

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 117 and 302

[SW H-FRL 2665-6(b)]

Notification Requirements; Reportable Quantity Adjustments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Sections 103(a) and 103(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") require that persons in charge of vessels or facilities from which hazardous substances have been released in quantities that are equal to or greater than the reportable quantities immediately notify the National Response Center of the release. Section 102(b) sets a reportable quantity of one pound for hazardous substances, except those for which reportable quantities have been established pursuant to section 311(b)(4) of the Clean Water Act ("CWA").

Section 102(a) authorizes the Environmental Protection Agency ("EPA") to adjust reportable quantities for hazardous substances and to designate as hazardous substances, substances which when released into the environment may present substantial danger to the public health or welfare or the environment. This final rule adjusts many of the reportable quantities established in section 102(b). These reportable quantity adjustments are intended to reduce the burdens of reporting on the regulated community, allow EPA to focus its resources on the most serious releases, and protect public health and welfare and the environment more effectively. This rule also designates, under section 102(a) all substances listed under the various statutory provisions referenced in section 101(14) of CERCLA. This rule also revises reportable quantities established pursuant to section 311(b)(4) of the Clean Water Act for discharges of hazardous substances into navigable waters, so that the CWA section 311 reportable quantities will be identical to and therefore consistent with those promulgated under CERCLA.

To help implement these changes, today's rule clarifies requirements for notifying the National Response Center of a release of a hazardous substance in a quantity equal to or greater than its reportable quantity. The toll-free telephone number of the National Response Center is listed under "ADDRESSES."

EFFECTIVE DATE: July 3, 1985.

CERCLA section 305 provides for a legislative veto of regulations promulgated under CERCLA. Although *INS v. Chadha*, 462 U.S. 919, 103 S. Ct. 2764 (1983), cast doubt on the validity of the legislative veto, EPA has transmitted a copy of this regulation to the Secretary of the Senate and the Clerk of the House of Representatives. If any action by Congress calls the effective date of this regulation into question, the Agency will publish a notice of clarification in the **Federal Register**.

ADDRESSES: The toll-free telephone number of the National Response Center is (800) 424-8802; in the Washington, D.C. metropolitan area (202) 426-2675.

The record supporting this rulemaking is available for public inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street SW, Washington, D.C. 20460 (Docket Number 102RQ). The docket may be inspected between 8:00 a.m. and 4:00 p.m. Monday through Friday. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

FOR FURTHER INFORMATION CONTACT:

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RCRA/Superfund Hotline (800) 424-9346, in Washington, D.C., (202) 382-3000.

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I. Introduction

A. Statutory Authority

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [Pub. L. 96-510], 42 U.S.C. 9601 *et seq.*, enacted on December 11, 1980, establishes broad federal authority to deal with releases or threats of releases of hazardous substances from vessels and facilities. The Act defines a set of "hazardous substances" by reference to other environmental statutes (section 101(14)); this list currently contains 698 substances. The Environmental Protection Agency ("EPA") may designate additional hazardous substances (section 102).

The Act requires the person in charge of a vessel or facility to notify the National Response Center ("NRC") immediately when there is a release of a designated hazardous substance in an amount equal to or greater than the reportable quantity ("RQ") for that substance (sections 103(a) and (b)). Section 102(b) of CERCLA establishes RQs for releases of designated hazardous substances at one pound, unless other reportable quantities were assigned under section 311 of the Federal Water Pollution Control Act ("Clean Water Act" or "CWA"). Section 102 authorizes EPA to adjust all of these reportable quantities.

A major purpose of the section 103(a) and (b) notification requirements is to alert the appropriate government officials to releases of hazardous substances that may require rapid response to protect public health and welfare and the environment. Under the Act, the federal government may respond whenever there is a release or a substantial threat of a release into the environment of a hazardous substance or of other pollutants or contaminants which may present an imminent and

substantial danger to public health or welfare (section 104). Response activities are to be taken, to the extent possible, in accordance with the National Contingency Plan (40 CFR Part 300), which was originally developed under the CWA and which has been revised to reflect the responsibilities and authority created by CERCLA. EPA emphasizes that notification based on reportable quantities is merely a trigger for informing the government of a release so that the appropriate federal personnel can evaluate the need for a federal response action and undertake any necessary response (removal or remedial action) in a timely fashion. Reportable quantities serve no other purpose; for example, a reportable quantity need not be released before a claim for damages or cleanup costs may be filed against the Hazardous Substance Response Trust Fund. Federal personnel will evaluate all reported releases, but will not necessarily initiate a removal or remedial action in response to all reported releases, because the release of a reportable quantity will not necessarily pose a hazard to public health or welfare or the environment. Government personnel will assess each release on a case-by-case basis.

B. Background of This Rulemaking

On May 25, 1983, EPA proposed a rule (48 FR 23552) to clarify procedures for reporting releases and to adjust reportable quantities for 387 of the 698 CERCLA hazardous substances. That Notice of Proposed Rulemaking (NPRM) also listed, for the first time, the "hazardous substances" designated by section 101(14) of CERCLA. The NPRM discussed in detail the CERCLA notification provisions (including the persons required to notify the NRC of a release, the substances for which notification is required, the types of releases subject to the notification requirements, and the exemptions from these requirements), the methodology and criteria used to adjust the reportable quantity levels, and the RQ adjustments proposed under section 102 of CERCLA and under section 311 of the CWA. That same day, EPA also published an Advance Notice of Proposed Rulemaking (ANPRM) concerning the designation of hazardous substances in addition to those specified in section 101(14) of the Act (48 FR 23602). In response to requests, and to increase the public's opportunity to express its opinion on the NPRM and ANPRM, the original 60-day comment period for both notices was extended by 30 days, so that the comment period closed on August 25, 1983. EPA received

136 comment letters totalling over 1,000 pages; these comments represent the first formal statements of public opinion on the methodology developed for adjusting RQs, the actual RQ adjustments proposed, and various issues relating to notification. A summary of the comments received, together with the Agency's responses, is contained in the Responses to Comments on the Notice of Proposed Rulemaking on the Adjustment of Reportable Quantities ["Responses to Comments"], which is available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

Today, the Agency is promulgating RQ adjustments and clarifications of reporting procedures. The RQs of 340 CERCLA hazardous substances (including 21 hazardous waste streams) are adjusted in this final rule. Today's Federal Register also contains an NPRM proposing RQ adjustments for 105 of the remaining 358 hazardous substances. All of these adjustments apply not only to CERCLA RQs, but to RQs established pursuant to section 311(b)(4) of the CWA. In preparing the final rule, EPA has carefully considered all of the public comments submitted on the proposals made in the May 25, 1983 NPRM.

Section II of this preamble notes the significant differences between today's rule and the NPRM and refers the reader to the detailed discussion of each change elsewhere in the preamble. Section III presents issues raised in the NPRM that are not resolved in today's rule. Sections IV, V, and VI discuss the operation of the rule, major public comments, and the Agency's responses to these comments. Section VII provides a summary of the analyses supporting the rule.

As was stated in the preamble to the proposed rule, other provisions of the Act may be applicable even where notification is not required. Therefore, nothing in this preamble or final rule should be interpreted as reflecting Agency policy or the applicable law with respect to other provisions of the Act. For example, a party responsible for a release is liable for the costs of cleaning up that release and for any natural resource damages, even if the release is not subject to the notification requirements of sections 103 (a) and (b). Similarly, claims may be filed against the Hazardous Substance Response Trust Fund for cleanup costs and damages even if less than a reportable quantity has been released. Moreover, proper reporting of a release in accordance with sections 103 (a) and (b) does not preclude liability for cleanup

costs. The fact that a release of a hazardous substance is properly reported or that it is not subject to the notification requirements of sections 103 (a) and (b) will not prevent EPA or other governmental agencies from taking response actions under section 104, seeking reimbursement from responsible parties under section 107, or pursuing an enforcement action against responsible parties. Note also that this rule does not affect hazardous substance reporting requirements imposed by certain other regulations and statutes. (See, e.g., the discussion of MARPOL 73/78 and TSCA section 8(e) in section IV.G. below.)

This final rule formally designates those substances which are listed under the statutes referred to in section 101(14). Substances listed under the Solid Waste Disposal Act, commonly known as the Resource Conservation and Recovery Act ("RCRA"), will now be "hazardous substances" under CERCLA, regardless of whether they are hazardous wastes under RCRA. This final rule does not otherwise address the designation of hazardous substances which are not already designated under the statutes listed in CERCLA section 101(14). The Agency has conducted several preliminary economic and technical analyses on this subject (see 48 FR 23603), and the May 25, 1983 ANPRM invited public comment. EPA has carefully reviewed the comments received and is in the process of further developing its designation policy. The Agency's designation policy will be the subject of a separate rulemaking.

C. Organization of the Final Rule

Today's final rule amends 40 CFR by adding Part 302. Section 302.1 describes the fourfold purpose of the new regulation, including (1) listing those substances designated as hazardous under section 101(14) of CERCLA; (2) identifying reportable quantities for these substances; (3) describing the notification requirements for releases of these substances; and (4) identifying reportable quantities for hazardous substances that were previously assigned RQs under section 311(b)(4) of the Clean Water Act.

Section 302.2 explains the abbreviations used in the rule. Section 302.3 defines the following terms:

1. "The Act," "CERCLA," and "Superfund"
2. "Administrator"
3. "Consumer product"
4. "Environment"
5. "Facility"
6. "Hazardous substance"
7. "Hazardous waste"
8. "Navigable waters"

9. "Offshore facility"
10. "Onshore facility"
11. "Person"
12. "Release"
13. "Reportable quantity"
14. "United States"
15. "Vessel"

Section 302.4 includes Table 302.4, which lists the substances designated as hazardous under section 101(14) (and now section 102) of CERCLA together with the RQ established for each substance. Section 302.4 also denotes the conditions whereby a solid waste not specifically listed as a hazardous substance can still be a hazardous substance if it exhibits any of certain characteristics. Section 302.5 provides that each quantity listed as the "Final RQ" in Table 302.4 is the reportable quantity for that listed hazardous substance. Section 302.5 also presents the RQs for unlisted hazardous wastes. Section 302.6 incorporates the statutory requirement that any person in charge of a vessel or facility must immediately notify the NRC whenever he or she has knowledge of any release of a hazardous substance from the vessel or facility in a quantity equal to or greater than the RQ; it also provides rules for determining when notification is required for releases of (1) mixtures or solutions that contain hazardous substances, and (2) releases of massive forms of metals. Section 302.7 incorporates by reference the statutory penalties for failure to notify the NRC of hazardous substance releases that equal or exceed the RQs. Today's rule also has an appendix that lists each hazardous substance in Chemical Abstracts Service Registry Number (CASRN) order.

Finally, this rule revises 40 CFR 117.3 to make the CWA RQs equal to those shown in Table 302.4 of 40 CFR 302.4.

II. Summary of Changes From the Proposed Rule

EPA has made the following changes from the proposed rule. Each change is discussed in detail in the preamble section noted.

1. Wastes classified as hazardous under RCRA that are properly delisted, deleted, or exempted by a state pursuant to an approved state program shall not be considered hazardous substances for purposes of CERCLA notification requirements so long as they do not contain any other listed CERCLA substances (see section IV.D.1.b.).

2. A supplement to Table 302.4 that lists CERCLA hazardous substances in CASRN order has been added as an appendix to today's rule to help users identify hazardous substances (see section IV.D.1.d.).

3. The exemption from notification requirements of releases of metal where the diameter of the particles of metal equals or exceeds 100 micrometers (0.004 inches) now appears both as a footnote to Table 302.4 and as part of 40 CFR 302.6 (see section IV.D.1.f.).

4. Proper disposal of hazardous substances in interim status facilities or facilities with final permits under RCRA need not be reported under CERCLA (see section IV.D.2.a.).

5. The rule for determining when notification is required for releases of mixtures and solutions containing hazardous substances is now stated in 40 CFR 302.6 (see section IV.D.3.b.).

6. "[N]ormal application of pesticides" is no longer defined in 40 CFR 302.3; instead, the preamble interprets the statutory phrase "application of pesticides" (see section IV.E.).

7. The specific penalties imposed by CERCLA Section 103(b) no longer appear in 40 CFR 302.7(a); instead, the section incorporates the statutory penalties by reference (see section IV.H.).

8. Language has been added to the 40 CFR 302.5(b) discussion of "Unlisted Hazardous Substances" to emphasize: (1) that the 100-pound RQ for unlisted hazardous wastes applies only to substances which are wastes prior to their initial release; and (2) that the RQ given in Table 302.4 for unlisted wastes that exhibit EP toxicity applies to the waste itself, not merely to the toxic contaminant (see sections IV.D.1. and V.F.4.).

9. Various RQ changes have been made (see section V.G.).

10. Retention of statutory RQ for methyl isocyanate (see section V.H.).

11. Various other changes have been made in Table 302.4 (see sections V.G. through V.I.).

III. Issues Addressed in the NPRM But Not Resolved in This Rule

A. Continuous Releases

Section 103(f)(2) of CERCLA exempts certain releases from the general notification requirements of CERCLA if they are "continuous," "stable in quantity and rate," and notification has been given either under sections 103(a) and (b) "for a period sufficient to establish the continuity, quantity, and regularity" of the release or under section 103(c) (which relates to notification of the existence of certain facilities that are or have been used for storage, treatment, or disposal of hazardous wastes). Notification of continuous releases must be given "annually, or at such time as there is any statistically significant increase" in

the quantity of the hazardous substance being released.

In the May 25, 1983 NPRM, EPA requested comment on the types of releases that could qualify for the section 103(f)(2) exemption and on possible notification systems for such releases. Many comments on these issues were received. Due to the complexity of the issues involved, the Agency has decided to study the continuous release exemption further; today's rule does not resolve continuous release issues.

B. Federally Permitted Releases

One of the exemptions from section 103 reporting requirements is for "federally permitted releases." The definition of "federally permitted release" in CERCLA section 101(10) specifically identifies releases permitted under other environmental statutes.

In the NPRM, EPA explained the Agency's interpretation of each of the types of releases exempted by the definition of "federally permitted release." EPA received many comments on various aspects of the federally permitted release exemption, most of which urged a broader interpretation of one or more of the federally permitted releases. Due to the complexity of the issues involved, the Agency has decided to study the scope of this exemption further; today's rule does not resolve the "federally permitted release" issue.

C. Radionuclide RQs

Radionuclides are hazardous substances under CERCLA because they are designated as hazardous air pollutants under section 112 of the Clean Air Act. The NPRM noted that EPA is considering several issues for future adjustments to radionuclide RQs. Two major related issues are:

(1) The units the Agency should use to measure RQs; and

(2) Whether one RQ should be set for all radionuclides or whether different RQs for specific radionuclides should be used.

EPA received many comments on these issues. Today's final rule does not adjust the RQ for radionuclides; the issue is being evaluated for action in a future rulemaking. Until then, the one-pound (0.454 kilogram) RQ is applicable. As noted in the NPRM, the Agency recognizes that the pound or kilogram is not a suitable unit on which to base a notification requirement for radionuclides, because releases much smaller than one pound may pose a significant threat to public health or welfare or the environment. The Agency encourages releasers to report

radionuclide releases of less than one pound.

D. Carcinogen RQs

The May 25, 1983 NPRM noted that the Agency has been collecting and evaluating data on the relative activity of substances as potential carcinogens. The methodology for adjusting RQs on the basis of potential carcinogenicity will be presented for public comment in a future rulemaking, and adjusted RQs for potentially carcinogenic substances will be proposed at that time. Until these substances receive final adjusted RQs, their statutory RQs will apply.

The NPRM published elsewhere in today's Federal Register proposes adjusted RQs for 12 substances that were evaluated as potential carcinogens but for which EPA's Carcinogen Assessment Group (CAG) did not find any sound evidence of potential carcinogenicity.

IV. Notification

A. Introduction

CERCLA sections 103 (a) and (b) require any person in charge of an offshore or onshore facility or a vessel to report to the National Response Center as soon as he or she has knowledge of any release of a hazardous substance that is equal to or greater than the reportable quantity. In the preamble to the May 25, 1983 NPRM, EPA elaborated on the notification requirements established by CERCLA, addressing such issues as the mechanics of notification, the persons required to notify the NRC of a release, the substances for which notification is required, the types of releases subject to the notification requirements, the exemptions from these requirements, and duplicate reporting. The following sections discuss comments received on these and other notification issues.

B. Purposes and Mechanics of Notification

Notification based on RQs serves as a trigger for informing the government of a release so that the need for response can be evaluated and any necessary response undertaken in a timely fashion. Federal personnel will evaluate all reported releases, although the government will not necessarily respond to all reported releases with a removal or remedial action. The reportable quantities do not themselves represent any determination that releases of a particular quantity are actually harmful to public health or welfare or the environment.

Reporting of releases pursuant to CERCLA sections 103 (a) and (b) is to be

made by telephone to the National Response Center. The toll-free number of the NRC is (800) 424-8802; in the Washington, D.C. metropolitan area the number is (202) 426-2675. Pursuant to the National Contingency Plan (NCP) (40 CFR Part 300), the duty officer at the NRC will record pertinent information about the release and relay this release information directly to an On-Scene Coordinator ("OSC") at either the relevant EPA regional office or the relevant U.S. Coast Guard district office. The OSC will then evaluate the circumstances of the release, give pertinent information to appropriate state and local officials, and decide whether and in what manner the federal government should respond to the release.

A few commenters stated that it is a misuse of time and money to report releases which do not result in a federal removal or remedial action; they argued that the probability of a federal response action should be an important consideration in designing the notification system. EPA disagrees. The government is not obligated to respond to every release to which it has authority to respond and therefore should not design a notification system on such a basis. Reportable quantities have been established so that the Agency is alerted promptly to situations that may warrant a government response. While EPA will not initiate a removal or remedial action for every release that is reported, EPA must obtain the information it needs to determine who has response authority, to assess whether there is a need for a federal response action, and to check that action is properly taken by others where appropriate.

C. Persons Covered by This Rule

The NPRM preamble considered the issue of which persons are required to notify the NRC of a release. In so doing, definitions of the key terms of the CERCLA notification requirements were presented. Responses to the major comments received are provided below.

1. Facility

Several commenters discussed the Agency's statement that "for notification purposes, EPA will consider the entire contiguous plant or installation and contiguous grounds under common ownership to be the reporting facility rather than each vent, pipe, or piece of equipment at such a plant" (48 FR 23553). Some of the commenters appeared to misinterpret EPA's intentions.

The Agency intended the statement to reflect its belief that numerous

concurrent releases (releases occurring within the same 24-hour period) of the same hazardous substance from one contiguous plant or installation need not be reported individually, but should be reported in a single notification. This policy will avoid unnecessary and burdensome calls where a plant is experiencing more than one reportable release, because it allows the regulated community to consider multiple concurrent releases of the same substance as one release for reporting purposes.

The comments received favored this policy, although a few commenters suggested that EPA expand the definition of facility to include outdoor areas within the boundary of a plant. In addition, some commenters questioned whether a releaser must aggregate the total volume of concurrent releases in order to determine if a reportable quantity has been met or exceeded.

The "facility" from which a release has entered or may enter into the environment does not include outdoor areas. Rather, the definition of "environment" includes all outdoor (i.e., not completely enclosed) areas surrounding and within a given facility. All concurrent releases of the same substance from a particular facility into the environment must be aggregated to determine if an RQ has been exceeded. Releases from separate facilities, however, need not be aggregated. EPA intends for multiple concurrent releases of the same substance from a single facility to be reported in a single notification as a single release. Where multiple concurrent RQ releases are occurring at various parts of a contiguous plant or installation on contiguous grounds under common ownership (e.g., at a chemical manufacturing plant or an oil refinery), the person in charge should also report these multiple concurrent releases in a single notification. The policy of consolidating notifications also applies to concurrent releases from separate storage facilities, so long as the releases are at the same location, i.e., located on contiguous grounds under common ownership.

2. Person In Charge

The NPRM preamble discussion of "person in charge" stated that EPA would not seek to designate the specific individuals or positions within business entities who would be responsible for reporting hazardous substance releases. The Agency indicated that such decisions are better made by the management of the affected organization. Two commenters argued

that the lack of a clear definition of "person in charge" would result in responsible individuals being unaware of their duty to report releases and would lead to delayed reporting or failure to report. EPA was urged to define explicitly the term "person in charge."

EPA disagrees with these commenters. The proper assignment of reporting responsibilities depends on the specific operation involved, management structure, and other case-specific considerations. It would be unnecessary and unwise for the government to try to determine "persons in charge" at all entities affected by CERCLA.

D. Releases Covered by This Rule

The NPRM addressed the substances for which notification is required, the types of releases subject to the notification requirements, and the determination of when a reportable quantity has been released. Many comments were received on various topics under each of these issues.

1. Hazardous Substances Subject to This Rule

a. ICRE Substances. Any hazardous waste having the characteristics identified or listed pursuant to Section 3001 of the Solid Waste Disposal Act (commonly known as the Resource Conservation and Recovery Act, or "RCRA"), but not including any waste the regulation of which has been suspended by Act of Congress, is considered a hazardous substance under section 101(14)(C) of CERCLA. These characteristics are commonly known as ICRE: ignitability, corrosivity, reactivity, and extraction procedure toxicity (see 40 CFR 261.21-261.24).

The obligation to report releases to the environment of substances exhibiting the characteristics of ignitability, corrosivity, or reactivity has been the subject of some confusion.¹ Under section 103(a) of CERCLA, persons in charge of a vessel or facility must notify the NRC of the release of a "hazardous substance." The term "hazardous substance" includes all substances designated in § 302.4 of today's rule as well as wastes exhibiting the ICR characteristics under RCRA. Therefore, the release of a non-designated substance exhibiting an ICR characteristic is the release of a hazardous substance only if the

substance is a waste. If a non-designated ICR substance is spilled and immediately cleaned up for repackaging, reprocessing, recycling, or reuse, it is not a waste and the spill need not be reported (see 45 FR 78540, Nov. 25, 1980). However, if the substance is not cleaned up, or is cleaned up for eventual disposal, it is then a waste (and thus a hazardous substance) which has been released to the environment and must be reported if it exceeds the RQ.

The Agency acknowledges that the proposed rulemaking may not have been clear on this point. Accordingly, we are publishing elsewhere in today's Federal Register a proposal to set the RQ at 100 pounds for non-designated substances which are not wastes prior to their initial release but which exhibit an ICR characteristic.

Pending completion of final rulemaking on that proposal, notice given to the NRC pursuant to 49 CFR 171.15, if required under that section, of the release of a non-designated substance that is not a waste prior to its initial release, will be deemed to satisfy the reporting requirements of section 103(a) of CERCLA. Note that this policy does not apply to the release of non-designated substances which exhibit an ICR characteristic and which are wastes prior to their initial release. Such releases must be reported if they are equal to or in excess of the 100-pound RQ. Section 302.5(b) of today's final rule has been clarified to show the distinction between substances that are wastes prior to their initial release and substances that become wastes after their initial release.

b. State Delisting under RCRA. Several commenters disagreed with EPA's statement in the NPRM that reporting is required even for releases of hazardous waste which the state has properly delisted, deleted, or exempted from the state's RCRA program pursuant to authority granted by EPA. Upon further review of the RCRA regulations governing "delisting" of RCRA hazardous wastes, EPA has decided to alter its policy. Under 40 CFR 260.22, a person may petition for a regulatory amendment to exclude a waste at a particular generating facility from the lists of hazardous wastes in §§ 261.30-261.33. The petitioner must demonstrate that the waste produced by the particular facility does not meet any of the criteria under which the waste type was listed or characterized as a hazardous waste. Moreover, if granted, the exclusion applies only to the waste generated at the individual facility covered by the petitioner's demonstration. State RCRA regulations

must be substantially equivalent to these federal regulations to obtain EPA approval of the state program.

Once a specific waste from a particular facility has been shown not to contain constituents or exhibit characteristics that are considered hazardous under RCRA, there appears to be no reason to require notification under CERCLA of a release of the exempted waste. By definition, exempted wastes lack the hazardous constituents or characteristics for which the waste type was listed as hazardous. Therefore, so long as a state-exempted waste does not contain any other listed CERCLA substances, EPA will not consider the exempted waste subject to CERCLA notification requirements.

c. Petroleum Exclusion. As defined in CERCLA section 101(14), the term "hazardous substance" under CERCLA does not include

petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Some commenters raised questions about the limits of the exclusion of petroleum from the definition of hazardous substance. EPA interprets the petroleum exclusion to apply to materials such as crude oil, petroleum feedstocks, and refined petroleum products, even if a specifically listed or designated hazardous substance is present in such products. However, EPA does not consider materials such as waste oil to which listed CERCLA substances have been added to be within the petroleum exclusion. Similarly, pesticides are not within the petroleum exclusion, even though the active ingredients of the pesticide may be contained in a petroleum distillate; when an RQ of a listed pesticide is released, the release must be reported.

d. Nomenclature. The May 25, 1983 NPRM requested comments on several options for a nomenclature system that would be most useful for the promulgated list of CERCLA hazardous substances. The first option was that actually employed in Table 302.4 as it appeared in the NPRM, i.e., the names of the substances as they appear in the environmental statutes (and implementing regulations) that are incorporated in the CERCLA definition of a hazardous substance. A second alternative presented was to use only the Chemical Abstracts Collective Index System name, and a third was to list the

¹Substances exhibiting the characteristic of extraction procedure (EP) toxicity are not at issue here, because the chemicals at which the EP toxicity test is aimed are all specifically designated as hazardous under Section 302.4 of today's regulation.

major synonyms for each hazardous substance.

Five commenters recommended use of the names provided by the Chemical Abstracts Service (CAS) in the Chemical Abstracts Collective Index System. Although use of the Collective Index names would avoid much of the confusion involved with using synonyms and would serve as positive identification of the material, many of the individuals who may need to report releases will not have easy access to Collective Index names for the substances under their control. Even among professional chemists, CAS Collective Index names are not yet widely used. For example, the term "chloroform" remains widely preferred over the Collective Index name "methane, trichloro-."

Several commenters recommended listing the "major" synonyms for each substance, pointing out that most individuals who must report releases are not chemists and therefore are familiar with the substance only by the name provided by the supplier. The commenters stated that the potential releaser cannot be expected to determine whether the substance he is dealing with is a CERCLA hazardous substance unless the name provided is also on the CERCLA list.

The Agency recognizes that listing major synonyms would, in some respects, simplify determining whether a particular named chemical is a hazardous substance. However, as several commenters pointed out, the difficulties involved in making such a list would be great. For some of the substances, more than 80 synonyms might be necessary, making Table 302.4 very unwieldy. The length of the table would be increased by a factor of at least five, increasing the difficulty of finding a named material on the list. Moreover, the choice of synonyms to be included would still be subjective, and constant updates would be needed as omitted names were found.

The names of the CERCLA hazardous substances that appeared in Table 302.4 are those that are already familiar to the regulated community under other statutes. The Agency has therefore determined that, in today's final rule, Table 302.4 will contain the same names as were listed in the NPRM, plus any other names not previously discovered by which a substance is identified in the other statutes listed in section 101(14) and their implementing regulations. Several commenters suggested that in addition to the list of names in Table 302.4, a supplementary list in CAS Registry Number order be provided. EPA has adopted this suggestion. The

CAS Registry Number, when available, uniquely identifies the designated hazardous substance. Such a list appears as an appendix to the rule as a convenience to the regulated community.

e. Generic Classes of Organic and Metallic Compounds. EPA decided not to establish RQs for the many broad generic classes of organic and metallic compounds designated as toxic pollutants under section 307(a) of the Clean Water Act, such as "chlorinated phenols," "phthalate esters," "polynuclear aromatic hydrocarbons," and "zinc and compounds." The majority of the commenters who addressed this issue understood and supported this decision. It was recognized that to establish a single RQ for broad classes of hazardous substances would be inappropriate for many of the compounds within each class. Many of the generic classes of compounds encompass hundreds or even thousands of specific compounds. It would be virtually impossible for the Agency to develop a reportable quantity for a generic class of compounds that would take into account the varying characteristics of all of the specific compounds in the class. To establish reportable quantities for generic groups of chemicals would conflict with existing knowledge of individual chemicals and their properties.

Several commenters were unsure of the Agency's position on reporting and liability for generic classes. These commenters believed that if no other RQ is established for a generic class, then they must still use the statutory one pound RQ established under CERCLA section 102(b). EPA has determined that the notification requirements need apply only to those specific compounds for which RQs are listed in Table 302.4, rather than to the generic classes of compounds. However, as the Agency indicated in the NPRM preamble, this does not preclude liability with respect to releases of specific compounds which are within one of these generic listings but which are not listed in Table 302.4. In other words, a releaser is liable for the cleanup of releases of hazardous substances which fall under any of the broad, generic classes, but does not have to report such releases when the specific compounds, and hence the RQs, are not listed in Table 302.4.

f. Massive Forms of Metals. EPA proposed that it would not require notification of releases of massive forms of the twelve solid metals originally listed under CWA section 307(a) when the diameter of the pieces of metal released equals or exceeds 100 micrometers (0.004 inches). Eleven of

fourteen commenters supported this approach, while three commenters suggested a smaller cutoff level. One of these commenters suggested that the cutoff be set at 10 micrometers rather than 100 micrometers, consistent with standards developed pursuant to the Occupational Safety and Health Act.

The cutoff size was deliberately set ten times larger than the maximum size considered by EPA to be respirable dust to ensure that releases containing small particles of metals would result in notification to the NRC. The Agency has determined that the 100-micrometer cutoff is sufficiently small to be the particle size below which notification of release of an RQ is required. The primary purpose of notification is to ensure that releasers notify the government so that the government, pursuant to the NCP, can assess the need to respond to the release. Although it is extremely unlikely that a release of solid metal particles of 100 micrometers or larger would require a response, the Agency wants to be notified of releases of smaller particles because, under some circumstances, releases of metal particles in the 10- to 100-micrometer range may require a response.

One of the eleven commenters supporting the 100-micrometer cutoff level suggested that this policy be more prominently displayed in the wording of the final rule. (In the NPRM, the 100-micrometer limitation appeared only as a footnote to Table 302.4.) 40 CFR 302.6 now states:

Notification of the release of an RQ of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter of the particles released is larger than 100 micrometers (0.004 inches).

A particle larger than 100 micrometers in diameter will not pass through an American Society for Testing and Materials standard 140-mesh sieve.

2. Definition of Releases Subject to This Rule

a. Disposal of Hazardous Substances in RCRA Facilities. The May 25, 1983 NPRM discussion of the term "release" did not specify whether the term included or excluded the proper disposal of hazardous substances at a disposal facility that has been accorded interim status or that has received a final permit under RCRA. Some commenters suggested clarification of the meaning of the term in this regard.

EPA agrees that disposal of hazardous substances at a disposal facility in accordance with EPA regulations is not subject to CERCLA notification

provisions. Where the disposal of wastes into permitted or interim status facilities is properly documented through the RCRA manifest system and RCRA regulations are followed, notification under CERCLA does not provide a significant additional benefit, so long as the facility is in substantial compliance with all applicable regulations and permit conditions. Where the disposer knows that the facility is not in substantial compliance, disposal of an RQ of a hazardous substance must be reported to the NRC. Of course, spills and accidents occurring during disposal that result in releases of reportable quantities of hazardous substances must also be reported to the NRC.

b. Releases "Into the Environment." A key element of the definition of "release" is the phrase "into the environment." As defined in CERCLA section 101(22), a hazardous substance must be released "into the environment" in a reportable quantity before notification of the release is required under CERCLA. Thus, the distinction between the "facility" (or "vessel") from which a substance is released and the "environment" into which a substance passes is the determining factor in requiring notification.

Hazardous substances may be released "into the environment" even if they remain on plant or installation grounds. Examples of such releases are spills from tanks or valves onto concrete pads or into lined ditches open to the outside air, releases from pipes into open lagoons or ponds, or any other discharges that are not wholly contained within buildings or structures. Such a release, if it occurs in a reportable quantity (e.g., evaporation of an RQ into the air from a dike or concrete pad), must be reported under CERCLA. On the other hand, hazardous substances may be spilled at a plant or installation but not enter the environment, e.g., when the substance spills onto the concrete floor of an enclosed manufacturing plant. Such a spill would need to be reported only if the substance were in some way to leave the building or structure in a reportable quantity. (Note, however, that the federal government may still respond and recover costs where there is a *threatened* release into the environment.)

Most of the commenters on this issue agreed with EPA's position that the distinction between "facility" and "environment" is central to determining when notification is required and that a release "into the environment" is a reportable event, but they disagreed with EPA on when a release reaches the

environment. The most common suggestion was to exclude from the definition of "environment" all of the grounds surrounding a facility that are controlled by the facility's owners or operators. Several commenters suggested that reporting should not be required as long as the facility operators are in control of released substances and initiate swift and adequate response efforts to prevent the environment from being endangered, consistent with prudent management practices. It was also suggested that so long as a release remains on facility property it would be inaccessible to the public and thus would not be a public hazard.

While EPA recognizes and appreciates the caution exercised by the majority of handlers of hazardous substances, accepting this redefinition of "environment" would be inconsistent both with the broad definition of environment in CERCLA section 101(8) and with the purpose of reporting. A primary function of CERCLA is to ensure that the government is made aware of any potentially serious release of a hazardous substance, so that the government has the opportunity to determine whether and how it needs to act. To exclude releases occurring near handling and storage facilities from CERCLA notification requirements would keep the federal government unaware of a very common form of release that may require government action. Releases onto the grounds surrounding a plant can migrate off-site through ground water or through release into the air. Defining "environment" to begin at the property line of a manufacturing plant or other installation is thus unacceptable to the Agency.

Following this same reasoning, defining environment in terms of public access, as several commenters suggested, is also unacceptable. Lack of public access to the site of a release does not preclude adverse effects on public health or welfare or the environment from the release. The volatilization of substances or their migration via ground water are obvious examples of how releases can travel off-site and threaten adjacent areas. EPA does not believe a reinterpretation of when a release enters the environment is necessary. A release into the environment will be reportable whether or not it remains on the grounds of a facility site.

One commenter requested that EPA clarify the meaning of the term "ambient air" in the definition of "environment" provided in 40 CFR Section 302.3. For the purposes of CERCLA, "ambient air" shall refer to the air that is not

completely enclosed in a building or structure and that is over and around the grounds of a facility.² A release into the air of a building or structure that does not reach the ambient air (either directly or via a ventilation system) is not a reportable event under CERCLA.

c. "Workplace Exposure" Exclusion. CERCLA section 101(22) excludes from the definition of release "any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons." In the May 25, 1983 NPRM preamble, EPA stated that the workplace exclusion was apparently intended to restrict the potential scope of third-party actions for personal injuries under the Act and that the limitation of hazardous substance exposure to persons within a workplace is not relevant in determining whether notification is appropriate.

Several commenters argued that the workplace exposure exclusion should be applied to workplace releases for purposes of CERCLA notification requirements. EPA disagrees. By its terms, the exclusion applies only to claims compensable through workers' compensation. The availability of workers' compensation does not appear to have any relation to the need for reporting of hazardous substance releases that threaten public health or welfare or the environment. While Congress intended to bar payment of Superfund monies to persons covered by workers' compensation systems, the legislative history clearly indicates that Congress did not intend to exclude all workplace releases of hazardous substances from CERCLA reporting requirements and response authorities. "For example, if a release occurring solely within a workplace created a hazard of damage to human life or to the environment, it is contemplated that the Fund would have the authority to respond with all of its authorities except for compensating workers whose employers are liable for their injuries under worker's compensation law" (S. Rep. 848, 96th Cong., 2d Sess. 94 (1980)). Thus, the need for notification must be determined by whether or not a release from a CERCLA "facility" or "vessel"

²The Agency's interpretation of "ambient air" for CERCLA reporting purposes differs from the definition of ambient air in the regulations promulgated pursuant to the Clean Air Act (CAA). These regulations define ambient air with reference to public access (see 40 CFR 50.1(e)). EPA believes that the CAA definition is inappropriate for CERCLA purposes, because the point of release for some potentially serious releases may be inaccessible to the general public, e.g., on private property.

enters "into the environment." If a release does not remain wholly contained within a building or structure, then it is a release into the environment for CERCLA purposes, whether or not it occurs within a workplace.

3. Determination of When a Reportable Quantity Has Been Released

Once it has been determined that a hazardous substance release is covered by CERCLA, the releaser must determine if the release is in a quantity equal to or greater than the reportable quantity of that substance. Two critical issues in making this determination are the period of release and the application of RQs to mixtures and solutions. This section discusses EPA's positions on these issues and responds to comments received on the NPRM.

a. Period of Release. EPA proposed to use a 24-hour period for measuring whether the reportable quantity of a substance has been released, noting that the 24-hour period has been used successfully under regulations implementing the CWA section 311. As soon as the person in charge knows that the amount of a release within that period equals or exceeds the applicable reportable quantity, the NRC must be notified. Eleven commenters concurred with the Agency's decision to use the 24-hour period, citing the consistency of the decision with the CWA section 311 regulations.

Three commenters misinterpreted the purpose of the 24-hour period as the time a person has in which to establish the knowledge that a release has occurred. EPA wants to clarify that when the amount of a CERCLA hazardous substance release equals or exceeds the reportable quantity, the person in charge, once he or she knows of the release, must immediately notify the National Response Center. The 24-hour period refers to the period within which a reportable quantity of a hazardous substance must be released for the release to be considered reportable; it does not refer to the time available for a person to report a release. Such reporting must occur immediately.

b. Mixtures of Hazardous Substances. When determining if notification is required for releases of mixtures and solutions containing hazardous substances, the Agency intends to apply the mixture rule developed in connection with the CWA section 311 regulations. This rule provides that "[d]ischarges of mixtures and solutions are subject to these regulations only where a component hazardous substance of the mixture or solution is discharged in a quantity equal to or

greater than its RQ" (44 FR 50767, August 29, 1979). RQs of different substances are not additive under the mixture rule, so that spilling a mixture containing half an RQ of one hazardous substance and half an RQ of another hazardous substance does not require a report.

