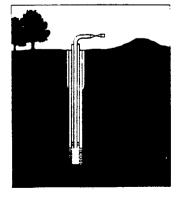
Toxic Chemical Release Inventory Questions and Answers

Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986)









INTRODUCTION

This <u>Questions and Answers</u> document deals with section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986, Public Law 99-499). Under section 313, facilities that meet all three of the following criteria are required to report releases to the air, water, and land of any specifically listed toxic chemicals:

- The facility has 10 or more full-time employees;
- The facility is included in Standard Industrial Classification (SIC) Codes 20 through 39; and
- The facility manufactured (defined to include imported), processed, or otherwise used in the course of a calendar year any specified chemical in quantities greater than a set threshold.

Reports under section 313 (EPA Form R) must be submitted annually to EPA and designated State agencies. The first reports, covering the 1987 calendar year, are due by July 1, 1988.

This document has been developed to expedite facility reporting and to provide additional explanation of the reporting requirements. It supplements the instructions for completing Form R. Copies of EPA Form R, instructions for completing the form, and related guidance documents are available from the Emergency Planning and Community Right-to-Know Information Hotline, U.S. Environmental Protection Agency, WH-562A, 401 M Street, S.W., Washington, D.C. 20460, (800) 535-0202 (or (202) 479-2449 Washington, DC and Alaska). (A request form is provided at the end of this document for use in obtaining copies of these documents.)

The questions and answers in this document are organized in sections corresponding to the organization of the data in Form R. Preceding the questions and answers is an introductory discussion of the facility identification information required by Part I of Form R.

To remain responsive to section 313 issues that may arise in the future, this <u>Questions and Answers</u> document will be updated periodically. If you have comments or possible additions to this document, please send them to the <u>Emergency Planning and Community Right-to-Know Information Hotline at the address above.</u>

CONTENTS

		<u>Page</u>
	Definitions	1
I.	Determining Whether or Not to Report: Facility	4
II.	Determining Whether or Not to Report: Listed Chemicals	8
III.	Exemptions	12
IV.	Activities and Uses of the Chemical at the Facility	17
٧.	Trade Secrets	21
VI.	Releases of the Chemical	22
VII.	Transfers to Off-Site Locations	27
VIII.	Waste Treatment Methods and Efficiency	29
IX.	Waste Minimization	31
Х.	Certification and Submission	32
XI.	EPA's Section 313 Program	35
	Form R	37

DEFINITIONS

Trade Secret Information.

If a trade secret claim is being made (see Part III, Section 1 of the form), the "yes" box in Part I, Section 1.1 of the form must be checked.

Sanitized Copy.

Whenever chemical identity is claimed trade secret, two versions of Form R must be submitted to EPA. One version identifies the chemical; the other version does not identify the chemical specifically, but instead, provides a generic identification. This latter version is called the "sanitized" version and is the only version which will be made publicly available.

Reporting Year.

The reporting year is the calendar year (January December) to which the reported information applies, not the year in which you are submitting the report (i.e., information for the 1987 reporting year will be submitted in 1988).

Certification.

The facility owner or operator, or a senior official with management responsibility for the person (or persons) completing the form, must certify the accuracy and completeness of the information reported on the form by signing and dating the certification statement. Each report must contain an original signature. The name and title of the person who signs the statement should be printed or typed in the space provided. This certification statement applies to all the information supplied on the form, and should be signed only after the form has been completed.

Facility Name and Location.

Facility name (plant site name or appropriate facility designation), street address, city, county, state, and zip code must all be provided. A post office box number may not be used for this location information. The address provided should be the location where the chemicals are manufactured, processed, or otherwise used, rather than the corporate headquarters or other business office.

Full or Partial Facility Indication.

Section 313 requires reports by "facilities" defined as "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person." Threshold determinations should be made for an entire

facility.

The SIC code system defines business "establishments" as "distinct and separate economic activities [which] are performed at a single physical location." Under section 372.30(c) of the reporting rule, a separate Form R may be submitted for each establishment, or for groups of establishments, in a covered facility. This provides the facility with the option of reporting separately on the activities involving a toxic chemical at each establishment, or group of establishments (i.e., part of a covered facility), rather than submitting a single Form R for that chemical for the entire facility. All releases of the toxic chemicals from the covered facility must be reported. However, if an establishment or group of establishments in the facility does not manufacture, process, otherwise use, or release a toxic chemical, then a report on that chemical from that establishment or group of establishments is not required.

Technical Contact.

The "technical contact" is someone whom EPA or State officials may contact for clarification of the information reported on the form. This person does not have to be the person who prepares the report or signs the certification statement. This person, however, must have detailed knowledge of the report to be able to respond to questions. Different technical contact personnel may be designated based on the specific chemical.

Public Contact.

The "public contact" is someone who can respond to questions from the public about the report. The same person may be designated as both the technical and the public contact. If no public contact is designated in Section 3.4, EPA will treat the technical contact as the public contact.

Standard Industrial Classification (SIC) Code.

The appropriate 4-digit primary Standard Industrial Classification (SIC) code must be reported for covered facilities. If the report covers more than one establishment within the facility, the primary 4 digit SIC code for each establishment that falls within SIC codes 20 to 39 is required to be reported. The statute uses the two-digit range of 20-39 to define eligibility for reporting. The corresponding four-digit range is from 2000-3999. Thus, a facility in SIC code 0028 does not need to report under section 313.

Latitude and Longitude.

Latitude and longitude for calendar year 1987 reports must be supplied if the information is readily available. Sources of these data include EPA permits (e.g., NPDES permits), county property records, facility blueprints, and site plans. If these geographic coordinates are not readily available for calendar year 1987 reports, they do not have to be reported. All facilities are required to provide this information in reports submitted for calendar year 1988 and subsequent years.

Facility Dun and Bradstreet Number.

The number assigned by Dun and Bradstreet for covered facilities or establishments within facilities must be reported. It may be available from the facility's treasurer or financial officer. If the facility does not have a Dun and Bradstreet number, "N/A" should be entered in the space provided.

EPA Identification Number.

The EPA I.D. Number is a 12-digit number assigned to facilities covered by hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA). Facilities not covered by RCRA are not likely to have an assigned EPA I.D. Number. If the facility does not have an EPA I.D. Number, "N/A" should be entered in the space provided.

NPDES Permit Numbers.

The numbers of any permits a facility holds under the National Pollutant Discharge Elimination System (NPDES) must be reported. This 9-digit permit number is assigned to a facility by EPA or the State under the authority of the Clean Water Act. The permit number must be reported even if the facility does not discharge any listed toxic chemicals to surface waters.

Name of Receiving Stream or Water Body.

Each surface water body or receiving stream to which a chemical being reported is directly discharged must be identified. The name of each receiving stream or water body (not POTW), as it appears on the NPDES permit for the facility, should be used. If a facility does not have an NPDES permit, the commonly used name of the streams or water bodies should be reported to allow for the evaluation of watersheds.

<u>Underground Injection Well Code (UIC) Identification Number.</u>

Facilities that have permits to inject chemical-containing waste into Class 1 deep wells must report the Underground Injection Control (UIC) 12-digit identification number assigned by EPA or by the State under the authority of the Safe Drinking Water Act.

Parent Company Information.

Information on the parent companies of reporting facilities must be provided. For purposes of section 313, a parent company is defined as a corporation or other business entity that directly owns at least 50 percent of the voting stock of another company.

I. DETERMINING WHETHER OR NOT TO REPORT: FACILITY

1. Which facilities are required to report under section 313?

A facility is required to report if it has 10 or more full-time employees; it is included in SIC codes 20-39; and it manufactured (including imported), processed, or otherwise used any listed toxic chemical in quantities exceeding an established threshold during a calendar year.

2. Must an annual report be submitted by July 1, 1988 for facilities which were in operation part of 1987 but which were closed (i.e., shutdown or out of business) on December 31, 1987?

Yes. A facility that operated during any part of a reporting year must report if it meets the reporting criteria.

3. Section 313 covers facilities with 10 or more full-time employees. Would a facility with 9 full-time employees and 4 part-time employees be required to report under section 313?

The total hours worked by all employees should be reviewed. A "full-time employee" is defined on a full-time equivalent basis of 2000 labor hours per year. If the total hours worked by all employees at a facility, including contractors, is 20,000 or more, the criterion for number of employees has been met.

4. Is an "employee" a group of people who works 2000 hours per year (such as three people who work 1/3 time) or is it one person who works full-time?

An "employee" can be either a single person or a group of people. The regulatory criterion is whether the total hours worked by all employees is equal to or greater than 20,000 for that calendar year at the facility.

5. In determining the number of full-time employees at a facility, are the hours of employment of sales personnel who are not connected with the production facility in any way included in the total hours worked?

Yes. All employees at a facility, regardless of function or location within the facility, must be included in the employee threshold determination.

6. What is the definition of primary SIC code? How can there be more than one primary SIC code for a facility?

A primary SIC code generally represents those goods produced or services performed by an establishment that have the highest value of production or produce the most revenues for the establishment. The form provides space for more than one primary SIC code because a facility may be made up of several establishments, each of which may have a different primary SIC code.

7. Please clarify the distinction between a "facility" versus an "establishment."

The SIC code system classifies business locations on the basis of an "establishment," which is generally a single business unit at one location. In many cases, a facility covered under section 313 will be the equivalent of an establishment. However, the definition of "facility" in the statute is quite broad. A facility which is required to report can encompass several establishments located within a physical property boundary that is owned or operated by same "person." Therefore, a facility can be a multiestablishment complex.