Most commenters supported using the CWA mixture rule. These commenters agreed with EPA that it is generally technically appropriate to consider the RQs of component hazardous substances of a mixture individually when determining if a report is required. They also note that applying the CWA mixture rule to CERCLA hazardous substances would allow the regulated community to continue with existing monitoring and notification procedures.

One commenter opposed use of the CWA mixture rule, arguing that EPA has no data to support the implicit assumption that toxic effects are not additive or synergistic. The commenter stated that additive or synergistic effects often occur.

EPA recognizes that the toxic effects of chemical mixtures may in some instances be additive, synergistic, or even antagonistic. Unfortunately, only limited data exist on the extent of such effects. Moreover, trying to incorporate such data into the mixture rule for CERCLA notification purposes would make the determination of whether an RQ had been released much more complex and confusing. The RQ would vary with each mixture, depending on whether the components of the mixture had additive, synergistic, or antagonistic effects. Thus, a different RQ would have to be determined for each potential release situation, a highly complex approach that EPA has consistently tried to avoid (see section V.C.2. below). To be effective, the CERCLA notification system must be simple to administer and apply. For this reason, the Agency will apply the CWA mixture rule—contained in § 302.6 of today's rule—to releases subject to CERCLA reporting requirements.

Several commenters were uncertain when to apply the mixture rule to the various RCRA regulated wastes (F and K lists) and to the unlisted ICRE wastes. The Agency emphasizes that, for CERCLA purposes, the CWA mixture rule applies to ICRE wastes and to the RCRA F and K waste streams (all of which tend to be mixtures), if the concentrations of all the hazardous substances in the waste are known. If the concentrations of the substances are unknown, the RQ of the waste stream or unlisted waste applies. In addition, if the person in charge knows that an RQ of a hazardous constituent of a waste has

been released before the RQ for the waste stream or unlisted waste has been exceeded, he or she must report the release. However, CERCLA does not itself impose any testing requirements.

Some commenters objected to application of the CWA mixture rule to waste streams, arguing that under-reporting could result if the components of the waste were incorrectly identified. The Agency, however, maintains that if the concentrations of the hazardous substances contained in the mixture are known, waste streams should be treated like any other mixture. If the releaser does not know the composition of the listed waste stream, EPA agrees that applying the RQ of the entire waste stream is the only reasonably conservative alternative.

For example, a mixture of spent (used) cresols and nitrobenzene is identified in the RCRA regulations (40 CFR 261.31) as a hazardous waste from a non-specific source, F004. F004 has an RQ of 100 pounds, because the RQ for cresols is 100 pounds, the RQ for nitrobenzene is 1000 pounds, and the lowest RQ for any of the hazardous substances in the mixture applies. If the person in charge knows only that a waste material contains unspecified amounts of cresols and nitrobenzene, then he or she would have to report if 100 pounds or more of the waste were released. The person in charge may, however, if sufficient data are available, apply the CWA mixture rule. If he or she knows that the F004 waste contains 50 percent cresols and 50 percent nitrobenzene, the releaser would have to report only when the total release equalled or exceeded 200 pounds, because at that point the 100-pound RQ of the cresol component would be equalled or exceeded. Because the concentrations of the hazardous substances in the waste stream are known, there is no reason to restrict the releaser to the F004 waste RQ of 100 pounds. In this case, for notification purposes, the waste stream is no different than a known mixture of pure substances.

A few commenters questioned whether the mixture rule applies to products where the active chemical ingredient for which it is named is present in less than 100 percent concentration. While the NPRM discussion of the mixture rule did not explicitly mention "formulations of less than 100 percent strength," such formulations are indeed mixtures or solutions and are covered by the mixture rule. Two commenters wanted EPA to waive the CERCLA notification requirements for mixtures containing very low concentrations of hazardous

substances. These commenters suggested assigning a concentration value to each hazardous substance below which notification would not be required. This approach would, in effect, result in two rules for each substance, making application of the mixture rule cumbersome for the regulated community. Moreover, determining each concentration value would require the use of specific release scenarios, a methodology that EPA has rejected (see 48 FR 23569 and Section V.C.3. of this preamble). For these reasons, EPA is retaining the mixture rule for all mixtures containing any concentration of a hazardous substance, no matter how low the concentration.

E. Exemptions From the CERCLA Notification Requirements

CERCLA provides four types of exemptions from the notification requirements applicable to releases of hazardous substances in reportable quantities. Each type of exemption was discussed in the May 25, 1983 NPRM preamble. Responses to major comments received on the exemption for the application of pesticide products registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) are provided below. Issues relating to the limited exemption for continuous releases and exemptions for "federally permitted releases" are not resolved in today's rule.

Section 103(e) of CERCLA exempts from the notification provisions of the Act "the application of a pesticide product registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) [and] the handling and storage of such a pesticide product by an agricultural producer." In the proposed rule, EPA interpreted the application of pesticides as the normal application of registered pesticides (and pesticides used in accordance with FIFRA section 5 experimental use permits or FIFRA section 18 emergency exemptions) in ways that are consistent with the labeling instructions.

Commenters objected to several aspects of EPA's pesticide exemption policy as stated in the NPRM. The first category of objections concerned the wording of the policy. Some commenters suggested that the phrase "pursuant to the label directions" as used in the definition of "normal application of pesticides" applies more to consumer goods than to industrial chemicals, because the label directions of the latter may not include complete application practices. Other commenters objected to the use of the term "normal" in the definition of "normal application of pesticides," because the term does not

appear in CERCLA section 103(e) and constitutes a potentially unnecessary restriction on the exemption.

EPA agrees that the definition of "normal application of pesticides" is unnecessary, and the definition does not appear in today's final rule. The legislative history of CERCLA suggests that Congress intended that the pesticide exemption apply to the application of a pesticide generally in accordance with its purpose. S. Rep. No. 848, 96th Cong., 2d Sess. 45 (July 13, 1980). While strict compliance with labeling direction is not a prerequisite for the exemption, the extent of compliance will be a critical factor in determining whether the application was generally in accordance with the pesticide's purpose. EPA does not consider a spill of a pesticide to be either an "application" of the pesticide or in accordance with the pesticide's purpose. Consequently, such spills must be reported. Note, moreover, that use of a pesticide inconsistent with its labeling is a violation of FIFRA that is potentially subject to both civil and criminal penalties.

F. Duplicate Reporting

1. General

EPA is seeking to minimize unnecessary duplication between CERCLA reporting requirements and the reporting requirements of other environmental statutes. However, some commenters complained of the duplicative reporting burden created by CERCLA and of a lack of coordination among federal, state, and local agencies. Eight of these commenters suggested that one report to the NRC should suffice for all government agencies. Currently, one call to the NRC fulfills the requirement to report releases of hazardous substances under CERCLA and several other regulatory programs, including the Clean Water Act, the Resource Conservation and Recovery Act, and the Hazardous Materials Transportation Act, which is administered by the Department of Transportation. The May 25, 1983 NPRM preamble discussed the equivalence of compliance with certain RCRA reporting requirements and CERCLA notification requirements. Section 103(f)(1) of CERCLA exempts from the notification requirements of sections 103 (a) and (b) releases that are subject to reporting requirements (or specifically exempted from such reporting) under Subtitle C of RCRA and have been reported to the National Response Center. The Agency has reviewed all other areas of duplicate reporting created by CERCLA and has found that the burden imposed by

CERCLA notification requirements is not great. At most, the duplication that exists may require that more than one telephone call concerning a release be made by the releaser and recorded by government agencies.

Today's final rule does not affect hazardous substance reporting requirements imposed by certain other regulations and statutes, as discussed in section IV.G. below.

2. Newspaper Notification Requirement

CERCLA section 111(g) requires that owners or operators of any vessel or facility "provide reasonable notice to potential injured parties by publication in local newspapers serving the affected area" of any release of a hazardous substance. One commenter asked whether RQ notification requirements revoke section 111(g). The newspaper notification requirement established by section 111(g) of CERCLA is not affected by any of the notification requirements in today's rule.

G. Regulatory Consistency

EPA has always made every effort to coordinate its regulations of hazardous substances with other government agencies. For example, EPA and the Department of Transportation (DOT) (which includes the U.S. Coast Guard) have cooperated over the years in a series of regulatory actions, including the establishment of the centralized toll-free telephone number for reporting spills of hazardous substances to the NRC. EPA recognizes that cooperation with other agencies is vital to the development of clear and consistent regulatory policies in areas of complementary or shared responsibility. The Agency has carefully reviewed comments from other government agencies on the NPRM and does not believe that the CERCLA RQs or notification requirements create regulatory inconsistencies.

Many commenters questioned the extent of EPA-DOT coordination concerning CERCLA RQ regulations and regulations pursuant to the Hazardous Materials Transportation Act (HMTA). EPA recognizes the need for consistency between the RQ regulations and DOT's Hazardous Material Regulations (HMR). The Agency believes that the cooperative efforts of EPA and DOT will result in an RQ adjustment regulatory approach that will be consistent with any related regulations promulgated by DOT. EPA has promoted and will continue to promote coordination between the RQ adjustment regulation and the HMR. EPA wishes to clarify, however, that while it strongly supports

cooperation between EPA and DOT, it has no authority to revise the HMR. Any changes must be made by DOT.

The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), as implemented through the Act to Prevent Pollution from Ships (33 U.S.C. 1901 *et seq.*), currently imposes reporting requirements concerning releases of harmful substances from U.S. ships wherever located and from foreign ships within the navigable waters of the United States. Under 33 U.S.C. 1906, as soon as a person in charge of a ship has knowledge of an event involving the actual or probable release into the sea of a harmful substance (broadly defined), he or she must report the incident to the Secretary of the department in which the Coast Guard is operating (currently DOT). No reportable quantities are specified. Thus, MARPOL 73/78, as implemented by 33 U.S.C. § 1906, may require reporting even where CERCLA does not.

Annex II of MARPOL 73/78 prohibits discharges of noxious liquid substances within 12 miles from shore. Beyond 12 miles, discharges are either prohibited or limited, depending on the nature of the cargo and compliance with several criteria. Annex II, scheduled to take effect in October 1986, applies to all ships carrying noxious liquid substances in bulk and limits operational discharges of these substances by setting minimum or maximum numerical values for distance from shore, depth of water, ship speed, concentration of substance in ship's wake, and maximum quantity of cargo residues that may be discharged. To improve regulatory consistency and enhance coordination with the U.S. Coast Guard, EPA intends to investigate the scope and intent of MARPOL 73/78 Annex II regulations (including a Coast Guard ANPRM (48 FR 1519-1521, Jan. 13, 1983) dealing with certain types of hazardous substances that are intended to be regulated in accord with MARPOL) and to examine regulatory and technical concerns arising from coordination between CERCLA and MARPOL.

Section 8(e) of the Toxic Substances Control Act (TSCA) may also require reporting where CERCLA does not. Pursuant to a Statement of Interpretation published March 16, 1978, 43 FR 11110, all emergency incidents of environmental contamination that present a "substantial risk of injury to health or the environment" must be reported to EPA under TSCA section 8(e). Section 8(e) could require notification even where no CERCLA hazardous substances or RQs have been

released. Persons subject to the notification requirement include both natural persons and business entities engaged in the manufacturing, processing, or commercial distribution of chemical substances or mixtures. No notification is required if the manufacturer, processor, or distributor knows that EPA has been informed of the risk presented by the incident. For hazardous substance releases subject to CERCLA, a single notification to the NRC will satisfy both CERCLA and TSCA section 8(e) reporting requirements; the Agency will ensure that section 8(e) reports are passed to the proper authorities.

H. Penalties

Section 302.7(a) of the proposed rule set forth the penalties imposed by CERCLA Section 103(b) for failure to notify the NRC of a reportable release. Section 302.7(a) of today's final rule does not specify the penalties established by CERCLA section 103(b); rather, the rule incorporates the statutory penalties by reference. The regulation still informs responsible parties of the statutory sanctions for failure to notify, but the change will avoid the need to amend 40 CFR 302.7 should CERCLA section 103(b) be amended. Currently, CERCLA section 103(b) provides that any person in charge of a facility or vessel from which a hazardous substance is released, other than a federally permitted release, in a quantity equal to or greater than the reportable quantity, who fails to notify the appropriate federal agency as soon as he has knowledge of the release, shall upon conviction be fined not more than \$10,000 or imprisoned for not more than one year, or both. Notifications received under sections 103(a) or 103(b) or information obtained by such notice cannot be used against any reporting person in any criminal case, except a prosecution for perjury or for giving a false statement.

V. Reportable Quantity Adjustments

A. Introduction

The primary purpose of the CERCLA notification requirements, discussed above in section IV, is to ensure that releasers notify the government so that the need for a federal response can be evaluated and any necessary response undertaken in a timely fashion.

With this purpose in mind, EPA proposed adjustments to the statutory RQs of CERCLA hazardous substances based on specific scientific and technical criteria that relate to the possibility of harm from the release of a hazardous substance in a reportable

quantity. The adjusted RQs do not reflect a determination that a release of a substance will be hazardous at the RQ level and not hazardous below that level. EPA has not attempted to make such a determination because the actual hazard will vary with the unique circumstances of the release, and extensive data and analysis would be necessary to determine the hazard presented by each substance in a number of possible circumstances. Instead, the RQs reflect the Agency's judgment of which releases should trigger mandatory notification to the federal government so that the government may assess to what extent, if any, a federal removal or remedial action may be necessary.

Over forty commenters supported both the methodology EPA used in determining RQs and the results of this methodology. These commenters agreed that the RQ adjustments will:

- (1) Increase the efficiency and certainty of the Superfund program;
- (2) Reduce burdens on the regulated community; and
- (3) Improve EPA's ability to concentrate its attention and resources on the releases that are potentially most threatening to public health or welfare or the environment.

In addition, EPA received many comments on various specific topics relating to the RQ adjustments that were discussed in the NPRM. Some commenters also discussed issues that were not explicitly addressed in the proposed rule. Responses to both types of comments are presented below.

B. Number of Reportable Quantity Levels and Their Values

1. Five RQ Levels

For purposes of making RQ adjustments under CERCLA, EPA has adopted the five RQ levels of 1, 10, 100, 1000, and 5000 pounds originally established pursuant to CWA section 311 (see 40 CFR Part 117). The Agency adopted the CWA five-level system primarily because (1) it has been successfully used pursuant to the CWA, (2) the regulated community is already familiar with these five levels, and (3) it provides a relatively high degree of discrimination among the potential hazards posed by different CERCLA hazardous substances. Many commenters voiced general support of the five-level system; however, as the next section discusses, some commenters criticized the use of one pound as the lowest RQ level.

2. One-Pound RQs

Several comments were received on the one-pound RQ level. A few commenters argued that a one-pound RQ is too small for reporting purposes. They reasoned that a one-pound release of a hazardous substance would have an inconsequential impact on public health and welfare and the environment and that federal agencies would not respond to such small releases.

The one-pound RQ is consistent with prior regulation under the Clean Water Act (see 40 CFR Part 117). One pound was selected under the Clean Water Act as the lowest reporting level because one pound is typically the smallest container size used in commerce for transporting moderately or extremely hazardous substances 40 FR 59989, December 30, 1975. Moreover, the Agency interviewed a large cross-section of field response personnel, and all of those interviewed indicated that they want to be notified of most releases, even at the one-pound level. In the interviews, the field response personnel recognized that the government may not institute removal or remedial actions for many one-pound releases, but they emphasized that notification was a prerequisite for determining (1) the need for a response under the circumstances, (2) the adequacy of any cleanup efforts, and (3) the degree to which post-release monitoring may be required. Furthermore, many releases tend to be escalating events, and early notification helps ensure an effective response.

Six commenters criticized the one-pound RQ level for posing an unreasonable burden on the regulated community. One commenter indicated that the adoption of one-pound RQs will require many companies to do extensive testing of raw materials in order to assure compliance with this regulation. CERCLA does not require any testing, and EPA does not intend to require any further testing beyond that which is already required by other statutes and their implementing regulations.

C. Methodology Used To Adjust Reportable Quantities

1. The Methodology Chosen

The selected strategy for adjusting RQs begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each designated hazardous substance. The intrinsic properties examined—called "primary criteria"—are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, and chronic toxicity. (For the purposes of this rule, chronic toxicity—referred to as

"other toxic effects" in the May 25, 1983 NPRM—is defined as toxicity resulting from repeated or continuous exposure to either a single release or multiple releases of a hazardous substance.) In addition, substances that were identified as potential carcinogens have been evaluated for their relative activity as potential carcinogens; the RQs for these substances will be proposed in a separate rulemaking, and the methodology for adjusting RQs on the basis of potential carcinogenicity will at that time be presented for public comment.

The Agency ranks each intrinsic property on a five-tier scale, associating a specified range of values on each scale with a particular RQ value. Thus, each substance receives several tentative RQ values based on its particular properties.³ The lowest of all of the tentative RQs becomes the "primary criteria RQ" for that substance. (See Section V.D.1. below for further detail.)

After the primary criteria RQs are assigned, substances are further evaluated for their susceptibility to certain extrinsic degradation processes. These extrinsic processes (referred to as "secondary criteria" in the May 25, 1983 NPRM) are biodegradation, hydrolysis, and photolysis, or "BHP." If the analysis indicates that a substance degrades relatively rapidly to a less harmful compound through one or more of these processes when it is released into the environment, the primary criteria RQ is raised one level. (See section V.D.2. below for further detail.) The single RQ assigned to each substance on the basis of the primary criteria and BHP becomes the adjusted RQ for that substance.

2. Multiple RQs and Media-Specific RQs

Many commenters objected to the Agency's proposal to establish a single RQ for each hazardous substance. It was suggested that either (1) the Agency should develop several RQs for each hazardous substance, for example, one RQ for each of the various environmental media (air, water, soil) into which a release might occur, or (2) the Agency should base the adjusted RQ for each substance on the most likely medium of release rather than on the most sensitive environmental trigger (as is currently done).

Several of the objecting commenters believed that the RQs would be arbitrary if they did not reflect the

varying degrees of risk presented by releases into different environmental media. For similar reasons, they argued that the RQs should vary depending on the form of the substance released (i.e., whether it is a solid, a liquid, or a gas) and its ability to dissipate into the environment. The objecting commenters believed that if the RQs were to reflect more accurately the hazards of given releases, the overall reporting burden would be reduced, because reports would not have to be made in situations where the government would be unlikely to respond.

As has been stated, the RQs are not intended to represent judgments by the Agency as to the specific degree of hazard associated with certain releases. The actual hazard will vary with the circumstances of the particular release, and many factors other than the size of the release will influence the government's response. The single RQ approach was adopted to provide a relatively simple reporting system that does not unduly burden either EPA or the regulated community. Since releases into more than one medium often occur, the single RQ approach will prevent confusion. Section 102(a) of CERCLA expressly authorizes the Administrator to set a single quantity for each hazardous substance, and the legislative history emphasizes the virtues of simplicity and administrative convenience (see Sen. Rep. 848, 96th Cong., 2d Sess. 29 (1980)). Moreover, the Agency simply does not have the resources to obtain the vast quantity of technical data required to develop RQs that, on the one hand, are tailored to fit every release situation, and that, on the other hand, are consistent, equitable, and adequately protective of public health and welfare and the environment.

EPA will be able to refine the single-RQ approach over time as more information becomes available, without having to expend substantial resources to develop a massive technical data base and undertake other burdensome rulemaking support. Radionuclides, because of their unique characteristics, are the one category of substances for which the Agency is considering deviation from the single RQ approach. As noted in section III.C. of this preamble, radionuclide RQs will be addressed in a separate rulemaking.

A number of commenters expressed the opinion that the RQ adjustment criteria should take particular release circumstances into consideration. The suggested circumstances included release into a sewer system, release near a public drinking water supply, release near a residential area, and air

³ If available evidence shows that a substance hydrolyzes into a reaction product that is more hazardous than the original substance, the primary criteria are applied to the reaction product rather than to the original substance to determine the primary criteria RQ values for the original substance.

emissions from elevated sources (tall stacks). One commenter even stated that "determinations of actual harm" should be made for all substances with one- and ten-pound RQs by examining release potential, release history, the degree of hazard or risk of particular releases in various environmental media, and the likelihood that such releases would require federal action. The Agency position is that particular circumstances should not affect the RQ level; instead, they may influence the government's decisions concerning whether and how it should respond to a particular release.

Many commenters focused on the appropriateness of a single RQ governing emissions into the air as well as releases into other media. They argued as follows:

- Because the government cannot respond to most air emissions by containing or cleaning up the emissions, and because other government responses (e.g., evacuation of the nearby populace) are required only infrequently, requiring routine reporting of air emissions under a single-RQ approach would be wasteful and burdensome.

- The impacts of emissions into ambient air are substantially less than releases of similar size to water or soil, and the photolysis and degradation of many air emissions tend to be relatively rapid.

- Relatively few substances would be eligible for separate air release RQs, and EPA would not have to devote a substantial amount of effort and resources to make the appropriate adjustments.

The Agency believes that an exception to the single-RQ approach for air releases could not be restricted to air releases alone under the above reasoning. Several other types of releases exhibit certain of the characteristics of air releases, such as releases into large bodies of rapidly moving water. If the circumstances of particular releases were taken into account in setting RQs, the entire process would place an intolerable burden on Agency resources. The process would also become potentially inconsistent, inequitable, and subject to

delay. Moreover, the resulting complexity in RQs would be likely to engender both confusion and further charges of arbitrariness.

One commenter believed that, for the most part, releases that would be affected by a separate air release RQ would be those which are "continuous" and released from facilities subject to Clean Air Act regulations. If an air release falls within the exemptions provided by CERCLA for "continuous" or "federally permitted" releases, of course, no notification is necessary (except as required for continuous releases); if many air releases are exempt, a separate air release RQ would provide very few benefits.

3. Alternative Methodologies Considered

In the May 25, 1983 NPRM, EPA described and solicited comments on three alternative methodologies for adjusting RQs: Hazard Index, Scenarios, and Fate and Effects. Most commenters agreed with the Agency that these methodologies would be impractical to implement and would introduce unnecessary complexities into the RQ adjustment process, although several commenters encouraged further research into the Hazard Index approach. No new data to facilitate a more complete evaluation of these methodologies have been submitted. Because these methodologies are complex and require much data that are unavailable at this time, EPA is not currently pursuing these methodologies further for RQ adjustment purposes.

D. Criteria Used To Adjust Reportable Quantities

1. Primary Criteria

a. Aquatic Toxicity. In adjusting RQs, EPA used the categories of aquatic toxicity that were established pursuant to section 311 of the CWA. As Exhibit 1 shows, each category is linked to one of the five RQ levels. The RQ value based on aquatic toxicity is identical to the RQ promulgated under the CWA section 311 except where the use of updated aquatic toxicity data has resulted in a different RQ (see section V.F.2. below).

EXHIBIT 1.—CATEGORIES FOR REPORTABLE QUANTITY ASSIGNMENTS PURSUANT TO CWA SECTION 311

RQ (pounds)	Aquatic toxicity	Category
1.....	LC ₅₀ ^a < 0.1 mg/liter.....	X
10.....	0.1mg/liter <LC ₅₀ < 1 mg/liter.....	A
100.....	1 mg/liter <LC ₅₀ < 10 mg/liter.....	B
1000.....	10 mg/liter <LC ₅₀ < 100 mg/liter.....	C
5000.....	100 mg/liter <LC ₅₀ < 500 mg/liter.....	D

^a "LC₅₀" refers to that concentration of material which is lethal to one-half of the test population of aquatic animals upon continuous exposure for 96 hours. (See 40 CFR 116.14).

Source: 43 FR 10492, March 13, 1978.

One commenter questioned the rationale for assigning one-pound RQs to substances in the highest aquatic toxicity category. The commenter indicated that an RQ of 10 pounds, or even 100 pounds, could be assigned just as easily. The five-level reportable quantity scale for aquatic toxicity was taken directly from section 311 of the Clean Water Act. The CWA section 311 reporting categories are being retained for CERCLA reporting purposes in order to ensure consistency between the two closely related acts. The aquatic toxicity RQ scale has been used successfully in implementing the Clean Water Act, and the regulated community is familiar with it. Moreover, as noted above in the section on one-pound RQs, many releases tend to be escalating events requiring prompt attention.

b. Mammalian Toxicity. EPA separately evaluated oral, dermal, and inhalation toxicity for the mammalian toxicity criterion. A five-level scale was devised for each type of toxicity. These scales are shown in Exhibit 2. The RQ chosen for mammalian toxicity represents the lowest of the values derived from the three scales. These scales were discussed in detail in the NPRM (48 FR 23562-23563).

One commenter believed that the Agency's mammalian toxicity scales assign RQs which are too high for some poisonous substances. The commenter therefore proposed new scales based on mammalian toxicity that would assign many more one-pound RQs than the Agency's scales. The Agency believes that the scales suggested by the commenter are overly broad and could lead to unnecessary reporting.

EXHIBIT 2.—CATEGORIES FOR REPORTABLE QUANTITY ADJUSTMENTS BASED ON MAMMALIAN TOXICITY ^a

RQ (pounds)	Mammalian toxicity (oral)	Mammalian toxicity (dermal)	Mammalian toxicity (inhalation)
1.....	LD ₅₀ ^b < 0.1 mg/kg.....	LD ₅₀ < 0.04 mg/kg.....	LC ₅₀ ^c < 0.4 ppm.
10.....	0.1 mg/kg <LD ₅₀ < 1 mg/kg.....	0.04 mg/kg <LD ₅₀ < 0.4 mg/kg.....	0.4 ppm <LC ₅₀ < 4 ppm.
100.....	1 mg/kg <LD ₅₀ < 10 mg/kg.....	0.4 mg/kg <LD ₅₀ < 4 mg/kg.....	4 ppm <LC ₅₀ < 40 ppm.
1000.....	10 mg/kg <LD ₅₀ < 100 mg/kg.....	4 mg/kg <LD ₅₀ < 40 mg/kg.....	40 ppm <LC ₅₀ < 400 ppm.
5000.....	100 mg/kg <LD ₅₀ < 500 mg/kg.....	40 mg/kg <LD ₅₀ < 200 mg/kg.....	400 ppm <LC ₅₀ < 2000 ppm.

^a For a detailed explanation of the derivation of these categories, see Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102.

^b "LD₅₀" refers to that dose of a substance expected to cause the death of 50 percent of a defined experimental mammalian population.

^c "LC₅₀" refers to that concentration of a substance in the air that is expected to cause the death of 50 percent of a defined experimental mammalian population.

c. Ignitability and Reactivity. The Agency used a five-level scale to assign RQs based on ignitability. The NPRM discussed this scale in detail (48 FR 23583). Exhibit 3 shows the scale used. The Agency did not assign one-pound RQs based on ignitability because small releases of a flammable substance would generally be consumed so quickly that any federal government response action would be infeasible.

EXHIBIT 3.—CATEGORIES FOR REPORTABLE QUANTITY ADJUSTMENTS BASED ON IGNITABILITY *

RQ (pounds)	Ignitability (fire)
1.....	No 1-pound RQs on the basis of ignitability. Pyrophoric or self-ignitable.
10.....	FP _{cc} < 100° F, BP < 100° F.
100.....	FP _{cc} < 100° F, BP > 100° F.
1000.....	FP _{cc} > 100° F, BP > 100° F.
5000.....	FP _{cc} 100° F-140° F.

* For a detailed explanation of the derivation of these categories, see Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102.

^b "FP_{cc}" refers to the flash point, the temperature at which a substance forms an ignitable mixture with the air at the surface of the substance, measured using the closed cup test.

^c "BP" refers to the boiling point, the temperature at which a liquid boils.

The Agency also used five-level scales for assigning RQs based on two types of reactivity: reactivity with water and self-reaction. For reactivity, as for ignitability, no one-pound RQs were assigned. The NPRM discussed the reactivity scales and their development. Exhibit 4 shows the scales used.

One commenter requested that the minimum RQ level for the ignitability and reactivity RQ scales be set at 100 pounds instead of 10 pounds. The Agency has decided to retain the 10-pound minimum RQ level. As a result of interviews with federal government field response personnel, the Agency decided to remove the one-pound RQ level from the ignitability and reactivity RQ scales. Government response personnel indicated that releases of less than 10 pounds of ignitable and reactive substances normally would be adequately handled by appropriate local or state response personnel, and they concurred with the Agency's proposal to raise to 10 pounds the minimum reporting level for the ignitability and reactivity RQ scales. Government response personnel, however, objected to raising the minimum reporting level any further. They believed that reporting levels should be kept low to ensure timely reporting of releases and timely government response, if necessary.

EXHIBIT 4—CATEGORIES FOR REPORTABLE QUANTITY ADJUSTMENTS BASED ON REACTIVITY *

RQ (pounds)	Reactivity ^b	
	With water	Self-reaction
1.....	No 1-pound RQs on the basis of reactivity. Inflames (e.g., Na, Ca ₂).	No 1-pound RQs on the basis of reactivity. Extreme self-reaction; may cause explosion or detonation.
10.....	Extreme reaction (e.g., SO ₂).	High; may polymerize; requires stabilizer.
100.....	High reaction (e.g., oleum).	Moderate; contamination may cause polymerization; no inhibitor required.
1000.....	Moderate reaction (e.g., NH ₃).	Slight; may polymerize with low heat release.

* For a detailed explanation of the derivation of these categories, see Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102.

^b Based on heat release.

d. Chronic Toxicity. The Agency used data on chronic toxicity (referred to as "other toxic effects" in the May 25, 1983 NPRM) to adjust the statutory RQs for some hazardous substances. For other hazardous substances, data on chronic toxicity were still being evaluated at the time of the May 25, 1983 NPRM. RQs were not adjusted for those substances undergoing evaluation; thus, the statutory RQ applies. In addition, there are a few substances for which an RQ was proposed in the NPRM but for which EPA subsequently determined that further evaluation was necessary. The statutory RQ applies for these substances until a final RQ is promulgated (see section V.F.2. below).

When analyzed for chronic toxicity, substances are assigned scores based on both the minimum effective dose (MED) levels for repeated exposures and the severity of the effects caused by repeated or continuous exposure. The scores are then used to assign RQs. The NPRM described the methodology used (48 FR 23564); Exhibit 5 shows the RQ levels based on chronic toxicity.

EXHIBIT 5.—CATEGORIES FOR REPORTABLE QUANTITY ADJUSTMENTS BASED ON CHRONIC TOXICITY *

RQ (pounds)	Composite score
1.....	81-100
10.....	41-80
100.....	21-40
1000.....	6-20
5000.....	1-5

* For a detailed explanation of the derivation of these categories, see Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102.

A number of commenters suggested that chronic toxicity should not be used to determine RQs or should be used only

with additional restrictions. These commenters believed that chronic toxicity, which is a function of prolonged exposure, should not be considered because the purpose of the RQ program is to monitor episodic releases. The Agency decided to use chronic toxicity as a criterion in setting RQs because episodic releases which are not rapidly and completely cleaned up may result in repeated or continuous exposure to a toxic substance. Moreover, CERCLA reporting requirements cover both episodic and continuous releases. Continuous releases may also lead to repeated or continuous exposure to toxic substances.

e. Potential Carcinogenicity. Today's rule does not use any measure of potential carcinogenicity to adjust RQs. EPA is in the process of developing adjusted RQs for substances which have been identified as potential carcinogens. The statutory RQs for these substances apply while they are being considered for RQ adjustment. Table 302.4 notes those substances which are being evaluated for their relative activity as potential carcinogens (but which may or may not be potential carcinogens).

2. Other Criteria Used to Adjust RQs (BHP)

a. Use of BHP Criteria. Twenty commenters supported the use of the natural degradation processes of biodegradation, hydrolysis, and photolysis ("BHP") as additional criteria for adjusting RQs. The BHP criteria are used, where appropriate, to raise RQ values one level from that suggested by the primary criteria analysis. Four commenters opposed the use of BHP to adjust RQs.

The supporting commenters agreed that the above degradation processes tend to reduce the relative potential for harm to public health and welfare and the environment of certain hazardous substance releases. It was seen that taking the environmental fate characteristics of particular substances into account in setting RQ levels was an appropriate method to reduce the overall reporting burden while still adequately protecting public health and welfare and the environment. However, one commenter emphasized that the BHP criteria are a useful RQ adjustment tool only where the associated analysis is not overly complex, expensive, or time-consuming.

Several commenters requested clarification of the methodology used in

applying BHP. The Technical Background Document supporting this rulemaking sets forth in detail the relatively simple, yet scientifically conservative methodology used to apply these criteria. First, several elimination criteria are used to limit the number of substances eligible for the one-level increase based on BHP. The elimination criteria include the following: tendency to bioaccumulate, environmental persistence, the presence of unusual hazards (e.g., high reactivity), the existence of hazardous degradation or transformation products, or a primary criteria RQ already at the maximum assignable level of 5000 pounds. The remaining substances are evaluated for their susceptibility to biodegradation, hydrolysis, and photolysis. As discussed below, the Agency uses ranges of degradation rates sufficient to ensure that the substances selected for the one-level increase in RQ (27 in today's final rule) are in fact relatively degradable.

Two commenters believed that the Agency's evaluation pursuant to the BHP criteria should lead to a downward adjustment if the risk posed by the release of a hazardous substance is increased as a result of biodegradation, hydrolysis, or photolysis (i.e., if the natural degradation processes produce materials in the environment that are more hazardous than the original substance released). The Agency agrees that consideration must be given to the toxicity of the degradation products. Where reaction products more hazardous than the original substance are readily known and identified, the Agency has based the primary criteria RQ of the original substance on the characteristics of the more hazardous reaction products, effectively resulting in a "downward adjustment."

Application of the primary criteria to the reaction products rather than to the original substances occurred in ten cases for the substances assigned final adjusted RQs in this rule. For example, substances known to generate hydrogen sulfide or phosphine upon hydrolysis have been assigned primary criteria RQs on the basis of these reaction products.

The few commenters opposing the use of BHP felt that biodegradation, hydrolysis, and photolysis should be considered by the On-Scene Coordinator in determining the government's response after a release has been reported, but that EPA should not use such processes to alter the initial reporting level suggested by the primary criteria. For the reasons given below, the Agency disagrees.

First, the commenters asserted that biodegradation, hydrolysis, and photolysis should not be applied in the

setting of RQs because these processes may not affect the immediate hazard posed by a given release and instead may only reduce the potential long-term dangers of the release. However, EPA has used degradation measures that address both short- and long-term potential hazards. The RQ of a substance is not raised unless (1) the reported biological oxygen demand of the substance over a five-day period at 20 degrees Celsius is at least fifty percent of the theoretical oxygen demand (the stoichiometric quantity of oxygen needed to oxidize a substance completely to carbon dioxide and water), or (2) when subjected to hydrolysis, photolysis, or either process in conjunction with biodegradation, the estimated half-life of the substance is equal to or less than five days.

The primary criteria RQs of four substances (allyl chloride, butylamine, diazinon, and ethyl acrylate) were adjusted upwards in the May 25, 1983 NPRM on the basis of degradation data involving periods greater than five days, because data for shorter periods were unavailable. The Agency has since decided to adjust RQs according to the criteria stated above (i.e., evidence of degradation within five days), to ensure that all substances selected for the one-level increase will tend to degrade rapidly once they are released. Therefore, allyl chloride, butylamine, diazinon, and ethyl acrylate are assigned their primary criteria RQs in today's final rule.

The second major argument raised by the commenters opposed to the use of BHP was that the methods for measuring the occurrence and rate of biodegradation, hydrolysis, and photolysis do not take into account the entire range of environmental conditions that could potentially affect each process. The Agency acknowledges this limitation in its analysis. RQs cannot be designed to account for every environmental condition of each release of a hazardous substance. Instead, each RQ level represents the Agency's best judgment concerning the threshold at which the NRC should be notified.

Although environmental conditions are not considered in the RQ adjustment process, EPA has taken into account certain physical characteristics of substances in adjusting RQs on the basis of biodegradability. The test for biodegradability is performed using a closed container, which may provide misleading data for highly volatile substances that are unlikely to remain in microbe-bearing soil or water. The Agency has therefore elected not to apply the biodegradation criterion to any highly volatile substance (i.e., with

a boiling point less than 100 degrees Fahrenheit) unless that substance is also highly water soluble. Highly water soluble substances will tend to be retained in water or in soil (by soil moisture). The primary criteria RQ of acetaldehyde was raised one level under these circumstances; even though the boiling point of acetaldehyde is less than 100 degrees Fahrenheit, the substance is also highly water soluble.

b. Other Criteria Considered and Rejected. In the NPRM preamble, EPA noted that it had considered using volatilization (the process by which a substance vaporizes into the air) as an additional criterion for adjusting RQs, but had rejected it because the hazard posed by a release of a hazardous substance does not necessarily decrease when the substance moves from soil or water into the air. One commenter disagreed with the Agency's decision not to use volatilization, arguing that where a compound is particularly volatile, no response action may be feasible. EPA maintains its earlier position that the movement of a substance between environmental media (from the soil or water into the air) does not necessarily affect the potential hazard. The feasibility of a response is a decision for the On-Scene Coordinator.

c. Broadening the Scope of the BHP Criteria. The NPRM noted, without discussion, that the criteria of biodegradation, hydrolysis, and photolysis were not used to raise RQs based on chronic toxicity, and it did not mention the application of BHP to substances being evaluated for potential carcinogenicity. Several commenters expressed the opinion that BHP should be applied to hazardous substances evaluated for chronic toxicity and/or potential carcinogenicity. They noted that the processes of biodegradation, hydrolysis, and photolysis may, in certain cases, reduce the potential hazard of such substances. EPA agrees that BHP should be applied to those hazardous substances evaluated for chronic toxicity, and the Agency is considering whether to apply BHP to substances evaluated for potential carcinogenicity.