- 8. For reporting year 1987, if a company has a plant in one state which processes 52,000 pounds of methanol and a plant which processes the same amount of methanol in another state, do both plants have to report as "establishments" of a "facility"?
- No. The two processing plants are considered separate facilities under section 313, even though they are owned by the same company, because they are not located within the same contiguous physical boundary. Thus, their activities are not additive, and neither would report methanol for 1987 but both would report for 1988.
- 9. M and P Plastics is a wholly owned subsidiary of a major chemical company which is itself a wholly owned subsidiary of B&O Corporation. Which company is the parent company?

B&O Corporation is the parent company for purposes of section 313 reporting.

10. Who is the parent company for a 50/50 joint venture?

The 50/50 joint venture is its own parent company.

11. If two plants are separate establishments under the same site management, must they have separate Dun & Bradstreet numbers?

They may have separate Dun & Bradstreet numbers, especially if they are distinctly separate business units. However, different divisions of a company located in the same facility usually do not have separate Dun & Bradstreet numbers.

12. If a facility does not have a Dun & Bradstreet number but the parent corporation does, is this number required to be reported?

The Dun and Bradstreet number for the facility that is reporting should be entered. If a facility does not have a Dun and Bradstreet number, "N/A" should be entered in Part I, Section 3.7. The parent corporation Dun and Bradstreet number should be entered in Part I., Section 4.2.

13. Are pipelines for a feedstock or product covered if they go to or from a "facility" (i.e., contiguous to a covered facility owned by the facility's parent company)?

No. The portion of a pipeline exterior to the property boundary of the facility carrying feedstock into or product away from the facility would not be covered for purposes of release reporting. However, releases from loading or unloading activities or leaks from a pipeline within the facility would be covered.

14. How are warehouses and trucking companies affected by section 313?

A warehouse located within the physical boundary of a "covered facility" would be covered for purposes of estimating releases of a toxic chemical. The contents of a warehouse are not included in threshold determinations, however, because thresholds are based on the amount of a chemical manufactured, processed, or used (i.e., throughput rather than storage volume). If, however, the warehouse is repackaging the chemical (i.e., processing), then those quantities would have to be factored into facility threshold determinations.

Generally, a "stand alone" warehouse does not fall into the covered SIC codes. However, a warehouse may take on a covered SIC code if it's primary function is to support a SIC code 20-39 operation. Under the provisions of the SIC code system the owner or operator would consider that the warehouse is an "auxiliary" facility to a manufacturing establishment. Even if the warehouse does carry a covered SIC code it would still have to meet the employee threshold and be engaged in manufacturing, processing or use of listed chemicals above applicable thresholds before reporting would be required.

Trucking companies are not likely to be subject because they are not within the covered SIC codes. Of course, it is possible that a trucking company could own or operate a covered facility and thereby be potentially responsible for reporting for that facility.

15. If pilot plants are within the SIC codes 20-39, are they required to report?

A pilot plant that falls within the appropriate SIC codes would be a covered facility, provided it meets the employee and threshold criteria.

16. Suppose a facility is comprised of several establishments some of which have primary SIC codes within the 20-39 range, and some of which have primary SIC codes outside that range. How would this facility determine if it needs to report?

The facility as a whole is subject to reporting if those establishments that are in SIC codes 20-39 have a combined value of more than 50 percent of the total value of products shipped or produced by the whole facility, or one of those SIC code 20-39 establishments has a value of products shipped or produced that is greater than any other establishment in the facility.

17. Are "auxiliary" facilities associated with manufacturing operations in SIC codes 20 through 39 exempt from reporting under section 313?

No. An "auxiliary facility" is one that directly supports another

establishment's activities and can therefore take on the SIC code of the facility which is being supported. Auxiliary facilities that are separate operations located on separate property are required to report if they meet the employee and chemical thresholds. Auxiliary establishments that are part of multi-establishment facilities should be included in making threshold determinations for the facility as a whole. Examples include warehouses, storage facilities, and waste treatment facilities.

II. DETERMINING WHETHER OR NOT TO REPORT: LISTED CHEMICALS

18. What list of chemicals is subject to reporting under section 313?

The law defined the list of toxic chemicals. The initial list (with certain technical modifications) appears in the final rule and in the instruction booklet for completing EPA Form R.

19. What is the difference between the section 313 list and other Title III lists?

Some overlaps exist between the lists of chemicals covered by different sections of the law. Section 313 focuses primarily on chemicals that may cause chronic health and environmental effects. Other chemicals listed under Title III must be reported if there are accidental, emergency type releases. EPA has prepared a document (the "List of Lists") identifying every chemical regulated under Title III, CERCLA, and RCRA, identifying the overlaps between the lists.

20. When will the titanium dioxide petition for removal from the section 313 toxic chemical list be finalized?

The Agency published a proposed rule to delist titanium dioxide. The present schedule calls for a final rule by June of 1988.

21. If an item on the section 313 list covers chemicals with multiple CAS numbers (e.g., nickel compounds), how is the CAS number of the item described?

A CAS number should not be identified in such cases. Instead, "N/A" is entered in the space for the CAS number on Form R. The individual chemical members of a listed category are not required to be identified in the report.

22. Is asbestos removal from a site covered by section 313 reporting requirements?

If a facility manufactures, processes, or otherwise uses friable asbestos in excess of an applicable threshold, then the facility would be required to report removal of any quantity of such asbestos in waste from their facility. For example, if the facility transferred previously accumulated asbestos wastes from a waste pile, the amount transferred in the reporting year must be included in Part III, Section 6 of the form. However, if the only "use" of asbestos at the facility was as a structural component (e.g., as insulation), then the removal of that material from the facility would not trigger reporting. This is because the "use" of asbestos in structural components (e.g., buildings and pipes) is not a use covered by the rule.

23. Are releases of asbestos resulting from demolition of an old plant covered by section 313 reporting?

Releases of asbestos are not reportable due to the demolition of a plant with asbestos as a structural component.

24. Is there a particle size associated with the qualifier "fume or dust" for aluminum, vanadium, and zinc?

No.

25. Would a listed chemical present in compressed air rather than in boiler emission air be exempt from consideration?

A listed chemical present in compressed air would not have to be counted toward a threshold determination. If that same chemical is present in the boiler emission air as a result of being in the compressed air fed to the boiler, then it would remain an exempt use. However, if the chemical is created as a result of combustion, the chemical has been coincidentally manufactured and must therefore be considered for reporting.

26. Is steel in inventory covered by section 313?

For a reportable metal in steel, consider whether the steel is an article and therefore exempt (see rule for the definition of article). If it is an article, the steel does not count in thresholds, amount on-site, or in any other way. However, if processing or use of the steel releases the reportable metal other than as solid scrap, the steel is not an article and its metal content must be counted toward thresholds and releases determinations. Note that the steel actually processed or used, rather than in inventory, is what is counted in the threshold determination.

27. Are materials in inventory (i.e., amounts on hand at year end) included in threshold determinations?

No. Only quantities of a chemical actually manufactured (including any amount that is imported), processed, or used during the calendar year are to be counted toward a threshold determination.

28. Are the thresholds for manufacture and process considered separately? For example, if a facility manufacturers 74,000 pounds of chemical A and processes 74,000 pounds of a chemical A, does chemical A need to be reported?

Thresholds are considered separately for manufacture, process, and use of the same chemical. Therefore, chemical A would not have to be reported for the 1987 reporting year. However, reporting would be required for 1988.

29. If a facility manufacturers 53,000 pounds, processes 28,000 pounds, and imports 6,000 pounds of chemical "X" during 1987, is it required to report for chemical X?

Reporting would not be required for 1987. However, for 1988 the facility would have to report chemical X because it would have exceeded the manufacture threshold of 50,000 pounds. Note that importing is the equivalent of manufacturing and therefore the amounts must be added together for threshold

determinations.

30. If a chemical falls into a group or class of metal compounds under section 313, (e.g., zinc compounds or cobalt compounds), is only the parent metal portion of the chemical or the whole compound counted when calculating thresholds?

Threshold determinations for metal-containing compounds must be made separately from threshold determinations for the parent metal because they are listed separately under section 313. For example, if a facility processes both zinc and zinc compounds, separate threshold determinations would be made for each. To determine if thresholds for a category (e.g., zinc compounds) have been exceeded, the total weight of each individual compound in that category (not just the metal portion) which the facility manufactures, processes, or uses is determined. When estimating quantities released, the weight of the parent metal only, not the total weight of the metal compounds released, is reported. For example, once the threshold for processing of zinc compounds has been exceeded, releases are reported as releases of zinc.

31. When a company has a mixture on-site which does not have its own CAS number, what CAS number should be used?

In the case of mixtures, the company should attempt to determine what listed section 313 chemicals are present and the weight percentage of those chemicals in the mixture. The preamble to the rule goes into considerable detail on the topic of determining mixture, trade name, and product composition. Basically, if it is determined that a mixture contains one or more covered toxic chemicals, a separate report for each chemical must be submitted. That is, if the fraction of the chemical in the mixture multiplied by the total weight of the mixture used or processed exceeds the applicable threshold, then the chemicals are treated as if they were present in pure form.

32. Are facilities required to know what toxic chemicals are in mixtures supplied to them, and if so, how is the information obtained?

Facilities are required to use the best available data for reporting years 1987 and 1988 to determine whether the components of a mixture or trade name product are listed under section 313. For reporting year 1989 and thereafter, however, suppliers will be required to develop and distribute a notice if the mixtures or trade name products they manufacture or process, and subsequently distribute, contain listed toxic chemicals.