In fact, the Agency has already evaluated BHP with respect to those substances that were analyzed for chronic toxicity. Two substances evaluated for chronic toxicity have had their primary criteria RQs increased one level on the basis of biodegradability: acetonitrile (1000 to 5000 pounds) and methyl ethyl ketone (1000 to 5000 pounds).

A number of commenters argued that RQs should be adjusted more than one RQ level on the basis of the BHP criteria to reflect the speed and completeness with which a substance degrades. In a related suggestion, several commenters requested that EPA develop formal ranking scales for these criteria.

The lack of extensive data and the uncertainty of much of the existing data concerning the environmental fate of various hazardous substances prevent adjustments of more than one level to reflect the speed and completeness with which a substance degrades. The Agency believes that an upward adjustment of one level adequately lessens the reporting burden on the regulated community regarding releases of the 27 substances involved and satisfactorily protects public health and welfare and the environment.

Similar data gaps hinder development of formal ranking scales for the BHP criteria. Moreover, even if adequate data were available, the BHP criteria could not be easily applied through a more formal multi-tier ranking system, for many of the same reasons a hazard index is currently impractical. For example, there is no objective way to determine the proper numerical weights for the different primary and BHP criteria that would be combined in a more formal ranking system. Therefore, the Agency has determined that more formal ranking scales for the application of BHP are not practical at this time. Further refinement of the use of BHP may be undertaken in connection with a future rulemaking.

For a more detailed discussion of the BHP criteria and the problems of combining different criteria ranking, see the discussion of hazard indices in the May 25, 1983 NPRM at 48 FR 23568-23569, and the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

d. Additional Data Suggested. Some commenters suggested specific data sources for analysis of BHP. EPA used one of these sources in making the adjustments proposed in the May 25, 1983 NPRM. On the basis of data contained in the other available sources, the RQs of acetonitrile and furfural have each been raised one level to 5000 pounds.

3. Additional Criteria Considered but Not Currently Used To Adjust RQs

a. Release History and Release Potential. Several comments were received on the use of release history

and release potential as criteria for adjusting RQs. EPA agrees with those commenters who stated that the manner in which releases have been handled in the past under different circumstances is not directly related to whether a particular release in the future will pose a threat to public health or welfare or the environment. The potential hazards of each release must be considered on a case-by-case basis. For this reason, and because of the data problems mentioned in the NPRM, the Agency has decided not to adjust RQs on the basis of release history and release potential at this time.

b. Corrosivity. Two commenters supported the use of corrosivity as a criterion for adjusting RQs. A major difficulty in applying corrosivity as a criterion is developing a scale relating corrosivity to RQs that is useful for all CERCLA hazardous substances. None of the comments included a scale that the Agency considered adequate, and EPA has not identified a corrosivity scale that would be generally practicable. Therefore, corrosivity will not be used at this time as a criterion for adjusting RQs.

E. Future RQ Adjustments

1. Interim RQs

As noted below in section V.G., adjusted RQs for 358 of the 698 CERCLA hazardous substances do not appear in today's rule. One commenter urged EPA to publish proposed RQs for these substances as quickly as possible. Today's Federal Register contains an NPRM proposing RQs for 105 of the 358 substances not receiving an adjusted RQ in today's rule. EPA will propose RQ adjustments for the remaining substances as soon as sound technical evaluations for them are complete.

Another commenter indicated that potential delays in performing such evaluations could result in an unfair reporting burden for many substances that will temporarily retain their present RQs. The commenter therefore recommended that EPA propose interim RQ adjustments for such substances based on existing information and scientific judgments.

EPA disagrees. Proposing new temporary RQs for hazardous substances would be time-consuming in itself, and, because the temporary RQs would be based on incomplete analysis, they would be unfair to the regulated community and the general public. Interim levels would still need to be changed when RQ evaluations are completed. EPA will move expeditiously to complete its evaluations of the

remaining CERCLA substances, but will not establish a set of interim RQs.

2. New Data

One commenter requested that provisions be specified for allowing RQ changes when new information relating to the primary criteria or BHP becomes available. This commenter felt that EPA should acknowledge the role of interested parties in effecting appropriate revisions to the final RQs and should clarify procedures for the submission of new data.

EPA welcomes the submission of new data concerning the primary criteria and BHP at any time. RQs are based on the best data available at the time of promulgation, but they are subject to change on the basis of new information. The Agency will periodically review submitted data to ensure that RQs are not based on superseded information.

F. Application of the Methodology and Criteria

1. Introduction

Many commenters voiced general support for EPA's choice of methodology and the results of the methodology. These commenters stated that the proposed RQ adjustments would increase the efficiency of the Superfund program, reduce burdens on the regulated community, and allow EPA to concentrate its resources on the releases which pose the potentially greatest threat to public health or welfare or the environment.

The remainder of this section responds briefly to comments received by the Agency concerning the RQs of various specific substances and discusses in greater detail the comments received concerning PCBs and unlisted hazardous wastes.

2. Comments on RQs of Specific Substances

The Agency received comments from over 100 commenters concerning the RQs of 90 individual substances and 12 groups of waste streams. The majority of these comments suggested raising the RQs for specific substances.

One commenter recommended several RQ changes on the basis of aquatic toxicity data recently compiled by the U.S. Department of the Interior. The Agency has reevaluated the RQs of several hazardous substances in light of these new data, and four of the substances singled out by the commenter have received new adjusted RQs. In addition, the new data were used to alter the proposed adjusted RQs of 12 other substances. Exhibit 6 lists the 16 substances which received new

adjusted RQs on the basis of the new aquatic toxicity data. Statements by the same commenter contributed to a reexamination of the mammalian toxicity data for phosgene and the lowering of the phosgene RQ from 1000 to 10 pounds.

EXHIBIT 6.—SUBSTANCES WHICH RECEIVED FINAL ADJUSTED RQS DIFFERENT FROM PROPOSED ADJUSTED RQS ON THE BASIS OF NEW AQUATIC TOXICITY DATA

Substance	Proposed RQ	Final RQ
Aldicarb	10	1
4-Bromophenyl phenyl ether	10	100
Butyl benzyl phthalate	5000	100
N-Butyl phthalate	100	10
Dichlobenil	1000	100
4,6-Dinitro-o-cresol and salts	100	10
Dinitrophenol (and 2,5- and 2,6-isomers)	100	10
2,4-Dinitrophenol	100	10
Diethyl phthalate	100	1000
Kelthane	5000	10
Methomyl	1000	100
Pyrethrins	1000	1
2,4,5-T	100	1000
2,4,5-T Amines	100	5000
2,4,5-T Esters	100	1000
2,4,5-T Salts	100	1000

Some commenters suggested RQ changes for particular substances on the basis of volatility or particular incidents. Similarly, one commenter proposed new RQs for several waste streams based on the public impact of past releases of these wastes. However, as discussed in previous sections, neither volatility nor release history are currently being used to adjust RQs. The RQs of these substances and waste streams will therefore not be changed.

Commenters suggested raising the RQs of four substances on the basis of biodegradability. Two of these substances—crotonaldehyde and pentachlorophenol—have already been examined for biodegradability and been found not to meet the criteria for an upward RQ adjustment. EPA has reexamined the third substance, ammonia, on the basis of both chronic toxicity and BHP (although ammonia is volatile, it is also highly water soluble) and has proposed for ammonia an adjusted RQ of 100 pounds in the NPRM published in today's **Federal Register**. EPA has adjusted the RQ of the fourth substance, methyl ethyl ketone, from 1000 pounds to 5000 pounds on the basis of biodegradability.

Several commenters suggested that the RQs of metals might be based on the metal compound RQs (for soluble salts) that were assigned under CWA section 311. However, solid metal powders do not necessarily have the same effects as their soluble salts, and, therefore, the same RQs would not necessarily apply.

Many commenters argued that the RQ of ammonia should be raised from its current level of 100 pounds under the CWA; they cited the volatility of ammonia, the fact that most ammonia releases occur into air, the fact that the aquatic toxicity of the ammonium ion is much lower than that of ammonia itself, and the biodegradability of ammonia. It was also suggested that the 100-pound RQ would create a burdensome reporting requirement. Ammonia has undergone reevaluation since the May 25, 1983 NPRM; based on this reevaluation, the NPRM in today's **Federal Register** proposes to retain the 100-pound RQ for ammonia under CERCLA. The 100-pound RQ established under the CWA applies until a final adjusted RQ is promulgated.

3. PCBs

In the May 25, 1983 NPRM, the Agency proposed to lower the RQ for PCBs to one pound from the original 10-pound level set under section 311 of the Clean Water Act. The lower RQ was based on more recent aquatic toxicity data. The Agency acknowledged that because of the ubiquitous use of PCBs, it was concerned about the increased notification burden that might result from this proposed reduction of the PCB RQ. Comments were requested on these issues.

All of the comments received on this issue objected to the Agency's proposal to reduce the PCB RQ to one pound. The major concern of the commenters was that the one-pound RQ would appreciably increase the number of reportable releases and the burden on the regulated community while negligibly improving the protection of public health or welfare or the environment. Most commenters argued that restrictions on the location of equipment containing PCBs, current PCB management regulations under TSCA, and existing industry good housekeeping practices with regard to PCBs make exposure to PCBs unlikely.

Several commenters also expressed concern that significant over-reporting may dramatically increase the government's administrative costs for the notification program. Other commenters suggested alternative methods for estimating the number of PCB releases of different quantities for the purpose of calculating the economic effects of changing the PCB RQ.

Several commenters questioned the validity of the aquatic toxicity data used by the Agency and the manner in which it was employed to set the proposed RQ. Also, two commenters cited data indicating that PCBs do not pose any serious threats to human health, even

though the Agency had explained that the proposed PCB RQ was based on aquatic toxicity.

After considering the comments received on the PCB RQ, the Agency has decided to defer any promulgation of a final PCB RQ until a future rulemaking. The Agency is currently evaluating PCBs to determine whether the RQ should be based on the primary criterion of potential carcinogenicity. Until a final RQ is promulgated for PCBs, the existing RQ of 10 pounds (established under the CWA) will remain in effect.

4. Unlisted RCRA Wastes (ICRE Wastes)

CERCLA section 101(14)(c) includes in the definition of hazardous substances "any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act. . . ." Therefore, solid wastes, as defined by RCRA, which exhibit one or more of the characteristics of ignitability, corrosivity, reactivity, or extraction procedure toxicity (ICRE) are considered CERCLA hazardous substances, even though they are not specifically listed under RCRA. The RQs of ICRE wastes are listed in Table 302.4 under "Unlisted Hazardous Wastes." These RQs apply only to substances that are wastes prior to being released (see section IV.D.1. above). The RQ for ignitable, corrosive, or reactive unlisted wastes is 100 pounds, and unlisted hazardous wastes that exhibit extraction procedure (EP) toxicity have the reportable quantities listed in Table 302.4.

Some commenters suggested changing the RQ established for ignitable, corrosive, or reactive wastes. The comments that suggested raising the RQ for ICR wastes were based mainly on the assumption that a government response would seldom be required for releases of these wastes smaller than 1000 pounds. However, each of these suggestions assumes some specific scenario and ignores the fact that an RQ only reflects the Agency's judgment that the federal government should be notified of releases to which a response might be necessary. Especially when releases are of unknown mixtures, conservatism is a sensible approach; therefore, the RQ is designed to cover all hazardous substances potentially present. With this in mind, the RQ for ICR wastes will remain as proposed at 100 pounds.

Two commenters suggested that the releaser be given the opportunity to report releases of reactive or ignitable wastes based on the primary criteria RQ

scales of Exhibits 3 and 4 in the NPRM (48 FR 23563). However, simply testing for the reactivity or ignitability of the waste does not further identify the composition of the waste; therefore, the waste is still unlisted. The primary criteria are designed to apply only to specific substances. Moreover, the Agency has not determined that listed and unlisted wastes pose similar potential hazards.

If an unlisted ICRE waste is analyzed and the concentrations of all of its hazardous components are identified, the waste is no longer an unlisted waste, but one characterized by its components. The specific substances present will then determine the applicable RQ in accordance with the Clean Water Act mixture rule (see section IV.D.3.b. above). For example, if a waste is known to be corrosive because of its sulfuric acid content, and no other CERCLA hazardous substances or other ICRE characteristics are present, the RQ of the waste is reached when 1000 pounds of sulfuric acid is released. If the aforementioned waste is a 25 percent solution of sulfuric acid in water, the RQ of the waste is not reached until 4000 pounds of the waste is released.

Several commenters suggested that the RQ for an EP toxic waste should apply to the EP toxic constituents of the waste rather than to the waste itself. If the composition of the waste stream is completely known, the waste is no longer an unlisted waste, and the mixture rule will apply. If the hazardous constituents of the waste and their concentrations are not completely known, however, it is impossible to apply the mixture rule as these commenters suggested. Unlisted wastes that exhibit EP toxicity have the reportable quantities listed in Table 302.4 for the contaminant on which the characteristic of EP toxicity is based; the RQ given applies to the waste itself, not merely to the toxic constituent. A sentence has been added to § 302.5(b) to clarify this point.

G. Summary of RQ Changes From the May 25, 1983 NPRM

The May 25, 1983 NPRM proposed raising the RQs for 177 CERCLA substances (including 15 waste streams) and lowering the RQs for 28 substances, leaving the RQs of 182 substances (including 11 waste streams) at their previous levels. On the basis of new aquatic toxicity data located by a commenter, the proposed adjusted RQs of 16 substances have been changed. Exhibit 6 lists these 16 substances. Similarly, new data on BHP has led to a one-level increase in the adjusted RQ of

furfural, and a reevaluation of mammalian toxicity data has led to a decrease in the phosgene RQ from 1000 to 10 pounds. Applying BHP to substances exhibiting chronic toxicity has raised the adjusted RQs of two other substances. The decision not to apply BHP to substances for which five-day degradation rates are insufficient to justify a one-level increase in RQ has resulted in a lower RQ for four substances. The use of data overlooked at the time of the NPRM has affected the adjusted RQs of four additional substances.

The NPRM proposed adjusted RQs for 47 substances (including 8 waste streams) that were subsequently selected for chronic toxicity and/or potential carcinogenicity assessment; these 47 substances will therefore remain at their statutory RQ levels pending future RQ adjustments. Of these 47 substances, however, 23 (including 6 waste streams) already had RQs of one pound on the basis of one or more of the other primary criteria. Further evaluation of chronic toxicity or potential carcinogenicity is unlikely to change these one-pound RQs, because there is no RQ level less than one pound and the analysis of the other primary criteria indicates that a one-pound RQ is appropriate (although new data on the primary criteria or on BHP may suggest otherwise).

Table 302.4 in the May 25, 1983 NPRM incorrectly described eighteen substances as having one-pound statutory RQs under CERCLA; however, these substances had been assigned RQs under the Clean Water Act (40 CFR Parts 116 and 117.3). Exhibit 7 lists the eighteen substances and their correct statutory and (where appropriate) final RQs.

In sum, final adjusted RQs now appear for 319 of 608 specific substances and 21 of 90 waste streams. Statutory RQs appear for the remaining substances.⁴

For further information concerning these RQ changes, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

⁴Adjustments have been proposed for 105 of these substances in an NPRM that appears in today's Federal Register. These substances are noted by two number symbols (##) in the "Pounds (Kg)" column of Table 302.4.

H. Retention of Statutory RQ for Methyl Isocyanate

The December 4, 1984 release of methyl isocyanate (MIC) in Bhopal, India caused major loss of human life. This event pointed out the extraordinarily serious nature of MIC's acute toxicity. At this point, EPA is withdrawing its proposal to amend the RQ for MIC and is requesting further data on its toxicity.

The one-pound statutory reporting requirement will continue to apply to releases of this hazardous substance until a rule adjusting its RQ is promulgated.

EXHIBIT 7.—SUBSTANCES WITH RQs ASSIGNED UNDER THE CLEAN WATER ACT THAT THE MAY 25, 1983 NPRM LISTED AS HAVING ONE-POUND STATUTORY RQs UNDER CERCLA

Substance	Correct CWA section 311 RQ	Final RQ
Aroclor 1016.....	10	* 10
Aroclor 1221.....	10	* 10
Aroclor 1232.....	10	* 10
Aroclor 1242.....	10	* 10
Aroclor 1248.....	10	* 10
Aroclor 1254.....	10	* 10
Aroclor 1260.....	10	* 10
o-Dichlorobenzene.....	100	100
p-Dichlorobenzene.....	100	100
1,2-Dichloropropane.....	5000	1000
1,3-Dichloropropane.....	5000	100
2,4-Dinitrophenol.....	1000	10
2,4-Dinitrotoluene.....	1000	* 1000
2,6-Dinitrotoluene.....	1000	* 1000
2-Nitrophenol.....	1000	100
4-Nitrophenol.....	1000	100
2,4,5-Trichlorophenol.....	10	* 10
2,4,6-Trichlorophenol.....	10	* 10

* These substances were selected for evaluation of chronic toxicity and/or potential carcinogenicity and adjusted RQs will be proposed for them in a future rulemaking.

I. Table 302.4

1. Introduction

Table 302.4 lists all of the CERCLA hazardous substances together with their adjusted and statutory RQs. The first part of the table lists the individual hazardous substances regulated under the statutes cited in CERCLA section 101(14). The generic groups of chemicals designated under CWA section 307(a), such as "SILVER AND COMPOUNDS," are printed in capital letters and have no RQ assigned to them. These generic groups of chemicals could potentially encompass hundreds of specific compounds with varying toxicities; it is therefore not appropriate to establish a single RQ for each generic group. Although CERCLA notification requirements apply only to specific compounds for which RQs are listed in Table 302.4, CERCLA liability may still attach to releases of specific compounds that are within one of the generic

listings but not specifically listed in Table 302.4.

The second part of the table contains the 90 hazardous waste streams designated under 40 CFR 261.31 and 261.32 (RCRA F and K lists). The Agency designated many of these waste streams as hazardous under RCRA because of the presence of specific hazardous constituents in the waste streams as set forth in Appendix VII of 40 CFR Part 261. The Agency is assigning RQs for these waste streams based on these hazardous constituents. The primary criteria and BHP, discussed above, were applied to each hazardous constituent in order to derive an RQ value. If a waste stream in 40 CFR 261.31 and 261.32 has more than one hazardous constituent, the RQ assigned to the particular waste stream represents the lowest RQ associated with the hazardous constituents present in that waste stream.

2. Minor Changes

In addition to the changes in proposed RQs described above in Section G, the following minor changes in Table 302.4 have been made:

(1) The listing for Chromium D007, one of the constituents of the characteristic of EP toxicity under the "Unlisted Hazardous Wastes," will now be "total chromium" (although it may be changed to hexavalent chromium at some time in the future under proposed amendments to RCRA). It was listed incorrectly as hexavalent chromium (VI) in Table 302.4 in the NPRM.

(2) The RCRA waste numbers for the characteristics of ignitability (D001), corrosivity (D002), and reactivity (D003) are now included in Table 302.4. They were omitted from Table 302.4 in the NPRM. In addition, the waste identification numbers for the constituents of the characteristic of EP toxicity, and the waste identification numbers for wastes F001 through K106, which were also omitted in the NPRM, are now properly included in the column for RCRA Waste Numbers in Table 302.4.

(3) In response to the suggestion of a commenter, the Table now notes that the RQ for asbestos is limited to friable forms of the substance; reporting of releases of other forms is not required, although other CERCLA liabilities may attach.

VI. Reportable Quantity Adjustments Under Section 311 of the Clean Water Act

In the May 25, 1983 NPRM, EPA requested comments on its proposal to make RQs adjusted under CERCLA the applicable RQs for purposes of reporting

discharges of hazardous substances pursuant to section 311 of the Clean Water Act. Making RQs the same for substances listed under both statutes would make the notification requirements for the substances involved consistent and less confusing for the regulated community.

Of nine comments received on the issue of adjusting CWA RQs, five were completely in favor of the Agency's proposal and agreed that it would alleviate much confusion. However, four comments indicated that such adjustment should proceed only for those substances for which CWA RQs would be raised. These commenters claimed that CWA RQs are based on aquatic toxicity, while CERCLA RQs must consider releases into other media. Thus, they reasoned, lowering CWA RQs based on criteria used to set CERCLA RQs would be unfair.

EPA does not feel that different RQs under the two statutes would serve any purpose. Even if the CWA RQs were not lowered, releases of CWA substances would still be reportable when released at CERCLA RQ levels because CERCLA's scope and jurisdiction fully encompass all hazardous substance discharges reportable under CWA. The primary purpose of equalizing RQs under CERCLA and the CWA is to make the task of reporting releases less confusing for the regulated community.

VII. Summary of Supporting Analyses

A. Classification and Regulatory Impact Analysis

Rulemaking protocol under Executive Order 12291 requires that proposed regulations be classified as "major" or "non-major" for purposes of review by the Office of Management and Budget. According to the E.O. 12291, major rules are regulations that are likely to result in:

- (1) An annual effect on the economy of \$100 million or more; or
- (2) A major increase in costs or prices for consumers, individual industries, federal, state, or local government agencies, or geographic regions; or
- (3) Significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The Regulatory Impact Analysis, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460, shows that today's regulation is "non-major" because it results in a net cost savings of approximately \$17 million annually, of which about \$2.6

million annually will be saved by the regulated community (the remainder to be saved by the government).⁵

B. Regulatory Flexibility Analysis

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have "significant impact on a substantial number of small entities." Chapter 7 of the Regulatory Impact Analysis estimates the potential impact of today's regulation on a model small chemical firm. The chapter first estimates an upper-bound total annual cost of compliance by a small firm at \$5,604 (in 1983 dollars) and then compares this figure to other measures of a small firm's economic status. Even with this extremely conservative estimate, the total cost per year of compliance is a negligible percentage of both the pre-tax annual cash flow and equity of the model small firm—a fraction of one percent for both measures. EPA therefore certifies that this regulation will not have a significant impact on a substantial number of small entities, and thus no Regulatory Flexibility Analysis is needed.

C. Information Impact Analysis

EPA anticipates that RQ adjustments will change the paperwork burden imposed on the regulated community for information collection associated with reporting releases. As estimated in the Regulatory Impact Analysis, today's regulation will reduce the paperwork burden of notification and recordkeeping on private parties by almost 50,000 hours.

The information collection requirements contained in this rule are covered by the U.S. Coast Guard submission for information collection by the National Response Center. The requirements have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB control number 2115-0137.

List of Subjects in 40 CFR Part 302

Air pollution control, Chemicals, Hazardous materials, Hazardous materials transportation, Hazardous substances, Intergovernmental relations, Natural resources, Nuclear materials, Pesticides and pests, Radioactive materials, Reporting and recordkeeping

⁵ These figures do not include the costs or benefits associated with the continuous release exemption.

requirements, Superfund, Waste treatment and disposal, Water pollution control.

Dated: February 13, 1985.

Lee M. Thomas,
Administrator.

1. 40 CFR is amended by adding Part 302 as follows:

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

Sec.

- 302.1 Applicability.
- 302.2 Abbreviations.
- 302.3 Definitions.
- 302.4 Designation of hazardous substances.
- 302.5 Determination of reportable quantities.
- 302.6 Notification requirements.
- 302.7 Penalties.

Authority: Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9602; Sections 311 and 501(a) of the Federal Water Pollution Control Act, 33 USC 1321 and 1361.

§ 302.1 Applicability.

This regulation designates under section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("the Act") those substances in the statutes referred to in section 101(14) of the Act, identifies reportable quantities for these substances, and sets forth the notification requirements for releases of these substances. This regulation also sets forth reportable quantities for hazardous substances designated under section 311(b)(2)(A) of the Clean Water Act.

§ 302.2 Abbreviations.

CASRN = Chemical Abstracts Service Registry Number
RCRA = Resource Conservation and Recovery Act of 1976, as amended
lb = pound
kg = kilogram
RQ = reportable quantity

§ 302.3 Definitions.

As used in this part, all terms shall have the meaning set forth below:

"The Act", "CERCLA", or "Superfund" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Pub. L. 96-510);

"Administrator" means the Administrator of the United States Environmental Protection Agency ("EPA");

"consumer product" shall have the meaning stated in 15 U.S.C. 2052;

"environment" means (1) the navigable waters, the waters of the contiguous zone, and the ocean waters

of which the natural resources are under the exclusive management authority of the United States under the Fishery Conservation and Management Act of 1976, and (2) any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States;

"facility" means (1) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (2) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel;

"hazardous substance" means any substance designated pursuant to 40 CFR 302;

"hazardous waste" shall have the meaning provided in 40 CFR 261.3;

"navigable waters" or "navigable waters of the United States" means waters of the United States, including the territorial seas;

"offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

"onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land or non-navigable waters within the United States;

"person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States Government, State, municipality, commission, political subdivision of a State, or any interstate body;

"release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, but excludes (1) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (2) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (3) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of

1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under Section 170 of such Act, or for the purposes of Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act or any other response action, any release of source, byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978, and (4) the normal application of fertilizer;

"reportable quantity" means that quantity, as set forth in this part, the release of which requires notification pursuant to this part;

"United States" include the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Marianas, and any other territory or possession over which the United States has jurisdiction; and

"vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water.

§ 302.4 Designation of hazardous substances.

(a) *Listed hazardous substances.* The elements and compounds and hazardous wastes appearing in Table 302.4 are designated as hazardous substances under section 102(a) of the Act.

(b) *Unlisted hazardous substances.* A solid waste, as defined in 40 CFR 261.2, which is not excluded from regulation as a hazardous waste under 40 CFR 261.4(b), is a hazardous substance under section 101(14) of the Act if it exhibits any of the characteristics identified in 40 CFR 261.20 through 261.24.

Table 302.4—List of Hazardous Substances and Reportable Quantities

Note—The numbers under the column headed "CASRN" are the Chemical Abstracts Service Registry Numbers for each hazardous substance. Other names by which each hazardous substance is identified in other statutes and their implementing regulations are provided in the "Regulatory Synonyms" column. The "Statutory RQ" column lists the RQs for hazardous substances established by section 102 of CERCLA. The "Statutory Code" column indicates the statutory source for designating each substance as a CERCLA hazardous substance: "1" indicates that the statutory source is section 311(b)(4) of the Clean Water Act, "2" indicates that the source is section 307(a) of the Clean Water Act, "3" indicates that the source is section 112 of the Clean Air Act, and "4" indicates that the source is RCRA section 3001. The

"RCRA Waste Number" column provides the waste identification numbers assigned to various substances by RCRA regulations. The column headed "Category" lists the code

letters "X," "A," "B," "C," and "D," which are associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively. The "Pounds (kg)" column provides the reportable

quantity for each hazardous substance in pounds and kilograms.