33. If a mixture is claimed trade secret, how does a facility that uses or processes the mixture comply with 313 reports?

Beginning with the first shipment in 1989, suppliers must notify their customers that a section 313 chemical is present in any mixtures or trade name products. If a supplier claims that a chemical identity is a trade secret, a generic chemical identity that is structurally descriptive must be supplied in the notice. Similarly, if the specific composition of the mixture is a trade secret, the supplier must indicate an upper bound concentration for the amount of the listed chemical in the product. In figuring out whether to report, the

facility would use the upper bound concentration to determine whether it exceeded the applicable threshold for that substance.

34. By what date in 1989 must suppliers notify customers of mixture and trade name content?

Suppliers must notify customers with at least the first shipment of the mixture or trade name product in a calendar year. There is no fixed date by which notification must occur.

- 35. The section 313 list of chemicals includes sodium hydroxide (solution) but not solid sodium hydroxide. Should solid sodium hydroxide (i.e., pellets) be included in threshold calculations?
- No. Solid forms of chemicals which are listed as solutions should not be included in threshold and release calculations. However, if the solid is made into a solution at any point in the process, then it becomes reportable.
- 36. Sodium sulfate (solution) is a listed chemical. If sodium sulfate in solution is used at a facility, should the quantity of the entire solution be considered or just the weight fraction of sodium sulfate?

Only the actual quantity of the chemical in a listed solution (i.e., sodium sulfate) should be considered for threshold, maximum quantity, and release determinations.

37. How is ammonium hydroxide in solutions (i.e., "aqua ammonia") counted?

Ammonia is the listed section 313 chemical. Technically the chemical ammonium hydroxide is not a listed section 313 chemical. It has a different CAS number from ammonia. However, commercial products such as "aqua ammonia" or "ammonium hydroxide" solutions are actually solutions of ammonia in water, containing approximately 30 percent ammonia. Therefore, these products are to be considered as mixtures of the reportable chemical ammonia in water for purposes of section 313 threshold determinations and release reporting.

38. If sodium hydroxide (solution) is spilled, but neutralized before leaving plant boundaries, should the quantity spilled be included in the facility's release report?

No.

III. EXEMPTIONS

39. Please explain the \underline{de} $\underline{minimis}$ limitation for mixtures and trade name products.

Listed toxic chemicals present in mixtures or trade name products at concentrations below the $\underline{\text{de minimis}}$ level of 1.0 percent, or 0.1 percent for OSHA-defined carcinogens, do not have to be factored into threshold or release determinations. This $\underline{\text{de minimis}}$ level is consistent with the OSHA Hazard Communication Standard requirements for development of Material Safety Data Sheets (MSDSs).

40. Is there a de minimis exclusion for the solutions on the 313 chemical list?

Yes, the 1 percent or 0.1 percent exclusions apply, as appropriate.

- 41. Does a supplier have to tell a customer that a section 313 chemical is present below the <u>de minimis</u> level (1.0 percent, or 0.1 percent for OSHA carcinogens)?
- No. Such information is not required to be provided under section 313.
- 42. Is there a list of OSHA carcinogens covered by the section 313 list of toxic chemicals to help facilities determine whether the de minimis cutoff should be 1 percent or 0.1 percent for specific chemicals?

EPA will be publishing such a list in the near future. It will be available through the Hotline. In the meantime, facilities should be aware that this determination must also be made for the purpose of preparing a Material Data Safety Sheet for the OSHA Hazard Communication Standard. Since the section 313 de minimis determination is based on the OSHA carcinogen definition, personnel at facilities responsible for MSDS development and use may be able to help with this determination.

43. Unit A uses a chemical mixture that is de minimis but the same chemical is not de minimis in a mixture used by unit B. In determining total facility releases, are releases of unit A reported?

Releases from unit A do not have to be reported. However, it should be noted that in some instances the information readily available to the facility may include releases for both units. For example, if both units discharge to the same treatment facility, and release estimates are based upon measured concentrations in the effluent from that facility, it would not be easy to "subtract out" the contribution from unit A. In such instances, it is permissible to report total releases, which would include the releases contributed by unit A.

44. If a facility has process streams with less than 1 percent (0.1 percent) of a listed chemical, do fugitive releases from these streams have to be included in release estimates?

First of all, the de minimis exclusion does not apply to a wastestream that results from a facility process stream. In addition, the Agency intends that the de minimis exclusion only apply to process streams in cases where a "starting material" for a process is a mixture that contains less than 1 percent or .1 percent of a covered chemical. EPA did not intend to exclude from consideration releases from process streams in which, for example, the chemical at some point falls below the de minimis level because it is converted to another chemical or "exhausted" (such as in a dye bath). Also, the Agency did not intend that the act of dilution should exempt a process stream from consideration if the mixture being diluted contains a covered chemical above the de minimis level. The Agency realizes that a strict reading of section 372.38(a) of the rule could exclude a process stream that contains a chemical below the de minimis level because the phrase "...present in a mixture of chemicals at a covered facility..." is not qualified. EPA will develop an amendment to qualify that, for the purposes of the de minimis exemption, the term mixture applies to products or other "starting materials" that may be further processed at the facility.

45. If a facility manufactures 900,000 gallons per day of Na_2SO_4 at a 0.5 percent concentration in a wastewater treatment system, is this quantity to be considered for threshold and release determinations?

Since the chemical is manufactured at the facility as part of a waste treatment process, the de minimis exemption does not apply and the sodium sulfate must be considered for both threshold and release determinations.

46. Does the de minimis exemption apply regardless of whether a chemical is an ingredient, an impurity in a mixture or product, or a waste stream constituent?

The de minimis exemption applies to ingredients of mixtures or to impurities present in products. It does not apply to waste streams.

47. The Agency has said that the de minimis concentration exemption does not apply to release estimates. Where is this discussed in the final rule?

The preamble to the final regulation discusses the application of the de minimis concept in Section IV.A., Definition of Manufacture, and Section VI.A., De Minimis Concentration Limit. There is no de minimis level applicable to the wastestream itself for determination of the amount of chemical released from a facility. Also, the manufacture of a section 313 chemical as part of a waste treatment process is not covered by the de minimis exemption. However, the de minimis exemption may eliminate the need to consider a certain release. For example, if a section 313 toxic chemical is present at less than the de minimis level in a product that is stored on site, evaporative emissions of the chemical would not have to be estimated from that storage activity.

48. Is the article exemption stated explicitly or is the OSHA definition cited?

The section 313 rule contains an explicit definition of "article", similar in some respects to the OSHA definition.

49. Are colored plastic pellets considered articles? For example, the pigment (a listed toxic chemical) incorporated in plastic pellets is not released when the pellets are processed.

A colored plastic pellet would not meet the definition of an article if it does not have an end use function dependent in whole or in part upon its shape or design. A plastic pellet's shape or design is only a convenient form of a material that is intended to be further processed.

50. Are PCB-containing transformers included under the article use exemption?

If no release of PCBs occurs during the normal use of the transformer, then the transformer remains an article and the PCBs within it do not have to be factored into a threshold determination. If, however, the transformers are serviced by replacing the PCB-containing fluid, a threshold determination must be made.

51. Does material contained in the structure of a building need to be reported?

No. Structural materials are exempt from reporting. That means they do not have to be included when determining whether a threshold is exceeded, and they do not have to be included in calculating the maximum quantity on site. Similarly exempted are listed chemicals used for routine janitorial or facility grounds maintenance; personal uses by employees or other persons; use of products containing toxic chemicals for the purpose of maintaining motor vehicles operated by the facility; and toxic chemicals present in intake water used for non-contact cooling. Painting of equipment and buildings is a type of maintenance that is exempt because the chemical is incorporated into the structure of the facility.

52. Does the "structural component" exemption cover the small amounts of abraded or corroded metals from pipes and other equipment that become part of process streams?

Yes.

53. Are solvents in paint used to maintain the facility exempt?

Yes. Painting to maintain the physical integrity of the facility is consistent with the "structure component" exemptions, even though the solvents in the paint don't become part of this structure.

54. How is routine maintenance, a listed exemption, defined?

The routine maintenance exemption is intended to cover janitorial, other

custodial, or plant grounds maintenance activities which use chemicals in the concentration and form commonly distributed to consumers. These include bathroom cleaning, or use of fertilizers and pesticides to maintain lawns.

- 55. Are pesticides which are used to control algae in cooling water towers exempt?
- No. Such pesticides would not fit the routine maintenance exemption.
- 56. Is equipment maintenance included in the routine maintenance exemption?
- No. Equipment maintenance is not considered a routine janitorial or custodial activity. For example, degreasers used in a manufacturing maintenance shop are not exempt.
- 57. It appears that janitorial type chemicals are exempt. Does this mean that if formaldehyde is used as a disinfectant of a sterile area in excess of the threshold, it is exempt?
- No. The disinfectant described in the question does not appear to be similar in type to a consumer product.
- 58. Does section 313 reporting include laboratory chemicals?

The quantity of a listed chemical manufactured, processed or used in a laboratory under the supervision of a technically qualified person is exempt from threshold and release calculations. This exemption includes laboratories performing quality control activities and those located in manufacturing facilities.

59. What is meant by "specialty chemical production" as an exception to the laboratory activities exemption?

Specialty chemical production includes chemicals produced in a laboratory setting that are distributed in commerce.