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Acenaphthene.....	83329		1*	2		X	1## (0.454)
Acenaphthylene.....	208968		1*	2		X	1## (0.454)
Acetaldehyde.....	75070	Ethanal.....	1000	1,4	U001	C	1000 (454)
Acetaldehyde, chloro.....	107200	Chloroacetaldehyde.....	1*	4	P023	C	1000 (454)
Acetaldehyde, trichloro.....	75876	Chloral.....	1*	4	U034	X	1#(0.454)
Acetamide, N-(aminothioxomethyl).....	591082	1-Acetyl-2-thiourea.....	1*	4	P002	C	1000 (454)
Acetamide, N-(4-ethoxyphenyl).....	62442	Phenacetin.....	1*	4	U187	X	1# (0.454)
Acetamide, N-9H-fluoren-2-yl.....	53963	2-Acetylaminofluorene.....	1*	4	U005	X	1# (0.454)
Acetamide, 2-fluoro.....	640197	Fluoroacetamide.....	1*	4	P057	B	100(45.4)
Acetic acid.....	64197		1000	1		D	5000 (2270)
Acetic acid, ethyl ester.....	141786	Ethyl acetate.....	1*	4	U112	D	5000 (2270)
Acetic acid, fluoro-, sodium salt.....	62748	Fluoroacetic acid, sodium salt.....	1*	4	P058	A	10 (4.54)
Acetic acid, lead salt.....	301042	Lead acetate.....	5000	1,4	U144	D	5000# (2270)
Acetic acid, thallium(I) salt.....	563688	Thallium(I) acetate.....	1*	4	U214	X	1## (0.454)
Acetic anhydride.....	108247		1000	1		D	5000 (2270)
Acetimidic acid,N-[(methylcarbamoyl oxy)thio-, methyl ester.....	16752775	Methomyl.....	1*	4	P066	B	100 (45.4)
Acetone.....	67641	2-Propanone.....	1*	4	U002	D	5000 (2270)
Acetone cyanohydrin.....	75865	2-Methylactonitrile..... Propanenitrile, 2-hydroxy-2-methyl-	10	1,4	P069	A	10 (4.54)
Acetonitrile.....	75058	Ethanenitrile.....	1*	4	U003	D	5000 (2270)
3-(alpha-Acetylbenzyl)- 4-hydroxycoumarin and salts.....	81812	Warfarin.....	1*	4	P001	B	100 (45.4)
Acetophenone.....	98862	Ethanone, 1-phenyl.....	1*	4	U004	D	5000 (2270)
2-Acetylaminofluorene.....	53963	Acetamide, N-9H-fluoren-2-yl.....	1*	4	U005	X	1# (0.454)
Acetyl bromide.....	506967		5000	1		D	5000 (2270)
Acetyl chloride.....	75365	Ethanoyl chloride.....	5000	1,4	U006	D	5000 (2270)
1-Acetyl-2-thiourea.....	591082	Acetamide, N-(aminothioxomethyl).....	1*	4	P002	C	1000 (454)
Acrolein.....	107028	2-Propenal.....	1	1,2,4	P003	X	1 (0.454)
Acrylamide.....	79061	2-Propenamide.....	1*	4	U007	D	5000 (2270)
Acrylic acid.....	79107	2-Propenoic acid.....	1*	4	U008	D	5000 (2270)
Acrylonitrile.....	107131	2-Propenenitrile.....	100	1,2,4	U009	B	100# (45.4)
Adipic acid.....	124049		5000	1		D	5000 (2270)
Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl,L-.....	148823	Melphalan.....	1*	4	U150	X	1# (0.454)
Aldicarb.....	116063	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino) carbonyl]oxime.....	1*	4	P070	X	1 (0.454)
Aldrin.....	309002	1,2,3,4,10-10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, exo-dimethanonaphthalene.....	1	1,2,4	P004	X	1# (0.454)
Allyl alcohol.....	107186	2-Propen-1-ol.....	100	1,4	P005	B	100 (45.4)
Allyl chloride.....	107051		1000	1		C	1000 (454)
Aluminum phosphide.....	20859738		1*	4	P006	B	100 (45.4)
Aluminum sulfate.....	10043013		5000	1		D	5000 (2270)
5-(Aminomethyl)-3-isoxazolol.....	2763964	3(2H)-Isoxazolone, 5-(aminomethyl).....	1*	4	P007	C	1000 (454)
4-Aminopyridine.....	504245	4-Pyridinamine.....	1*	4	P008	C	1000 (454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Amitrole.....	61825	1H-1,2,4-Triazol-3-amine.....	1*	4	U011	X	1# (0.454)
Ammonia.....	7664417		100	1		B	100## (45.4)
Ammonium acetate.....	631618		5000	1		D	5000 (2270)
Ammonium benzoate.....	1863634		5000	1		D	5000 (2270)
Ammonium bicarbonate.....	1066337		5000	1		D	5000 (2270)
Ammonium bichromate.....	7789095		1000	1		C	1000# (454)
Ammonium bifluoride.....	1341497		5000	1		D	5000## (2270)
Ammonium bisulfite.....	10192300		5000	1		D	5000 (2270)
Ammonium carbamate.....	1111780		5000	1		D	5000 (2270)
Ammonium carbonate.....	506876		5000	1		D	5000 (2270)
Ammonium chloride.....	12125029		5000	1		D	5000 (2270)
Ammonium chromate.....	7788989		1000	1		C	1000# (454)
Ammonium citrate, dibasic.....	3012655		5000	1		D	5000 (2270)
Ammonium fluoroborate.....	13826830		5000	1		D	5000 (2270)
Ammonium fluoride.....	12125018		5000	1		B	100 (45.4)
Ammonium hydroxide.....	1336216		1000	1		C	1000 (454)
Ammonium oxalate.....	6009707 5972736 14258492		5000	1		D	5000 (2270)
Ammonium picrate.....	131748	Phenol, 2,4,6-trinitro-, ammonium salt.....	1*	4	P009	A	10 (4.54)
Ammonium silicofluoride.....	16919190		1000	1		C	1000 (454)
Ammonium sulfamate.....	7773060		5000	1		D	5000 (2270)
Ammonium sulfide.....	12135761		5000	1		B	100 (45.4)
Ammonium sulfite.....	10196040		5000	1		D	5000 (2270)
Ammonium tartrate.....	14307438 3164292		5000	1		D	5000 (2270)
Ammonium thiocyanate.....	1762954		5000	1		D	5000 (2270)
Ammonium thiosulfate.....	7783188		5000	1		D	5000 (2270)
Ammonium vanadate.....	7803556	Vanadic acid, ammonium salt.....	1*	4	P119	C	1000 (454)
Amyl acetate.....	628637		1000	1		D	5000 (2270)
iso-	123922						
sec-	626380						
tert-	625161						
Aniline.....	62533	Benzenamine.....	1000	1,4	U012	D	5000 (2270)
Anthracene.....	120127		1*	2		X	1## (0.454)
Antimony ††.....	7440360		1*	2		X	1## (0.454)
ANTIMONY AND COMPOUNDS.....			1*	2			**
Antimony pentachloride.....	7647189		1000	1		C	1000 (454)
Antimony potassium tartrate.....	28300745		1000	1		B	100 (45.4)
Antimony tribromide.....	7789619		1000	1		C	1000 (454)
Antimony trichloride.....	10025919		1000	1		C	1000(454)
Antimony trifluoride.....	7783564		1000	1		C	1000 (454)
Antimony trioxide.....	1309644		5000	1		C	1000 (454)
Aroclor 1018.....	12674112	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)
Aroclor 1221.....	11104262	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)
Aroclor 1232.....	11141185	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)
Aroclor 1242.....	53469219	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Aroclor 1248.....	12672296	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)
Aroclor 1254.....	11097691	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)
Aroclor 1260.....	11096825	Polychlorinated Biphenyls (PCBs).....	10	1,2		A	10# (4.54)
Arsenic ††.....	7440382		1*	2,3		X	1#(0.454)
Arsenic acid.....	1327522 7778394		1*	4	P010	X	1# (0.454)
ARSENIC AND COMPOUNDS.....			1*	2			..
Arsenic disulfide.....	1303328		5000	1		D	5000# (2270)
Arsenic(III) oxide.....	1327533	Arsenic trioxide.....	5000	1,4	P012	D	5000# (2270)
Arsenic(V) oxide.....	1303282	Arsenic pentoxide.....	5000	1,4	P011	D	5000#(2270)
Arsenic pentoxide.....	1303282	Arsenic(V) oxide.....	5000	1,4	P011	D	5000# (2270)
Arsenic trichloride.....	7784341		5000	1		D	5000# (2270)
Arsenic trioxide.....	1327533	Arsenic(III) oxide.....	5000	1,4	P012	D	5000# (2270)
Arsenic trisulfide.....	1303339		5000	1		D	5000# (2270)
Arsine, diethyl.....	692422	Diethylarsine.....	1*	4	P038	X	1# (0.454)
Asbestos †††.....	1332214		1*	2,3		X	1# (0.454)
Auramine.....	492808	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl).....	1*	4	U014	X	1# (0.454)
Azaserine.....	115026	L-Serine, diazoacetate,(ester).....	1*	4	U015	X	1# (0.454)
Aziridine.....	151564	Ethylenimine.....	1*	4	P054	X	1# (0.454)
Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione,6-amino-8- [[aminocarbonyloxy)methyl]- 1,1a,2,8,8a,8b- hexahydro-8a-methoxy-5-methyl.....	50077	Mitomycin C.....	1*	4	U010	X	1# (0.454)
Barium cyanide.....	542621		10	1,4	P013	A	10 (4.54)
Benz[]aceanthrylene, 1,2-dihydro-3-methyl.....	56495	3-Methylcholanthrene.....	1*	4	U157	X	1# (0.454)
Benz[c]acridine.....	225514	3,4-Benzacridine.....	1*	4	U016	X	1# (0.454)
3,4-Benzacridine.....	225514	Benz[c]acridine.....	1*	4	U016	X	1# (0.454)
Benzal chloride.....	98873	Benzene, dichloromethyl.....	1*	4	U017	D	5000 (2270)
Benz[a]anthracene.....	56553	1,2-Benzanthracene..... Benzo[a]anthracene	1*	2,4	U018	X	1# (0.454)
1,2-Benzanthracene.....	56553	Benz[a]anthracene..... Benzo[a]anthracene	1*	2,4	U018	X	1# (0.454)
1,2-Benzanthracene, 7,12-dimethyl.....	57976	7,12-Dimethylbenz[a]anthracene.....	1*	4	U094	X	1# (0.454)
Benzenamine.....	62533	Aniline.....	1000	1,4	U012	D	5000 (2270)
Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl).....	492808	Auramine.....	1*	4	U014	X	1# (0.454)
Benzenamine, 4-chloro.....	106478	p-Chloroaniline.....	1*	4	P024	C	1000 (454)
Benzenamine, 4-chloro-2-methyl-, hydrochloride.....	3165933	4-Chloro-o-toluidine, hydrochloride.....	1*	4	U049	X	1# (0.454)
Benzenamine, N,N-dimethyl-4-phenylazo.....	60117	Dimethylaminoazobenzene.....	1*	4	U093	X	1# (0.454)
Benzenamine, 4,4'-methylenebis(2-chloro).....	101144	4,4'-Methylenebis(2-chloroaniline).....	1*	4	U158	X	1# (0.454)
Benzenamine, 2-methyl-, hydrochloride.....	636215	o-Toluidine hydrochloride.....	1*	4	U222	X	1# (0.454)
Benzenamine, 2-methyl-5-nitro.....	99558	5-Nitro-o-toluidine.....	1*	4	U181	X	1# (0.454)
Benzenamine, 4-nitro.....	100016	p-Nitroaniline.....	1*	4	P077	D	5000 (2270)
Benzene.....	71432		1000	1,2,3,4	U019	C	1000# (454)
Benzene, 1-bromo-4-phenoxy.....	101553	4-Bromophenyl phenyl ether.....	1*	2,4	U030	B	100 (45.4)
Benzene, chloro.....	108907	Chlorobenzene.....	100	1,2,4	U037	B	100 (45.4)
Benzene, chloromethyl.....	100447	Benzyl chloride.....	100	1,4	P028	B	100# (45.4)
Benzene, 1,2-dichloro.....	95501	1,2-Dichlorobenzene..... o-Dichlorobenzene	100	1,2,4	U070	B	100 (45.4)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Benzene, 1,3-dichloro.....	541731	1,3-Dichlorobenzene m-Dichlorobenzene	1*	2,4	U071	B	100 (45.4)
Benzene, 1,4-dichloro.....	106487	1,4-Dichlorobenzene p-Dichlorobenzene	100	1,2,4	U072	B	100 (45.4)
Benzene, dichloromethyl.....	98873	Benzal chloride.....	1*	4	U017	D	5000 (2270)
Benzene, 2,4-diisocyanatomethyl.....	584849 91087 26471825	Toluene diisocyanate.....	1*	4	U223	B	100 (45.4)
Benzene, dimethyl.....	1330207	Xylene.....	1000	1,4	U239	C	1000 (454)
m-	108383	m-					
o-	95476	o-					
p-	106423	p-					
Benzene, hexachloro.....	118741	Hexachlorobenzene.....	1*	2,4	U127	X	1# (0.454)
Benzene, hexahydro.....	110827	Cyclohexane.....	1000	1,4	U056	C	1000 (454)
Benzene, hydroxy.....	108852	Phenol.....	1000	1,2,4	U188	C	1000## (454)
Benzene, methyl.....	108883	Toluene.....	1000	1,2,4	U220	C	1000 (454)
Benzene, 1-methyl-2,4-dinitro.....	121142	2,4-Dinitrotoluene.....	1000	1,2,4	U105	C	1000# (454)
Benzene, 1-methyl-2,6-dinitro.....	806202	2,6-Dinitrotoluene.....	1000	1,2,4	U106	C	1000# (454)
Benzene, 1,2-methylenedioxy-4-allyl.....	94597	Safrole.....	1*	4	U203	X	1# (0.454)
Benzene, 1,2-methylenedioxy-4-propenyl.....	120581	Isosafrole.....	1*	4	U141	X	1# (0.454)
Benzene, 1,2-methylenedioxy-4-propyl.....	94586	Dihydrosafrole.....	1*	4	U090	X	1# (0.454)
Benzene, 1-methylethyl.....	98828	Cumene.....	1*	4	U055	D	5000 (2270)
Benzene, nitro.....	98953	Nitrobenzene.....	1000	1,2,4	U169	C	1000 (454)
Benzene, pentachloro.....	608935	Pentachlorobenzene.....	1*	4	U183	X	1## (0.454)
Benzene, pentachloronitro.....	82688	Pentachloronitrobenzene.....	1*	4	U185	X	1# (0.454)
Benzene, 1,2,4,5-tetrachloro.....	95943	1,2,4,5-Tetrachlorobenzene.....	1*	4	U207	D	5000 (2270)
Benzene, trichloromethyl.....	98077	Benzotrichloride.....	1*	4	U023	X	1# (0.454)
Benzene, 1,3,5-trinitro.....	98354	sym-Trinitrobenzene.....	1*	4	U234	X	1## (0.454)
Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)- alpha-hydroxy-, ethyl ester.	510158	Ethyl 4,4'-dichlorobenzilate.....	1*	4	U038	X	1# (0.454)
1,2-Benzenedicarboxylic acid anhydride.....	85449	Phthalic anhydride.....	1*	4	U190	D	5000 (2270)
1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)] ester.....	117817	Bis(2-ethylhexyl)phthalate.....	1*	2,4	U028	X	1# (0.454)
1,2-Benzenedicarboxylic acid,dibutyl ester.....	84742	n-Butyl phthalate Dibutyl phthalate Di-n-butyl phthalate	100	1,2,4	U069	A	10 (4.54)
1,2-Benzenedicarboxylic acid,diethyl ester.....	84662	Diethyl phthalate.....	1*	2,4	U088	C	1000 (454)
1,2-Benzenedicarboxylic acid,dimethyl ester.....	131113	Dimethyl phthalate.....	1*	2,4	U102	D	5000 (2270)
1,2-Benzenedicarboxylic acid,di-n-octyl ester.....	117840	Di-n-octyl phthalate.....	1*	2,4	U107	D	5000 (2270)
1,3-Benzenediol.....	108463	Resorcinol.....	1000	1,4	U201	D	5000 (2270)
1,2-Benzenediol,4-[1-hydroxy-2-(methylamino)ethyl]-.....	51434	Epinephrine.....	1*	4	P042	C	1000 (454)
Benzenesulfonic acid chloride.....	98099	Benzenesulfonyl chloride.....	1*	4	U020	B	100 (45.4)
Benzenesulfonyl chloride.....	98099	Benzenesulfonic acid chloride.....	1*	4	U020	B	100 (45.4)
Benzonethiol.....	108985	Thiophenol.....	1*	4	P014	B	100 (45.4)
Benzidine.....	92875	(1,1'-Biphenyl)-4,4'-diamine.....	1*	2,4	U021	X	1# (0.454)
1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts.....	81072	Saccharin and salts.....	1*	4	U202	X	1# (0.454)
Benzo[a]anthracene.....	58553	Benzo[a]anthracene 1,2-Benzanthracene	1*	2,4	U018	X	1# (0.454)
Benzo[b]fluoranthene.....	205992		1*	2		X	1# (0.454)
Benzo[k]fluoranthene.....	207083		1*	2		X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Benzo[j,k]fluorene	206440	Fluoranthene	1*	2,4	U120	X	1## (0.454)
Benzoic acid	65850		5000	1		D	5000 (2270)
Benzonitrile	100470		1000	1		D	5000 (2270)
Benzo[ghi]perylene	191242		1*	2		X	1## (0.454)
Benzo[a]pyrene	50328	3,4-Benzopyrene	1*	2,4	U022	X	1# (0.454)
3,4-Benzopyrene	50328	Benzo[a]pyrene	1*	2,4	U022	X	1# (0.454)
p-Benzoquinone	106514	1,4-Cyclohexadienedione	1*	4	U197	X	1## (0.454)
Benzotrichloride	98077	Benzene, trichloromethyl-	1*	4	U023	X	1# (0.454)
Benzoyl chloride	98884		1000	1		C	1000 (454)
1,2-Benzophenanthrene	218019	Chrysene	1*	2,4	U050	X	1# (0.454)
Benzyl chloride	100447	Benzene, chloromethyl-	100	1,4	P028	B	100# (45.4)
Beryllium ††	7440417	Beryllium dust	1*	2,3,4	P015	X	1# (0.454)
BERYLLIUM AND COMPOUNDS			1*	2			**
Beryllium chloride	7787475		5000	1		D	5000# (2270)
Beryllium dust	7440417	Beryllium	1*	2,3,4	P015	X	1# (0.454)
Beryllium fluoride	7787497		5000	1		D	5000# (2270)
Beryllium nitrate	13597994 7787555		5000	1		D	5000# (2270)
alpha - BHC	319846		1*	2		X	1# (0.454)
beta - BHC	319857		1*	2		X	1# (0.454)
gamma - BHC	58899	Hexachlorocyclohexane (gamma isomer) Lindane	1	1,2,4	U129	X	1# (0.454)
delta - BHC	319868		1*	2		X	1## (0.454)
2,2'-Bioxirane	1464535	1,2:3,4-Diepoxybutane	1*	4	U085	X	1# (0.454)
(1,1'-Biphenyl)-4,4'-diamine	92875	Benzidine	1*	2,4	U021	X	1# (0.454)
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dichloro-	91941	3,3'-Dichlorobenzidine	1*	2,4	U073	X	1# (0.454)
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethoxy-	119904	3,3'-Dimethoxybenzidine	1*	4	U091	X	1# (0.454)
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethyl-	119937	3,3'-Dimethylbenzidine	1*	4	U095	X	1# (0.454)
Bis(2-chloroethoxy) methane	111911	Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-	1*	2,4	U024	C	1000 (454)
Bis(2-chloroethyl) ether	111444	Dichloroethyl ether Ethane, 1,1'-oxybis[2-chloro-	1*	2,4	U025	X	1# (0.454)
Bis(2-chloroisopropyl) ether	108601	Propane, 2,2'-oxybis(2-chloro-	1*	2,4	U027	C	1000 (454)
Bis(chloromethyl) ether	542881	Methane, oxybis(chloro-	1*	4	P016	X	1# (0.454)
Bis(dimethylthiocarbamoyl) disulfide	137268	Thiram	1*	4	U244	A	10 (4.54)
Bis(2-ethylhexyl)phthalate	117817	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester	1*	2,4	U028	X	1# (0.454)
Bromine cyanide	506683	Cyanogen bromide	1*	4	U246	C	1000 (454)
Bromoacetone	598312	2-Propanone, 1-bromo-	1*	4	P017	C	1000 (454)
Bromoform	75252	Methane, tribromo-	1*	2,4	U225	B	100 (45.4)
4-Bromophenyl phenyl ether	101553	Benzene, 1-bromo-4-phenoxy-	1*	2,4	U030	B	100 (45.4)
Brucine	357573	Strychnidin-10-one, 2,3-dimethoxy-	1*	4	P018	B	100 (45.4)
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87683	Hexachlorobutadiene	1*	2,4	U128	X	1# (0.454)
1-Butanamine, N-butyl-N-nitroso-	924163	N-Nitrosodi-n-butylamine	1*	4	U172	X	1# (0.454)
Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene-	305033	Chlorambucil	1*	4	U035	X	1# (0.454)
1-Butanol	71363	n-Butyl alcohol	1*	4	U031	D	5000 (2270)
2-Butanone	78933	Methyl ethyl ketone	1*	4	U159	D	5000 (2270)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code	RCRA Waste Number	Category	Pounds(Kg)
2-Butanone peroxide.....	1338234	Methyl ethyl ketone peroxide.....	1*	4	U160	A	10 (4.54)
2-Butenal.....	123739 4170303	Crotonaldehyde.....	100	1,4	U053	B	100 (45.4)
2-Butene, 1,4-dichloro.....	764410	1,4-Dichloro-2-butene.....	1*	4	U074	X	1 (0.454)
Butyl acetate.....	123864		5000	1		D	5000 (2270)
iso.....	110190						
sec.....	105464						
tert.....	540885						
n-Butyl alcohol.....	71363	1-Butanol.....	1*	4	U031	D	5000 (2270)
Butylamine.....	109739		1000	1		C	1000 (454)
iso.....	78819						
sec.....	513495						
sec.....	13952846						
tert.....	75649						
Butyl benzyl phthalate.....	85687		1*	2		B	100 (45.4)
n-Butyl phthalate.....	84742	1,2-Benzenedicarboxylic acid,dibutyl ester..... Dibutyl phthalate Di-n-butyl phthalate	100	1,2,4	U069	A	10 (4.54)
Butyric acid.....	107926		5000	1		D	5000 (2270)
iso.....	79312						
Cacodylic acid.....	75605	Hydroxydimethylarsine oxide.....	1*	4	U136	X	1# (0.454)
Cadmium ††.....	7440439		1*	2		X	1# (0.454)
Cadmium acetate.....	543908		100	1		B	100# (45.4)
CADMIUM AND COMPOUNDS.....			1*	2			**
Cadmium bromide.....	7789426		100	1		B	100# (45.4)
Cadmium chloride.....	10108642		100	1		B	100# (45.4)
Calcium arsenate.....	7778441		1000	1		C	1000# (454)
Calcium arsenite.....	52740166		1000	1		C	1000# (454)
Calcium carbide.....	75207		5000	1		A	10 (4.54)
Calcium chromate.....	13785190	Chromic acid, calcium salt.....	1000	1,4	U032	C	1000# (454)
Calcium cyanide.....	592018		10	1,4	P021	A	10 (4.54)
Calcium dodecylbenzene sulfonate.....	26264062		1000	1		C	1000 (454)
Calcium hypochlorite.....	7778543		100	1		A	10(4.54)
Camphene, octachloro.....	8001352	Toxaphene.....	1	1,2,4	P123	X	1# (0.454)
Captan.....	133062		10	1		A	10## (4.54)
Carbamic acid, ethyl ester.....	51798	Ethyl carbamate (Urethan).....	1*	4	U238	X	1# (0.454)
Carbamic acid, methylnitroso,ethyl ester.....	615532	N-Nitroso-N-methylurethane.....	1*	4	U178	X	1# (0.454)
Carbamide, N-ethyl-N-nitroso.....	759739	N-Nitroso-N-ethylurea.....	1*	4	U176	X	1# (0.454)
Carbamide, N-methyl-N-nitroso.....	684935	N-Nitroso-N-methylurea.....	1*	4	U177	X	1# (0.454)
Carbamide, thio.....	62586	Thiourea.....	1*	4	U219	X	1# (0.454)
Carbamimidoseleonic acid.....	630104	Selenourea.....	1*	4	P103	X	1## (0.454)
Carbamoyl chloride, dimethyl.....	79447	Dimethylcarbamoyl chloride.....	1*	4	U097	X	1# (0.454)
Carbaryl.....	63252		100	1		B	100 (45.4)
Carbofuran.....	1583662		10	1		A	10 (4.54)
Carbon bisulfide.....	75150	Carbon disulfide.....	5000	1,4	P022	D	5000## (2270)
Carbon disulfide.....	75150	Carbon bisulfide.....	5000	1,4	P022	D	5000## (2270)
Carbonic acid, dithallium (I) salt.....	6533739	Thallium(I) carbonate.....	1*	4	U215	X	1## (0.454)
Carbonochloridic acid, methyl ester.....	79221	Methyl chlorocarbonate.....	1*	4	U156	C	1000 (454)
Carbon oxyfluoride.....	353504	Carbonyl fluoride.....	1*	4	U033	C	1000 (454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
Carbon tetrachloride.....	56235	Methane, tetrachloro.....	5000	1,2,4	U211	D	5000# (2270)
Carbonyl chloride.....	75445	Phosgene.....	5000	1,4	P095	A	10 (4.54)
Carbonyl fluoride.....	353504	Carbon oxyfluoride.....	1*	4	U033	C	1000 (454)
Chloral.....	75876	Acetaldehyde, trichloro.....	1*	4	U034	X	1#(0.454)
Chlorambucil.....	305033	Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene.....	1*	4	U035	X	1#(0.454)
CHLORDANE (TECHNICAL MIXTURE AND METABOLITES).			1*	2			**
Chlordane.....	57749	Chlordane, technical..... 4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro- 3a,4,7,7a-tetrahydro-	1	1,2,4	U036	X	1# (0.454)
Chlordane, technical.....	57749	Chlordane..... 4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro- 3a,4,7,7a-tetrahydro-	1	1,2,4	U036	X	1# (0.454)
CHLORINATED BENZENES.....			1*	2			**
CHLORINATED ETHANES.....			1*	2			**
CHLORINATED NAPHTHALENE.....			1*	2			**
CHLORINATED PHENOLS.....			1*	2			**
Chlorine.....	7782505		10	1		A	10 (4.54)
Chlorine cyanide.....	506774	Cyanogen chloride.....	10	1,4	P033	A	10 (4.54)
Chlornaphazine.....	494031	2-Naphthylamine, N,N-bis(2-chloroethyl).....	1*	4	U026	X	1# (0.454)
Chloroacetaldehyde.....	107200	Acetaldehyde, chloro.....	1*	4	P023	C	1000 (454)
CHLOROALKYL ETHERS.....			1*	2			**
p-Chloroaniline.....	106478	Benzenamine, 4-chloro.....	1*	4	P024	C	1000 (454)
Chlorobenzene.....	108907	Benzene, chloro.....	100	1,2,4	U037	B	100 (45.4)
4-Chloro-m-cresol.....	59507	p-Chloro-m-cresol..... Phenol, 4-chloro-3-methyl-	1*	2,4	U039	D	5000 (2270)
p-Chloro-m-cresol.....	59507	4-Chloro-m-cresol..... Phenol, 4-chloro-3-methyl-	1*	2,4	U039	D	5000 (2270)
Chlorodibromomethane.....	124481		1*	2		B	100 (45.4)
1-Chloro-2,3-epoxypropane.....	106898	Epichlorohydrin..... Oxirane, 2-(chloromethyl)-	1000	1,4	U041	C	1000# (454)
Chloroethane.....	75003		1*	2		X	1## (0.454)
2-Chloroethyl vinyl ether.....	110758	Ethene, 2-chloroethoxy.....	1*	2,4	U042	C	1000 (454)
Chloroform.....	67663	Methane, trichloro.....	5000	1,2,4	U044	D	5000# (2270)
Chloromethyl methyl ether.....	107302	Methane, chloromethoxy.....	1*	4	U046	X	1# (0.454)
beta-Chloronaphthalene.....	91587	2-Chloronaphthalene..... Naphthalene, 2-chloro-	1*	2,4	U047	D	5000 (2270)
2-Chloronaphthalene.....	91587	beta-Chloronaphthalene..... Naphthalene, 2-chloro-	1*	2,4	U047	D	5000 (2270)
2-Chlorophenol.....	95578	o-Chlorophenol..... Phenol, 2-chloro-	1*	2,4	U048	B	100 (45.4)
o-Chlorophenol.....	95578	2-Chlorophenol..... Phenol, 2-chloro-	1*	2,4	U048	B	100 (45.4)
4-Chlorophenyl phenyl ether.....	7005723		1*	2		D	5000 (2270)
1-(o-Chlorophenyl)thiourea.....	5344821	Thiourea, (2-chlorophenyl).....	1*	4	P026	B	100 (45.4)
3-Chloropropionitrile.....	542767	Propanenitrile, 3-chloro.....	1*	4	P027	C	1000 (454)
Chlorosulfonic acid.....	7790945		1000	1		C	1000 (454)
4-Chloro-o-toluidine, hydrochloride.....	3165933	Benzenamine, 4-chloro-2-methyl, hydrochloride.....	1*	4	U049	X	1# (0.454)
Chlorpyrifos.....	2921882		1	1		X	1 (0.454)
Chromic acetate.....	1066304		1000	1		C	1000## (454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code f	RCRA Waste Number	Category	Pounds(Kg)
Chromic acid	11115745 7738945		1000	1		C	1000# (454)
Chromic acid, calcium salt	13765190	Calcium chromate.....	1000	1.4	U032	C	1000# (454)
Chromic sulfate	10101538		1000	1		C	1000## (454)
Chromium ††	7440473		1*	2		X	1# (0.454)
CHROMIUM AND COMPOUNDS			1*	2			**
Chromous chloride.....	10049055		1000	1		C	1000## (454)
Chrysene.....	218019	1,2-Benzphenanthrene.....	1*	2.4	U050	X	1# (0.454)
Cobaltous bromide.....	7789437		1000	1		C	1000(454)
Cobaltous formate.....	544183		1000	1		C	1000 (454)
Cobaltous sulfamate.....	14017415		1000	1		C	1000 (454)
Coke Oven Emissions.....	N.A.		1*	3		X	1# (0.454)
Copper ††.....	7440508		1*	2		X	1## (0.454)
COPPER AND COMPOUNDS.....			1*	2			**
Copper cyanide.....	544923		1*	4	P029	A	10 (4.54)
Coumaphos.....	56724		10	1		A	10 (4.54)
Creosote.....	8001589		1*	4	U051	X	1# (0.454)
Cresol(s).....	1318773 108394 95487 106445	Cresylic acid.....	1000	1.4	U052	C	1000## (454)
m-.....							
o-.....							
p-.....							
Cresylic acid.....	1318773 108394 95487 106445	Cresol(s).....	1000	1.4	U052	C	1000## (454)
m-.....							
o-.....							
p-.....							
Crotonaldehyde.....	123739 4170303	2-Butenal.....	100	1.4	U053	B	100 (45.4)
Cumene.....	98828	Benzene, 1-methylethyl.....	1*	4	U055	D	5000 (2270)
Cupric acetate.....	142712		100	1		B	100 (45.4)
Cupric acetoarsenite.....	12002038		100	1		B	100# (45.4)
Cupric chloride.....	7447394		10	1		A	10## (4.54)
Cupric nitrate.....	3251238		100	1		B	100 (45.4)
Cupric oxalate.....	5893683		100	1		B	100 (45.4)
Cupric sulfate.....	7758987		10	1		A	10## (4.54)
Cupric sulfate ammoniated.....	10380297		100	1		B	100 (45.4)
Cupric tartrate.....	815827		100	1		B	100## (45.4)
CYANIDES.....			1*	2			**
Cyanides (soluble cyanide salts), not elsewhere specified.....	57125		1*	4	P030	A	10 (4.54)
Cyanogen.....	460195		1*	4	P031	B	100 (45.4)
Cyanogen bromide.....	506683	Bromine cyanide.....	1*	4	U246	C	1000 (454)
Cyanogen chloride.....	508774	Chlorine cyanide.....	10	1.4	P033	A	10 (4.54)
1,4-Cyclohexadienedione.....	106514	p-Benzoquinone.....	1*	4	U197	X	1## (0.454)
Cyclohexane.....	110827	Benzene, hexahydro.....	1000	1.4	U056	C	1000(454)
Cyclohexanone.....	108941		1*	4	U057	D	5000 (2270)
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro.....	77474	Hexachlorocyclopentadiene.....	1	1,2,4	U130	X	1# (0.454)
Cyclophosphamide.....	50180	2H-1,3,2-Oxazaphosphorine,2-[bis(2-chloroethyl)amino] tetrahydro-2-oxide.....	1*	4	U058	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
2,4-D Acid.....	94757	2,4-D, salts and esters..... 2,4-Dichlorophenoxyacetic acid, salts and esters	100	1,4	U240	B	100 (45.4)
2,4-D Esters.....	94111 94791 94804 1320189 1928387 1928616 1929733 2971382 25168267 53467111		100	1		B	100 (45.4)
2,4-D, salts and esters.....	94757	2,4-D Acid..... 2,4-Dichlorophenoxyacetic acid, salts and esters	100	1,4	U240	B	100 (45.4)
Daunomycin.....	20830813	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[3-amino-2,3,6-trideoxy- alpha-L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	1*	4	U059	X	1# (0.454)
DDD.....	72548	4,4' DDD..... Dichlorodiphenyl dichloroethane TDE	1	1,2,4	U060	X	1# (0.454)
4,4' DDD.....	72548	DDD..... Dichlorodiphenyl dichloroethane TDE	1	1,2,4	U060	X	1# (0.454)
DDE.....	72559	4,4' DDE.....	1*	2		X	1# (0.454)
4,4' DDE.....	72559	DDE.....	1*	2		X	1# (0.454)
DDT.....	50293	4,4' DDT..... Dichlorodiphenyl trichloroethane	1	1,2,4	U061	X	1# (0.454)
4,4' DDT.....	50293	DDT..... Dichlorodiphenyl trichloroethane	1	1,2,4	U061	X	1# (0.454)
DDT AND METABOLITES.....			1*	2			..
Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one.	143500	Kepone.....	1	1,4	U142	X	1# (0.454)
Diallate.....	2303164	S-(2,3-Dichloroallyl) diisopropylthiocarbamate.....	1*	4	U062	X	1# (0.454)
Diamine.....	302012	Hydrazine.....	1*	4	U133	X	1# (0.454)
Diaminotoluene.....	95807 25376458 496720 823405	Toluenediamine.....	1*	4	U221	X	1# (0.454)
Diazinon.....	5333415		1	1		X	1 (0.454)
Dibenz[a,h]anthracene.....	53703	1,2:5,6-Dibenzanthracene..... Dibenzo[a,h]anthracene	1*	2,4	U063	X	1# (0.454)
1,2:5,6-Dibenzanthracene.....	53703	Dibenz[a,h]anthracene..... Dibenzo[a,h]anthracene	1*	2,4	U063	X	1# (0.454)
Dibenzo[a,h]anthracene.....	53703	Dibenz[a,h]anthracene..... 1,2:5,6-Dibenzanthracene	1*	2,4	U063	X	1# (0.454)
1,2:7,8-Dibenzopyrene.....	189559	Dibenz[a,i]pyrene.....	1*	4	U064	X	1# (0.454)
Dibenz[a,i]pyrene.....	189559	1,2:7,8-Dibenzopyrene.....	1*	4	U064	X	1#(0.454)
1,2-Dibromo-3-chloropropane.....	96128	Propane, 1,2-dibromo-3-chloro.....	1*	4	U066	X	1# (0.454)
Dibutyl phthalate.....	84742	1,2-Benzenedicarboxylic acid,dibutyl ester..... Di-n-butyl phthalate n-Butyl phthalate	100	1,2,4	U069	A	10 (4.54)
Di-n-butyl phthalate.....	84742	1,2-Benzenedicarboxylic acid,dibutyl ester..... n-Butyl phthalate Dibutyl phthalate	100	1,2,4	U069	A	10 (4.54)
Dicamba.....	1918009		1000	1		C	1000 (454)
Dichlobenil.....	1194656		1000	1		B	100 (45.4)
Dichlone.....	117806		1	1		X	1 (0.454)
S-(2,3-Dichloroallyl) diisopropylthiocarbamate.....	2303164	Diallate.....	1*	4	U062	X	1# (0.454)
3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide.....	23950585	Prenamide.....	1*	4	U192	D	5000 (2270)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Dichlorobenzene (mixed).....	25321226		100	1		B	100 (45.4)
1,2-Dichlorobenzene.....	95501	Benzene, 1,2-dichloro- o-Dichlorobenzene	100	1,2,4	U070	B	100 (45.4)
1,3-Dichlorobenzene.....	541731	Benzene, 1,3-dichloro- m-Dichlorobenzene	1*	2,4	U071	B	100 (45.4)
1,4-Dichlorobenzene.....	106467	Benzene, 1,4-dichloro- p-Dichlorobenzene	100	1,2,4	U072	B	100 (45.4)
m-Dichlorobenzene.....	541731	Benzene, 1,3-dichloro- 1,3-Dichlorobenzene	1*	2,4	U071	B	100 (45.4)
o-Dichlorobenzene.....	95501	Benzene, 1,2-dichloro- 1,2-Dichlorobenzene	100	1,2,4	U070	B	100 (45.4)
p-Dichlorobenzene.....	106467	Benzene, 1,4-dichloro- 1,4-Dichlorobenzene	100	1,2,4	U072	B	100 (45.4)
DICHLOROBENZIDINE.....			1*	2			**
3,3'-Dichlorobenzidine.....	91941	(1,1'-Biphenyl)-4,4'-diamino,3,3'dichloro-	1*	2,4	U073	X	1# (0.454)
Dichlorobromomethane.....	75274		1*	2		D	5000 (2270)
1,4-Dichloro-2-butene.....	764410	2-Butene, 1,4-dichloro-	1*	4	U074	X	1 (0.454)
Dichlorodifluoromethane.....	75718	Methane, dichlorodifluoro-	1*	4	U075	D	5000 (2270)
Dichlorodiphenyl dichloroethane.....	72548	DDD..... 4,4' DDD TDE	1	1,2,4	U060	X	1# (0.454)
Dichlorodiphenyl trichloroethane.....	50293	DDT..... 4,4' DDT	1	1,2,4	U061	X	1# (0.454)
1,1-Dichloroethane.....	75343	Ethane, 1,1-dichloro- Ethylidene dichloride	1*	2,4	U076	C	1000 (454)
1,2-Dichloroethane.....	107062	Ethane, 1,2-dichloro- Ethylene dichloride	5000	1,2,4	U077	D	5000# (2270)
1,1-Dichloroethylene.....	75354	Ethene, 1,1-dichloro- Vinylidene chloride	5000	1,2,4	U078	D	5000# (2270)
1,2-trans-Dichloroethylene.....	156805	Ethene, trans-1,2-dichloro-	1*	2,4	U079	C	1000 (454)
Dichloroethyl ether.....	111444	Bis (2-chloroethyl) ether..... Ethane, 1,1'-oxybis(2-chloro-	1*	2,4	U025	X	1# (0.454)
2,4-Dichlorophenol.....	120832	Phenol, 2,4-dichloro-	1*	2,4	U081	B	100 (45.4)
2,6-Dichlorophenol.....	87650	Phenol, 2,6-dichloro-	1*	4	U082	B	100 (45.4)
2,4-Dichlorophenoxyacetic acid, salts and esters.....	94757	2,4-D Acid..... 2,4-D, salts and esters	100	1,4	U240	B	100 (45.4)
Dichlorophenylarsine.....	696286	Phenyl dichloroarsine.....	1*	4	P036	X	1# (0.454)
Dichloropropane.....	26638197		5000	1		C	1000 (454)
1,1-Dichloropropane	78999						
1,3-Dichloropropane	142289						
1,2-Dichloropropane.....	78875	Propylene dichloride.....	5000	1,2,4	U083	C	1000 (454)
Dichloropropane - Dichloropropene (mixture).....	8003198		5000	1		D	5000## (2270)
Dichloropropene.....	26952238		5000	1		D	5000## (2270)
2,3-Dichloropropene	78886						
1,3-Dichloropropene.....	542756	Propene, 1,3-dichloro-	5000	1,2,4	U084	D	5000## (2270)
2,2-Dichloropropionic acid.....	75990		5000	1		D	5000 (2270)
Dichlorvos.....	62737		10	1		A	10 (4.54)
Dieldrin.....	60571	1,2,3,4,10,10-Hexachloro-6,7-epoxy- 1,4,4a,5,6,7,8,8a- octahydro-endo,exo- 1,4:5,8- dimethanonaphthalene.	1	1,2,4	P037	X	1# (0.454)
1,2:3,4-Diepoxybutane.....	1484535	2,2'-Bioxirane.....	1*	4	U085	X	1# (0.454)
Diethylamine.....	109897		1000	1		C	1000## (454)
Diethylarsine.....	692422	Arsine, diethyl-	1*	4	P036	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code I	RCRA Waste Number	Category	Pounds(Kg)
1,4-Diethylene dioxide	123911	1,4-Dioxane	1*	4	U108	X	1# (0.454)
N,N'-Diethylhydrazine	1615801	Hydrazine, 1,2-diethyl-	1*	4	U086	X	1# (0.454)
O,O-Diethyl S-[2-(ethylthio)ethyl]phosphorodithioate	298044	Disulfoton	1	1,4	P039	X	1 (0.454)
O,O-Diethyl S-methyl dithiophosphate	3288582	Phosphorodithioic acid, O,O-diethyl S-methylester	1*	4	U087	D	5000 (2270)
Diethyl-p-nitrophenyl phosphate	311455	Phosphoric acid, diethyl p-nitrophenyl ester	1*	4	P041	B	100 (45.4)
Diethyl phthalate	84662	1,2-Benzenedicarboxylic acid, diethyl ester	1*	2,4	U088	C	1000 (454)
O,O-Diethyl O-pyrazinyl phosphorothioate	297972	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	1*	4	P040	B	100 (45.4)
Diethylstilbestrol	56531	4,4'-Stilbenediol, alpha, alpha'-diethyl-	1*	4	U089	X	1# (0.454)
1,2-Dihydro-3,6-pyridazinedione	123331	Maleic hydrazide	1*	4	U148	D	5000 (2270)
Dihydrosafrole	94586	Benzene, 1,2-methylenedioxy-4-propyl-	1*	4	U090	X	1# (0.454)
Diisopropyl fluorophosphate	55914	Phosphorofluoric acid, bis(1-methylethyl) ester	1*	4	P043	B	100 (45.4)
Dimethoate	60515	Phosphorodithioic acid, O,O-dimethyl S-[2(methylamino)-2-oxoethyl] ester	1*	4	P044	A	10 (4.54)
3,3'-Dimethoxybenzidine	119904	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	1*	4	U091	X	1# (0.454)
Dimethylamine	124403	Methanamine, N-methyl-	1000	1,4	U092	C	1000## (454)
Dimethylaminoazobenzene	60117	Benzenamine, N,N-dimethyl-4-phenylazo-	1*	4	U093	X	1# (0.454)
7,12-Dimethylbenz[a]anthracene	57976	1,2-Benzanthracene, 7,12-dimethyl-	1*	4	U094	X	1# (0.454)
3,3'-Dimethylbenzidine	119937	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	1*	4	U095	X	1# (0.454)
alpha, alpha-Dimethylbenzylhydroperoxide	80159	Hydroperoxide, 1-methyl-1-phenylethyl-	1*	4	U096	A	10 (4.54)
3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	39196184	Thiofanox	1*	4	P045	B	100 (45.4)
Dimethylcarbamoyl chloride	79447	Carbamoyl chloride, dimethyl-	1*	4	U097	X	1# (0.454)
1,1-Dimethylhydrazine	57147	Hydrazine, 1,1-dimethyl-	1*	4	U098	X	1# (0.454)
1,2-Dimethylhydrazine	540738	Hydrazine, 1,2-dimethyl-	1*	4	U099	X	1# (0.454)
O,O-Dimethyl O-p-nitrophenyl phosphorothioate	298000	Methyl parathion	100	1,4	P071	B	100## (45.4)
Dimethylnitrosamine	62759	N-Nitrosodimethylamine	1*	2,4	P082	X	1# (0.454)
alpha, alpha-Dimethylphenethylamine	122098	Ethanamine, 1,1-dimethyl-2-phenyl-	1*	4	P046	D	5000 (2270)
2,4-Dimethylphenol	105679	Phenol, 2,4-dimethyl-	1*	2,4	U101	B	100 (45.4)
Dimethyl phthalate	131113	1,2-Benzenedicarboxylic acid, dimethyl ester	1*	2,4	U102	D	5000 (2270)
Dimethyl sulfate	77781	Sulfuric acid, dimethyl ester	1*	4	U103	X	1# (0.454)
Dinitrobenzene (mixed)	25154545		1000	1		B	100 (45.4)
m-	99650						
o-	528290						
p-	100254						
4,6-Dinitro-o-cresol and salts	534521	Phenol, 2,4-dinitro-6-methyl-, and salts	1*	2,4	P047	A	10 (4.54)
4,6-Dinitro-o-cyclohexylphenol	131895	Phenol, 2-cyclohexyl-4,6-dinitro-	1*	4	P034	B	100 (45.4)
Dinitrophenol	25550587		1000	1		A	10 (4.54)
2,5-	329715						
2,6-	573568						
2,4-Dinitrophenol	51285	Phenol, 2,4-dinitro-	1000	1,2,4	P048	A	10 (4.54)
Dinitrotoluene	25321146		1000	1,2		C	1000# (454)
3,4-Dinitrotoluene	610399						
2,4-Dinitrotoluene	121142	Benzene, 1-methyl-2,4-dinitro-	1000	1,2,4	U105	C	1000# (454)
Dinoseb	88857	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	1*	4	P020	C	1000 (454)
Di-n-octyl phthalate	117840	1,2-Benzenedicarboxylic acid, di-n-octyl ester	1*	2,4	U107	D	5000 (2270)
1,4-Dioxane	123911	1,4-Diethylene dioxide	1*	4	U108	X	1# (0.454)
DIPHENYLHYDRAZINE			1*	2			**
1,2-Diphenylhydrazine	122667	Hydrazine, 1,2-diphenyl-	1*	2,4	U109	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Diphosphoramidate, octamethyl.....	152169	Octamethylpyrophosphoramidate	1*	4	P085	B	100 (45.4)
Dipropylamine.....	142847	1-Propanamine, N-propyl.....	1*	4	U110	D	5000 (2270)
Di-n-propylnitrosamine.....	621647	N-Nitrosodi-n-propylamine	1*	2,4	U111	X	1# (0.454)
Diquat.....	85007 2764729		1000	1		C	1000 (454)
Disulfoton.....	298044	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	1	1,4	P039	X	1 (0.454)
2,4-Dithiobiuret.....	541537	Thioimidodicarbonic diamide.....	1*	4	P049	B	100 (45.4)
Dithiopyrophosphoric acid, tetraethyl ester.....	3689245	Tetraethylthiopyrophosphate.....	1*	4	P109	B	100 (45.4)
Diuron.....	330541		100	1		B	100 (45.4)
Dodecylbenzenesulfonic acid.....	27176870		1000	1		C	1000 (454)
Endosulfan.....	115297	5-Norbornene-2,3-dimethanol,1,4,5,6,7,7-hexachloro, cyclic sulfite.	1	1,2,4	P050	X	1 (0.454)
alpha - Endosulfan.....	959988		1*	2		X	1 (0.454)
beta - Endosulfan.....	33213659		1*	2		X	1 (0.454)
ENDOSULFAN AND METABOLITES.....			1*	2			**
Endosulfan sulfate.....	1031078		1*	2		X	1 (0.454)
Endothal.....	145733	7-Oxabicyclo[2,2,1]heptane-2,3-dicarboxylic acid.....	1*	4	P088	C	1000 (454)
Endrin.....	72208	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a- octahydro-endo,endo- 1,4:5,8-dimethanonaphthalene.	1	1,2,4	P051	X	1 (0.454)
Endrin aldehyde.....	7421934		1*	2		X	1 (0.454)
ENDRIN AND METABOLITES.....			1*	2			**
Epichlorohydrin.....	106898	1-Chloro-2,3-epoxypropane Oxirane, 2-(chloromethyl)-	1000	1,4	U041	C	1000# (454)
Epinophrine.....	51434	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-.....	1*	4	P042	C	1000 (454)
Ethanal.....	75070	Acetaldehyde.....	1000	1,4	U001	C	1000 (454)
Ethanamine, 1,1-dimethyl-2-phenyl-.....	122098	alpha, alpha-Dimethylphenethylamine.....	1*	4	P046	D	5000 (2270)
Ethanamine, N-ethyl-N-nitroso.....	55185	N-Nitrosodiethylamine.....	1*	4	U174	X	1# (0.454)
Ethane, 1,2-dibromo.....	106934	Ethylene dibromide.....	1000	1,4	U067	C	1000# (454)
Ethane, 1,1-dichloro.....	75343	1,1-Dichloroethane	1*	2,4	U076	C	1000 (454)
		Ethylidene dichloride					
Ethane, 1,2-dichloro.....	107062	1,2-Dichloroethane	5000	1,2,4	U077	D	5000# (2270)
		Ethylene dichloride					
Ethane, 1,1,1,2,2,2-hexachloro.....	67721	Hexachloroethane.....	1*	2,4	U131	X	1# (0.454)
Ethane, 1,1'-(methylenebis(oxy))bis(2-chloro-.....	111911	Bis(2-chloroethoxy) methane	1*	2,4	U024	C	1000 (454)
Ethane, 1,1'-oxybis.....	60297	Ethyl ether.....	1*	4	U117	B	100 (45.4)
Ethane, 1,1'-oxybis(2-chloro-.....	111444	Bis (2-chloroethyl) ether.....	1*	2,4	U025	X	1# (0.454)
		Dichloroethyl ether					
Ethane, pentachloro.....	76017	Pentachloroethane.....	1*	4	U184	X	1## (0.454)
Ethane, 1,1,1,2-tetrachloro.....	630206	1,1,1,2-Tetrachloroethane.....	1*	4	U208	X	1# (0.454)
Ethane, 1,1,2,2-tetrachloro.....	79345	1,1,2,2-Tetrachloroethane.....	1*	2,4	U209	X	1# (0.454)
Ethane, 1,1,2-trichloro.....	79005	1,1,2-Trichloroethane	1*	2,4	U227	X	1# (0.454)
Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)-.....	72435	Methoxychlor.....	1	1,4	U247	X	1 (0.454)
1,2-Ethanediylbiscarbamodithioic acid.....	111546	Ethylenebis(di-thiocarbamic acid)	1*	4	U114	D	5000 (2270)
Ethanenitrile.....	75058	Acetonitrile.....	1*	4	U003	D	5000 (2270)
Ethanethioamide.....	62555	Thioacetamide.....	1*	4	U218	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Ethanol, 2,2'-(nitrosoimino)bis.....	1116547	N-Nitrosodiethanolamine.....	1*	4	U173	X	1# (0.454)
Ethanone, 1-phenyl.....	98862	Acetophenone.....	1*	4	U004	D	5000 (2270)
Ethanoyl chloride.....	75365	Acetyl chloride.....	5000	1,4	U006	D	5000 (2270)
Ethenamine, N-methyl-N-nitroso.....	4549400	N-Nitrosomethylvinylamine.....	1*	4	P084	X	1# (0.454)
Ethene, chloro.....	75014	Vinyl chloride.....	1*	2,3,4	U043	X	1# (0.454)
Ethene, 2-chloroethoxy.....	110758	2-Chloroethyl vinyl ether.....	1*	2,4	U042	C	1000†(454)
Ethene, 1,1-dichloro.....	75354	1,1-Dichloroethylene Vinylidene chloride	5000	1,2,4	U078	D	5000# (2270)
Etnene, 1,1,2,2-tetrachloro.....	127184	Tetrachloroethylene.....	1*	2,4	U210	X	1# (0.454)
Ethene, trans-1,2-dichloro.....	156605	1,2-trans-Dichloroethylene.....	1*	2,4	U079	C	1000 (454)
Ethion.....	563122		10	1		A	10## (4.54)
Ethyl acetate.....	141786	Acetic acid, ethyl ester.....	1*	4	U112	D	5000 (2270)
Ethyl acrylate.....	140885	2-Propenoic acid, ethyl ester.....	1*	4	U113	C	1000 (454)
Ethylbenzene.....	100414		1000	1,2		C	1000 (454)
Ethyl carbamate (Urethan).....	51796	Carbamic acid, ethyl ester.....	1*	4	U238	X	1# (0.454)
Ethyl cyanide.....	107120	Propanenitrile.....	1*	4	P101	A	10 (4.54)
Ethyl 4,4'-dichlorobenzilate.....	510156	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)- alpha-hydroxy-, ethyl ester.	1*	4	U038	X	1# (0.454)
Ethylene dibromide.....	106934	Ethane, 1,2-dibromo.....	1000	1,4	U067	C	1000# (454)
Ethylene dichloride.....	107062	1,2-Dichloroethane..... Ethane, 1,2-dichloro-	5000	1,2,4	U077	D	5000# (2270)
Ethylene oxide.....	75218	Oxirane.....	1*	4	U115	X	1# (0.454)
Ethylenebis(dithiocarbamic acid).....	111546	1,2-Ethanediyldithiocarbamodithioic acid.....	1*	4	U114	D	5000 (2270)
Ethylenediamine.....	107153		1000	1		D	5000 (2270)
Ethylenediamine tetraacetic acid (EDTA).....	60004		5000	1		D	5000 (2270)
Ethylenethiourea.....	96457	2-Imidazolidinethione.....	1*	4	U116	X	1# (0.454)
Ethylenimine.....	161564	Aziridine.....	1*	4	P054	X	1# (0.454)
Ethyl ether.....	60297	Ethane, 1,1'-oxybis.....	1*	4	U117	B	100 (45.4)
Ethylidene dichloride.....	75343	1,1-Dichloroethane..... Ethane, 1,1-dichloro-	1*	2,4	U076	C	1000 (454)
Ethyl methacrylate.....	97632	2-Propenoic acid, 2-methyl-, ethyl ester.....	1*	4	U118	C	1000 (454)
Ethyl methanesulfonate.....	62500	Methanesulfonic acid, ethyl ester.....	1*	4	U119	X	1# (0.454)
Famphur.....	52857	Phosphorothioic acid, O,O-dimethyl-O-[p-[(dimethylamino)-sulfonyl]phenyl] ester.	1*	4	P097	C	1000 (454)
Ferric ammonium citrate.....	1185575		1000	1		C	1000 (454)
Ferric ammonium oxalate.....	2944674 55488874		1000	1		C	1000 (454)
Ferric chloride.....	7705080		1000	1		C	1000 (454)
Ferric dextran.....	9004664	Iron dextran.....	1*	4	U139	X	1## (0.454)
Ferric fluoride.....	7783508		100	1		B	100 (45.4)
Ferric nitrate.....	10421484		1000	1		C	1000 (454)
Ferric sulfate.....	10028225		1000	1		C	1000 (454)
Ferrous ammonium sulfate.....	10045893		1000	1		C	1000 (45.4)
Ferrous chloride.....	7758943		100	1		B	100 (45.4)
Ferrous sulfate.....	7720787 7782630		1000	1		C	1000 (454)
Fluoroacetic acid, sodium salt.....	62748	Acetic acid, fluoro-, sodium salt.....	1*	4	P058	A	10 (4.54)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code	RCRA Waste Number	Category	Pounds(Kg)
Fluoranthene	206440	Benzo[<i>j,k</i>]fluorene	1*	2,4	U120	X	1## (0.454)
Fluorene	86737		1*	2		X	1## (0.454)
Fluorine	7782414		1*	4	P056	A	10 (4.54)
Fluoroacetamide	640197	Acetamide, 2-fluoro-	1*	4	P057	B	100 (45.4)
Formaldehyde	50000	Methylene oxide	1000	1,4	U122	C	1000# (454)
Formic acid	64186	Methanoic acid	5000	1,4	U123	D	5000 (2270)
Fulminic acid, mercury(II)salt	628984	Mercury fulminate	1*	4	P065	X	1## (0.454)
Fumaric acid	110178		5000	1		D	5000 (2270)
Furan	110009	Furfuran	1*	4	U124	B	100 (45.4)
Furan, tetrahydro-	109999	Tetrahydrofuran	1*	4	U213	C	1000 (454)
2-Furancarboxaldehyde	98011	Furfural	1000	1,4	U125	D	5000 (2270)
2,5-Furandione	108316	Maleic anhydride	5000	1,4	U147	D	5000 (2270)
Furfural	98011	2-Furancarboxaldehyde	1000	1,4	U125	D	5000 (2270)
Furfuran	110009	Furan	1*	4	U124	B	100 (45.4)
D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-	18883664	Streptozotocin	1*	4	U206	X	1# (0.454)
Glycidaldehyde	765344	1-Propanal, 2,3-epoxy-	1*	4	U126	X	1# (0.454)
Guanidine, N-nitroso-N-methyl-N'-nitro-	70257	N-Methyl-N'-nitro-N-nitrosoguanidine	1*	4	U163	X	1# (0.454)
Guthion	86500		1	1		X	1 (0.454)
HALOETHERS			1*	2			**
HALOMETHANES			1*	2			**
Heptachlor	76448	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	1	1,2,4	P059	X	1#(0.454)
HEPTACHLOR AND METABOLITES			1*	2			**
Heptachlor epoxide	1024573		1*	2		X	1# (0.454)
Hexachlorobenzene	118741	Benzene, hexachloro-	1*	2,4	U127	X	1# (0.454)
Hexachlorobutadiene	87683	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	1*	2,4	U128	X	1# (0.454)
HEXACHLOROCYCLOHEXANE (all isomers)	608731		1*	2			**
Hexachlorocyclohexane (gamma isomer)	58899	gamma - BHC Lindane	1	1,2,4	U129	X	1# (0.454)
Hexachlorocyclopentadiene	77474	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	1	1,2,4	U130	X	1# (0.454)
1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene	72208	Endrin	1	1,2,4	P051	X	1 (0.454)
1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene	60571	Dieldrin	1	1,2,4	P037	X	1# (0.454)
Hexachloroethane	87721	Ethane, 1,1,1,2,2,2-hexachloro-	1*	2,4	U131	X	1# (0.454)
Hexachlorohexahydro-endo,endo-dimethanonaphthalene	465736	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo,endo-dimethanonaphthalene	1*	4	P060	X	1 (0.454)
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo,endo-dimethanonaphthalene	465736	Hexachlorohexahydro-endo,endo-dimethanonaphthalene	1*	4	P060	X	1 (0.454)
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene	309002	Aldrin	1	1,2,4	P004	X	1# (0.454)
Hexachlorophene	70304	2,2'-Methylenebis(3,4,6-trichlorophenol)	1*	4	U132	X	1## (0.454)
Hexachloropropene	1888717	1-Propene, 1,1,2,3,3,3-hexachloro-	1*	4	U243	C	1000 (454)
Hexaethyl tetraphosphate	757584	Tetraphosphoric acid, hexaethyl ester	1*	4	P062	B	100 (45.4)
Hydrazine	302012	Diamine	1*	4	U133	X	1# (0.454)
Hydrazine, 1,2-diethyl-	1615801	N,N'-Diethylhydrazine	1*	4	U086	X	1# (0.454)
Hydrazine, 1,1-dimethyl-	57147	1,1-Dimethylhydrazine	1*	4	U098	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Hydrazine, 1,2-dimethyl.....	540738	1,2-Dimethylhydrazine	1*	4	U099	X	1# (0.454)
Hydrazine, 1,2-diphenyl.....	122667	1,2-Diphenylhydrazine	1*	2,4	U109	X	1# (0.454)
Hydrazine, methyl.....	60344	Methyl hydrazine.....	1*	4	P068	A	10 (4.54)
Hydrazinecarbothioamide.....	78196	Thiosemicarbazide.....	1*	4	P116	B	100 (45.4)
Hydrochloric acid.....	7647010		5000	1		D	5000 (2270)
Hydrocyanic acid.....	74908	Hydrogen cyanide.....	10	1,4	P063	A	10 (4.54)
Hydrofluoric acid.....	7664393	Hydrogen fluoride.....	5000	1,4	U134	B	100 (45.4)
Hydrogen cyanide.....	74908	Hydrocyanic acid.....	10	1,4	P063	A	10 (4.54)
Hydrogen fluoride.....	7664393	Hydrofluoric acid.....	5000	1,4	U134	B	100 (45.4)
Hydrogen phosphide.....	7803512	Phosphine.....	1*	4	P096	B	100 (45.4)
Hydrogen sulfide.....	7783064	Hydrosulfuric acid..... Sulfur hydride	100	1,4	U135	B	100## (45.4)
Hydroperoxide, 1-methyl-1-phenylethyl.....	80159	alpha,alpha-Dimethylbenzylhydroperoxide.....	1*	4	U096	A	10 (4.54)
Hydrosulfuric acid.....	7783064	Hydrogen sulfide..... Sulfur hydride	100	1,4	U135	B	100## (45.4)
Hydroxydimethylarsine oxide.....	75605	Cacodylic acid.....	1*	4	U136	X	1# (0.454)
2-Imidazolidinethione.....	96457	Ethylenethiourea.....	1*	4	U116	X	1# (0.454)
Indeno(1,2,3-cd)pyrene.....	193395	1,10-(1,2-Phenylene)pyrene.....	1*	2,4	U137	X	1# (0.454)
Iron dextran.....	9004664	Ferric dextran.....	1*	4	U139	X	1## (0.454)
Isobutyl alcohol.....	78831	1-Propanol, 2-methyl.....	1*	4	U140	D	5000 (2270)
Isocyanic acid, methyl ester.....	624839	Methyl isocyanate.....	1*	4	P064	X	1###(0.454)
Isophorone.....	78591		1*	2		D	5000 (2270)
Isoprene.....	78795		1000	1		C	1000## (454)
Isopropanolamine dodecylbenzenesulfonate.....	42504461		1000	1		C	1000 (454)
Isosafrole.....	120581	Benzene, 1,2-methylenedioxy-4-propenyl.....	1*	4	U141	X	1# (0.454)
3(2H)-isoxazolone, 5-(aminomethyl).....	2763964	5-(Aminomethyl)-3-isoxazolol.....	1*	4	P007	C	1000 (454)
Kelthane.....	115322		5000	1		A	10 (4.54)
Kepone.....	143500	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one.	1	1,4	U142	X	1# (0.454)
Lasiocarpine.....	303344		1*	4	U143	X	1# (0.454)
Lead ††.....	7439921		1*	2		X	1## (0.454)
Lead acetate.....	301042	Acetic acid, lead salt.....	5000	1,4	U144	D	5000# (2270)
LEAD AND COMPOUNDS.....			1*	2			..
Lead arsenate.....	7784409 7645252 10102484		5000	1		D	5000# (2270)
Lead chloride.....	7758954		5000	1		D	5000## (2270)
Lead fluoborate.....	13814965		5000	1		D	5000## (2270)
Lead fluoride.....	7783462		1000	1		C	1000## (454)
Lead iodide.....	10101630		5000	1		D	5000## (2270)
Lead nitrate.....	10099748		5000	1		D	5000## (2270)
Lead phosphate.....	7446277	Phosphoric acid, lead salt.....	1*	4	U145	X	1# (0.454)
Lead stearate.....	7428480 1072351 56189094 52652592		5000	1		D	5000## (2270)
Lead subacetate.....	1335326		1*	4	U146	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Lead sulfate.....	15739807 7446142		5000	1		D	5000## (2270)
Lead sulfide.....	1314870		5000	1		D	5000## (2270)
Lead thiocyanate.....	592870		5000	1		D	5000## (2270)
Lindane.....	58899	gamma - BHC Hexachlorocyclohexane (gamma isomer)	1	1,2,4	U129	X	1# (0.454)
Lithium chromate.....	14307358		1000	1		C	1000# (454)
Malathion.....	121755		10	1		B	100 (45.4)
Maleic acid.....	110167		5000	1		D	5000 (2270)
Maleic anhydride.....	108316	2,5-Furandione.....	5000	1,4	U147	D	5000 (2270)
Maleic hydrazide.....	123331	1,2-Dihydro-3,6-pyridazinedione.....	1*	4	U148	D	5000 (2270)
Malononitrile.....	109773	Propanedinitrile.....	1*	4	U149	C	1000 (454)
Melphalan.....	148823	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-L.....	1*	4	U150	X	1# (0.454)
Mercaptodimethur.....	2032657		100	1		A	10 (4.54)
Mercuric cyanide.....	592041		1	1		X	1 (0.454)
Mercuric nitrate.....	10045940		10	1		A	10## (4.54)
Mercuric sulfate.....	7783359		10	1		A	10## (4.54)
Mercuric thiocyanate.....	592858		10	1		A	10## (4.54)
Mercurous nitrate.....	10415755 7782867		10	1		A	10## (4.54)
Mercury.....	7439978		1*	2,3,4	U151	X	1 (0.454)
MERCURY AND COMPOUNDS.....			1*	2			**
Mercury, (acetato-O)phenyl.....	62384	Phenylmercuric acetate.....	1*	4	P092	X	1##(0.454)
Mercury fulminate.....	628884	Fulminic acid, mercury(II)salt.....	1*	4	P065	X	1## (0.454)
Methacrylonitrile.....	126987	2-Propenenitrile, 2-methyl.....	1*	4	U152	C	1000 (454)
Methanamine, N-methyl.....	124403	Dimethylamine.....	1000	1,4	U092	C	1000## (454)
Methane, bromo.....	74839	Methyl bromide.....	1*	2,4	U029	C	1000 (454)
Methane, chloro.....	74873	Methyl chloride.....	1*	2,4	U045	X	1## (0.454)
Methane, chloromethoxy.....	107302	Chloromethyl methyl ether.....	1*	4	U046	X	1# (0.454)
Methane, dibromo.....	74953	Methylene bromide.....	1*	4	U068	C	1000 (454)
Methane, dichloro.....	75092	Methylene chloride.....	1*	2,4	U080	C	1000 (454)
Methane, dichlorodifluoro.....	75718	Dichlorodifluoromethane.....	1*	4	U075	D	5000 (2270)
Methane, iodo.....	74884	Methyl iodide.....	1*	4	U138	X	1# (0.454)
Methane, oxybis(chloro.....	542881	Bis(chloromethyl) ether.....	1*	4	P016	X	1# (0.454)
Methane, tetrachloro.....	58235	Carbon tetrachloride.....	5000	1,2,4	U211	D	5000# (2270)
Methane, tetranitro.....	509148	Tetranitromethane.....	1*	4	P112	A	10 (4.54)
Methane, tribromo.....	75252	Bromoform.....	1*	2,4	U225	B	100 (45.4)
Methane, trichloro.....	87663	Chloroform.....	5000	1,2,4	U044	D	5000# (2270)
Methane, trichlorofluoro.....	75694	Trichloromonofluoromethane.....	1*	4	U121	D	5000 (2270)
Methanesulfonic acid, ethyl ester.....	62500	Ethyl methanesulfonate.....	1*	4	U119	X	1# (0.454)
Methanethiol.....	74931	Methylmercaptan..... Thiomethanol	100	1,4	U153	B	100 (45.4)
Methanesulfonyl chloride, trichloro.....	594423	Trichloromethanesulfonyl chloride.....	1*	4	P118	B	100 (45.4)
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro.....	78448	Heptachlor.....	1	1,2,4	P059	X	1# (0.454)
Methanoic acid.....	64186	Formic acid.....	5000	1,4	U123	D	5000 (2270)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro- 3a,4,7,7a-tetrahydro-	57749	Chlordane Chlordane, technical	1	1,2,4	U036	X	1# (0.454)
Methanol	67561	Methyl alcohol	1*	4	U154	D	5000 (2270)
Methapyrilene	91805	Pyridine, 2-[[2-(dimethylamino)ethyl]-2-thenylamino]-	1*	4	U155	D	5000 (2270)
Methomyl	16752775	Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester.	1*	4	P066	B	100 (45.4)
Methoxychlor	72435	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)-	1	1,4	U247	X	1 (0.454)
Methyl alcohol	67561	Methanol	1*	4	U154	D	5000 (2270)
2-Methylaziridine	75558	1,2-Propylenimine	1*	4	P067	X	1# (0.454)
Methyl bromide	74839	Methane, bromo-	1*	2,4	U029	C	1000 (454)
1-Methylbutadiene	504609	1,3-Pentadiene	1*	4	U186	B	100 (45.4)
Methyl chloride	74873	Methane, chloro-	1*	2,4	U045	X	1## (0.454)
Methyl chlorocarbonate	79221	Carbonochloridic acid, methyl ester	1*	4	U156	C	1000 (454)
Methyl chloroform	71556	1,1,1-Trichloroethane	1*	2,4	U226	C	1000 (454)
4,4'-Methylenebis(2-chloroaniline)	101144	Benzenamine, 4,4'-methylenebis(2-chloro-	1*	4	U158	X	1# (0.454)
2,2'-Methylenebis(3,4,6-trichlorophenol)	70304	Hexachlorophene	1*	4	U132	X	1## (0.454)
3-Methylcholanthrene	56495	Benz[<i>l</i>]aceanthrylene, 1,2-dihydro-3-methyl-	1*	4	U157	X	1# (0.454)
Methylene bromide	74953	Methane, dibromo-	1*	4	U068	C	1000 (454)
Methylene chloride	75092	Methane, dichloro-	1*	2,4	U080	C	1000 (454)
Methylene oxide	50000	Formaldehyde	1000	1,4	U122	C	1000# (454)
Methyl ethyl ketone	78933	2-Butanone	1*	4	U159	D	5000 (2270)
Methyl ethyl ketone peroxide	1338234	2-Butanone peroxide	1*	4	U160	A	10 (4.54)
Methyl hydrazine	60344	Hydrazine, methyl-	1*	4	P068	A	10 (4.54)
Methyl iodide	74884	Methane, iodo-	1*	4	U138	X	1# (0.454)
Methyl isobutyl ketone	108101	4-Methyl-2-pentanone	1*	4	U161	D	5000 (2270)
Methyl isocyanate	624839	Isocyanic acid, methyl ester	1*	4	P064	X	1###(0.454)
2-Methylacetonitrile	75865	Acetone cyanohydrin Propanenitrile, 2-hydroxy-2-methyl-	10	1,4	P069	A	10 (4.54)
Methylmercaptan	74931	Methanethiol Thiomethanol	100	1,4	U153	B	100 (45.4)
Methyl methacrylate	80626	2-Propenoic acid, 2-methyl-, methyl ester	5000	1,4	U162	C	1000 (454)
N-Methyl-N'-nitro-N-nitrosoguanidine	70257	Guanidine, N-nitroso-N-methyl-N'-nitro-	1*	4	U163	X	1# (0.454)
Methyl parathion	298000	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	100	1,4	P071	B	100## (45.4)
4-Methyl-2-pentanone	108101	Methyl isobutyl ketone	1*	4	U161	D	5000 (2270)
Methylthiouracil	56042	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thio-	1*	4	U164	X	1# (0.454)
Mevinphos	7786347		1	1		A	10 (4.54)
Mexacarbale	315184		1000	1		C	1000 (454)
Mitomycin C	50077	Azirino(2',3':3,4)pyrrolo(1,2- <i>e</i>)indole-4,7-dione-6-amino-9-[[[(aminocarbonyl)oxy]methyl]- 1,1a,2,8,8a,8b-hexahydro-8a-methoxy- 5-methyl-	1*	4	U010	X	1# (0.454)
Monoethylamine	75047		1000	1		C	1000## (454)
Monomethylamine	74895		1000	1		B	100 (45.4)
Naled	300765		10	1		A	10 (4.54)
5,12-Naphthacenedione, (8 <i>S</i> - <i>cis</i>)-8-acetyl-10-[3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy- 1-methoxy-	20830813	Daunomycin	1*	4	U059	X	1# (0.454)
Naphthalene	91203		5000	1,2,4	U165	B	100 (45.4)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
Naphthaleno, 2-chloro.....	91587	beta-Chloronaphthaleno..... 2-Chloronaphthaleno	1*	2,4	U047	D	5000 (2270)
1,4-Naphthalenedione.....	130154	1,4-Naphthoquinone.....	1*	4	U166	D	5000 (2270)
2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl- (1,1'-biphenyl)-4,4'-diyl)- bis(azo)]bis(5-amino- 4-hydroxy)-tetrasodium salt.....	72571	Trypan blue.....	1*	4	U236	X	1# (0.454)
Naphthenic acid.....	1338245		100	1		B	100 (45.4)
1,4-Naphthoquinone.....	130154	1,4-Naphthalenedione.....	1*	4	U166	D	5000 (2270)
1-Naphthylamine.....	134327	alpha-Naphthylamine.....	1*	4	U167	X	1# (0.454)
2-Naphthylamine.....	91598	beta-Naphthylamine.....	1*	4	U168	X	1# (0.454)
alpha-Naphthylamine.....	134327	1-Naphthylamine.....	1*	4	U167	X	1# (0.454)
beta-Naphthylamine.....	91598	2-Naphthylamine.....	1*	4	U168	X	1# (0.454)
2-Naphthylamine, N,N-bis(2-chloroethyl)-.....	494031	Chlornaphazine.....	1*	4	U026	X	1# (0.454)
alpha-Naphthylthiourea.....	86884	Thiourea, 1-naphthalenyl-.....	1*	4	P072	B	100 (45.4)
Nickel ††.....	7440020		1*	2		X	1# (0.454)
NICKEL AND COMPOUNDS.....			1*	2			**
Nickel ammonium sulfate.....	15699180		5000	1		D	5000# (2270)
Nickel carbonyl.....	13463393	Nickel tetracarbonyl.....	1*	4	P073	X	1# (0.454)
Nickel chloride.....	7718549 37211055		5000	1		D	5000# (2270)
Nickel cyanide.....	557197	Nickel(II) cyanide.....	1*	4	P074	X	1# (0.454)
Nickel(II) cyanide.....	557197	Nickel cyanide.....	1*	4	P074	X	1# (0.454)
Nickel hydroxide.....	12054487		1000	1		C	1000# (454)
Nickel nitrate.....	14216752		5000	1		D	5000# (2270)
Nickel sulfate.....	7786814		5000	1		D	5000# (2270)
Nickel tetracarbonyl.....	13463393	Nickel carbonyl.....	1*	4	P073	X	1# (0.454)
Nicotine and salts.....	54115	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts.....	1*	4	P075	B	100 (45.4)
Nitric acid.....	7697372		1000	1		C	1000 (454)
Nitric oxide.....	10102439	Nitrogen(II) oxide.....	1*	4	P076	A	10 (4.54)
p-Nitroaniline.....	100016	Benzenamine, 4-nitro-.....	1*	4	P077	D	5000 (2270)
Nitrobenzene.....	98953	Benzene, nitro-.....	1000	1,2,4	U169	C	1000 (454)
Nitrogen dioxide.....	10102440 10544726	Nitrogen(IV) oxide.....	1000	1,4	P078	A	10 (4.54)
Nitrogen(II) oxide.....	10102439	Nitric oxide.....	1*	4	P076	A	10 (4.54)
Nitrogen(IV) oxide.....	10102440 10544726	Nitrogen dioxide.....	1000	1,4	P078	A	10 (4.54)
Nitroglycerine.....	55630	1,2,3-Propanetriol, trinitrate.....	1*	4	P081	A	10 (4.54)
Nitrophenol (mixed).....	25154558		1000	1		B	100 (45.4)
m-.....	554847						
o-.....	88755	2-Nitrophenol					
p-.....	100027	4-Nitrophenol					
p-Nitrophenol.....	100027	Phenol, 4-nitro-.....	1000	1,2,4	U170	B	100 (45.4)
2-Nitrophenol.....	88755	o-Nitrophenol.....	1000	1,2		B	100 (45.4)
4-Nitrophenol.....	100027	p-Nitrophenol..... Phenol, 4-nitro-.....	1000	1,2,4	U170	B	100 (45.4)
NITROPHENOLS.....			1*	2			**
2-Nitropropane.....	79469	Propane, 2-nitro-.....	1*	4	U171	X	1# (0.454)
NITROSAMINES.....			1*	2			**

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
N-Nitrosodi-n-butylamine.....	924163	1-Butanamine, N-butyl-N-nitroso.....	1*	4	U172	X	1# (0.454)
N-Nitrosodiethanolamine.....	1116547	Ethanol, 2,2'-(nitrosoimino)bis.....	1*	4	U173	X	1# (0.454)
N-Nitrosodiethylamine.....	55185	Ethanamine, N-ethyl-N-nitroso.....	1*	4	U174	X	1# (0.454)
N-Nitrosodimethylamine.....	62759	Dimethylnitrosamine.....	1*	2.4	P082	X	1# (0.454)
N-Nitrosodiphenylamine.....	88306		1*	2		B	100 (45.4)
N-Nitrosodi-n-propylamine.....	621647	Di-n-propylnitrosamine.....	1*	2.4	U111	X	1# (0.454)
N-Nitroso-N-ethylurea.....	759739	Carbamide, N-ethyl-N-nitroso.....	1*	4	U176	X	1# (0.454)
N-Nitroso-N-methylurea.....	684935	Carbamide, N-methyl-N-nitroso.....	1*	4	U177	X	1# (0.454)
N-Nitroso-N-methylurethane.....	615532	Carbamic acid, methylnitroso-ethyl ester.....	1*	4	U178	X	1# (0.454)
N-Nitrosomethylvinylamine.....	4549400	Ethenamine, N-methyl-N-nitroso.....	1*	4	P084	X	1# (0.454)
N-Nitrosopiperidine.....	100754	Pyridine, hexahydro-N-nitroso.....	1*	4	U179	X	1# (0.454)
N-Nitrosopyrrolidine.....	930552	Pyrrole, tetrahydro-N-nitroso.....	1*	4	U180	X	1# (0.454)
Nitrotoluene.....	1321126		1000	1		C	1000 (454)
m-	99081						
o-	88722						
p-	99990						
5-Nitro-o-toluidine.....	99558	Benzenamine, 2-methyl-5-nitro.....	1*	4	U181	X	1# (0.454)
5-Norbornene-2,3-dimethanol,1,4,5,6,7,7-hexachloro, cyclic sulfite.....	115297	Endosulfan.....	1	1,2,4	P050	X	1 (0.454)
Octamethylpyrophosphoramidate.....	152189	Diphosphoramidate, octamethyl.....	1*	4	P085	B	100 (45.4)
Osmium oxide.....	20816120	Osmium tetroxide.....	1*	4	P087	C	1000 (454)
Osmium tetroxide.....	20816120	Osmium oxide.....	1*	4	P087	C	1000 (454)
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid.....	145733	Endothall.....	1*	4	P088	C	1000 (454)
1,2-Oxathiolane, 2,2-dioxide.....	1120714	1,3-Propane sultone.....	1*	4	U193	X	1# (0.454)
2H-1,3,2-Oxazaphosphorine,2-[bis(2-chloroethyl)amino] tetrahydro-2-oxide.....	50180	Cyclophosphamide.....	1*	4	U058	X	1# (0.454)
Oxirane.....	75218	Ethyleneoxide.....	1*	4	U115	X	1# (0.454)
Oxirane, 2-(chloromethyl).....	106898	1-Chloro-2,3-epoxypropane..... Epichlorohydrin	1000	1,4	U041	C	1000# (454)
Paraformaldehyde.....	30525894		1000	1		C	1000 (454)
Paraldehyde.....	123637	1,3,5-Trioxane, 2,4,6-trimethyl.....	1*	4	U182	C	1000 (454)
Parathion.....	56382	Phosphorothioic acid,O,O-diethyl O-(p-nitrophenyl) ester.....	1	1,4	P089	X	1# (0.454)
Pentachlorobenzene.....	608935	Benzene, pentachloro.....	1*	4	U183	X	1## (0.454)
Pentachloroethane.....	76017	Ethane, pentachloro.....	1*	4	U184	X	1## (0.454)
Pentachloronitrobenzene.....	82688	Benzene, pentachloronitro.....	1*	4	U185	X	1# (0.454)
Pentachlorophenol.....	87865	Phenol, pentachloro.....	10	1,2,4	U242	A	10# (4.54)
1,3-Pentadiene.....	504609	1-Methylbutadiene.....	1*	4	U186	B	100 (45.4)
Phenacetin.....	62442	Acetamide, N-(4-ethoxyphenyl).....	1*	4	U187	*X	1# (0.454)
Phenanthrene.....	85018		1*	2		X	1## (0.454)
Phenol.....	108952	Benzene, hydroxy.....	1000	1,2,4	U188	C	1000## (454)
Phenol, 2-chloro.....	95578	2-Chlorophenol..... o-Chlorophenol	1*	2,4	U048	B	100 (45.4)
Phenol, 4-chloro-3-methyl.....	59507	4-Chloro-m-cresol..... p-Chloro-m-cresol	1*	2,4	U039	D	5000 (2270)
Phenol, 2-cyclohexyl-4,6-dinitro.....	131895	4,6-Dinitro-o-cyclohexylphenol.....	1*	4	P034	B	100 (45.4)
Phenol, 2,4-dichloro.....	120832	2,4-Dichlorophenol.....	1*	2,4	U081	B	100 (45.4)
Phenol, 2,6-dichloro.....	87650	2,6-Dichlorophenol.....	1*	4	U082	B	100 (45.4)
Phenol, 2,4-dimethyl.....	105679	2,4-Dimethylphenol.....	1*	2,4	U101	B	100 (45.4)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Phenol, 2,4-dinitro.....	51285	2,4-Dinitrophenol.....	1000	1,2,4	P048	A	10 (4.54)
Phenol, 2,4-dinitro-6-(1-methylpropyl).....	88857	Dinoseb.....	1*	4	P020	C	1000 (454)
Phenol, 2,4-dinitro-6-methyl-, and salts.....	534521	4,6-Dinitro-o-cresol and salts.....	1*	2,4	P047	A	10 (4.54)
Phenol, 4-nitro.....	100027	p-Nitrophenol..... 4-Nitrophenol	1000	1,2,4	U170	B	100 (45.4)
Phenol, pentachloro.....	87865	Pentachlorophenol.....	10	1,2,4	U242	A	10# (4.54)
Phenol, 2,3,4,6-tetrachloro.....	58802	2,3,4,6-Tetrachlorophenol.....	1*	4	U212	A	10 (4.54)
Phenol, 2,4,5-trichloro.....	95954	2,4,5-Trichlorophenol.....	10	1,4	U230	A	10# (4.54)
Phenol, 2,4,6-trichloro.....	88062	2,4,6-Trichlorophenol.....	10	1,2,4	U231	A	10# (4.54)
Phenol, 2,4,6-trinitro-, ammonium salt.....	131748	Ammonium picrate.....	1*	4	P009	A	10 (4.54)
Phenyl dichloroarsine.....	698286	Dichlorophenylarsine.....	1*	4	P036	X	1# (0.454)
1,10-(1,2-Phenylene)pyrene.....	103395	Indeno(1,2,3-cd)pyrene.....	1*	2,4	U137	X	1# (0.454)
Phenylmercuric acetate.....	62384	Mercury, (acetato-O)phenyl.....	1*	4	P092	X	1## (0.454)
N-Phenylthiourea.....	103855	Thiourea, phenyl.....	1*	4	P093	B	100 (45.4)
Phorate.....	298022	Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester.....	1*	4	P094	X	1## (0.454)
Phosgene.....	75445	Carbonyl chloride.....	5000	1,4	P095	A	10 (4.54)
Phosphine.....	7803512	Hydrogen phosphide.....	1*	4	P096	B	100 (45.4)
Phosphoric acid.....	7664382		5000	1		D	5000 (2270)
Phosphoric acid, diethyl p-nitrophenyl ester.....	311455	Diethyl-p-nitrophenyl phosphite.....	1*	4	P041	B	100 (45.4)
Phosphoric acid, lead salt.....	7446277	Lead phosphate.....	1*	4	U145	X	1# (0.454)
Phosphorodithioic acid, O,O-diethyl S-methylester.....	3288582	O,O-Diethyl S-methyl dithiophosphate.....	1*	4	U087	D	5000 (2270)
Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester.....	298022	Phorate.....	1*	4	P094	X	1## (0.454)
Phosphorodithioic acid, O,O-dimethyl S-[2(methylamino)-2-oxoethyl] ester.....	60515	Dimethoate.....	1*	4	P044	A	10 (4.54)
Phosphorofluoric acid, bis(1-methylethyl) ester.....	55914	Diisopropyl fluorophosphate.....	1*	4	P043	B	100 (45.4)
Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester.....	56382	Parathion.....	1	1,4	P089	X	1# (0.454)
Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.....	297972	O,O-Diethyl O-pyrazinyl phosphorothioate.....	1*	4	P040	B	100 (45.4)
Phosphorothioic acid, O,O-dimethyl O-[p-(dimethylamino)-sulfonyl]phenyl] ester.....	52857	Famphur.....	1*	4	P097	C	1000 (454)
Phosphorus.....	7723140		1	1		X	1 (0.454)
Phosphorus oxychloride.....	10025873		5000	1		C	1000 (454)
Phosphorus pentasulfide.....	1314803	Phosphorus sulfide..... Sulfur phosphide	100	1,4	U189	B	100 (45.4)
Phosphorus sulfide.....	1314803	Phosphorus pentasulfide..... Sulfur phosphide	100	1,4	U189	B	100 (45.4)
Phosphorus trichloride.....	7719122		5000	1		C	1000 (454)
PHthalate ESTERS.....			1*	2			**
Phthalic anhydride.....	85449	1,2-Benzenedicarboxylic acid anhydride.....	1*	4	U190	D	5000 (2270)
2-Picoline.....	109068	Pyridine, 2-methyl.....	1*	4	U191	D	5000 (2270)
Plumbane, tetraethyl.....	78002	Tetraethyl lead.....	100	1,4	P110	B	100## (45.4)
POLYCHLORINATED BIPHENYLS (PCBs).....	1336363 12674112 11104282 11141165 53469219 12672296 11097691 11096825	Aroclors..... Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	10	1,2		A	10# (4.54)
POLYNUCLEAR AROMATIC HYDROCARBONS.....			1*	2			**