60. If a pilot plant is contained within a laboratory, assuming the rest of the lab deals with research and quality control, must the facility calculate the threshold based on the entire lab, or just on the chemicals used for the pilot plant?

The facility would only be required to consider the pilot plant portion of the laboratory.

61. What is a bench scale or pilot scale reactor? Is this type of equipment exempt?

A bench scale reactor would not be covered as part of the pilot plant unless it was used for specialty chemical production.

62. Assume that a quality control laboratory, or area control laboratory, are part of a manufacturing facility. Are they exempt from calculating threshold

quantities for listed chemicals?

Yes. Assuming that such laboratories are under the supervision of a technically qualified person and are not engaged in pilot plant scale or specialty chemical production, they would be exempt from reporting.

63. Does a facility have to report if the value of laboratory research at a facility is greater than 50 percent of the total value of goods and services produced at that facility?

If the research laboratory activity is a separate establishment within the facility from the manufacturing activity and it carries an SIC code not within the covered SIC codes, then the 50 percent test would apply for determining whether the whole facility is "in SIC codes 20-39." According to the SIC code system, however, some laboratories may be considered within SIC codes 20-39 because they are "auxiliary" facilities to manufacturing activity, (i.e., the research supports the manufacturing operation). In this case, both establishments would fall into the covered SIC codes, thus, the whole facility would be covered.

IV. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY

64. An aluminum material in excess of 100,000 pounds is purchased in block form to make a mold which stays on site. During the production of the mold, aluminum fumes and dust were produced as a byproduct. Is aluminum the chemical to be reported?

The aluminum related entry on the section 313 list of chemicals is "aluminum (fume or dust)." Aluminum fume or dust is not processed or used in the example. However, aluminum fume or dust is "manufactured" coincidentally as a byproduct of the mold-making operation. Therefore, if it is estimated that aluminum fume or dust is "manufactured" in excess of the applicable threshold (75,000 pounds for 1987), reporting is required.

65. The only source of chemical A is as a byproduct created in a reaction product at less than the <u>de minimis</u> concentration. The chemical is later removed from the product during purification and ends up in the wastewater. Is a threshold determination required?

Yes. Byproducts that are separated from the product after manufacture are not covered by the <u>de minimis</u> limitation.

66. How can wastewater treatment "products" be considered as manufactured from a treatment process?

The rule's definition of "manufacture" includes the coincidental generation of a listed toxic chemical as a consequence of the facility's waste treatment or disposal activities. These chemicals may not be produced for commercial purposes. They are, nevertheless, created as a result of the facilities activities and released to the environment. Therefore they must be accounted for.

67. If a facility imports a listed toxic chemical, is it required to report under section 313?

An imported chemical entering an SIC code 20-39 facility is the equivalent of a chemical manufactured at that facility.

68. Are importers/exporters responsible for reporting under section 313 for materials stored in public warehouses?

Persons who have to report are the owners or operators of covered facilities. If importers/exporters neither own nor operate the warehouse, they would not be responsible for reporting.

69. What constitutes an import broker? What is the determining criteria?

The fact that a broker is involved in an import transaction may have little

bearing on whether a facility has "imported" a covered chemical. Most import brokers may not themselves be subject to reporting because their business may not be classified under the covered SIC codes. The determining criteria is that a facility caused the chemical to be brought into the customs territory of the United States. A facility has caused it to be imported if it "controls the identity of the chemical and the amount to be imported." That is, even though a broker may be acting as an official import agent, if a facility has specified that a listed chemical (either a "pure" chemical or part of a mixture) be obtained from a foreign source and has specified the amount to be obtained, then the facility has "imported" the chemical.

70. How is process water defined?

Process water is any water drawn into a facility from environmental or municipal sources that is required for the operation of a facility.

71. Are water treating chemicals such as chlorine covered? Does chlorine in city water used have to be counted?

A facility is not required to account for amounts of a covered toxic chemical present in water that is drawn into the facility. For example, chlorine present in water taken from municipal sources does not have to be considered for threshold and release determinations. However, if a facility adds chlorine to treat water used in the facility, then that quantity of chlorine must be counted toward a threshold determination.

72. Does the placing of a bulk liquid containing a small percentage of a section 313 chemical into small bottles for consumer sale constitute a "use" of the mixture?

No, but it is a type of "processing." If the bulk liquid contains a section 313 covered chemical in excess of the \underline{de} minimis level, the chemical in the liquid would have to be factored into calculations in determining whether the processing threshold is exceeded for that chemical.

73. When acids or sodium hydroxide are used as wastewater treatment chemicals for pH control (i.e., neutralization), are the amounts used required to be reported?

If the threshold for use has been exceeded, the facility would file a report indicating use of the chemical, but the report would only include the amount of the chemical discharged after treatment. If the pH of the wastestream resulting from the neutralization process is in the range of 6-9, the wastestream is considered effectively neutralized. The facility should report 100 percent treatment efficiency with a zero release of the acid or base. If, however, the pH is outside the range of 6 to 9, the facility should estimate the amount of unreacted acid or base being discharged, and report this amount as a release to the environment (i.e., discharge to surface waters) or as a transfer to an off-site facility (e.g., POTW) as appropriate.

74. How is a solvent sent off-site for distillation and returned to a facility for use treated for reporting purposes?

The amount of the solvent sent to another facility for distillation is <u>not</u> to be reported as a transfer of the chemical to an off-site location (i.e., it should not be reported in Part III, Section 6 of the form). In addition, the quantity of the solvent returned must be treated as if it were a quantity of the chemical purchased from any other supplier.

75. If a substance is "used" but does not become part of the final product, is the substance covered for reporting purposes? Specifically, are "process solvents" (i.e., solvents that are used in many processes but do not become part of final products) excluded?

If a "process solvent" is not incorporated into a product distributed in commerce, then for the purposes of section 313, it would be considered "otherwise used." It would be subject to reporting if used in quantities exceeding 10,000 pounds per year.

76. Are uses of listed chemicals as fumigants required to be reported?

If the use occurs at a covered facility in excess of 10,000 pounds per year, then reporting would be required.

77. Would a facility which is "tented" to exterminate insects need to report that pesticide?

The use of listed toxic chemicals such as pesticides (except for lawn maintenance) in excess of the threshold in a facility meeting employee and SIC code criteria would require reporting.

78. Is the combustion of gasoline in motor vehicles at the facility exempt?

Yes. Gasoline used to operate motor vehicles owned by the facility is considered to be the equivalent of other mixtures or chemicals used to maintain motor vehicles.

79. Do chemicals produced coincidentally to manufacturing, processing, or using other chemical substances have to be reported?

Chemicals produced coincidentally are subject to reporting. In the case of coincidental production of an impurity, however, the <u>de minimis</u> limitation applies. An impurity is the residual amount of chemical remaining in a final product for distribution in commerce.

80. Paint containing listed chemicals is applied to a product. Most of the coating becomes part of the article. Does the 75,000 pound threshold apply to the coating constituents? Are the volatile chemicals from the painting operation otherwise used, and therefore subject to the 10,000 pound threshold?

Yes to both questions. This is a case in which listed chemicals in the same mixture may have different thresholds. The listed chemicals that remain as part of the coating are "processed" whereas the volatile solvents in the paint are "used" because they are not intended to be incorporated into the article.

81. Are chemicals bought and sold as is exempt? Does adding additional labels or changing labels in a warehouse constitute repackaging?

Listed chemicals that are repackaged are considered to have been processed. However, simple relabeling of a container where no repackaging occurs is not considered to be either processing or use covered by this rule.

82. In calculating the threshold for "otherwise used" for a closed system such as a chilled $\rm H_2O$ system using dichromate, is the total amount of the chemical in the closed system or the actual amount of the chemical "used" or "added" during the year considered?

In a recycle or reuse operation such as this, only the amount of the listed chemical added to the system during the year must be considered in calculating thresholds.

V. TRADE SECRETS

83. How can the identity of a listed toxic chemical be protected from disclosure for trade secrecy purposes?

Section 313 allows facilities to claim trade secrecy, but only for the specific identity of a chemical. The rest of the reporting form must be completed. Thus, releases of chemicals whose identity is trade secret must be reported. If a trade secret claim is being made, two versions of the form must be completed: one which identifies the chemical, and one which contains only a generic chemical identity. In addition, a trade secret substantiation form must be completed. The instructions should be consulted for further information.

84. How will trade secret data be protected when EPA publishes health effects notices for the public?

The health effects notices will be presented in the form of a toxicity effects matrix. The matrix has been structured so that no single chemical can be uniquely associated with any specific pattern of effects. Consequently, the health effects information will not reveal the identity of a chemical and jeopardize trade secrecy. The information in the toxicity matrix, however, should be sufficiently detailed to enable the public to understand the potential effects of exposure to released toxic chemicals.

85. How can competitors find out what has been reported to EPA?

Any person, including a competitor, can gain access to the non-trade secret reports received under section 313. All information received under section 313 is public information except the specific identity of the reported chemical that is claimed trade secret. All non-trade secret information reported will be available in a computer data base.

86. When will trade secrets rule be published?

The final trade secret rule is scheduled to be published by June 1988.

VI. RELEASES OF THE CHEMICAL

87. What is the definition of a chemical "release" under section 313?

The law defines a release as any "spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing to the environment". Under section 313, facilities are required to take into account in their reports both "routine" and "accidental" releases to any environmental medium.

88. What is the difference between a release under section 304 of Title III and a release under section 313? Would accidental releases reported under section 304 have to be included in the section 313 report?

Section 304 releases are accidental releases of certain chemicals listed under section 302 of Title III or section 103 of CERCLA. A report under section 304 is an emergency notification. The Agency interprets reporting under section 313 to include the <u>total</u> amount of toxic chemicals entering each environmental medium from the facility as a result of both routine operational and accidental releases. Thus, section 304 releases of listed section 313 chemicals must be factored into releases reported under section 313.

89. Is it true that the facility need not make any special effort to measure or monitor releases for section 313 reporting and may use information that is on hand? If this is true, how will section 313 reporting produce complete data for the public on environmental releases?

The law states that covered facilities need not conduct monitoring or other activities beyond that required by other statutory or regulatory requirements. Congress included this language to limit the burden on the affected industry for development of release and other required data. In the absence of measurement or monitoring data, the facility is required to make reasonable estimates. EPA has developed a technical guidance document that suggests methods for developing such reasonable estimates.

90. Section 313(g)(2) of the statute states that the owner or operator of a facility may use readily available data. In some cases, the available monitoring data may be known to be non-representative and reasonable estimates offer more accurate release information. Would EPA, in this instance, favor use of the estimates rather than data?

Yes. It is preferable to use reasonable estimates if monitoring data are known to be non-representative.

91. Don't the section 313 reporting requirements overlook the possibility that a substance can lose its identity as a side product in a reaction, and that the difference between "input and output" volumes may not always be due to a release?

The section 313 rule does recognize that a chemical can lose its identity in a reaction. The rule does not require a total mass balance accounting of the reported chemical. If the facility manufactures, processes, or otherwise uses a chemical in excess of the applicable threshold quantity, then it would be obligated to report. The reporting form does not require the facility to report the total amount of annual production, the total amount on hand at the beginning of the year, or the amount processed or used. It requires an estimate of the total annual amount of a chemical released to the environment and the maximum quantity on-site at any time during the year. If (in the most extreme case) all of that chemical processed at the facility is consumed in a reaction and none is estimated to be lost in any other fashion, then the facility would report a zero quantity released.

92. Is there any recommended approach for estimating emissions from facilities whose raw material is of a constantly varying and unknown composition. For example, tar plants receive crude coal tar in batches. No analysis is done on incoming raw materials or on products (or on intermediates) at such facilities.

If available, data on the average composition for the specific material or published data on similar substances should be used.

93. Why are the range codes grouped together in logarithmic scale?

For quantities on-site the ranges were patterned after TSCA inventory reporting, as suggested by Congress.

94. Please clarify the "2 significant figures" reporting guideline.

Estimates should be rounded to no greater than two significant figures (i.e., 4224 should be entered as 4200). The number of "significant figures" is the number of non-zero digits. One significant digit should be reported if the estimation techniques used do not support the two digit accuracy.

95. In the instructions for Form R what does "use leading placeholding zeros" mean?

An example of the use of leading placeholding zeros would be the entry of the CAS Registry number (Part III, Section 1.2.). Space is provided on the form for the longest possible CAS number (currently 9 digits). However, many CAS numbers have fewer than the maximum digits. Therefore, the number should be "right justified" when entered, and any blank spaces to the left of the last number should be filled with zeros. For example, the CAS Registry number for chromium is 7440-47-9. On Form R it should appear as 007440-47-9. EPA requires this in order to promote accuracy of data entry.

96. If total releases are obtained using a combination of several bases, what "Basis of Estimate" is used?

Report the principle means used to estimate releases. Examples in the instructions for the form provide further clarification.

97. Since EPA's fugitive emission factors for equipment leaks for the Synthetic Organic Chemical Manufacturing Industry (SOCMI) and some air emissions factors listed in EPA's document AP-42, "Compilation of Air Pollutant Emission Factors," are not chemical specific, is the code "E" or "O"?

Use "0" for non-chemical-specific emission factors.

98. Do estimates of releases, if over CERCIA Reportable Quantities, obligate facilities to report a continuous release (even though only an estimate)?

Questions relating to CERCLA reportable quantities (RQ) and continuous release provisions should be directed to the RCRA/Superfund Hotline (800)424-9346 (in Washington DC 382-3000).

99. Will EPA be calculating or monitoring concentrations of toxics in ambient air?

The Agency plans to use the TRI data for the purposes of screening and identifying potential environmental problems. To date no decision has been made regarding how the EPA program offices will utilize the TRI data.

100. Is the composition of rainfall as it falls from the sky or its composition once it has run onto and off soil reported for release to stormwater and threshold calculations?

The composition once the rainwater has run onto and off the soil, equipment, and concrete pads is reported.

101. If a facility has an NPDES permit, but does not discharge any listed toxic chemicals to surface water, must Section 3.10 be completed?

Yes. This information element is part of the facility identification section and is intended to be used as a pointer to other existing information relative to the facility.

102. Are groundwater releases required to be reported? If so, what if a facility has a surface impoundment which it suspects is leaking? How is the amount being released calculated?

Releases to underground injection or landfill should be reported. Estimates of amounts leaking from such disposal and possibly reaching groundwater should not be reported. EPA may model the potential for such leaks or migration, but does not require facilities to estimate such further migrations.

103. Where are routine leaks from underground pipes reported? Would such leaks be reported as disposal to land or as underground injection?

When reporting leaks from pipes, where the released material goes must be considered. A volatile organic would evaporate and be reported as a fugitive air emission. A nonvolatile material leaking onto land or any material leaking from an underground pipe would be reported as a release to land, and a

code of D99 for "other disposal" would be used. If the material were cleaned up in some way, the "leaked" material might then be reported as a release to water or an off-site transfer. Underground injection should be reported only for intentional injection of wastes or materials into a well designed for that purpose.

104. Does a facility need to report leaking abandoned landfills?

Leaks from landfills are not required to be reported regardless of whether the landfill is in use or has been abandoned. EPA does require, however, reporting of the amount of a chemical placed in an on-site landfill or transferred to an off-site landfill during the year.

105. On-site wastewater treatment plant sludges which may contain trace amounts of section 313 chemicals are composted on-site. The finished compost is then used as daily cover for the on-site sanitary landfill and for landscaping around the site. Is this considered land treatment, land impoundment, or not a release?

In this case, the code DO3 for Land Treatment/Application/Farming should be entered in Part III, Section 7B of the form.

106. If a treatment plant is operated as part of remediating a Superfund site at a facility, do contaminants which are already present have to be included in calculating thresholds and releases?

Such material need not be included in threshold determinations because it is not being manufactured, processed, or used. However, releases would be reportable if the facility meets reporting criteria (i.e., it is in the SIC codes 20-39, has 10 or more full time employees, and exceeds a threshold). In this case, release does not mean the material that is already in a landfill, only that amount of material released to the environment or transferred offsite by the remedial activity.

107. If a company measures its own valve, flange, and pump leaks and determines a new fugitive emission factor for air releases, is the basis of estimate code "E" or "M" or "O"?

If releases of the chemical are measured from individual pieces of equipment at a facility, use the code "M". Code "E" should only be used for published emission factors which are chemical specific. If leaks are measured in a general way, "O" or non-published factors developed at other facilities should be used.

108. Ten thousand pounds of a 50 percent sodium hydroxide solution is diluted on site to 20,000 pounds of a 25 percent solution. This solution is used to neutralize 25,000 pounds of acid solution producing 45,000 pounds of final solution. Because the amount of sodium hydroxide is in excess of the amount needed to neutralize the acid, the final solution contains 0.1 percent sodium hydroxide. What is the maximum amount of sodium hydroxide on site?

The maximum amount would be $10,000 \times .5 = 5,000$ pounds. The amount remaining

after the neutralization $(45,000 \times 0.001 = 45 \text{ pounds})$ is part of this original amount and does not have to be added to the 5000 pounds to determine the maximum amount present at the site.

109. Are amounts of acids and sodium hydroxide used in a wastewater treatment facility for pH control that are "neutralized" required to be reported? Are spills of these materials treated and neutralized at the facility covered under section 313?

Materials used in wastewater treatment at the facility are considered in determining whether the thresholds for use of a chemical have been exceeded. To the degree that the treated wastestream is in pH range 6-9, releases of the acids and NaOH would be reported as zero. If spills are neutralized at an onsite wastewater treatment facility, then releases would not be considered for reporting if the pH is within the 6-9 range after treatment. If the treatment facility is off-site, then the quantities of acid or NaOH must be reported as transfers to off-site facilities for treatment.

VII. TRANSFERS TO OFF-SITE LOCATIONS

110. If a POTW has no current estimate of treatment efficiency for each section 313 chemical, is "N/A" acceptable?

The treatment efficiency for any off-site facility to which transfers of toxic chemicals occur does not have to be reported. Thus, facilities must account for the annual quantity of the listed toxic chemical(s) released to a POTW but are not required to estimate the treatment efficiency of the POTW.

111. Why does the section 313 form require disclosure of off-site locations to which toxic chemicals are transferred? The Act only requires the disposal method employed.

Section 313 requires reporting releases to all environmental media. In the conference committee report, EPA was directed to require reporting of releases to the air, the water, the land, and to waste treatment and disposal facilities. In essence, the legislative history treats such facilities as an equivalent environmental medium. EPA believes that Congress intended to include the reporting of quantities transferred to off-site waste treatment and disposal facilities to provide users of the data with a total picture of how and where the listed toxic chemicals are entering the environment. That means the reports should not only report waste transfers off-site, but also the identity of the facility one location to which the wastes are transferred.

112. If off-site reclaimers are not to be included in the off-site locations which handle wastes, are emissions discharged by these reclaimers included as point emissions or are they not reported?