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Potassium arsenate.....	7784410		1000	1		C	1000# (454)
Potassium arsenite.....	10124502		1000	1		C	1000# (454)
Potassium bichromate.....	7778509		1000	1		C	1000# (454)
Potassium chromate.....	7789006		1000	1		C	1000# (454)
Potassium cyanide.....	151508		10	1,4	P098	A	10 (4.54)
Potassium hydroxide.....	1310583		1000	1		C	1000 (454)
Potassium permanganate.....	7722647		100	1		B	100 (45.4)
Potassium silver cyanide.....	506816		1*	4	P099	X	1 (0.454)
Pronamide.....	23950585	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide.....	1*	4	U192	D	5000 (2270)
1-Propanal, 2,3-epoxy.....	765344	Glycidylaldehyde.....	1*	4	U126	X	1# (0.454)
Propanal, 2-methyl-2-(methylthio)-O-[methylamino] carbonyloxime.....	118063	Aldicarb.....	1*	4	P070	X	1 (0.454)
1-Propanamine.....	107108	n-Propylamine.....	1*	4	U184	D	5000 (2270)
1-Propanamine, N-propyl.....	142847	Dipropylamine.....	1*	4	U110	D	5000 (2270)
Propane, 1,2-dibromo-3-chloro.....	96128	1,2-Dibromo-3-chloropropane.....	1*	4	U066	X	1# (0.454)
Propane, 2-nitro.....	79469	2-Nitropropane.....	1*	4	U171	X	1# (0.454)
Propane, 2,2'-oxybis(2-chloro.....	108601	Bis(2-chloroisopropyl) ether.....	1*	2,4	U027	C	1000 (454)
1,3-Propane sulfone.....	1120714	1,2-Oxathiolane, 2,2-dioxide.....	1*	4	U193	X	1# (0.454)
Propanedinitrile.....	109773	Malononitrile.....	1*	4	U149	C	1000 (4.54)
Propanenitrile.....	107120	Ethyl cyanide.....	1*	4	P101	A	10 (4.54)
Propanenitrile, 3-chloro.....	542767	3-Chloropropionitrile.....	1*	4	P027	C	1000 (454)
Propanenitrile, 2-hydroxy-2-methyl.....	75885	Acetone cyanohydrin 2-Methylacetonitrile	10	1,4	P069	A	10 (4.54)
1,2,3-Propanetriol, trinitrate.....	55630	Nitroglycerine.....	1*	4	P081	A	10 (4.54)
1-Propanol, 2,3-dibromo-, phosphate (3:1).....	126727	Tris(2,3-dibromopropyl) phosphate.....	1*	4	U235	X	1# (0.454)
1-Propanol, 2-methyl.....	78831	Isobutyl alcohol.....	1*	4	U140	D	5000 (2270)
2-Propanone.....	67641	Acetone.....	1*	4	U002	D	5000 (2270)
2-Propanone, 1-bromo.....	598312	Bromoacetone.....	1*	4	P017	C	1000 (454)
Propargite.....	2312358		10	1		A	10 (4.54)
Propargyl alcohol.....	107197	2-Propyn-1-ol.....	1*	4	P102	C	1000 (454)
2-Propenal.....	107028	Acrolein.....	1	1,2,4	P003	X	1 (0.454)
2-Propenamide.....	79061	Acrylamide.....	1*	4	U007	D	5000 (2270)
Propene, 1,3-dichloro.....	542756	1,3-Dichloropropene.....	5000	1,2,4	U084	D	5000## (2270)
1-Propene, 1,1,2,3,3,3-hexachloro.....	1888717	Hexachloropropene.....	1*	4	U243	C	1000 (454)
2-Propenenitrile.....	107131	Acrylonitrile.....	100	1,2,4	U009	B	100# (45.4)
2-Propenenitrile, 2-methyl.....	126987	Methacrylonitrile.....	1*	4	U152	C	1000 (454)
2-Propenoic acid.....	79107	Acrylic acid.....	1*	4	U008	D	5000 (2270)
2-Propenoic acid, ethyl ester.....	140885	Ethyl acrylate.....	1*	4	U113	C	1000 (454)
2-Propenoic acid, 2-methyl-, ethyl ester.....	97632	Ethyl methacrylate.....	1*	4	U118	C	1000 (454)
2-Propenoic acid, 2-methyl-, methyl ester.....	80626	Methyl methacrylate.....	5000	1,4	U162	C	1000 (454)
2-Propen-1-ol.....	107186	Allyl alcohol.....	100	1,4	P005	B	100 (45.4)
Propionic acid.....	79094		5000	1		D	5000 (2270)
Propionic acid, 2-(2,4,5-trichlorophenoxy).....	93721	Silvex 2,4,5-TP acid	100	1,4	U233	B	100 (45.4)
Propionic anhydride.....	123626		5000	1		D	5000 (2270)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
n-Propylamine.....	107108	1-Propanamine.....	1*	4	U194	D	5000 (2270)
Propylene dichloride.....	78875	1,2-Dichloropropane.....	5000	1,2,4	U083	C	1000 (454)
Propylene oxide.....	75569		5000	1		B	100 (45.4)
1,2-Propylenimine.....	75558	2-Methylaziridine.....	1*	4	P067	X	1# (0.454)
2-Propyn-1-ol.....	107197	Propargyl alcohol.....	1*	4	P102	C	1000 (454)
Pyrene.....	129000		1*	2		X	1## (0.454)
Pyrethrins.....	121299 121211 8003347		1000	1		X	1 (0.454)
4-Pyridinamine.....	504245	4-Aminopyridine.....	1*	4	P008	C	1000 (454)
Pyridine.....	110861		1*	4	U196	X	1## (0.454)
Pyridine, 2-[(2-(dimethylamino)ethyl)-2-thenylamino]-.....	91805	Methapyrilene.....	1*	4	U155	D	5000 (2270)
Pyridine, hexahydro-N-nitroso.....	100754	N-Nitrosopiperidine.....	1*	4	U179	X	1# (0.454)
Pyridine,2-methyl.....	109068	2-Picoline.....	1*	4	U191	D	5000 (2270)
Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts.....	54115	Nicotine and salts.....	1*	4	P075	B	100 (45.4)
4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo.....	56042	Methylthiouracil.....	1*	4	U164	X	1# (0.454)
Pyrophosphoric acid, tetraethyl ester.....	107493	Tetraethyl pyrophosphate.....	100	1,4	P111	B	100## (45.4)
Pyrrole, tetrahydro-N-nitroso.....	930552	N-Nitrosopyrrolidine.....	1*	4	U180	X	1§ (0.454)
Quinoline.....	91225		1000	1		D	5000 (2270)
RADIONUCLIDES.....			1*	3		X	1§ (0.454)
Reserpine.....	50555	Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyloxy)-, methyl ester.	1*	4	U200	D	5000 (2270)
Resorcinol.....	108463	1,3-Benzenediol.....	1000	1,4	U201	D	5000 (2270)
Saccharin and salts.....	81072	1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts.....	1*	4	U202	X	1# (0.454)
Safrole.....	94597	Benzene, 1,2-methylenedioxy-4-allyl.....	1*	4	U203	X	1# (0.454)
Selenious acid.....	7783008		1*	4	U204	X	1## (0.454)
Selenium ††.....	7782492		1*	2		X	1## (0.454)
SELENIUM AND COMPOUNDS.....			1*	2			**
Selenium dioxide.....	7446084	Selenium oxide.....	1000	1,4	U204	C	1000## (454)
Selenium disulfide.....	7488564	Sulfur selenide.....	1*	4	U205	X	1# (0.454)
Selenium oxide.....	7446084	Selenium dioxide.....	1000	1,4	U204	C	1000## (454)
Selenourea.....	630104	Carbamidoselenenic acid.....	1*	4	P103	X	1## (0.454)
L-Serine, diazoacetato (ester).....	115026	Azaserine.....	1*	4	U015	X	1# (0.454)
Silver ††.....	7440224		1*	2		C	1000 (454)
SILVER AND COMPOUNDS.....			1*	2			**
Silver cyanide.....	506649		1*	4	P104	X	1 (0.454)
Silver nitrate.....	7761888		1	1		X	1 (0.454)
Silvex.....	93721	Propionic acid, 2-(2,4,5-trichlorophenoxy)-2,4,5-TP acid	100	1,4	U233	B	100 (45.4)
Sodium.....	7440235		1000	1		A	10 (4.54)
Sodium arsenate.....	7631892		1000	1		C	1000# (454)
Sodium arsenite.....	7784465		1000	1		C	1000# (454)
Sodium azide.....	26828228		1*	4	P105	C	1000 (454)
Sodium bichromate.....	10588019		1000	1		C	1000# (454)
Sodium bifluoride.....	1333831		5000	1		D	5000## (2270)
Sodium bisulfite.....	7631905		5000	1		D	5000 (2270)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
Sodium chromate.....	7775113		1000	1		C	1000# (454)
Sodium cyanide.....	143339		10	1,4	P106	A	10 (4.54)
Sodium dodecylbenzene sulfonate.....	25155300		1000	1		C	1000 (454)
Sodium fluoride.....	7681494		5000	1		C	1000 (454)
Sodium hydrosulfide.....	16721805		5000	1		D	5000 (2270)
Sodium hydroxide.....	1310732		1000	1		C	1000 (454)
Sodium hypochlorite.....	7681529 10022705		100	1		B	100 (45.4)
Sodium methylate.....	124414		1000	1		C	1000 (454)
Sodium nitrite.....	7632000		100	1		B	100## (45.4)
Sodium phosphate, dibasic.....	7558794 10039324 10140655		5000	1		D	5000 (2270)
Sodium phosphate, tribasic.....	7601549 7785844 10101890 10381894 7758294 10124568		5000	1		D	5000 (2270)
Sodium selenite.....	10102188 7782823		1000	1		C	1000## (454)
4,4'-Stilbenediol, alpha, alpha'-diethyl.....	56531	Diethylstilbestrol.....	1*	4	U089	X	1# (0.454)
Streptozotocin.....	18883684	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-.....	1*	4	U206	X	1# (0.454)
Strontium chromate.....	7789062		1000	1		C	1000# (454)
Strontium sulfide.....	1314961		1*	4	P107	B	100 (45.4)
Strychnidin-10-one, and salts.....	57249	Strychnine and salts.....	10	1,4	P108	A	10 (4.54)
Strychnidin-10-one, 2,3-dimethoxy.....	357573	Brucine.....	1*	4	P018	A	10 (4.54)
Strychnine and salts.....	57249	Strychnidin-10-one, and salts.....	10	1,4	P108	A	10 (4.54)
Styrene.....	100425		1000	1		C	1000 (454)
Sulfur hydride.....	7783064	Hydrogen sulfide..... Hydrosulfuric acid	100	1,4	U135	B	100## (45.4)
Sulfur monochloride.....	12771083		1000	1		C	1000 (454)
Sulfur phosphide.....	1314803	Phosphorus pentasulfide..... Phosphorus sulfide	100	1,4	U189	B	100 (45.4)
Sulfur selenide.....	7488584	Selenium disulfide.....	1*	4	U205	X	1# (0.454)
Sulfuric acid.....	7664939 8014957		1000	1		C	1000 (454)
Sulfuric acid, dimethyl ester.....	77781	Dimethyl sulfate.....	1*	4	U103	X	1# (0.454)
Sulfuric acid, thallium(I) salt.....	7446186 10031591	Thallium(I) sulfate.....	1000	1,4	P115	C	1000## (454)
2,4,5-T.....	93765	2,4,5-T acid..... 2,4,5-Trichlorophenoxyacetic acid	100	1,4	U232	C	1000 (454)
2,4,5-T acid.....	93765	2,4,5-T..... 2,4,5-Trichlorophenoxyacetic acid	100	1,4	U232	C	1000 (454)
2,4,5-T amines.....	2008460 6369966 6369977 1319728 3813147		100	1		D	5000 (2270)
2,4,5-T esters.....	93798 2545597 61792072 1928478 25168154		100	1		C	1000 (454)
2,4,5-T salts.....	13580991		100	1		C	1000 (454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
TDE.....	72548	DDD..... 4,4' DDD Dichlorodiphenyl dichloroethane	1	1,2,4	U060	X	1# (0.454)
1,2,4,5-Tetrachlorobenzene.....	95943	Benzene, 1,2,4,5-tetrachloro.....	1*	4	U207	D	5000 (2270)
2,3,7,8-Tetrachlorodibenzo-p-dioxin(TCDD).....	1746016		1*	2		X	1# (0.454)
1,1,1,2-Tetrachloroethane.....	630206	Ethane, 1,1,1,2-tetrachloro.....	1*	4	U208	X	1# (0.454)
1,1,2,2-Tetrachloroethane.....	79345	Ethane, 1,1,2,2-tetrachloro.....	1*	2,4	U209	X	1# (0.454)
Tetrachloroethylene.....	127184	Ethene, 1,1,2,2-tetrachloro.....	1*	2,4	U210	X	1# (0.454)
2,3,4,6-Tetrachlorophenol.....	58902	Phenol, 2,3,4,6-tetrachloro.....	1*	4	U212	A	10 (4.54)
Tetraethyldithiopyrophosphate.....	3689245	Dithiopyrophosphoric acid,tetraethyl ester.....	1*	4	P109	B	100 (45.4)
Tetraethyl lead.....	78002	Plumbane, tetraethyl.....	100	1,4	P110	B	100## (45.4)
Tetraethyl pyrophosphate.....	107493	Pyrophosphoric acid, tetraethyl ester.....	100	1,4	P111	B	100## (45.4)
Tetrahydrofuran.....	108999	Furan, tetrahydro.....	1*	4	U213	C	1000 (454)
Tetranitromethane.....	509148	Methane, tetranitro.....	1*	4	P112	A	10 (4.54)
Tetraphosphoric acid, hexaethyl ester.....	757584	Hexaethyl tetraphosphate.....	1*	4	P062	B	100 (45.4)
Thallic oxide.....	1314325	Thallium(III) oxide.....	1*	4	P113	X	1## (0.454)
Thallium ††.....	7440280		1*	2		X	1## (0.454)
THALLIUM AND COMPOUNDS.....			1*	2			**
Thallium(I) acetate.....	583688	Acetic acid, thallium(I) salt.....	1*	4	U214	X	1## (0.454)
Thallium(I) carbonate.....	653739	Carbonic acid, dithallium (I) salt.....	1*	4	U215	X	1## (0.454)
Thallium(I) chloride.....	7791120		1*	4	U216	X	1## (0.454)
Thallium(I) nitrate.....	10102451		1*	4	U217	X	1## (0.454)
Thallium(III) oxide.....	1314325	Thallic oxide.....	1*	4	P113	X	1## (0.454)
Thallium(I) selenide.....	12039520		1*	4	P114	X	1## (0.454)
Thallium(I) sulfate.....	7446186 10031591	Sulfuric acid, thallium(I) salt.....	1000	1,4	P115	C	1000## (454)
Thioacetamide.....	62555	Ethanethioamide.....	1*	4	U218	X	1# (0.454)
Thioanox.....	39196184	3,3-Dimethyl-1-(methylthio)-2-butanone,O-[(methylamino) carbonyl] oxime.	1*	4	P045	B	100 (45.4)
Thioimidodicarbonic diamide.....	541537	2,4-Dithiobiuret.....	1*	4	P049	B	100 (45.4)
Thiomethanol.....	74931	Methanethiol..... Methylmercaptan	100	1,4	U153	B	100 (45.4)
Thiophenol.....	108985	Benzenethiol.....	1*	4	P014	B	100 (45.4)
Thiosemicarbazide.....	79196	Hydrazinecarbothioamide.....	1*	4	P116	B	100 (45.4)
Thiourea.....	62566	Carbamide, thio.....	1*	4	U219	X	1# (0.454)
Thiourea, (2-chlorophenyl).....	5344821	1-(o-Chlorophenyl)thiourea.....	1*	4	P026	B	100 (45.4)
Thiourea, 1-naphthalenyl.....	86884	alpha-Naphthylthiourea.....	1*	4	P072	B	100 (45.4)
Thiourea, phenyl.....	103855	N-Phenylthiourea.....	1*	4	P093	B	100 (45.4)
Thiram.....	137268	Bis(dimethylthiocarbamoyl) disulfide.....	1*	4	U244	A	10 (4.54)
Toluene.....	108883	Benzene, methyl.....	1000	1,2,4	U220	C	1000 (454)
Toluenediamine.....	95807 25376458 496720 823405	Diaminotoluene.....	1*	4	U221	X	1# (0.454)
Toluene diisocyanate.....	584849 91087 26471625	Benzene, 2,4-diisocyanatomethyl.....	1*	4	U223	B	100 (45.4)
o-Toluidine hydrochloride.....	636215	Benzenamine, 2-methyl-, hydrochloride.....	1*	4	U222	X	1# (0.454)
Toxaphene.....	8001352	Camphene, octachloro.....	1	1,2,4	P123	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RC	
			RC	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
2,4,5-TP acid	93721	Propionic acid, 2-(2,4,5-trichlorophenoxy)- Silvex	100	1,4	U233	B	100 (45.4)
2,4,5-TP acid esters	92534955		100	1		B	100 (45.4)
1H-1,2,4-Triazol-3-amine	61825	Amitrole	1*	4	U011	X	1# (0.454)
Trichlorfon	52686		1000	1		C	1000## (454)
1,2,4-Trichlorobenzene	120821		1*	2		B	100 (45.4)
1,1,1-Trichloroethane	71558	Methyl chloroform	1*	2,4	U226	C	1000 (454)
1,1,2-Trichloroethane	79005	Ethane, 1,1,2-trichloro-	1*	2,4	U227	X	1# (0.454)
Trichloroethene	79016	Trichloroethylene	1000	1,2,4	U228	C	1000# (454)
Trichloroethylene	79016	Trichloroethene	1000	1,2,4	U228	C	1000# (454)
Trichloromethanesulfonyl chloride	594423	Methanesulfonyl chloride, trichloro-	1*	4	P118	B	100 (45.4)
Trichloromonofluoromethane	75694	Methane, trichlorofluoro-	1*	4	U121	D	5000 (2270)
Trichlorophenol	25167822		10	1		A	10# (4.54)
2,3,4-Trichlorophenol	15950660						
2,3,5-Trichlorophenol	933788						
2,3,6-Trichlorophenol	933755						
2,4,5-Trichlorophenol	85954	Phenol, 2,4,5-trichloro-					
2,4,6-Trichlorophenol	88062	Phenol, 2,4,6-trichloro-					
3,4,5-Trichlorophenol	609188						
2,4,5-Trichlorophenol	85954	Phenol, 2,4,5-trichloro-	10	1,4	U230	A	10# (4.54)
2,4,6-Trichlorophenol	88062	Phenol, 2,4,6-trichloro-	10	1,2,4	U231	A	10# (4.54)
2,4,5-Trichlorophenoxyacetic acid	93765	2,4,5-T 2,4,5-T acid	100	1,4	U232	C	1000 (454)
Triethanolamine dodecylbenzenesulfonate	27323417		1000	1		C	1000 (454)
Triethylamine	121448		5000	1		D	5000 (2270)
Trimethylamine	75503		1000	1		C	4000## (454)
sym-Trinitrobenzene	99354	Benzene, 1,3,5-trinitro-	1*	4	U234	X	1## (0.454)
1,3,5-Trioxane, 2,4,6-trimethyl-	123637	Paraldehyde	1*	4	U182	C	1000 (454)
Tris(2,3-dibromopropyl) phosphate	126727	1-Propanol, 2,3-dibromo-, phosphate (3:1)	1*	4	U235	X	1# (0.454)
Trypan blue	72571	2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl- (1,1'-biphenyl)-4,4'-diyl)- bis(azo)]bis(5-amino-4- hydroxy)-tetrasodium salt.	1*	4	U236	X	1# (0.454)
Unlisted Hazardous Wastes			1*	4			
Characteristic of Ignitability			1*	4	D001	B	100 (45.4)
Characteristic of Corrosivity			1*	4	D002	B	100 (45.4)
Characteristic of Reactivity			1*	4	D003	B	100 (45.4)
Characteristic of EP Toxicity			1*	4			
Arsenic			1*	4	D004	X	1# (0.454)
Barium			1*	4	D005	C	1000 (454)
Cadmium			1*	4	D006	X	1# (0.454)
Chromium			1*	4	D007	X	1# (0.454)
Lead			1*	4	D008	X	1## (0.454)
Mercury			1*	4	D009	X	1 (0.454)
Selenium			1*	4	D010	X	1## (0.454)
Silver			1*	4	D011	X	1 (0.454)
Endrin			1	1,4	D012	X	1 (0.454)
Lindane			1	1,4	D013	X	1# (0.454)
Methoxychlor			1	1,4	D014	X	1 (0.454)
Toxaphene			1	1,4	D015	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
2,4-D.....			100	1,4	D016	B	100 (45.4)
2,4,5-TP.....			100	1,4	D017	B	100 (45.4)
Uracil, 5-[bis(2-chloroethyl)amino]-.....	66751	Uracil mustard.....	1*	4	U237	X	1# (0.454)
Uracil mustard.....	66751	Uracil, 5-[bis(2-chloroethyl)amino]-.....	1*	4	U237	X	1# (0.454)
Uranyl acetate.....	541093		5000	1		D	5000## (2270)
Uranyl nitrate.....	10102064 36478769		5000	1		D	5000## (2270)
Vanadic acid, ammonium salt.....	7803556	Ammonium vanadate.....	1*	4	P119	C	1000 (454)
Vanadium(V) oxide.....	1314621	Vanadium pentoxide.....	1000	1,4	P120	C	1000## (454)
Vanadium pentoxide.....	1314621	Vanadium(V) oxide.....	1000	1,4	P120	C	1000## (454)
Vanadyl sulfate.....	27774136		1000	1		C	1000## (454)
Vinyl acetate.....	108054		1000	1		D	5000 (2270)
Vinyl chloride.....	75014	Ethene, chloro.....	1*	2,3,4	U043	X	1# (0.454)
Vinylidene chloride.....	75354	1,1-Dichloroethylene..... Ethene, 1,1-dichloro-	5000	1,2,4	U078	D	5000# (2270)
Warfarin.....	81812	3-(alpha-Acotonylbenzyl)-4-hydroxycoumarin and salts.....	1*	4	P001	B	100 (45.4)
Xylene (mixed).....	1330207	Benzene, dimethyl.....	1000	1,4	U239	C	1000 (454)
m-.....	108383	m-.....					
o-.....	95476	o-.....					
p-.....	106423	p-.....					
Xylenol.....	1300716		1000	1		C	1000 (454)
Yohimban-16-carboxylic acid, 11,17-dimethoxy- 18-[(3,4,5-trimethoxybenzoyloxy)-, methylester.....	50555	Roserpino.....	1*	4	U200	D	5000 (2270)
Zinc ††.....	7440866		1*	2		X	1## (0.454)
ZINC AND COMPOUNDS.....			1*	2			**
Zinc acetate.....	557346		1000	1		C	1000## (454)
Zinc ammonium chloride.....	52628258 14639975 14639986		5000	1		D	5000## (2270)
Zinc borate.....	1332076		1000	1		C	1000## (454)
Zinc bromide.....	7699458		5000	1		D	5000## (2270)
Zinc carbonate.....	3486359		1000	1		C	1000## (454)
Zinc chloride.....	7646857		5000	1		D	5000## (2270)
Zinc cyanide.....	557211		10	1,4	P121	A	10## (4.54)
Zinc fluoride.....	7783495		1000	1		C	1000## (454)
Zinc formate.....	557415		1000	1		C	1000## (454)
Zinc hydrosulfite.....	7779864		1000	1		C	1000## (454)
Zinc nitrate.....	7779886		5000	1		D	5000## (2270)
Zinc phenolsulfonate.....	127822		5000	1		D	5000## (2270)
Zinc phosphide.....	1314847		1000	1,4	P122	C	1000## (454)
Zinc silicofluoride.....	16871719		5000	1		D	5000## (2270)
Zinc sulfate.....	7733020		1000	1		C	1000## (454)
Zirconium nitrate.....	13746899		5000	1		D	5000 (2270)
Zirconium potassium fluoride.....	16923958		5000	1		C	1000 (454)
Zirconium sulfate.....	14644612		5000	1		D	5000 (2270)
Zirconium tetrachloride.....	10026116		5000	1		D	5000 (2270)
F001.....			1*	4	F001	X	1# (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
The following spent halogenated solvents used in degreasing and sludges from the recovery of these solvents in degreasing operations:							
(a) Tetrachloroethylene	127184					X	1# (0.454)
(b) Trichloroethylene	79016					C	1000# (454)
(c) Methylene chloride	75092					C	1000 (454)
(d) 1,1,1-Trichloroethane	71558					C	1000 (454)
(e) Carbon tetrachloride	56235					D	5000# (2270)
(f) Chlorinated fluorocarbons	(N.A.)					D	5000 (2270)
F002			1*	4	F002	X	1# (0.454)
The following spent halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Tetrachloroethylene	127184					X	1# (0.454)
(b) Methylene Chloride	75092					C	1000 (454)
(c) Trichloroethylene	79016					C	1000# (454)
(d) 1,1,1-Trichloroethane	71558					C	1000 (454)
(e) Chlorobenzene	108907					B	100 (45.4)
(f) 1,1,2-Trichloro-1,2,2-trifluoroethane	76131					D	5000 (2270)
(g) o-Dichlorobenzene	106467					B	100 (45.4)
(h) Trichlorofluoromethane	75694					D	5000 (2270)
F003			1*	4	F003	B	100 (45.4)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Xylene	1330207					C	1000 (454)
(b) Acetone	67641					D	5000 (2270)
(c) Ethyl acetate	141786					D	5000 (2270)
(d) Ethylbenzene	100414					C	1000 (454)
(e) Ethyl ether	60297					B	100 (45.4)
(f) Methyl isobutyl ketone	108101					D	5000 (2270)
(g) n-Butyl alcohol	71363					D	5000 (2270)
(h) Cyclohexanone	108941					D	5000 (2270)
(i) Methanol	67561					D	5000 (2270)
F004			1*	4	F004	X	1## (0.454)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Cresols/Cresylic acid	1319773					C	1000# (454)
(b) Nitrobenzene	88953					C	1000 (454)
F005			1*	4	F005	X	1## (0.454)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Toluene	108883					C	1000 (454)
(b) Methyl ethyl ketone	78933					D	5000 (2270)
(c) Carbon disulfide	75150					D	5000# (2270)
(d) Isobutanol	78831					D	5000 (2270)
(e) Pyridine	110861					X	1## (0.454)
F006			1*	4	F006	X	1# (0.454)
Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum							
F007			1*	4	F007	A	10 (4.54)
Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions)							
F008			1*	4	F008	A	10 (4.54)
Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process (except for precious metals electroplating plating bath sludges)							
F009			1*	4	F009	A	10 (4.54)
Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions)							
F010			1*	4	F010	A	10 (4.54)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Quenching bath sludge from oil baths from metal heat treating operations where cyanides are used in the process (except for precious metals heat-treating quenching bath sludges)							
F011 Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations (except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning)			1*	4	F011	A	10 (4.54)
F012 Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process (except for precious metals heat treating quenching wastewater treatment sludges)			1*	4	F012	A	10 (4.54)
F019 Wastewater treatment sludges from the chemical conversion coating of aluminum			1*	4	F019	X	1# (0.454)
F024 Wastes, including but not limited to distillation residues, heavy ends, tars, and reactor cleanout wastes, from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent desiccants(sic), wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in Section 261.32.)			1*	4	F024	X	1# (0.454)
K001 Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol			1*	4	K001	X	1# (0.454)
K002 Wastewater treatment sludge from the production of chrome yellow and orange pigments			1*	4	K002	X	1# (0.454)
K003 Wastewater treatment sludge from the production of molybdate orange pigments			1*	4	K003	X	1# (0.454)
K004 Wastewater treatment sludge from the production of zinc yellow pigments			1*	4	K004	X	1# (0.454)
K005 Wastewater treatment sludge from the production of chrome green pigments			1*	4	K005	X	1# (0.454)
K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)			1*	4	K006	X	1# (0.454)
K007 Wastewater treatment sludge from the production of iron blue pigments			1*	4	K007	X	1# (0.454)
K008 Oven residue from the production of chrome oxide green pigments			1*	4	K008	X	1# (0.454)
K009 Distillation bottoms from the production of acetaldehyde from ethylene			1*	4	K009	X	1# (0.454)
K010 Distillation side cuts from the production of acetaldehyde from ethylene			1*	4	K010	X	1# (0.454)
K011 Bottom stream from the wastewater stripper in the production of acrylonitrile			1*	4	K011	X	1# (0.454)
K013 Bottom stream from the acetonitrile column in the production of acrylonitrile			1*	4	K013	X	1# (0.454)
K014 Bottoms from the acetonitrile purification column in the production of acrylonitrile			1*	4	K014	D	5000 (2270)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
K015 Still bottoms from the distillation of benzyl chloride			1*	4	K015	X	1# (0.454)
K016 Heavy ends or distillation residues from the production of carbon tetrachloride			1*	4	K016	X	1# (0.454)
K017 Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin			1*	4	K017	X	1# (0.454)
K018 Heavy ends from the fractionation column in ethyl chloride production			1*	4	K018	X	1# (0.454)
K019 Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production			1*	4	K019	X	1# (0.454)
K020 Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production			1*	4	K020	X	1# (0.454)
K021 Aqueous spent antimony catalyst waste from fluoromethanes production			1*	4	K021	X	1# (0.454)
K022 Distillation bottom tars from the production of phenol/acetone from cumene			1*	4	K022	X	1# (0.454)
K023 Distillation light ends from the production of phthalic anhydride from naphthalene			1*	4	K023	D	5000 (2270)
K024 Distillation bottoms from the production of phthalic anhydride from naphthalene			1*	4	K024	D	5000 (2270)
K025 Distillation bottoms from the production of nitrobenzene by the nitration of benzene			1*	4	K025	X	1# (0.454)
K026 Stripping still tails from the production of methyl ethyl pyridines			1*	4	K026	X	1## (0.454)
K027 Centrifuge and distillation residues from toluene diisocyanate production			1*	4	K027	X	1# (0.454)
K028 Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane			1*	4	K028	X	1# (0.454)
K029 Waste from the product steam stripper in the production of 1,1,1-trichloroethane			1*	4	K029	X	1# (0.454)
K030 Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene			1*	4	K030	X	1# (0.454)
K031 By-product salts generated in the production of MSMA and cacodylic acid			1*	4	K031	X	1# (0.454)
K032 Wastewater treatment sludge from the production of chlordane			1*	4	K032	X	1# (0.454)
K033 Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane			1*	4	K033	X	1# (0.454)
K034 Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane			1*	4	K034	X	1# (0.454)
K035 Wastewater treatment sludges generated in the production of creosote			1*	4	K035	X	1# (0.454)
K036			1*	4	K036	X	1 (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
Still bottoms from toluene reclamation distillation in the production of disulfoton							
K037 Wastewater treatment sludges from the production of disulfoton			1*	4	K037	X	1 (0.454)
K038 Wastewater from the washing and stripping of phorate production			1*	4	K038	X	1# (0.454)
K039 Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate			1*	4	K039	X	1## (0.454)
K040 Wastewater treatment sludge from the production of phorate			1*	4	K040	X	1# (0.454)
K041 Wastewater treatment sludge from the production of toxaphene			1*	4	K041	X	1# (0.454)
K042 Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T			1*	4	K042	X	1# (0.454)
K043 2,6-Dichlorophenol waste from the production of 2,4-D			1*	4	K043	X	1# (0.454)
K044 Wastewater treatment sludges from the manufacturing and processing of explosives			1*	4	K044	A	10 (4.54)
K045 Spent carbon from the treatment of wastewater containing explosives			1*	4	K045	A	10 (4.54)
K046 Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds			1*	4	K046	X	1## (0.454)
K047 Pink/red water from TNT operations			1*	4	K047	A	10 (4.54)
K048 Dissolved air flotation (DAF) float from the petroleum refining industry			1*	4	K048	X	1# (0.454)
K049 Slop oil emulsion solids from the petroleum refining industry			1*	4	K049	X	1# (0.454)
K050 Heat exchanger bundle cleaning sludge from the petroleum refining industry			1*	4	K050	X	1# (0.454)
K051 API separator sludge from the petroleum refining industry			1*	4	K051	X	1# (0.454)
K052 Tank bottoms (leaded) from the petroleum refining industry			1*	4	K052	X	1## (0.454)
K060 Ammonia still lime sludge from coking operations			1*	4	K060	X	1# (0.454)
K061 Emission control dust/sludge from the primary production of steel in electric furnaces			1*	4	K061	X	1# (0.454)
K062 Spent pickle liquor from steel finishing operations			1*	4	K062	X	1# (0.454)
K069 Emission control dust/sludge from secondary lead smelting			1*	4	K069	X	1# (0.454)
K071 Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used			1*	4	K071	X	1 (0.454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Cate-gory	Pounds(Kg)
K073 Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production			1*	4	K073	X	1# (0.454)
K083 Distillation bottoms from aniline extraction			1*	4	K083	B	100 (45.4)
K084 Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds			1*	4	K084	X	1# (0.454)
K085 Distillation or fractionation column bottoms from the production of chlorobenzenes			1*	4	K085	X	1# (0.454)
K086 Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead			1*	4	K086	X	1# (0.454)
K087 Decanter tank tar sludge from coking operations			1*	4	K087	X	1## (0.454)
K093 Distillation light ends from the production of phthalic anhydride from ortho-xylene			1*	4	K093	D	5000 (2270)
K094 Distillation bottoms from the production of phthalic anhydride from ortho-xylene			1*	4	K094	D	5000 (2270)
K095 Distillation bottoms from the production of 1,1,1-trichloroethane			1*	4	K095	X	1# (0.454)
K096 Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane			1*	4	K096	X	1# (0.454)
K097 Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane			1*	4	K097	X	1# (0.454)
K098 Untreated process wastewater from the production of toxaphene			1*	4	K098	X	1# (0.454)
K099 Untreated wastewater from the production of 2,4-D			1*	4	K099	X	1# (0.454)
K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting (Components of this waste are identical with those of K069).			1*	4	K100	X	1# (0.454)
K101 Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds			1*	4	K101	X	1# (0.454)
K102 Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds			1*	4	K102	X	1# (0.454)
K103 Process residues from aniline extraction from the production of aniline			1*	4	K103	B	100 (45.4)
K104 Combined wastewater streams generated from nitrobenzene/aniline chlorobenzenes			1*	4	K104	X	1# (0.454)
K105 Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes			1*	4	K105	X	1# (0.454)
K106 Wastewater treatment sludge from the mercury cell process in chlorine production			1*	4	K106	X	1 (0.454)

See footnotes on following page.