A facility should not report transfers for off-site recycling of the chemical or the chemical releases from such a reclaimer.

113. What RCRA ID number is listed if a <u>non</u>-hazardous waste containing a SARA section 313 chemical is sent to a solid waste landfill?

If an off-site location such as a solid waste landfill does not have a RCRA ID number, "N/A" would be entered in the space provided. If the facility does have such an ID number, it must be listed if known, even though the waste being transferred may not be a listed RCRA hazardous waste.

114. What about shipment for recycle (e.g., "empty" drums containing a residue of a toxic chemical that are sent for drum remediation)? This is not a treatment, storage or disposal (TSD) facility. The chemical is not being recycled, but the carrier, that is, the container, is being recycled. Are these types of facilities listed as off-site TSD facilities?

Shipments for recycle of the chemical should not be reported. However, recycle of drums or recycle of other constituents of a waste does not qualify

as recycle of the chemical and such transfers should be reported. The example cited should be reported as an off-site transfer with appropriate code such as M99 (unknown). If it is known that the drums are washed with water and the wastewater is treated, code M61 (wastewater treatment) should be reported.

VIII. WASTE TREATMENT METHODS AND EFFICIENCY

115. When multiple waste sources are combined for treatment, should each source be listed in the treatment efficiencies section and a common efficiency shown or should only the combined stream be shown?

Report only the combined (or aggregate) wastestream and report the aggregate efficiency for each treatment method used. See instructions for reporting sequential treatment. A wastestream which is treated before combination with other wastes, then subsequently treated as a combined stream, should be reported on a separate line on the form.

116. How is the treatment efficiency of a crystallization unit that completely evaporates a wastewater stream reported?

A treatment step that completely eliminates a wastestream has an efficiency of 100 percent. The crystallization unit generates a new solid waste stream (the solid crystals). The disposition of this new wastestream, including any additional treatment performed on it, must be reported on the form. Note that any on-site treatment of the solid wastestream is not considered "sequential" treatment of the wastewater stream and must be listed with its treatment efficiency on a separate line.

117. How is an auxiliary scrubber that is designed and used only to mitigate emergency releases reported?

The influent concentration and treatment efficiency of the scrubber as it operates during an emergency event should be reported. The emergency scrubber is not considered to be "sequential" treatment with a scrubber which treats routine emissions from the same process, unless the two units function in a series on a single wastestream.

118. If a wastewater treatment system contains an oil skimmer or other phase separation treatment, is this reported as a sequential treatment step for each of the separated phases, or just for one phase?

The separation step is a sequential treatment step for one liquid phase (the one with the larger volume, in this case, water). The other phase must be considered a new wastestream and must be listed separately on the form.

119. If a facility has wastewater analysis for a chemical to be reported as being "Non-Detected" with a detection limit of 1 ppb., is a discharge of "0" (zero) reported is the discharge calculated based on the detection limit?

Use one-half of the detection limit if the facility believes that the chemical may actually be present. Use "zero" if it is determined that the wastewater does not contain the chemical, for example, because neither routine or accidental contact with water occurs.

120. Does the waste treatment section apply only to the facility completing the report?

Yes.

121. If the calculated threshold of sodium hydroxide, for example, is based on the mass utilization of the solution, would the emission of a wastewater stream containing 1 ppm of NaOH be the actual mass of NaOH or the mass of wastewater?

Only the actual mass of the toxic chemical being released should be reported, in this case the mass of sodium hydroxide. Note, however, that in this specific case, if the wastestream has been neutralized so that the pH is in the range 6-9, the release of sodium hydroxide would be considered zero for reporting purposes.

IX. WASTE MINIMIZATION

122. What is included in waste minimization? Are solid wastes as well as hazardous wastes included?

Waste minimization means reduction of the generation of toxic chemicals in wastes. Waste minimization reporting applies to air emissions, solid wastes, wastewater and liquid materials that are released, disposed, or treated.

123. If a facility modifies a process for economic reasons resulting in a waste reduction, should this be reported as minimization?

Yes. Any changes that result in less waste being generated may be included. Codes are provided to identify changes such as equipment and technology modifications, as well as process changes, procedure modifications, and improved housekeeping.

124. What do facilities that have not performed any waste minimization include in the report?

The waste minimization portion of the reporting form is optional.

125. Would RCRA permitted incineration of waste count as waste minimization under M8 (other treatment methods)?

Treatment or disposal can not be reported as waste minimization under the TRI form. The emphasis is placed on facility activities that reduce generation of wastes and not on activities that allow for treatment of wastes.

126. Where can facilities obtain figures from previous year?

Companies can obtain waste minimization information about the year prior to reporting from various sources including but not limited to inventory data, recycle/reuse data, engineering reports on process modification and product development studies.

127. Please elaborate on the waste minimization section with respect to the proposed legislation regarding unit-based reduction measurement?

Congressman Wolpe has introduced a bill HR 2800 that, if enacted into a law, will expand the section 313 optional waste minimization reporting requirements and make such reporting mandatory.

X. CERTIFICATION AND SUBMISSION

128. Must a separate Form R be filled out for each reportable chemical?

Yes. As described in the instructions, however, only one version of Part I (page 1) of the form needs to be completed for any facility. That page can then be photocopied and attached to each chemical-specific report. Each copy, however, must contain an original signature on the certification statement. Similarly, Part II (Off-Site Locations) may be filled out for all chemicals being reported and then photocopied for each submission.

129. Are facilities required to include an original signature on forms going to the <u>State</u> as well as <u>EPA</u>?

An original signature on the certification statement is not required under EPA's rule for the copy that is sent to the State.

130. Is the owner or operator responsible for submitting the chemical release inventory form?

Either person (i.e., either the owner or operator) is subject to the section 313 reporting requirements. Therefore, if no report is received from a covered facility, both persons are liable for penalties. As a practical matter, EPA believes that the operator is more likely to have the information necessary for making the reporting determinations.

131. Would an owner of a facility who has no knowledge of any operations taking place in the facility be responsible for reporting under section 313?

If the owner has any business interest in the facility beyond owning the real estate on which the covered facility is located, he would be subject to reporting requirements. Neither owners who are part of the same business organization as the operators, nor owners of businesses that contract out the operation of a particular site, are exempt from reporting.

132. Can a plant manager of a facility or a designee sign the certification statement on the form? That is, can a plant manager count as a "senior management official"?

Section 313 requires that a senior official with management authority over the person or persons filling out the form certify the accuracy and completeness of the form. This person could be a plant or facility manager rather than a senior corporate executive and should be the senior person in a position to attest to the accuracy of the information provided.

133. If a facility has a manager who is the originator of the data in the form report would he/she sign the form or would it be the facility manager to whom this manager reports?

Each facility must make the determination regarding who meets the definition in the rule of a "senior management official."

134. If a facility has been sold or otherwise changed hands during the year, who is responsible for completing the report?

The last owner or operator of the facility during a reporting year is the person responsible for reporting unless the sales or transfer agreement contains language that the seller will assume this reporting responsibility. In any event, only one report must be submitted for the entire reporting year.

135. What is the status of magnetic media submission (e.g., on tape or floppy disk) for the July 1, 1988, section 313 reports?

Data submission by magnetic tape or disk should be possible for July 1, 1988, reporting cycle. The Agency is publishing instructions for magnetic media submission. Contact the Emergency Planning and Community Right-To-Know Information Hotline.

136. Who is responsible for errors if a consultant is contracted to help with compliance for section 313?

The owner or operator of the facility is responsible for complying with section 313 and for any errors in reporting. The certification statement which is signed by an official of the reporting facility states that the information is complete and accurate.

137. If the public contact item (Part I, Section 3.4) is left blank, can the facility later use a public contact to speak to the news media on behalf of the technical contact, who may not be publicly conversant?

If a public contact is not identified, EPA will enter the technical contact into this information element in the database. Thus this person would receive public inquiries. A facility may, of course, use any other person it chooses to deal with the public in response to such inquiries.

138. Can the technical contact be a <u>different</u> person for each chemical and each separate part of a facility?

Yes. It is allowable to have different technical contacts for different chemicals or different establishments within the facility provided that only one "technical contact" is listed on each form.

139. Can a facility submit one original copy each of Parts I (Facility Identification Information) and II (Off-Site Locations) with several copies of Part III (Chemical Specific Information) for different listed chemicals?

No. The final rule clearly requires that each completed submission contains all parts of Form R (including Part IV). Submission of multiple copies of Part III, with only one copy of Parts I and II, would be considered non-compliance.

- 140. The instructions state that photocopied versions of Part I may be submitted. Does that mean that the senior official at a facility certifying the validity of the forms only has to sign one submission?
- No. The final rule states that each unique chemical submission must contain an original signature. The purpose of this requirement is to ensure that the certifying official has reviewed each chemical submission. A photocopied signature does not fulfill this purpose and would be considered noncompliance.
- 141. Can common or trade names other than those listed in the rule be used for submissions?
- No. EPA has provided a list of standard chemical names and CAS numbers for all of the chemicals which must be reported under section 313. The rule requires that use of these standard names.
- 142. In some sections of Form R, facilities are asked to report "N/A" if that section does not apply to a submission. Are blank spaces left on the form the equivalent of "N/A"?
- No. The rule requires "N/A" to be entered to inform the Agency that the submitter has not just overlooked a section of the form. Leaving blanks would be considered non-compliance with the rule.
- 143. Are facilities allowed to use the proposed form in their submissions?
- No. The final Form R was published in the Federal Register on February 16, 1988. The information content of the form published with the final rule is different from that of the proposed form. Thus, submissions using the proposed form are unacceptable. For copies of the form and instructions, contact the Emergency Planning and Community Right-to-Know Hotline (See p. i).
- 144. How can a facility be assured that the Agency has received a submitted form?

To be acknowledged of receipt of submissions, facilities should send forms using the U.S. Post Office "Return Receipt Requested" mail service. The Agency will not respond to cover letters requesting acknowledgement.

XI. EPA'S SECTION 313 PROGRAM

145. What type of quality control check will EPA make on each form it receives?

EPA plans to incorporate edit checks in the database to identify missing, incomplete, incorrect and suspect data elements in the TRI forms.

146. How will questionable data be identified by EPA?

OTS is developing checks of completeness and, for some types of data, reasonableness of an entry. For example, zero air emissions of a volatile chemical would be flagged. OTS envisions contacting the facility for clarification of such "questionable" data.

147. Does the Agency plan to investigate non-reporters before "auditing" reports from complying facilities?

The Agency will focus enforcement efforts to identify non-reporters. At the same time, however, EPA is planning to issue notices of non-compliance in connection with forms that contain errors or omissions. A fixed period of time will be allowed for corrections before penalties are assessed. EPA also intends to investigate submissions with questionable technical entries. However, the purpose of such technical audits will not be purely as an enforcement action. A further benefit will be to identify where problems exist in calculating releases so that the Agency can improve its guidance and instruction documents.

148. Are specific audit provisions written into regulations? Will audit results be made public? Can released information be changed? What about resolving differences of opinion, (i.e., does the auditor have final judgement)?

Specific audit provisions are not written into regulations. The Agency, however, has the responsibility to assure that the data submitted is based on reasonable estimates, and audits may be conducted. Audit results will be utilized to identify where problems exist with calculating releases. In resolving difference of opinion we hope that final judgement will rely on consensus formed by the Agency auditor and company's technical staff.

149. When will the "fact sheets" for each of the 328 chemicals be available?

The Agency plans to finalize the majority of the fact sheets by the end of 1988. The N.J. fact sheets will be used directly and supplemented with additional environmental toxicity data where appropriate.

150. Will the public be able to review the chemical fact sheets before they are final and provide comments to EPA?

No. The State of New Jersey has conducted an extensive review of the literature to produce these factsheets and has had expert panels review them. EPA has not yet decided whether to develop separate health fact sheets on the section 313 chemicals to replace the New Jersey factsheets.

151. Will there be data on half life (i.e., decomposition rate) of chemicals in the air included in the fact sheets?

The fact sheets will contain some data on persistence of chemicals in the environment where available or applicable.

152. Will the public be able to browse through all of the reports filed, or will it have to request individual reports? Will some sort of log be kept noting users of the data?

The public will be able to access the computerized public data base by spring of 1989. During summer of 1988 copies of the TRI forms will be available through the states. Each state will have to decide how the public will access the copies and what records the state will keep as result of public inquires. Prior to the public data base availability, EPA headquarters can also provide for review of a reasonable number of these forms on an appointment basis.

153. How can copies of the technical guidance documents be obtained?

You can get copies of the technical guidance document by writing the Emergency Planning and Community-Right-To-Know Information Service.

154. What are the specific industries for technical guidance manuals?

These are guidance documents developed for a specific industry or industrial operation to help them determine reporting requirements and estimate releases. Industries covered are:

Electroplating Operations Primary Lead, Zinc, and Cadmium Smelting Presswood and Laminated Wood Products Manufacturing Wood Preserving Roller, Knife and Gravure Coatings Operations Spray Application of Organic Coatings Electrodeposition of Organic Coatings Rubber Production and Compounding Paper and Paperboard Production Primary Aluminum Smelting Primary Copper Smelting Leather Tanning and Finishing Processes Semiconductor Manufacture Printing Operations Monofilament Fiber Manufacture Textile Dyeing Formulating Aqueous Solutions

Form Approved OMB No.: 2070-0093

provou o	1410 140	· · · —	4 4 .	<u> </u>	
Approval	Expire	s:_	01/9)1	

(Important: Type or print; read instructions before completing form.)

\$EPA

U.S. Environmental Protection Agency
TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

EPA FORM

A FORM

Page 1 of 5

	Section 313, Title III of The Superfund Amendments and Reau	uthoriza	ion Act of 1986	
	PART I. FACILITY IDENTIFICATION INFORMATION		(This space for EPA use	only.)
1.		s a sanitiz Yes	nd copy? 1.3 Reporting Year	
I her and of th	EERTIFICATION (Read and sign after completing all sections.) reby certify that I have reviewed the attached documents and that, to the best of complete and that the amounts and values in this report are accurate based on r is report. Be and official title of owner/operator or senior management official	my kno reasonab	vledge and belief, the submitted information e estimates using data available to the pre	n is true parers
Signa	iture		Pate signed	
3. F	ACILITY IDENTIFICATION			
3.1	Facility or Establishment Name Street Address City County		This report contains information for: (che a. An entire covered facility. 3.2 Part of a covered facility.	ck one)
	State Zip Code		В	
3.3	Technical Contact		Telephone Number (include area code) () -	
3.4	Public Contact		Telephone Number (include area code)	
3.5 3.6 3.7 3.8	a. SIC Code b. c. Longitude Deg. Min. Sec. Deg. Min. Sec. Dun & Bradstreet Number(s) a. b. EPA Identification Number (RCRA I.D. No.) a. b. a. -		Where to send completed for U.S. Environmental Protection Agel P.O. Box 70266 Washington, DC 20024-0266 Attn: Toxic Chemical Release inve	псу
J. J	a. Name of Receiving Stream(s) or Water Body(s) a.			
3.10	b.			
	C.			
3.11	Underground injection Well Code (UIC) Identification No.			
4. P	ARENT COMPANY INFORMATION			
4.1	Name of Parent Company			
4.2	Parent Company's Dun & Bradstreet No.			

EPA FORM **R**PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This	space	for	EPA	use	only.)	

1. PUBLICLY OWNED TREATMENT WOR	RKS (BOTW)		
Facility Name	iks (FOTV)		
Street Address			
City	County		
State	Zip		
	`		
2. OTHER OFF-SITE LOCATIONS Num	ber these locations sequentiall	on this and any add	itional page of this form you use.
Other off site leasting			
Other off-site location		•	
EPA Identification Number (RCRA ID. No.)			
Facility Name		•	
Street Address			
City	County		
State	Zip		
	·		
Is location under control of reporting facility or page 1	arent company?		
	Yes No		
Other off-site location			
EPA Identification Number (RCRA ID. No.)			
El A Identification (North Ib. (No.)			
Facility Name			
Street Address			
City	County	•	
State	Zip		
Otate			
is location under control of reporting facility or pa	arent company?		
	Yes No		
Cohor off size lessation			
Other off-site location			
EPA Identification Number (RCRA ID. No.)			
Facility Name			
Street Address			
City	County	•	
State	Zip		
	 -		
			
is location under control of reporting facility or p.	arent company?		
	Yes No		
Check if additional pages of Part II are attached	d.		
L_ GIOGRA II ABBANA PAGARA NA			

(Important:	Tune	or	print.	read	instructions	hefore	completing	form
(= reportanti.	I ype	U/	print;	reau	instructions	Dejoie	completing	jorni.

Page 3 of 5

EPA FORM R
PART III. CHEMICAL SPECIFIC INFORMATION

(This	space	for	EPA	use	only.)

1. CHEMICAL IDENTITY						
1.1 Trade Secret (Provide a generic	name in 1.4	below. Attacl	n substantiat	ion form to this	submission.)	
1.2 CAS #	(t	Use leading zero	s if CAS nu	mber does not fil	l space provided.)
Chemical or Chemical Category Name						
Generic Chemical Name (Complete only If 1.	1 is checked.)					
MIXTURE COMPONENT IDENTITY	(Do not co	mplete this sect	ion if you ha	ave completed Se	ction 1)	
2. Generic Chemical Name Provided by Supplier						unctuation)).
3. ACTIVITIES AND USES OF THE CHE	MICAL AT	THE FACILITY	(Check all	that apply.)	17. 27.	
3.1 Manufacture: a. Produce		b. Impo	rt	c. [For on-site use/processin	g
d. For sale/ distribution		e. As a	byproduct	f. [As an impurit	у
3.2 Process: a. As a read	etant	b. As a comp	formulation onent	c. [As an article component	
d. Repackaç	ging only					
3.3 Otherwise Used: a. As a cher processin		b. As a	manufacturi	ng aid c.	Ancillary or o	ther use
4. MAXIMUM AMOUNT OF THE CHEM	ICAL ON S	ITE AT ANY T	IME DURIN	NG THE CALEN	DAR YEAR	
(enter code)						
5. RELEASES OF THE CHEMICAL TO TI	HE ENVIRO	NMENT				
		A. To	otal Release (lbs/yr)		B. Basis of Estimate	
You may report releases of less than 1,000 lbs. by checking ranges under A.1.		A.1 Reporting F		A.2 Enter Estimate	(enter code)	
5.1 Fugitive or non-point air emissions	5.1a				5.1b	
5.2 Stack or point air emissions	5.2a				5.2b	
5.3 Discharges to water 5.3.1	5.3.1a				5.3.1b	C. % From Stormwater 5.3.1c
(Enter letter code from Part I Section 3.10 for streams(s).) 5.3.2	5.3.2a				5.3.2b	5.3.2c
5.3.3	5.3.3a			,. .	5.3.3b	5.3.3c
5.4 Underground injection	5.4a				5.4b	
5.5 Releases to land (enter code)	5.5.1a				5.5.1b	
5.5.1 (enter code)	5.5.2a				5.5.2b	
5.5.3 (enter code)	5.5.3a				5.5.3b	
(Check if additional information is provided on Part IV-Supplemental Information.)						