† - indicates the statutory source as defined by 1, 2, 3, or 4 below

1 - indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 311(b)(4)

2 - indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 307(a)

3 - indicates that the statutory source for designation of this hazardous substance under CERCLA is CAA Section 112

4 - indicates that the statutory source for designation of this hazardous substance under CERCLA is RCRA Section 3001

†† - no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 100 micrometers (0.004 inches)

††† - the RQ for asbestos is limited to friable forms only

§ - the Agency may adjust the RQ for radionuclides in a future rulemaking; until then the statutory 1-pound RQ applies

1* - indicates that the 1-pound RQ is a CERCLA statutory RQ

** - indicates that no RQ is being assigned to the generic or broad class

- indicates that the RQ is subject to change when the assessment of potential carcinogenicity and/or chronic toxicity is completed

- indicates that an adjusted RQ is proposed in a separate NPRM in today's Federal Register

- the Agency may adjust the RQ for methyl isocyanate in a future rulemaking; until then the statutory 1-pound RQ applies

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES

CASRN	Hazardous Substance
50000	Formaldehyde Methylene oxide
50077	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione,6-amino-8- [[[(aminocarbonyloxy)methyl]- 1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl- Mitomycin C
50180	Cyclophosphamide 2H-1,3,2-Oxazaphosphorina,2-[bis(2- chloroethyl)amino]tetrahydro-2-oxide
50293	DDT 4,4' DDT Dichlorodiphenyl trichloroethane
50328	Benzo[a]pyrene 3,4-Benzopyrene
50555	Reserpine Yohimban-16-carboxylic acid,11,17-dimethoxy-18- [(3,4,5-trimethoxybenzoyloxy)-,methyl ester
51285	2,4-Dinitrophenol Phenol, 2,4-dinitro-
51434	1,2-Benzenediol,4-[1-hydroxy-2- (methylamino)ethyl]- Epinephrine
51796	Carbamic acid, ethyl ester Ethyl carbamate (Urethan)
52686	Trichlorfon
52857	Famphur Phosphorothioic acid, O,O-dimethyl-O-[p-(di- methylamino)-sulfonyl]phenyl] ester
53703	Dibenz[a,h]anthracene 1,2:5,6-Dibenzanthracene Dibenzo[a,h]anthracene
53963	Acetamide, N-9H-fluoren-2-yl- 2-Acetylaminofluorene
54115	Nicotine and salts Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-,and salts
55185	Ethanamine, N-ethyl-N-nitroso- N-Nitrosodiethylamine
55630	Nitroglycerine 1,2,3-Propanetriol, trinitrate-
55914	Diisopropyl fluorophosphate Phosphorofluoridic acid,bis(1-methylethyl) ester
56042	Methylthiouracil 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2- thioxo-
56235	Carbon tetrachloride Methane, tetrachloro-
56382	Parathion Phosphorothioic acid,O,O-diethyl O-(p- nitrophenyl)ester
56495	Benz[]aceanthrylene, 1,2-dihydro-3-methyl- 3-Methylcholanthrene
56531	Diethylstilbestrol 4,4'-Stilbenediol, alpha,alpha'-diethyl-

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
56553	Benz[a]anthracene 1,2-Benzanthracene Benzo[a]anthracene
56724	Coumaphos
57125	Cyanides (soluble cyanide salts), not elsewhere- specified
57147	1,1-Dimethylhydrazine Hydrazine, 1,1-dimethyl-
57249	Strychnidin-10-one, and salts Strychnine and salts
57749	Chlordane Chlordane, technical 4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro- 3a,4,7,7a-tetrahydro-
57976	1,2-Benzanthracene, 7,12-dimethyl- 7,12-Dimethylbenz[a]anthracene
58899	gamma - BHC Hexachlorocyclohexane (gamma isomer) Lindane
58902	Phenol, 2,3,4,6-tetrachloro- 2,3,4,6-Tetrachlorophenol
59507	4-Chloro-m-cresol p-Chloro-m-cresol Phenol, 4-chloro-3-methyl-
60004	Ethylenediamine tetraacetic acid (EDTA)
60117	Benzenamine, N,N-dimethyl-4-phenylazo- Dimethylaminoazobenzene
60297	Ethane, 1,1'-oxybis- Ethyl ether
60344	Hydrazine, methyl- Methyl hydrazine
60515	Dimethoate Phosphorodithioic acid,O,O-dimethyl S-[2(methyl- lamino)-2-oxoethyl] ester
60571	Dieldrin 1,2,3,4,10,10-Hexachloro-6,7-epoxy- 1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8- dimethanonaphthalene
61825	Amitrole 1H-1,2,4-Triazol-3-amine
62384	Mercury, (acetato-O)phenyl- Phenylmercuric acetate
62442	Acetamide, N-(4-ethoxyphenyl)- Phenacetin
62500	Ethyl methanesulfonate Methanesulfonic acid, ethyl ester
62533	Aniline Benzenamine
62555	Ethanethioamide Thioacetamide
62566	Carbamide, thio- Thiourea

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
62737	Dichlorvos
62748	Acetic acid, fluoro-, sodium salt Fluoroacetic acid, sodium salt
62759	Dimethylnitrosamine N-Nitrosodimethylamine
63252	Carbaryl
64186	Formic acid Methanoic acid
64197	Acetic acid
65850	Benzoic acid
66751	Uracil, 5-[bis(2-chloroethyl)amino]- Uracil mustard
67561	Methanol Methyl alcohol
67641	Acetone 2-Propanone
67663	Chloroform Methane, trichloro-
67721	Ethane, 1,1,1,2,2,2-hexachloro- Hexachloroethane
70257	Guanidine, N-nitroso-N-methyl-N'-nitro- N-Methyl-N'-nitro-N-nitrosoguanidine
70304	Hexachlorophene 2,2'-Methylenebis(3,4,6-trichlorophenol)
71363	1-Butanol n-Butyl alcohol
71432	Benzene
71556	Methyl chloroform 1,1,1-Trichloroethane
72208	Endrin 1,2,3,4,10,10-Hexachloro-6,7-epoxy- 1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8- dimethanonaphthalene
72435	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)- Methoxychlor
72548	DDD 4,4' DDD Dichlorodiphenyl dichloroethane TDE
72559	DDE 4,4' DDE
72571	2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl- yl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino- 4-hydroxy)-tetrasodium salt Trypan blue
74839	Methane, bromo- Methyl bromide
74873	Methane, chloro- Methyl chloride
74884	Methane, iodo- Methyl iodide

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
74895	Monomethylamine
74908	Hydrocyanic acid Hydrogen cyanide
74931	Methanethiol Methylmercaptan Thiomethanol
74953	Methane, dibromo- Methylene bromide
75003	Chloroethane
75014	Ethene, chloro- Vinyl chloride
75047	Monoethylamine
75058	Acetonitrile Ethanenitrile
75070	Acetaldehyde Ethanal
75092	Methane, dichloro- Methylene chloride
75150	Carbon bisulfide Carbon disulfide
75207	Calcium carbide
75218	Ethylene oxide Oxirane
75252	Bromoform Methane, tribromo-
75274	Dichlorobromomethane
75343	1,1-Dichloroethane Ethane, 1,1-dichloro- Ethylidene dichloride
75354	1,1-Dichloroethylene Ethene, 1,1-dichloro- Vinylidene chloride
75365	Acetyl chloride Ethanoyl chloride
75445	Carbonyl chloride Phosgene
75503	Trimethylamine
75558	2-Methylaziridine 1,2-Propylenimine
75569	Propylene oxide
75605	Cacodylic acid Hydroxydimethylarsine oxide
75648	tert-Butylamine
75694	Methane, trichloro- Trichloromonofluoromethane
75718	Dichlorodifluoromethane Methane, dichlorodifluoro-
75865	Acetone cyanohydrin 2-Methylacetonitrile Propanenitrile, 2-hydroxy-2-methyl-
75876	Acetaldehyde, trichloro- Chloral
75990	2,2-Dichloropropionic acid
76017	Ethane, pentachloro- Pentachloroethane
76448	Heptachlor 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
77474	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro- Hexachlorocyclopentadiene
77781	Dimethyl sulfate Sulfuric acid, dimethyl ester
78002	Plumbane, tetraethyl- Tetraethyl lead
78591	Isophorone
78795	Isoprene
78819	iso-Butylamine
78831	Isobutyl alcohol 1-Propanol, 2-methyl-
78875	1,2-Dichloropropane Propylene dichloride
78886	2,3-Dichloropropene
78933	2-Butanone Methyl ethyl ketone
78999	1,1-Dichloropropane
79005	Ethane, 1,1,2-trichloro- 1,1,2-Trichloroethane
79018	Trichloroethene Trichloroethylene
79061	Acrylamide 2-Propenamido
79094	Propionic acid
79107	Acrylic acid 2-Propenoic acid
79196	Hydrazinecarbothioamide Thiosemicarbazide
79221	Carbonochloridic acid, methyl ester Methyl chlorocarbonate
79312	iso-Butyric acid
79345	Ethane, 1,1,2,2-tetrachloro- 1,1,2,2-Tetrachloroethane
79447	Carbamoyl chloride, dimethyl- Dimethylcarbamoyl chloride
79469	2-Nitropropane Propane, 2-nitro-
80159	alpha,alpha-Dimethylbenzylhydroperoxide Hydroperoxide, 1-methyl-1-phenylethyl-
80626	Methyl methacrylate 2-Propenoic acid, 2-methyl-, methyl ester
81072	1,2-Benzisothiazolin-3-one, 1,1-dioxide, and salts Saccharin and salts
81812	3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts Warfarin
82688	Benzene, pentachloronitro- Pentachloronitrobenzene
83329	Acenaphthene
84662	1,2-Benzenedicarboxylic acid, diethyl ester Diethyl phthalate
84742	1,2-Benzenedicarboxylic acid, dibutyl ester n-Butyl phthalate Dibutyl phthalate Di-n-butyl phthalate

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
85007	Diquat
85018	Phenanthrene
85449	1,2-Benzenedicarboxylic acid anhydride Phthalic anhydride
85687	Butyl benzyl phthalate
86306	N-Nitrosodiphenylamine
86500	Guthion
86737	Fluorene
86884	alpha-Naphthylthiourea Thiourea, 1-naphthalenyl-
87650	2,6-Dichlorophenol Phenol, 2,6-dichloro-
87683	1,3-Butadiene, 1,1,2,3,4,4-hexachloro- Hexachlorobutadiene
87865	Pentachlorophenol Phenol, pentachloro-
88062	Phenol, 2,4,6-trichloro 2,4,6-Trichlorophenol
88722	o-Nitrotoluene
88755	o-Nitrophenol 2-Nitrophenol
88857	Dinoseb Phenol, 2,4-dinitro-6-(1-methylpropyl)-
91087	Benzene, 2,4-diisocyanatomethyl- Toluene diisocyanate
91203	Naphthalene
91225	Quinoline
91587	beta-Chloronaphthalene 2-Chloronaphthalene Naphthalene, 2-chloro-
91598	2-Naphthylamine beta-Naphthylamine
91805	Methapyrilene Pyridine, 2-[[2-(dimethylamino)ethyl]-2-thenylamino]-
91941	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro- 3,3'-Dichlorobenzidine
92875	Benzidine (1,1'-Biphenyl)-4,4'-diamine
93721	Propionic acid, 2-(2,4,5-trichlorophenoxy)- Silvex 2,4,5-TP acid
93765	2,4,5-T 2,4,5-T acid 2,4,5-Trichlorophenoxyacetic acid
93798	2,4,5-T esters
94111	2,4-D Esters
94586	Benzene, 1,2-methylenedioxy-4-propyl- Dihydrosaftrole
94597	Benzene, 1,2-methylenedioxy-4-allyl- Saftrole
94757	2,4-D Acid 2,4-D, salts and esters 2,4-Dichlorophenoxyacetic acid, salts and esters

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
94791	2,4-D Esters
94804	2,4-D Esters
95476	Benzene, o-dimethyl- o-Xylene
95487	o-Cresol o-Cresylic acid
95501	Benzene, 1,2-dichloro- 1,2-Dichlorobenzene o-Dichlorobenzene
95578	2-Chlorophenol o-Chlorophenol Phenol, 2-chloro-
95807	Diaminotoluene Toluenediamine
95943	Benzene, 1,2,4,5-tetrachloro- 1,2,4,5-Tetrachlorobenzene
95954	Phenol, 2,4,5-trichloro- 2,4,5-Trichlorophenol
96128	1,2-Dibromo-3-chloropropane Propane, 1,2-dibromo-3-chloro-
96457	Ethylenethiourea 2-Imidazolidinethione
97632	Ethyl methacrylate 2-Propenoic acid, 2-methyl-, ethyl ester
98011	2-Furancarboxaldehyde Furfural
98077	Benzene, trichloromethyl- Benzotrichloride
98099	Benzenesulfonic acid chloride Benzenesulfonyl chloride
98828	Benzene, 1-methylethyl- Cumene
98862	Acetophenone Ethanone, 1-phenyl-
98873	Benzal chloride Benzene, dichloromethyl-
98884	Benzoyl chloride
98953	Benzene, nitro- Nitrobenzene
99081	m-Nitrotoluene
99354	Benzene, 1,3,5-trinitro- sym-Trinitrobenzene
99558	Benzenamine, 2-methyl-5-nitro- 5-Nitro-o-toluidine
99650	m-Dinitrobenzene
99990	p-Nitrotoluene
100018	Benzenamine, 4-nitro- p-Nitroaniline
100027	p-Nitrophenol 4-Nitrophenol Phenol, 4-nitro-
100254	p-Dinitrobenzene
100414	Ethylbenzene
100425	Styrene
100447	Benzene, chloromethyl- Benzyl chloride

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
100470	Benzonitrile
100754	N-Nitrosopiperidine Pyridine, hexahydro-N-nitroso-
101144	Benzenamine, 4,4'-methylenebis(2-chloro- 4,4'-Methylenebis(2-chloroaniline)
101553	Benzene, 1-bromo-4-phenoxy- 4-Bromophenyl phenyl ether
103855	N-Phenylthiourea Thiourea, phenyl-
105464	sec-Butyl acetate
105679	2,4-Dimethylphenol Phenol, 2,4-dimethyl-
106423	Benzene, p-dimethyl- p-Xylene
106445	p-Cresol p-Cresylic acid
106467	Benzene, 1,4-dichloro- 1,4-Dichlorobenzene p-Dichlorobenzene
106478	Benzenamine, 4-chloro- p-Chloroaniline
106514	p-Benzoquinone 1,4-Cyclohexadienedione
106898	1-Chloro-2,3-epoxypropane Epichlorohydrin Oxirane, 2-(chloromethyl)-
106934	Ethane, 1,2-dibromo- Ethylene dibromide
107028	Acrolein 2-Propenal
107051	Allyl chloride
107062	1,2-Dichloroethane Ethane, 1,2-dichloro- Ethylene dichloride
107108	1-Propanamine n-Propylamine
107120	Ethyl cyanide Propanenitrile
107131	Acrylonitrile 2-Propanenitrile
107153	Ethylenediamine
107186	Allyl alcohol 2-Propen-1-ol
107197	Propargyl alcohol 2-Propyn-1-ol
107200	Acetaldehyde, chloro- Chloroacetaldehyde
107302	Chloromethyl methyl ether Methane, chloromethoxy-
107493	Pyrophosphoric acid, tetraethyl ester Tetraethyl pyrophosphate
107926	Butyric acid
108054	Vinyl acetate
108101	Methyl isobutyl ketone 4-Methyl-2-pentanone
108247	Acetic anhydride
108316	2,5-Furandione Maleic anhydride

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
108383	Benzene, m-dimethyl- m-Xylene
108394	m-Cresol m-Cresylic acid
108463	1,3-Benzenediol Resorcinol
108601	Bis(2-chloroisopropyl) ether Propane, 2,2'-oxybis(2-chloro-
108883	Benzene, methyl- Toluene
108907	Benzene, chloro- Chlorobenzene
108941	Cyclohexanone
108952	Benzene, hydroxy- Phenol
108985	Benzenethiol Thiophenol
109068	2-Picoline Pyridine, 2-methyl-
109739	Butylamine
109773	Malononitrile Propanedinitrile
109897	Diethylamine
109999	Furan, tetrahydro- Tetrahydrofuran
110009	Furan Furfuran
110167	Maleic acid
110178	Fumaric acid
110190	iso-Butyl acetate
110758	2-Chloroethyl vinyl ether Ethene, 2-chloroethoxy-
110827	Benzene, hexahydro- Cyclohexane
110861	Pyridine
111444	Bis(2-chloroethyl) ether Dichloroethyl ether Ethane, 1,1'-oxybis(2-chloro-
111546	1,2-Ethanedithiocarbonylthioic acid Ethylenebis(dithiocarbamic acid)
111911	Bis(2-chloroethoxy) methane Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-
115026	Azaserine L-Serine, diazoacetate (ester)
115297	Endosulfan 5-Norbornene-2,3-dimethanol,1,4,5,6,7,7- hexachloro,cyclic sulfite
115322	Kelthane
116063	Aldicarb Propanal, 2-methyl-2-(methylthio)-O- [(methylamino)carbonyl]oxime
117806	Dichlone
117817	1,2-Benzenedicarboxylic acid,[bis(2-ethylhexyl)] ester Bis(2-ethylhexyl)phthalate
117840	1,2-Benzenedicarboxylic acid,di-n-octyl ester Di-n-octyl phthalate

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
118741	Benzene, hexachloro- Hexachlorobenzene
119904	(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethoxy- 3,3'-Dimethoxybenzidine
119937	(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethyl- 3,3'-Dimethylbenzidine
120127	Anthracene
120581	Benzene, 1,2-methylenedioxy-4-propenyl- isosafrrole
120821	1,2,4-Trichlorobenzene
120832	2,4-Dichlorophenol Phenol, 2,4-dichloro-
121142	Benzene, 1-methyl-2,4-dinitro- 2,4-Dinitrotoluene
121211	Pyrethrins
121299	Pyrethrins
121448	Triethylamine
121755	Malathion
122098	alpha, alpha-Dimethylphenethylamine Ethanamine, 1,1-dimethyl-2-phenyl-
122667	1,2-Diphenylhydrazine Hydrazine, 1,2-diphenyl-
123331	1,2-Dihydro-3,6-pyridazinedione Maleic hydrazide
123626	Propionic anhydride
123637	Paraldehyde 1,3,5-Trioxane, 2,4,6-trimethyl-
123739	2-Butenal Crotonaldehyde
123864	Butyl acetate
123911	1,4-Diethylene dioxide 1,4-Dioxane
123922	iso-Amyl acetate
124049	Adipic acid
124403	Dimethylamine Methanamine, N-methyl-
124414	Sodium methylate
124481	Chlorodibromomethane
126727	1-Propanol, 2,3-dibromo-, phosphate (3:1) Tris(2,3-dibromopropyl) phosphate
126987	Methacrylonitrile 2-Propenenitrile, 2-methyl-
127184	Ethene, 1,1,2,2-tetrachloro- Tetrachloroethylene
127822	Zinc phenolsulfonate
129000	Pyrene
130154	1,4-Naphthalenedione 1,4-Naphthoquinone
131113	1,2-Benzenedicarboxylic acid, dimethyl ester Dimethyl phthalate
131748	Ammonium picrate Phenol, 2,4,6-trinitro-, ammonium salt
131895	4,6-Dinitro-o-cyclohexylphenol Phenol, 2-cyclohexyl-4,6-dinitro-

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
133062	Captan
134327	1-Naphthylamine alpha-Naphthylamine
137268	Bis(dimethylthiocarbamoyl) disulfide Thiram
140885	Ethyl acrylate 2-Propenoic acid, ethyl ester
141786	Acetic acid, ethyl ester Ethyl acetate
142289	1,3-Dichloropropane
142712	Cupric acetate
142847	Dipropylamine 1-Propanamine, N-propyl-
143339	Sodium cyanide
143500	Decachlorooctahydro-1,3,4-metheno-2H- cyclobuta[c,d]-pentalen-2-one Kepone
145733	Endothall 7-Oxabicyclo[2,2,1]heptane-2,3-dicarboxylic acid
148823	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L- Mefphalan
151508	Potassium cyanide
151564	Aziridine Ethyleneimine
152169	Diphosphoramide, octamethyl- Octamethylpyrophosphoramide
156605	1,2-Trans-Dichloroethylene Ethene, trans-1,2-dichloro-
189559	1,2,7,8-Dibenzopyrene Dibenz[a,i]pyrene
191242	Benzo[ghi]perylene
193395	Indeno(1,2,3-cd)pyrene 1,10-(1,2-Phenylene)pyrene
205992	Benzo[b]fluoranthene
206440	Benzo[<i>l</i> , <i>k</i>]fluorene Fluoranthene
207089	Benzo[<i>k</i>]fluoranthene
208968	Acenaphthylene
218019	1,2-Benzphenanthrene Chrysene
225514	Benz[<i>c</i>]acridine 3,4-Benzacridine
297972	O,O-Diethyl O-pyrazinyl phosphorothioate Phosphorothioic acid, O,O-diethyl, O-pyrazinyl ester
298000	O,O-Dimethyl O-p-nitrophenyl phosphorothioate Methyl parathion
298022	Phorate Phosphorodithioic acid, O,O-diethyl S- (ethylthio), methyl ester
298044	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate Disulfoton
300765	Naled
301042	Acetic acid, lead salt Lead acetate
302012	Diamine Hydrazine

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
303344	Lasiocarpine
305033	Butanoic acid, 4-[bis(2-chloroethyl)amino] ben- zene- Chlorambucil
309002	Aldrin 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a- hexahydro-1,4:5,8-endo,exo- dimethanonaphthalene
311455	Diethyl-p-nitrophenyl phosphate Phosphoric acid, diethyl, p-nitrophenyl ester
315184	Mexacarbate
319846	alpha - BHC
319857	beta - BHC
319868	delta - BHC
329715	2,5-Dinitrophenol
330541	Diuron
333415	Diazinon
353504	Carbon oxyfluoride Carbonyl fluoride
357573	Brucine Strychnidin-10-one, 2,3-dimethoxy-
460195	Cyanogen
465736	Hexachlorohexahydro-endo,endo- dimethanonaphthalene 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a- hexahydro-1,4:5,8-endo,endo- dimethanonaphthalene
492808	Auramine Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl- yl-
494031	Chlornaphazine 2-Naphthylamine, N,N-bis(2-chloroethyl)-
496720	Diaminotoluene Toluenediamine
504245	4-Aminopyridine 4-Pyridinamine
504609	1-Methylbutadiene 1,3-Pentadiene
506616	Potassium silver cyanide
506649	Silver cyanide
506683	Bromine cyanide Cyanogen bromide
506774	Chlorine cyanide Cyanogen chloride
506876	Ammonium carbonate
506967	Acetyl bromide
509148	Methane, tetranitro- Tetranitromethane
510156	Benzeneacetic acid, 4-chloro-alpha-(4-chloro- phenyl)-alpha-hydroxy-, ethyl ester Ethyl 4,4'-dichlorobenzilate
513495	sec-Butylamine
528290	o-Dinitrobenzene
534521	4,6-Dinitro-o-cresol and salts Phenol, 2,4-dinitro-6-methyl-, and salts
540738	1,2-Dimethylhydrazine Hydrazine, 1,2-dimethyl-

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
540885	tert-Butyl acetate
541093	Uranyl acetate
541537	2,4-Dithiobiuret Thioimidodicarbonic diamide
541731	Benzene, 1,3-dichloro- 1,3-Dichlorobenzene m-Dichlorobenzene
542621	Barium cyanide
542756	1,3-Dichloropropene Propene, 1,3-dichloro-
542767	3-Chloropropionitrile Propanenitrile, 3-chloro-
542881	Bis(chloromethyl) ether Methane, oxybis(chloro-
543908	Cadmium acetate
544183	Cobaltous formate
544923	Copper cyanide
554847	m-Nitrophenol
557197	Nickel cyanide Nickel(II) cyanide
557211	Zinc cyanide
557346	Zinc acetate
557415	Zinc formate
563122	Ethion
563688	Acetic acid, thallium(I) salt Thallium(I) acetate
573568	2,6-Dinitrophenol
584849	Benzene, 2,4-diisocyanatomethyl- Toluene diisocyanate
591082	Acetamide, N-(aminothioxomethyl)- 1-Acetyl-2-thiourea
592018	Calcium cyanide
592041	Mercuric cyanide
592858	Mercuric thiocyanate
592870	Lead thiocyanate
594423	Methanesulfonyl chloride, trichloro- Trichloromethanesulfonyl chloride
598312	Bromoacetone 2-Propanone, 1-bromo-
606202	Benzene, 1-methyl-2,6-dinitro- 2,6-Dinitrotoluene
608935	Benzene, pentachloro- Pentachlorobenzene
609198	3,4,5-Trichlorophenol
610399	3,4-Dinitrotoluene
615532	Carbamic acid, methylnitroso, ethyl ester N-Nitroso-N-methylurethane
621647	Di-n-propylnitrosamine N-Nitrosodi-n-propylamine
624839	Isocyanic acid, methyl ester Methyl isocyanate

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
625161	tert-Amyl acetate
626380	sec-Amyl acetate
626637	Amyl acetate
628884	Fulminic acid, mercury(II)salt Mercury fulminate
630104	Carbamimidoseleonic acid Selenourea
630206	Ethane, 1,1,1,2-tetrachloro- 1,1,1,2-Tetrachloroethane
631618	Ammonium acetate
636215	Benzenamine, 2-methyl-, hydrochloride o-Toluidine hydrochloride
640197	Acetamide, 2-fluoro- Fluoroacetamide
684935	Carbanide, N-methyl-N-nitroso- N-Nitroso-N-methylurea
692422	Arsine, diethyl- Diethylarsine
696286	Dichlorophenylarsine Phenyl dichloroarsine
757584	Hexaethyl tetraphosphate Tetraphosphoric acid, hexaethyl ester
759739	Carbamide, N-ethyl-N-nitroso- N-Nitroso-N-ethylurea
764410	2-Butene, 1,4-dichloro- 1,4-Dichloro-2-butene
765344	Glycidylaldehyde 1-Propanal, 2,3-epoxy-
815827	Cupric tartrate
823405	Diaminotoluene Toluenediamine
824163	1-Butanamine, N-butyl-N-nitroso- N-Nitrosodi-n-butylamine
830552	N-Nitrosopyrrolidine Pyrrole, tetrahydro-N-nitroso-
933755	2,3,6-Trichlorophenol
933788	2,3,5-Trichlorophenol
959988	alpha - Endosulfan
1024573	Heptachlor epoxide
1031078	Endosulfan sulfate
1066304	Chromic acetate
1066337	Ammonium bicarbonate
1072351	Lead stearate
1111780	Ammonium carbamate
1116547	Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine
1120714	1,2-Oxathiolane, 2,2-dioxide 1,3-Propane sulfone
1185575	Ferric ammonium citrate
1194658	Dichlobenil
1300716	Xylenol
1303282	Arsenic(V) oxide Arsenic pentoxide

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
1303328	Arsenic disulfide
1303339	Arsenic trisulfide
1309644	Antimony trioxide
1310583	Potassium hydroxide
1310732	Sodium hydroxide
1314325	Thallic oxide Thallium(III) oxide
1314621	Vanadium(V) oxide Vanadium pentoxide
1314803	Phosphorus pentasulfide Phosphorus sulfide Sulfur phosphide
1314847	Zinc phosphide
1314870	Lead sulfide
1314961	Strontium sulfide
1319728	2,4,5-T amines
1319773	Cresol(s) Cresylic acid
1320189	2,4-D Esters
1321126	Nitrotoluene
1327522	Arsenic acid
1327533	Arsenic(III) oxide Arsenic trioxide
1330207	Benzene, dimethyl- Xylene
1332076	Zinc borate
1332214	Asbestos
1333831	Sodium bifluoride
1335326	Lead subacetate
1336216	Ammonium hydroxide
1336363	POLYCHLORINATED BIPHENYLS (PCBs) Aroclors
1338234	2-Butanone peroxide Methyl ethyl ketone peroxide
1338245	Naphthenic acid
1341497	Ammonium bifluoride
1484535	2,2'-Bioxirane 1,2:3,4-Diepoxybutane
1563662	Carbofuran
1615801	N,N'-Diethylhydrazine Hydrazine, 1,2-diethyl-
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin(TCDD)
1762954	Ammonium thiocyanate
1863634	Ammonium benzoate
1888717	Hexachloropropene 1-Propene, 1,1,2,3,3,3-hexachloro-

APPENDIX A - SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous Substance
1918009	Dicamba
1928387	2,4-D Esters
1928478	2,4,5-T esters
1928616	2,4-D Esters
1929733	2,4-D Esters
2008460	2,4,5-T amines
2032657	Mercaptodimethur
2303164	Diallate S-(2,3-Dichloroallyl) diisopropylthiocarbamate
2312358	Propargite
2545597	2,4,5-T esters
2763964	5-(Aminomethyl)-3-isoxazolol 3(2H)-isoxazolone, 5-(aminomethyl)-
2764729	Diquat
2921882	Chlorpyrifos
2944674	Ferric ammonium oxalate
2971382	2,4-D Esters
3012655	Ammonium citrate, dibasic
3164292	Ammonium tartrate
3165933	Benzenamine, 4-chloro-2-methyl-,hydrochloride 4-Chloro-o-toluidine, hydrochloride
3251238	Cupric nitrate
3288562	O,O-Diethyl S-methyl dithiophosphate Phosphorodithioic acid, O,O-diethyl S-methylester
3486359	Zinc carbonate
3689245	Dithiopyrophosphoric acid,tetraethyl ester Tetraethyldithiopyrophosphate
3813147	2,4,5-T amines
4170303	2-Butenal Crotonaldehyde
4549400	Ethanamine, N-methyl-N-nitroso- N-Nitrosomethylvinylamine
5344821	1-(o-Chlorophenyl)thiourea Thiourea, (2-chlorophenyl)-
5893663	Cupric oxalate
5972736	Ammonium oxalate
6009707	Ammonium oxalate
6368966	2,4,5-T amines
6368977	2,4,5-T amines
6533739	Carbonic acid, dithallium (I) salt Thallium(I) carbonate
7005723	4-Chlorophenyl phenyl ether
7421934	Endrin aldehyde

APPENDIX A - SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous Substance
7428480	Lead stearate
7439921	Lead
7439976	Mercury
7440020	Nickel
7440224	Silver
7440235	Sodium
7440280	Thallium
7440360	Antimony
7440382	Arsenic
7440417	Beryllium Beryllium dust
7440439	Cadmium
7440473	Chromium
7440508	Copper
7440686	Zinc
7446084	Selenium dioxide Selenium oxide
7446142	Lead sulfate
7448186	Sulfuric acid, thallium(I) salt Thallium(I) sulfate
7446277	Lead phosphate Phosphoric acid, lead salt
7447394	Cupric chloride
7488564	Selenium disulfide Sulfur selenide
7558794	Sodium phosphate, dibasic
7601549	Sodium phosphate, tribasic
7631692	Sodium arsenate
7631985	Sodium bisulfite
7632000	Sodium nitrite
7645252	Lead arsenate
7646857	Zinc chloride
7647010	Hydrochloric acid
7647189	Antimony pentachloride
7664382	Phosphoric acid
7664393	Hydrofluoric acid Hydrogen fluoride
7664417	Ammonia
7664939	Sulfuric acid
7681494	Sodium fluoride
7681529	Sodium hypochlorite

APPENDIX A - SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous Substance
7697372	Nitric acid
7699458	Zinc bromide
7705080	Ferric chloride
7718549	Nickel chloride
7719122	Phosphorus trichloride
7720787	Ferrous sulfate
7722647	Potassium permanganate
7723140	Phosphorus
7733020	Zinc sulfate
7738945	Chromic acid
7758294	Sodium phosphate, tribasic
7758943	Ferrous chloride
7758954	Lead chloride
7758987	Cupric sulfate
7761888	Silver nitrate
7773060	Ammonium sulfamate
7775113	Sodium chromate
7778394	Arsenic acid
7778441	Calcium arsenate
7778509	Potassium bichromate
7778543	Calcium hypochlorite
7779864	Zinc hydrosulfite
7779886	Zinc nitrate
7782414	Fluorine
7782492	Selenium
7782505	Chlorine
7782630	Ferrous sulfate
7782823	Sodium selenite
7782867	Mercurous nitrate
7783008	Selenious acid
7783084	Hydrogen sulfide Hydrosulfuric acid Sulfur hydride
7783188	Ammonium thiosulfate
7783359	Mercuric sulfate
7783462	Lead fluoride
7783495	Zinc fluoride
7783508	Ferric fluoride
7783564	Antimony trifluoride

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
7784341	Arsenic trichloride
7784409	Lead arsenate
7784410	Potassium arsenate
7784465	Sodium arsenite
7785844	Sodium phosphate, tribasic
7786347	Mevinphos
7786814	Nickel sulfate
7787475	Beryllium chloride
7787497	Beryllium fluoride
7787555	Beryllium nitrate
7788989	Ammonium chromate
7789006	Potassium chromate
7789062	Strontium chromate
7789095	Ammonium bichromate
7789426	Cadmium bromide
7789437	Cobaltous bromide
7789619	Antimony tribromide
7790945	Chlorosulfonic acid
7791120	Thallium(I) chloride
7803512	Hydrogen phosphide Phosphine
7803558	Ammonium vanadate Vanadic acid, ammonium salt
8001352	Camphene, octachloro- Toxaphene
8001589	Creosote
8003198	Dichloropropane - Dichloropropene (mixture)
8003347	Pyrethrins
8014957	Sulfuric acid
9004664	Ferric dextran Iron dextran
10022705	Sodium hypochlorite
10025873	Phosphorus oxychloride
10025919	Antimony trichloride
10026116	Zirconium tetrachloride
10028225	Ferric sulfate
10031591	Sulfuric acid, thallium(I) salt Thallium(I) sulfate
10039324	Sodium phosphate, dibasic
10043013	Aluminum sulfate
10045893	Ferrous ammonium sulfate

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
10045940	Mercuric nitrate
10049055	Chromous chloride
10099748	Lead nitrate
10101538	Chromic sulfate
10101630	Lead iodide
10101890	Sodium phosphate, tribasic
10102064	Uranyl nitrate
10102188	Sodium selenite
10102439	Nitric oxide Nitrogen(II) oxide
10102440	Nitrogen dioxide Nitrogen(IV) oxide
10102451	Thallium(I) nitrate
10102484	Lead arsenate
10108642	Cadmium chloride
10124502	Potassium arsenite
10124568	Sodium phosphate, tribasic
10140655	Sodium phosphate, dibasic
10192300	Ammonium bisulfite
10196040	Ammonium sulfite
10361894	Sodium phosphate, tribasic
10380297	Cupric sulfate ammoniated
10415755	Mercurous nitrate
10421484	Ferric nitrate
10544726	Nitrogen dioxide Nitrogen(IV) oxide
10588019	Sodium bichromate
11096825	Aroclor 1260 Polychlorinated Biphenyls (PCBs)
11097691	Aroclor 1254 Polychlorinated Biphenyls (PCBs)
11104282	Aroclor 1221 Polychlorinated Biphenyls (PCBs)
11115745	Chromic acid
11141165	Aroclor 1232 Polychlorinated Biphenyls (PCBs)
12002038	Cupric acetoarsenite
12039520	Thallium(I) selenide
12054487	Nickel hydroxide
12125018	Ammonium fluoride
12125029	Ammonium chloride
12135761	Ammonium sulfide
12672296	Aroclor 1248 Polychlorinated Biphenyls (PCBs)
12674112	Aroclor 1016 Polychlorinated Biphenyls (PCBs)
12771083	Sulfur monochloride
13463393	Nickel carbonyl Nickel tetracarbonyl

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
13560991	2,4,5-T salts
13597994	Beryllium nitrate
13746899	Zirconium nitrate
13765190	Calcium chromate Chromic acid, calcium salt
13814965	Lead fluoborate
13826830	Ammonium fluoborate
13952846	sec-Butylamine
14017415	Cobaltous sulfamate
14216752	Nickel nitrate
14258492	Ammonium oxalate
14307358	Lithium chromate
14307438	Ammonium tartrate
14639975	Zinc ammonium chloride
14639986	Zinc ammonium chloride
14644612	Zirconium sulfate
15699160	Nickel ammonium sulfate
15739807	Lead sulfate
15950660	2,3,4-Trichlorophenol
16721805	Sodium hydrosulfide
16752775	Acetimidic acid, N-[(methylcarbamoyl)oxy]thio- ,methyl ester Methomyl
16871719	Zinc silicofluoride
16919190	Ammonium silicofluoride
16923958	Zirconium potassium fluoride
18883664	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitro- soureido)- Streptozotocin
20816120	Osmium oxide Osmium tetroxide
20830813	Daunomycin 5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[3- amino-2,3,6-trideoxy-alpha-L-xylo- hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11- trihydroxy-1-methoxy-
20859738	Aluminum phosphide
23950585	3,5-Dichloro-N-(1,1-dimethyl-2- propynyl)benzamide Pronamide
25154545	Dinitrobenzene (mixed)
25154556	Nitrophenol (mixed)
25155300	Sodium dodecylbenzene sulfonate
25167822	Trichlorophenol
25168154	2,4,5-T esters
25168267	2,4-D Esters
25321146	Dinitrotoluene
25321226	Dichlorobenzene (mixed)
25376458	Diaminotoluene Toluenediamine

APPENDIX A - SEQUENTIAL CAS REGISTRY
NUMBER LIST OF CERCLA HAZARDOUS
SUBSTANCES—Continued

CASRN	Hazardous Substance
25550587	Dinitrophenol
26264062	Calcium dodecylbenzene sulfonate
26471625	Benzene, 2,4-diisocyanatomethyl-Toluene diisocyanate
26628228	Sodium azide
26638197	Dichloropropane
26952238	Dichloropropene
27176870	Dodecylbenzenesulfonic acid
27323417	Triethanolamine dodecylbenzene sulfonate
27774136	Vanadyl sulfate
28300745	Antimony potassium tartrate
30525894	Paraformaldehyde
32534955	2,4,5-TP acid esters
33213659	beta - Endosulfan
36478769	Uranyl nitrate
37211055	Nickel chloride
39196184	3,3-Dimethyl-1-(methylthio)-2-butanone,O-[(methylamino)carbonyl] oxime Thiofanox
42504461	Isopropanolamine dodecylbenzene sulfonate
52628258	Zinc ammonium chloride
52652592	Lead stearate
52740166	Calcium arsenite
53467111	2,4-D Esters
53469219	Aroclor 1242 Polychlorinated Biphenyls (PCBs)
55488874	Ferric ammonium oxalate
56189094	Lead stearate
61792072	2,4,5-T esters

§ 302.5 Determination of reportable quantities.

(a) *Listed hazardous substances.* The quantity listed in the column "Final RQ" for each substance in Table 302.4 is the reportable quantity for that substance.

(b) *Unlisted hazardous substances.* Unlisted hazardous substances designated by 40 CFR 302.4(b), which substances are wastes prior to their initial release into the environment, have the reportable quantity of 100 pounds, except for those unlisted

hazardous wastes exhibiting the characteristic of extraction procedure (EP) toxicity identified in 40 CFR 261.24. Unlisted hazardous wastes which exhibit EP toxicity have the reportable quantities listed in Table 302.4 for the contaminant on which the characteristic of EP toxicity is based. The reportable quantity applies to the waste itself, not merely to the toxic contaminant. If an unlisted hazardous waste exhibits EP toxicity on the basis of more than one contaminant, the reportable quantity for that waste shall be the lowest of the reportable quantities listed in Table 302.4 for those contaminants. If an unlisted hazardous waste exhibits the characteristic of EP toxicity and one or more of the other characteristics referenced in 40 CFR 302.4(b), the reportable quantity for that waste shall be the lowest of the applicable reportable quantities.

§ 302.6 Notification requirements.

(a) Any person in charge of a vessel or an offshore or an onshore facility shall, as soon as he has knowledge of any release (other than a federally permitted release or application of a pesticide) of a hazardous substance from such vessel or facility in a quantity equal to or exceeding the reportable quantity determined by this part in any 24-hour period, immediately notify the National Response Center ((800) 424-8802; in Washington, D.C. (202) 426-2675).

(b) Releases of mixtures and solutions are subject to these notification requirements only where a component hazardous substance of the mixture or solution is released in a quantity equal to or greater than its reportable quantity.

(c) Notification of the release of an RQ of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter of the particles released is larger than 100 micrometers (0.004 inches).

(Approved by the Office of Management and Budget under the control number 2115-0137)

§ 302.7 Penalties.

(a) Any person

(1) In charge of a vessel from which a hazardous substance is released, other than a federally permitted release, into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone,

(2) In charge of a vessel from which a hazardous substance is released, other than a federally permitted release, which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976), and who is otherwise subject to the jurisdiction of the United States at the time of the release, or

(3) In charge of a facility from which a hazardous substance is released, other than a federally permitted release, in a quantity equal to or greater than that reportable quantity determined under this part who fails to notify immediately the National Response Center as soon as he has knowledge of such release shall be subject to all of the sanctions, including criminal penalties, set forth in section 103 of the Act with respect to such failure to notify.