EPA	FORM	R,	Part	III	(Continued)
-----	------	----	------	-----	-------------

6. TRANSFERS OF THE				·				
You may report transfers of less than 1,000 lbs. by		WASTE TO OI A.Total Tran (lbs/y	nsfers	LOCATION		Basis of Estima (enter code)	te	C. Type of Treatment/ Disposal (enter code)
rungos under A. I.		A.1 eporting Ranges 1-499 500-999		A.2 Enter Estimate		(onto)		Disposal (Sixer code)
6.1 Discharge to POTW						6.1b		
Other off-site location 6.2 (Enter block number from Part II, Section 2.	, 🗆					6.2b		6.2c
6.3 Other off-site location (Enter block number from Part II, Section 2.	, 🗆					6.3b	·-··	6.3c
6.4 Other off-site location (Enter block number from Part II, Section 2.	, 🔲					6.4b		6.4c
(Check if additional	information is pro	ovided on Part I'	V-Supple	mental Infor	nation)			
7. WASTE TREATMENT								
A. General B. Wastestream (enter code)	Treatment Method (enter code)		of nt entration code)	D. Seque Treatr (checl applic	nent? k lf	E. Treatme Efficienc Estimate	У	F. Based on Operating Data? Yes No
7.1a 7.1b		7.10		7.1d		7.1e	%	7.1f
7.2a 7.2b		7.2c		7.2d		7.2e	%	7.2f
7.3a 7.3b		7.3c		7.3d		7.3e	%	7.3f
7.4a 7.4b		7.4c		7.4d		7.4e	%	7.4f
7.5a 7.5b		7.5c		7.5d		7.5e	%	7.5f
7.6a 7.6b		7.6c		7.6d		7.6e	%	7.6f
7.7a 7.7b		7.7c		7.7d		7.7e	%	7.7f
7.8a 7.8b		7.8c		7.8d		7.8e	%	7.8f
7.9a 7.9b		7.9c		7.9d		7.9e	%	7.9f
7.10a 7.10b		7.10c		7.10d		7.10e	%	7.10f
7.11a 7.11b		7.11c		7.11d		7.11e	%	7.11f
7.12a 7.12b		7.120		7.12d		7.12e	%	7.12f
7.13a 7.13b		7.13c		7.13d		7.13e	%	7.13f
7.14a 7.14b		7.14c		7.14d		7.14e	%	7.14f
(Check if addition	nal information is	provided on Pa	ırt IV-Su	pplemental Ir	nformati	on.)		
8. OPTIONAL INFORMA	ATION ON WAS	TE MINIMIZA	TION				,	
(Indicate actions taken t items and an explanation	o reduce the am	ount of the che	mical bel	ng released	from the	e facility. See th	ne Inst	ructions for coded
A. Type of modification (enter code)	B. Quantity prior to	of the chemica treatment/dispo	sal 			C. Index	D.	Reason for action (enter code)
	Current reportin year (Ib	g year		Or percent change				
	,	· · · · · ·	į	%	[

EPA FORM R PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Parts I and III. Number or letter this information sequentially from prior sections (e.g., D,E, F, or 5.54, 5.55).

(This space for EPA use only.)

ADDITIONAL INFORM	ATION ON F	ACILITY	IDENT	TFICATION	V (Part I	- Section 3)		
3.5 SIC Code					· (r ure r	- doction by		
3.7	Dun & Bradstreet Number(s)							
EPA Identification Num). No.)	 		1-1-1			
NPDES Permit Numbe				1 1 1	1 1 1	<u> </u>		
3.9				_1_1_1_		<u></u>		
Name of Receiving St	ream(s) or Wate	r Body(s)	<u> </u>					
ADDITIONAL INFORM Releases to L		RELEASE	S TO L		otal Relea			B. Basis of
110,02303 (0 2	and			A.1	(lbs/yr)	A.2		Estimate (enter code)
				Reporting F	-	Enter		`
5.5 (0	enter code)	5.5a	i			_	5.5	b
5.5(enter code)	5.5a	ı				5.5	_ b
5.5 (0	5.5 (enter code) 5.5a 5.5b							
				2550 (2				
ADDITIONAL INFORM	TATION ON C	PF-SITE	THAN	A.Tota	l Transfer		B. Basis of	C. Type of Treatment/
		<u> </u>		A.1	lbs/yr)	A.2	Estimate (enter code)	Disposal (enter code)
			R €	porting Ra	nges 500-999	Enter Estimate		
6 Discharge to POT\	N	6a	_				6b	
Other off-site local 6. (Enter block number from Part II, Section	er	6a					6. ь	
6 (Enter block number)	box off site legation				1		اب	│ 6c.
from Part II Section	ar II	6a					6b	6c.
from Part II, Section	on 2.)	<u>!!</u>		AFNE (De	- III - O-	201-27)		
ADDITIONAL INFORM	MATION ON	WASTE T	REAT	MENT (Par		ction 7) D. Sequential		
from Part II, Section	MATION ON B. Tre	<u>!!</u>	REAT	C. Range Influer Conce	of		6b	6c.
ADDITIONAL INFORM A. General Wastestream (enter code)	MATION ON S B. Tre Me (en	WASTE T	REAT	C. Range Influer Conce	of nt entration code)	D. Sequential Treatment? (check if	6b	F. Based on Operating Data?
ADDITIONAL INFORM A. General Wastestream (enter code) 7a	MATION ON S B. Tre Me (en	WASTE T	REATN	C. Range Influer Conce (enter	of nt entration code)	D. Sequential Treatment? (check if applicable)	6b E. Treatment Efficiency Estimate	F. Based on Operating Data? Yes No
ADDITIONAL INFORM A. General Wastestream (enter code) 7a 7a	7b	WASTE T	REATN	C. Range Influer Conce (enter	of of ontration code)	D. Sequential Treatment? (check if applicable) 7d	E. Treatment Efficiency Estimate 7e	F. Based on Operating Data? Yes No % 7f
ADDITIONAL INFORM A. General Wastestream (enter code) 7a	7b	WASTE T	REATN	C. Range Influer Conce (enter	of of intration code)	D. Sequential Treatment? (check if applicable) 7d 7d	6b E. Treatment Efficiency Estimate 7e 7e	F Based on Operating Data? Yes No % 7f

ADDITIONAL MATERIALS AVAILABLE ON SECTION 313:

Section 313 rule (FR reprint)

A reprint of the final section 313 rule (including Form R and instructions) as it appeared in the Federal Register (FR).

* Trade secrets rule and form (Section 322 of Title III)

A reprint of the current rule to implement the trade secrets provision of the Emergency Planning and Community Right-to-Know Act (Section 322) and a copy of the trade secret substantiation form.

Estimating Releases and Waste Treatment Efficiencies for the Toxic Chemical Release Inventory Form

Suggested methods on the development of release estimates and waste treatment efficiency calculations required on Form R.

X List of Lists (January 1988)

A consolidated list of specific chemicals covered by the Emergency Planning and Community Right-to-Know Act. The list contains the chemical name, CAS Registry Number, and provides specific information on what reporting requirement(s) the chemical is subject to.

Synonyms Document

This document contains common synonyms for the specifically listed section 313 chemicals (synonyms for chemicals in covered categories are not included).

**** Questions and Answer Document**

Answers to frequently asked questions about the section 313 rule, organized by subject area.

XX TRI Magnetic Media Submission Guidance Package

Reports under section 313 may be submitted by computer tape or floppy disk. This guidance package gives the format requirements and other details for such submissions.

X Industry Specific Technical Guidance Documents

The Agency has developed a group of smaller, individual guidance documents that target activities in industries who primarily process or use the listed toxic chemicals.

For copies of these materials, send in the request form included in the booklet or write to:

Emergency Planning and Community Right-to-Know Information Hotline U.S. Environmental Protection Agency WH - 562 A 401 M Street, S.W. Washington, D.C. 20460

Please send information on: (Please	e indicate the quantities you are requesting.)
Section 313 Rule (FR Document) Additional copies of Form R Section 322 Rule and Form (Trade Secrets) Estimating Releases Title III List of Lists Synonyms Document TRI Magnetic Submission Media Guidance Package	Industry Specific Technical Guidance Electroplating Operations Primary Lead, Zinc, and Cadmium Smelting Presswood and Laminated Wood Products Manufacturing Wood Preserving Roller, Knife, and Gravure Coating Operations Spray Application of Organic Coatings Electrodeposition of Organic Coatings Rubber Production and Compounding Paper and Paperboard Production Primary Aluminum Smelting Primary Copper Smelting
NAME	Leather Tanning and Finishing Processes Semiconductor Manufacture Printing Operations
STATE ZIP CODE	Monofilament and Textile Fiber Manufacture Textile Dyeing and Finishing Formulating Aqueous Solutions

		_
_1	_ 1	_
~	~ 1	_
а	n	-

STREET

STATE ZIP CODE

Place Stamp Here

Emergency Planning and Community Right-to-Know Information Hotline U.S. Environmental Protection Agency WH-562 A 401 M Street, S.W. Washington, D. C. 20460