(b) Notification received pursuant to this section or information obtained by the exploitation of such notification shall not be used against any such person in any criminal case, except a prosecution for perjury or for giving a false statement.

(c) This section shall not apply to the application of a pesticide product registered under the Federal Insecticide, Fungicide, and Rodenticide Act or to the handling and storage of such a pesticide product by an agricultural producer.

PART 117—[AMENDED]

2. 40 CFR Part 117 is amended by revising § 117.3 to read as follows:

§ 117.3 Determination of reportable quantities.

Each substance in Table 117.3 that is listed in Table 302.4, 40 CFR Part 302, is assigned the reportable quantity listed in Table 302.4 for that substance.

[FR Doc. 85-4238 Filed 4-3-85; 8:45 am]

BILLING CODE 6560-50-M

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 302****(18W H-FRL 2665(a))****Reportable Quantity Adjustments****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule.

SUMMARY: Sections 103(a) and 103(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") require that persons in charge of vessels or facilities from which hazardous substances have been released in quantities that are equal to or greater than the reportable quantities ("RQs") immediately notify the National Response Center of the release. Section 102(b) sets a reportable quantity of one pound for hazardous substances, except those substances for which reportable quantities have been established pursuant to section 311(b)(4) of the Clean Water Act ("CWA").

Section 102(a) authorizes the Environmental Protection Agency ("EPA") to adjust reportable quantities for hazardous substances and to designate as hazardous substances, substances which when released into the environment may present substantial danger to the public health or welfare or the environment. A final rule published elsewhere in today's *Federal Register* adjusts many of the reportable quantities established in section 102(b). EPA is proposing in this rulemaking to adjust additional reportable quantities. These RQ adjustments are intended to reduce the burdens of reporting on the regulated community, allow EPA to focus its resources on the most serious releases, and protect public health and welfare and the environment more effectively. The RQ adjustments proposed in this rulemaking will affect both CERCLA RQs and corresponding RQs in regulations promulgated pursuant to section 311(b)(4) of the CWA.

Notification of a release of a hazardous substance in a quantity equal to or greater than its RQ is to be made by telephone to the National Response Center. The toll-free telephone number of the National Response Center is listed under the "Addresses".

DATES: Comments must be received on or before June 3, 1985.

ADDRESSES: The toll-free telephone number of the National Response Center is (800) 424-8802; in the Washington, D.C. metropolitan area (202) 426-2675.

Comments: Comments should be submitted in triplicate to: Emergency Response Division, Docket Clerk, Attention: Docket Number 102RQ, Room S-325, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

Docket: Copies of materials relevant to this rulemaking are contained in Room S-325 at the U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The docket is available for inspection between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

FOR FURTHER INFORMATION CONTACT: Dr. K. Jack Kooyoomjian, Response Standards and Criteria Branch, Emergency Response Division (WH-548B), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460, or the RCRA/Superfund Hotline (800) 424-9346, in Washington, D.C., (202) 382-3000.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

- I. Introduction
- II. Reportable Quantity Adjustments
 - A. Introduction
 - B. Summary of the Methodology Underlying the Reportable Quantity Adjustments
 - C. Substances for Which Adjusted RQs Are Being Proposed
 - D. ICR Substances
- III. Reportable Quantity Adjustments Under Section 311 of the Clean Water Act
- IV. Summary of Supporting Analyses

I. Introduction

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [Pub. L. 96-510], 42 U.S.C. 9601 *et seq.* ("Superfund," "CERCLA," or "the Act"), enacted on December 11, 1980, establishes broad federal authority to deal with releases or threats of releases of hazardous substances from vessels and facilities into the environment. The Act defines a set of "hazardous substances" by reference to other environmental statutes (section 101(14)); this list currently contains 698 substances. The Environmental Protection Agency ("EPA") may designate additional hazardous substances (section 102).

The Act requires the person in charge of a vessel or facility to notify the National Response Center ("NRC") immediately when there is a release of a designated hazardous substance in an amount equal to or greater than the reportable quantity ("RQ") for that substance (sections 103 (a) and (b)). Section 102(b) of CERCLA establishes

RQs for releases of designated hazardous substances at one pound, unless other reportable quantities were assigned under section 311 of the Federal Water Pollution Control Act ("Clean Water Act" or "CWA"). Section 102(a) authorizes EPA to adjust all of these reportable quantities.

A major purpose of the section 103(a) and (b) notification requirements is to alert the appropriate government officials to releases of hazardous substances that may require a rapid federal response to protect public health and welfare and the environment. Under the Act, the federal government may respond whenever there is a release or a substantial threat of a release into the environment of a hazardous substance or of other pollutants or contaminants which may present an imminent and substantial danger to public health or welfare (section 104). Response activities are to be taken, to the extent possible, in accordance with the National Contingency Plan (40 CFR Part 300), which was originally developed under the CWA and which has been revised to reflect the responsibilities and authority created by CERCLA. EPA emphasizes that notification based on reportable quantities is merely a trigger for informing the government of a release so that the need for a federal removal or remedial action can be evaluated by the appropriate federal personnel and any necessary action undertaken in a timely fashion. Federal personnel will evaluate all reported releases, but will not necessarily initiate a removal or remedial action in response to all reported releases, because the release of a reportable quantity will not necessarily pose a hazard to public health or welfare or the environment. Government personnel will assess each release on a case-by-case basis.

Section 103(b) establishes penalties, including criminal sanctions, for persons in charge of vessels or facilities who fail to report releases of hazardous substances which equal or exceed reportable quantities. Any person who, as soon as he has knowledge of a reportable release, fails to report the release pursuant to section 103(a) or (b) shall, upon conviction, be fined no more than \$10,000 or imprisoned for not more than one year, or both. Notifications received under section 103(a) or information obtained by such notice cannot be used against any reporting person in any criminal case, except a prosecution for perjury or for giving a false statement.

On May 25, 1983, EPA proposed a rule (48 FR 23552) to clarify procedures for

reporting releases and to adjust reportable quantities for 387 of the 698 CERCLA hazardous substances. That Notice of Proposed Rulemaking (NPRM) also listed, for the first time, the "hazardous substances" designated by section 101(14) of CERCLA. The NPRM discussed in detail the CERCLA notification provisions (including the persons required to notify the NRC of a release, the substances for which notification is required, the types of releases subject to the notification requirements, and the exemptions from these requirements), the methodology and criteria used to adjust the reportable quantity levels, and the RQ adjustments proposed under section 102 of CERCLA and under section 311 of the CWA. Today's Federal Register contains a final rule that clarifies reporting procedures and promulgates most of the previously proposed RQ adjustments. The final rule contains adjusted RQs for 319 of the 608 specific substances and 21 of the 90 waste streams that are designated as hazardous substances under CERCLA. In preparing the final rule, EPA carefully considered all of the public comments submitted on the proposals made in the May 25, 1983 NPRM.

This NPRM proposes RQ adjustments for 105 additional CERCLA hazardous substances (including 7 waste streams) for which the Agency has now completed its analysis. These proposed adjustments would amend Table 302.4 of 40 CFR 302.4 and, consistent with 40 CFR 117.3 as amended in today's final rule, would apply not only to CERCLA RQs, but also to RQs established under section 311(b)(4) of the Clean Water Act. Section II of this preamble discusses the proposed RQ adjustments and the methodology used in making these adjustments. Section III addresses RQ adjustments under section 311 of the Clean Water Act. Section IV provides a summary of the analyses supporting this proposed rulemaking.

It should be noted that other provisions of the Act may apply even where CERCLA does not require notification. Therefore, nothing in this rulemaking should be interpreted as reflecting Agency policy or the applicable law with respect to other provisions of the Act. For example, a party responsible for a release is liable for the costs of cleaning up that release and for any natural resource damages, even if the release is not subject to the notification requirements of sections 103(a) and (b). Similarly, proper reporting of a release in accordance with sections 103(a) and (b) does not preclude liability for cleanup costs. The fact that a release

of a hazardous substance is properly reported or that it is not subject to the notification requirements of section 103(a) and (b) will not prevent EPA or other governmental agencies from taking response actions under section 104, seeking reimbursement from responsible parties under section 107, or pursuing an enforcement action against responsible parties. Note also that this rule does not affect hazardous substance reporting requirements imposed by other regulations and statutes (except the CWA—see Section III below).

Neither this rulemaking nor today's final rule addresses the designation of hazardous substances which are not designated under the statutes listed in CERCLA section 101(14). The Agency has conducted several preliminary economic and technical analyses on this subject (see 48 FR 23603), and an Advance Notice of Proposed Rulemaking (ANPRM), also published on May 25, 1983, invited public comment. EPA has carefully reviewed the comments received and is in the process of further developing its designation policy. The Agency's designation policy will be the subject of a separate rulemaking.

II. Reportable Quantity Adjustments

A. Introduction

Section 102(b) establishes a reportable quantity of one pound for all hazardous substances other than those with different RQs established under section 311 of the Clean Water Act; for these latter substances, section 102(b) adopts the CWA section 311 RQs. Congress enacted this provision in part to ensure that reporting of releases would begin immediately upon enactment of CERCLA, because reporting is essential for response.

The RQs established by CERCLA were intended to be temporary pending EPA review and adjustment of those RQs. EPA committed to Congress in late 1980 to revise those reportable quantities (126 Cong. Rec. H 11792 (December 3, 1980)). This rulemaking proposes adjustments to the statutory RQs based upon specific scientific and technical criteria that relate to the possibility of harm from the release of a substance in a reportable quantity. These revised RQs, therefore, enable the Agency to focus its resources on those releases which are most likely to pose potential threats to public health and welfare and the environment. Such RQ adjustments will also relieve the regulated community and emergency response personnel from the burden of making and responding to reports of

releases which are unlikely to pose such threats.

This NPRM proposes adjusted RQs for 98 of the 289 specific substances and 7 of the 69 waste streams that are not assigned adjusted RQs by today's final rule. EPA is proposing to raise the RQs of 34 specific substances, lower the RQs of 31 specific substances, and leave the RQs of 33 specific substances at the levels originally established by CERCLA (or under CWA section 311). EPA is also proposing to raise the RQs of the 7 waste streams. In addition, this NPRM proposes a 100-pound RQ for releases of non-designated substances which exhibit the RCRA characteristics of ignitability, corrosivity, or reactivity but which are not "wastes" (and thus CERCLA hazardous substances) until after they are released and are not cleaned up for repackaging, recycling, or reuse. Adjusted RQs for the remaining 191 specific substances and 62 waste streams not addressed by this notice or today's final rule will be proposed, as appropriate, as soon as the RQ adjustment analysis for these substances (now ongoing) is complete.

The primary purpose of notification is to ensure that releasers notify the federal government so that federal personnel can assess the need to respond to the release. The different RQ levels do not reflect a determination that a release of a substance will be hazardous at the RQ level and not hazardous below that level. EPA has not attempted to make such a determination, because the actual hazard will vary with the unique circumstances of the release, and extensive scientific data and analysis would be necessary to determine the hazard presented by each substance under a number of possible circumstances. Instead, the RQs reflect the Agency's judgment that the federal government should be notified of releases to which a federal response might be necessary. The reportable quantities do not represent any determination that releases of a particular size are actually harmful to public health or welfare or the environment.

Many other considerations besides the quantity released affect the government's decision concerning whether and how it should conduct a removal or remedial action pursuant to the National Contingency Plan (40 CFR Part 300) with respect to a particular release. The location of the release, its proximity to drinking water supplies or other valuable resources, the likelihood of exposure or injury to nearby populations, and other factors must be

assessed by the federal On-Scene Coordinator on a case-by-case basis. The reporting requirement enables the government to learn when such assessments should be made.

Because CERCLA's RQ adjustment methodology differs from that used pursuant to section 311 of the Clean Water Act, some of the RQs being proposed today are not the same as those initially promulgated under the CWA. In the final rule published elsewhere in today's *Federal Register*, EPA has amended 40 CFR 117.3 to make RQs adjusted under CERCLA the applicable RQs for purposes of CWA section 311. Thus, when made final, today's proposed RQ adjustments will apply to both CERCLA and CWA RQs. A person in charge need not report a release into navigable waters twice under CERCLA and the CWA; one report to the NRC suffices.

B. Summary of the Methodology Underlying the Reportable Quantity Adjustments

The Agency has wide discretion in adjusting the statutory RQs for hazardous substances under CERCLA.¹ Administrative feasibility and convenience are important considerations. The Agency's selected strategy for adjusting RQs begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each designated hazardous substance. The intrinsic properties examined—called "primary criteria"—are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, chronic toxicity, and potential carcinogenicity. (For the purposes of this rule, chronic toxicity—referred to as "other toxic effects" in the May 25, 1983 NPRM—is defined as toxicity resulting from repeated or continuous exposure to either a single release or multiple releases of a hazardous substance.)

The Agency ranks each intrinsic property on a five-tier scale, associating a specific range of values on each scale with a particular RQ value. This five-tier scale uses the five RQ levels of 1, 10, 100, 1000, and 5000 pounds originally established pursuant to CWA section 311 (see 40 CFR Part 117). Each substance receives several tentative RQ values based on its particular properties.² The lowest of all of the

tentative RQs becomes the "primary criteria RQ" for that substance.

For a more detailed discussion of the primary criteria, see the preamble of the May 25, 1983 NPRM (48 FR 23562-23565), the preamble of today's final rule adjusting reportable quantities (Section V.D.1), and the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

After the primary criteria RQs are assigned, substances are further evaluated for their susceptibility to certain extrinsic degradation processes. These extrinsic processes are biodegradation, hydrolysis, and photolysis, or "BHP." These processes of degradation tend to reduce the relative potential for harm to public health and welfare and the environment of many hazardous substance releases. If substances have primary criteria RQs already at the maximum assignable level of 5000 pounds or are found to be bioaccumulative, environmentally persistent, highly reactive (or otherwise unusually hazardous), or degradable to more hazardous products, their susceptibility to degradation is considered only in relation to the primary criteria analysis (see footnote 2), and they are not eligible for a one-level RQ increase on the basis of BHP. On the other hand, if analysis indicates that an eligible substance degrades relatively rapidly to a less harmful substance or compound through one or more of these processes when it is released into the environment, the primary criteria RQ is raised on the basis of BHP. The single RQ assigned to each substance on the basis of the primary criteria and BHP becomes the adjusted RQ for the substance.

The portion of Table 302.4 (40 CFR 302.4) printed in this Notice lists only those CERCLA hazardous substances for which adjusted RQs are being proposed in this rulemaking. The table shows both the statutory RQ currently in effect and the proposed adjusted RQ for each substance.

For a more detailed discussion of the BHP criteria and their use in

hazardous than the original substance, the primary criteria are applied to the more hazardous reaction product rather than to the original substance to determine the tentative RQ values for the original substance. For example, substances known to generate hydrogen sulfide or phosphine upon hydrolysis are assigned primary criteria RQs on the basis of these degradation products. Application of the primary criteria to the reaction products rather than to the original substances occurred in four cases for the substances for which this NPRM proposes adjusted RQs.

combination with the primary criteria, see the preamble of the May 25, 1983 NPRM (48 FR 23565), the preamble of today's final rule adjusting reportable quantities (Sections V.C.1. and V.D.2.), and the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

C. Substances for Which Adjusted RQs Are Being Proposed

The 105 substances for which this NPRM proposes adjusted RQs have all been evaluated for potential chronic toxicity and/or potential carcinogenicity. This section describes the process by which EPA selected these 105 substances for proposal in this NPRM.

Prior to the May 25, 1983 NPRM, EPA identified a number of CERCLA substances that potentially exhibited chronic toxicity or carcinogenicity (or both). Lists of these substances were submitted to EPA's Environmental Criteria and Assessment Office (ECAO) for further chronic toxicity analysis and to EPA's Carcinogen Assessment Group (CAG) for further carcinogenicity analysis. EPA identified the potentially chronically toxic substances using a variety of EPA background documents, reports prepared by state agencies, and other sources. EPA identified the potential carcinogens using the Monographs of the International Agency for Research on Cancer and the First and Second Annual Reports on Carcinogens of the National Toxicology Program, U.S. Department of Health and Human Services.

For further information concerning the selection of substances for ECAO and CAG review, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

Because all of the potential carcinogens and many of the potential chronic toxicants (as identified at that time) were undergoing evaluation when the May 1983 NPRM was published, these substances retain their statutory RQ levels in the final rule published in today's *Federal Register*. Analysis is now completed, however, for the substances that were being evaluated for chronic toxicity in May 1983. In addition, CAG has performed a more detailed and more critical review of available data than the initial review

¹ As Senate Report No. 848, 96th Congress, Second Session (1980) notes at page 29: "In determining reportable quantities under this paragraph [section 3(a)(2) of S. 1480], the President may consider any factors deemed relevant to administering the reporting requirements or the President's other responsibilities under this Act."

² If available evidence shows that a substance hydrolyzes into a reaction product that is more

used to place the substances on the CAG list. The CAG assessment determined that there is no sound evidence of potential carcinogenic effect for a number of the substances on the list.

The 105 substances in this NPRM consist of substances that have been evaluated for chronic toxicity and, where appropriate, assigned a chronic toxicity ranking, and substances for which CAG has determined that no sound evidence of potential carcinogenicity exists. Because assessments under all primary and BHP criteria have been completed for these 105 substances, proposing RQ adjustments is appropriate at this time. The portion of Table 302.4 printed in this NPRM lists only the CERCLA substances for which adjusted RQs are being proposed in this rulemaking. The table indicates both the RQ level originally established by CERCLA and the proposed adjusted RQ for each substance. EPA is proposing to raise the RQs of 34 specific substances and 7 waste streams, lower the RQs of 31 specific substances, and leave the RQs of 33 specific substances at their original levels.

D. ICR Substances

As noted in the preamble to the final rule on RQs published elsewhere in today's *Federal Register*, the obligation to report releases into the environment of substances exhibiting the RCRA characteristics of ignitability, corrosivity, or reactivity ("ICR") (see 40 CFR 261.21-261.23)³ has been the subject of some confusion. Under section 103(a) of CERCLA, the person in charge of a vessel or facility must notify the NRC of the release of a "hazardous substance." The term "hazardous substance" includes all substances designated in § 302.4 of today's final rule as well as wastes exhibiting the ICR characteristics under RCRA. Therefore, the release of a non-designated substance exhibiting an ICR characteristic is the release of a hazardous substance only if the substance is a waste. If a non-designated ICR substance is spilled and immediately cleaned up for repackaging, reprocessing, recycling, or reuse, it is not a waste and the spill need not be reported (see 45 FR 78540, Nov. 25, 1980). However, if the substance is not cleaned up, or is cleaned up for eventual disposal, it is then a waste (and thus a

hazardous substance) which has been released to the environment and must be reported if the release equals or exceeds the RQ.

The Agency acknowledges that the May 25, 1983 NPRM may not have been clear on this point. Accordingly, we are now proposing to create a separate RQ for releases of non-designated substances which are not wastes prior to their initial release but which exhibit an ICR characteristic. We propose to set an RQ of 100 pounds for such releases. This is the same RQ that has been established for ICR substances that are wastes prior to their initial release, as the environmental impact of a release of a substance exhibiting an ICR characteristic does not depend on whether that substance was a waste prior to its release. We hereby solicit public comment on whether a different RQ is warranted. Of course, if the substance is recovered for purposes of recycling or use as a product, it never becomes a waste (or a hazardous substance) and thus is not subject to reporting requirements.

EPA recognizes that transporters may not be aware that products they are carrying exhibit ICR characteristics. We acknowledge that in order for a criminal prosecution to be warranted, the person in charge must have known or reasonably should have known that the substance was a hazardous substance. Accordingly, EPA would enforce the reporting requirement for releases by transporters of non-designated substances exhibiting an ICR characteristic only if the substance was labeled as hazardous under DOT or State regulations or if other circumstances put the transporter on notice that a hazardous substance was released. If a product which is so labeled is spilled in excess of the reportable quantity of 100 pounds (or such other RQ as may be finally promulgated) the transporter will be liable for failure to report, if it turns out that the waste exhibiting an ICR characteristic was released to the environment in excess of the RQ.

As noted in the preamble to today's final rule, pending completion of final rulemaking on this proposal, notice given to the NRC pursuant to 49 CFR 171.15, if required under that section, of the release of a non-designated substance that is not a waste prior to its initial release, will be deemed to satisfy the reporting requirements of section 103(a) of CERCLA. Note that this policy does not apply to the release of non-designated substances which exhibit an ICR characteristic and which are wastes prior to their initial release. Such

releases must be reported if they are equal to or in excess of the 100-pound RQ. See § 302.5(b) of today's final rule.

III. Reportable Quantity Adjustments Under Section 311 of the Clean Water Act

The final rule published elsewhere in today's *Federal Register* amends 40 CFR § 117.3 to make reportable quantities adjusted under CERCLA the applicable reportable quantities for notification of discharges of hazardous substances pursuant to Clean Water Act section 311. Thus, when made final, the RQ adjustments proposed in this rulemaking will apply to both CERCLA and CWA section 311 RQs. Reportable quantities under both statutes are set forth in Table 302.4. A single report of a release into navigable waters to the National Response Center by the person in charge will satisfy the notification requirements of both statutes. (For a further discussion of the relationship between CERCLA RQs and CWA section 311 RQs, see the May 25, 1983 NPRM preamble at 48 FR 23569.)

IV. Summary of Supporting Analyses

Rulemaking protocol under Executive Order 12291 requires that proposed regulations be classified as major or non-major for purposes of review by the Office of Management and Budget. According to E.O. 12291, major rules are regulations that are likely to result in:

- (1) An annual effect on the economy of \$100 million or more; or
- (2) A major increase in costs or prices for consumers, individual industries, federal, state, or local government agencies, or geographic regions; or
- (3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

An economic analysis performed by the Agency, available for inspection at Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460, shows that today's proposed regulation is non-major, because adoption of the proposed rule will result in additional net cost savings (beyond those provided by today's final rule) of approximately \$1.3 million annually. Of this amount, about \$200,000 annually will be saved by the regulated community (the remainder to be saved by government).

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have a "significant impact

³ Substances exhibiting the characteristic of extraction procedure (EP) toxicity are not at issue here, because the chemicals at which the EP toxicity test is aimed are all specifically designated as hazardous under section 302.4 of today's final rule.

on a substantial number of small entities." This NPRM proposes adjusted RQs for substances that have a substantially lower total production volume than the substances receiving adjusted RQs in today's final rule. The economic effects as estimated in EPA's analysis are proportional to production volume. Thus, the impact of the proposed rule on small entities will be substantially less than the impact of the final rule. The analysis of the final rule demonstrated that the final rule will not have a significant impact on small entities. See the Regulatory Impact Analysis of Reportable Quantity Adjustments Under sections 102 and 103 of CERCLA, available for inspection in Room S-325, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460. Therefore, as with the final rule, EPA certifies that no Regulatory Flexibility Analysis is necessary for the proposed rule.

The Information Impact Analysis performed for the final rule indicated that the final rule would decrease the paperwork burden imposed on parties outside EPA by about 50,000 hours. A brief analysis indicates that the RQ adjustments proposed by this NPRM

will provide a small additional reduction in the paperwork burden imposed on the regulated community for information collection associated with reporting releases. Because the effect of this proposed rule on the paperwork burden is not only minimal, but also a reduction, EPA has determined that no further Information Impact Analysis need be performed.

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this proposed rule under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. section 3501 *et seq.*, and has assigned OMB control number 2115-0137. Submit comments on these requirements to the Office of Information and Regulatory Affairs, OMB, 726 Jackson Place, NW, Washington, D.C. 20503, marked "Attention: Desk Officer for EPA." The final rule will respond to any OMB or public comments on the information collection requirements.

List of Subjects in 40 CFR Part 302

Air pollution control, Chemicals, Hazardous materials, Hazardous

materials transportation, Hazardous substances, Intergovernmental relations, Natural resources, Nuclear materials, Pesticides and pests, Radioactive materials, Reporting and recordkeeping requirements, Superfund, Waste treatment and disposal, Water pollution control.

Dated: February 13, 1985.

Lee M. Thomas,
Administrator.

PART 302—[AMENDED]

For the reasons set out in the preamble, it is proposed to amend 40 CFR Part 302 as follows:

1. The authority citation for Part 302 reads as follows:

Authority: Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9602; sections 311 and 501(a) of the Federal Water Pollution Control Act, 33 U.S.C. 1321 and 1361.

2. In Part 302, Table 302.4 of § 302.4 is amended by revising certain hazardous substance entries to read as follows:

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Proposed RQ	
			RQ	Code †	RCRA Waste Number	Catego-ry	Pounds(Kg)
Acenaphthene.....	83329		1*	2		B	100 (45.4)
Acenaphthylene.....	208968		1*	2		D	5000 (2270)
Acetic acid, thallium(I) salt.....	563688	Thallium(I) acetate.....	1*	4	U214	B	100 (45.4)
Ammonia.....	7664417		100	1		B	100 (45.4)
Ammonium bifluoride.....	1341497		5000	1		B	100 (45.4)
Anthracene.....	120127		1*	2		D	5000 (2270)
Antimony ††.....	7440360		1*	2		D	5000 (2270)
Benzene, hydroxy.....	108952	Phenol.....	1000	1,2,4	U188	C	1000 (454)
Benzene, pentachloro.....	608935	Pentachlorobenzene.....	1*	4	U183	C	1000 (454)
Benzene, 1,3,5-trinitro.....	99354	sym-Trinitrobenzene.....	1*	4	U234	A	10 (4.54)
Benzo[j,k]fluorene.....	208440	Fluoranthene.....	1*	2,4	U120	B	100 (45.4)
Benzo[ghi]perylene.....	181242		1*	2		D	5000 (2270)
p-Benzoquinone.....	106514	1,4-Cyclohexadionedione.....	1*	4	U197	A	10 (4.54)
delta - BH.....	319868		1*	2		X	1 (0.454)
Captan.....	133062		10	1		A	10 (4.54)
Carbamimidoseleonic acid.....	630104	Selenourea.....	1*	4	P103	C	1000 (454)
Carbon bisulfide.....	75150	Carbon disulfide.....	5000	1,4	P022	B	100 (45.4)
Carbon disulfide.....	75150	Carbon bisulfide.....	5000	1,4	P022	B	100 (45.4)
Carbonic acid, dithallium(I) salt.....	6533739	Thallium(I) carbonate.....	1*	4	U215	B	100 (45.4)
Chloroethane.....	75003		1*	2		B	100 (45.4)
Chromic acetate.....	1066304		1000	1		C	1000 (454)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Proposed RQ	
			RQ	Code 1	RCRA Waste Number	Category	Pounds(Kg)
Chromic sulfate	10101538		1000	1		C	1000 (454)
Chromous chloride	10049055		1000	1		C	1000 (454)
Copper ff	7440508		1*	2		D	5000 (2270)
Cresol (s)	1319773	Cresylic acid	1000	1,4	U052	C	1000 (454)
m-	108394	m-					
o-	95487	o-					
p-	106445	p-					
Cresylic acid	1319773	Cresol (s)	1000	1,4	U052	C	1000 (454)
m-	108394	m-					
o-	95487	o-					
p-	106445	p-					
Cupric chloride	7447394		10	1		A	10 (4.54)
Cupric sulfate	7758987		10	1		A	10 (4.54)
Cupric tartrate	815827		100	1		B	100 (45.4)
1,4-Cyclohexaionedione	106514	p-Benzoquinone	1*	4	U197	A	10 (4.54)
Dichloropropene - Dichloropropene (mixture)	8003198		5000	1		B	100 (45.4)
Dichloropropene(s)	26952238		5000	1		B	100 (45.4)
2,3-Dichloropropene (isomer)	78886						
1,3-Dichloropropene	542756	Propene, 1,3-dichloro	5000	1,2,4	U084	B	100 (45.4)
Diethylamine	109897		1000	1		B	100 (45.4)
Dimethylamine	124403	Methanamine, N-methyl	1000	1,4	U092	C	1000 (454)
O,O-Dimethyl O-p-nitrophenyl phosphorothioate	298000	Methyl parathion	100	1,4	P071	B	100 (45.4)
Ethane, pentachloro	76017	Pentachloroethane	1*	4	U184	A	10 (4.54)
Ethion	563122		10	1		A	10 (4.54)
Ferric dextran	9004664	Iron dextran	1*	4	U139	D	5000 (2270)
Fluoranthene	206440	Benzo[<i>k</i>]fluorene	1*	2,4	U120	B	100 (45.4)
Fluorene	86737		1*	2		D	5000 (2270)
Fulminic acid, mercury(II) salt	628864	Mercury fulminate	1*	4	P065	A	10 (4.54)
Hexachlorophene	70304	2,2'-Methylenebis(3,4,6-trichlorophenol)	1*	4	U132	B	100 (45.4)
Hydrogen sulfide	7783064	Hydrosulfuric acid Sulfur hydride	100	1,4	U135	B	100 (45.4)
Hydrosulfuric acid	7783064	Hydrogen sulfide Sulfur hydride	100	1,4	U135	B	100 (45.4)
Iron dextran	9004664	Ferric dextran	1*	4	U139	D	5000 (2270)
Isoprene	78795		1000	1		B	100 (45.4)
Lead ff	7439921		1*	2		D	5000 (2270)
Lead chloride	7758954		5000	1		B	100 (45.4)
Lead fluoroborate	13814865		5000	1		B	100 (45.4)
Lead fluoride	7783462		1000	1		B	100 (45.4)
Lead iodide	10101630		5000	1		B	100 (45.4)
Lead nitrate	10099748		5000	1		B	100 (45.4)
Lead stearate	7428480 1072351 56189094 52652592		5000	1		D	5000 (2270)
Lead sulfate	15739807 7446142		5000	1		B	100 (45.4)
Lead sulfide	1314870		5000	1		B	100 (45.4)
Lead thiocyanate	592870		5000	1		B	100 (45.4)
Mercuric nitrate	10045940		10	1		A	10 (4.54)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Proposed RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Mercuric sulfate.....	7783359		10	1		A	10 (4.54)
Mercuric thiocyanate.....	592858		10	1		A	10 (4.54)
Mercurous nitrate.....	10415755		10	1		A	10 (4.54)
Mercury fulminate.....	628864	Fulminic acid, mercury(II) salt.....	1*	4	P065	A	10 (4.54)
Mercury, (acetato-O)phenyl.....	62384	Phenylmercuric acetate.....	1*	4	P092	B	100 (45.4)
Methanamine, N-methyl.....	124403	Dimethylamine.....	1000	1,4	U092	C	1000 (454)
Methane, chloro.....	74873	Methyl chloride.....	1*	2,4	U045	B	100 (45.4)
Methyl chloride.....	74873	Methane, chloro.....	1*	2,4	U045	B	100 (45.4)
Methyl parathion.....	298000	O,O-Dimethyl O-p-nitrophenyl phosphorothioate.....	100	1,4	P071	B	100 (45.4)
2,2'-Methylenebis(3,4,6-trichlorophenol).....	70304	Hexachlorophene.....	1*	4	U132	B	100 (45.4)
Monoethylamine.....	75047		1000	1		B	100 (45.4)
Pentachlorobenzene.....	608935	Benzene, pentachloro.....	1*	4	U183	C	1000 (454)
Pentachloroethane.....	76017	Ethane, pentachloro.....	1*	4	U184	A	10 (4.54)
Phenanthrene.....	85018		1*	2		D	5000 (2270)
Phenol.....	108952	Benzene, hydroxy.....	1000	1,2,4	U188	C	1000 (454)
Phenylmercuric acetate.....	62384	Mercury, (acetato-O)phenyl.....	1*	4	P092	B	100 (45.4)
Phorate.....	298022	Phosphorodithioic acid, O,O-diethyl S-(ethylthio)methyl ester.	1*	4	P094	C	1000 (454)
Phosphorodithioic acid, O,O-diethyl S-(ethylthio)methyl ester.	298022	Phorate.....	1*	4	P094	C	1000 (454)
Plumbane, tetraethyl.....	78002	Tetraethyl lead.....	100	1,4	P110	A	10 (4.54)
Propene, 1,3-dichloro.....	542756	1,3-Dichloropropene.....	5000	1,2,4	U084	B	100 (45.4)
Pyrene.....	129000		1*	2		D	5000 (2270)
Pyridine.....	110861		1*	4	U196	C	1000 (454)
Pyrophosphoric acid, tetraethyl ester.....	107493	Tetraethyl pyrophosphate.....	100	1,4	P111	A	10 (4.54)
Selenious acid.....	7783008		1*	4	U204	A	10 (4.54)
Selenium ††.....	7782492		1*	2		B	100 (45.4)
Selenium dioxide.....	7446084	Selenium oxide.....	1000	1,4	U204	A	10 (4.54)
Selenium oxide.....	7446084	Selenium dioxide.....	1000	1,4	U204	A	10 (4.54)
Selenourea.....	630104	Carbamimidoseleonic acid.....	1*	4	P103	C	1000 (454)
Sodium bifluoride.....	1333831		5000	1		B	100 (45.4)
Sodium nitrite.....	7632000		100	1		B	100 (45.4)
Sodium selenite.....	10102188		1000	1		B	100 (45.4)
Sulfur hydride.....	7783004	Hydrogen sulfide..... Hydrosulfuric acid	100	1,4	U135	B	100 (45.4)
Sulfuric acid, thallium(I) salt.....	10031591 7448188	Thallium(I) sulfate.....	1000	1,4	P115	B	100 (45.4)
Tetraethyl lead.....	78002	Plumbane, tetraethyl.....	100	1,4	P110	A	10 (4.54)
Tetraethyl pyrophosphate.....	107493	Pyrophosphoric acid, tetraethyl ester.....	100	1,4	P111	A	10 (4.54)
Thallic oxide.....	1314325	Thallium(III) oxide.....	1*	4	P113	B	100 (45.4)
Thallium ††.....	7440280		1*	2		C	1000 (454)
Thallium(I) acetate.....	563688	Acetic acid, thallium(I) salt.....	1*	4	U214	B	100 (45.4)
Thallium(I) carbonate.....	6533739	Carbonic acid, dithallium(I) salt.....	1*	4	U215	B	100 (45.4)
Thallium(I) chloride.....	7791120		1*	4	U216	B	100 (45.4)
Thallium(I) nitrate.....	10102451		1*	4	U217	B	100 (45.4)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Proposed RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Thallium(III) oxide.....	1314325	Thallic oxide.....	1*	4	P113	B	100 (45.4)
Thallium(I) selenide.....	12039520		1*	4	P114	C	1000 (454)
Thallium(I) sulfate.....	10031591 7446186	Sulfuric acid, thallium(I) salt.....	1000	1,4	P115	B	100 (45.4)
Trichlorfon.....	52686		1000	1		B	100 (45.4)
Trimethylamine.....	75503		1000	1		B	100 (45.4)
sym-Trinitrobenzene.....	99354	Benzene, 1,3,5-trinitro.....	1*	4	U234	A	10 (4.54)
Unlisted Hazardous Wastes.....	N.A.						
Characteristic of EP Toxicity.....							
Selenium.....			1*	4	D010	A	10 (4.54)
Uranyl acetate.....	541093		5000	1		B	100 (45.4)
Uranyl nitrate.....	10102064		5000	1		B	100 (45.4)
Vanadium(V) oxide.....	1314621	Vanadium pentoxide.....	1000	1,4	P120	C	1000 (454)
Vanadium pentoxide.....	1314621	Vanadium(V) oxide.....	1000	1,4	P120	C	1000 (454)
Vanadyl sulfate.....	27774136		1000	1		C	1000 (454)
Zinc ††.....	7440666		1*	2		C	1000 (454)
Zinc acetate.....	557346		1000	1		C	1000 (454)
Zinc ammonium chloride.....	52628258		5000	1		C	1000 (454)
Zinc borate.....	1332076		1000	1		C	1000 (454)
Zinc bromide.....	7699458		5000	1		C	1000 (454)
Zinc carbonate.....	3486359		1000	1		C	1000 (454)
Zinc chloride.....	7646857		5000	1		C	1000 (454)
Zinc cyanide.....	557211		10	1,4	P121	A	10 (4.54)
Zinc fluoride.....	7783495		1000	1		C	1000 (454)
Zinc formate.....	557415		1000	1		C	1000 (454)
Zinc hydrosulfite.....	7779864		1000	1		C	1000 (454)
Zinc nitrate.....	7779886		5000	1		C	1000 (454)
Zinc phenolsulfonate.....	127822		5000	1		D	5000 (2270)
Zinc phosphide.....	1314847		1000	1,4	P122	B	100 (45.4)
Zinc silicofluoride.....	16871719		5000	1		D	5000 (2270)
Zinc sulfate.....	7733020		1000	1		C	1000 (454)
F004.....			1*	4	F004	C	1000 (454)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents: (a) Cresols/Cresylic acid (b) Nitrobenzene							
F005.....			1*	4	F005	B	100 (45.4)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents: (a) Toluene (b) Methyl ethyl ketone (c) Carbon disulfide (d) Isobutanol (e) Pyridine							
K026.....			1*	4	K026	C	1000 (454)
Stripping still tails from the production of methyl ethyl pyridines							
K039.....			1*	4	K039	B	100 (45.4)
Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate							
K046.....			1*	4	K046	B	100 (45.4)
Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds							
K052.....			1*	4	K052	A	10 (4.54)

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Proposed RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Tank bottoms (leaded) from the petroleum refining industry							
K087 Decanter tank tar sludge from coking operations			1*	4	K087	B	100 (45.4)

† - indicates the statutory source as defined by 1, 2, 3, or 4 below

†† - no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 100 micrometers (0.004 inches)

1 - indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 311(b)(4)

2 - indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 307(a)

3 - indicates that the statutory source for designation of this hazardous substance under CERCLA is CAA Section 112

4 - indicates that the statutory source for designation of this hazardous substance under CERCLA is RCRA Section 3001

1* - indicates that the 1-pound RQ is a CERCLA statutory RQ

[FR Doc. 85-4248 Filed 4-3-85; 8:45 am]

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