MMG READING FILE
1-6-87
thru
4-30-87

~~FOR:~~ ~~RL:~~ ~~MMG:~~ RF
XF: Superfund-1987

TO: Environmental Coordinators

FROM: M. M. Goodreau
DATE: March 27, 1987

Interoffice Communication

SUBJ: REPORTABLE QUANTITY ADJUSTMENTS

VISTA

On March 16, the EPA issued a proposed rule to adjust the reportable quantities (RQ) of certain materials under Superfund. Both the current and proposed RQ's for Vista materials are listed below.

	Statutory	Proposed
Cadmium	1	10
Ethylene oxide	1	10
Heavy ends	1	10
Lead wastes	1	100
Methyl chloride	1	100
Vinyl chloride	1	10
Benzene	1,000	10
Carbon tetrachloride	5,000	10
Chloroform	5,000	10
Ethylene	5,000	100

Once again, the Agency has failed to clarify the terms "continuous or federally permitted releases".

Comments must be submitted to the Agency by May 15, 1987. If you have comments, feel free to contact me.

M. M. Goodreau

M. M. Goodreau

ajo
.3

Attachment

SAL 000078097

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 117 and 302

[SW H-FRL 3122-6]

Reportable Quantity Adjustments

AGENCY: U.S. 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), as amended, require that persons in charge of vessels or facilities from which a hazardous substance has been released in quantities that are equal to or greater than its reportable quantity (RQ) immediately notify the National Response Center of the release. Section 102(b) of CERCLA establishes RQs for releases of designated hazardous substances at one pound except those for which RQs were established pursuant to section 311(b)(4) of the Clean Water Act (CWA).

Section 102(a) authorizes the Administrator of the U.S. Environmental Protection Agency (EPA) to adjust RQs for hazardous substances and to designate as hazardous substances those substances which, when released into the environment, may present substantial danger to the public health or welfare or the environment. A final rule published on April 4, 1985 (50 FR 13456) adjusted reportable quantities for 340 hazardous substances. In a Notice of Proposed Rulemaking (NPRM) also published on April 4, 1985, the Agency proposed adjusted RQs for 105 additional hazardous substances (50 FR 13514). A final rule published on September 29, 1986 (51 FR 34534) finalized RQ adjustments for 102 of these 105 hazardous substances.[1] Currently, there are 717 CERCLA hazardous substances. Twelve of these substances were listed recently under section 3001 of the Resource Conservation and Recovery Act (RCRA) and adjusted RQs are proposed for these twelve substances in this rulemaking.[2] In today's rulemaking, EPA proposes adjusted RQs for 273 of the 275 remaining hazardous substances whose RQs were not adjusted by the April 4, 1985 final rule or the September 29, 1986 final rule.[3] By making these adjustments, the Agency will be able to focus its resources on those releases which are most likely to pose potential threats to public health, welfare and the environment. In addition, these adjustments will relieve the regulated community of the burden of reporting releases which are unlikely to pose such threats. The RQ adjustments proposed in this rulemaking will affect not only the statutory one-pound RQs under CERCLA, but also the RQs established pursuant to section 311(b)(4) of the CWA.

When there is a release of a hazardous substance in a quantity equal to or greater than its RQ as listed in 40 CFR 302.4, Table 302.4, as amended in the September 29, 1986 final rule (see 51 FR 34534, 34541), the person in charge of the vessel or facility must immediately notify the National Response Center. The toll-free number of the National Response Center is listed below under "Addresses."

DATES: Comments must be received on or before May 15, 1987.

ADDRESSES: The toll-free telephone number of the National Response Center is 1-800/424-8802; in the Washington, DC metropolitan area the number is 1-202/426-2675.

Comments: Comments should be submitted in triplicate to Emergency Response Division, Superfund Docket Clerk, Attention: Docket Number 102 RQ-273C, Superfund Docket Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

Docket: Copies of materials relevant to this rulemaking are contained in Room LG-100 at the U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. The docket is available for inspection between the hours of 9:00 a.m. and 4:30 p.m., Monday through Friday, excluding federal holidays. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

FOR FURTHER INFORMATION CONTACT: Dr. K. Jack Kooyoomjian, Senior Project Officer, Response Standards and Criteria Branch, Emergency Response Division (WH-548B), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, or the RCRA/Superfund Hotline 1-800/424-9346; in the Washington, DC metropolitan area at 1-202/382-3000.

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

I. Introduction

A. Statutory Authority

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510), 42 U.S.C. 9601 et seq. (CERCLA or the Act), as amended by the Superfund Amendments and Reauthorization Act of 1986 (Pub. L. 99-499) (SARA), establishes broad federal authority to deal with releases or threats of releases of hazardous substances from vessels and facilities. Section 101(14) of CERCLA defines the term "hazardous substance" by reference to other environmental statutes. Currently, there are 717 CERCLA hazardous substances. The Administrator of the U.S. Environmental Protection Agency (EPA) may designate additional hazardous substances pursuant to section 102 of CERCLA.

Section 103 of the Act requires that the person in charge of a vessel or facility notify the National Response Center immediately when there is a release of a hazardous substance in an amount equal to or greater than the reportable quantity (RQ) for that substance.[4] Section 102(b) of CERCLA

[1] As noted in that final rule, the Agency decided to retain the statutory one-pound RQs for lead, pentachloroethane, and methyl chloride, pending analysis of their potential carcinogenicity. The RQ for lead will be adjusted in a future rulemaking. The RQs for methyl chloride and pentachloroethane are reproposed for adjustment in this rulemaking (for further discussion of these two proposed RQ adjustments, see Section III.D.1. of this preamble).

[2] The 12 recently listed substances for which adjusted RQs are proposed in this rule are: waste streams K111, K112, K113, K114, K115, and K116, o-toluidine and p-toluidine (50 FR 42936), waste streams K117, K118, and K136 (51 FR 5327), and 2-ethoxyethanol (51 FR 6537). See also note 5 below.

[3] Today's rule does not propose adjusted RQs for lead and methyl isocyanate. The statutory one-pound RQs for these two substances will be retained until adjusted in future rulemakings.

[4] A release into the environment of a substance which is not listed as a CERCLA hazardous substance but which rapidly forms a CERCLA hazardous substance upon release is subject to the notification requirements of section 103. If the amount of the hazardous substance formed as such

Continued

establishes RQs for releases of hazardous substances at one pound, except those for which RQs were established pursuant to section 311 of the Clean Water Act (CWA). Section 102(a) authorizes EPA to adjust all of these RQs by regulation.

A major purpose of the section 103 (a) and (b) notification requirement is to alert the appropriate government officials to releases of hazardous substances that may require a federal response action to protect public health and welfare and the environment. Under section 104 of CERCLA, the federal government may respond whenever there is a release or a substantial threat of a release into the environment of a hazardous substance. Response activities are to be taken, to the extent practicable, in accordance with the National Contingency Plan (NCP) (40 CFR 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 a hazardous substance release notification is merely a trigger for informing the government of a release so that appropriate federal personnel can evaluate the need for a federal removal or remedial action and undertake any necessary action 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 an RQ of a hazardous substance will not necessarily pose a hazard to public health or welfare or the environment. Government personnel will assess each reported release on a case-by-case basis to determine the appropriate action. In certain limited situations, when direct reporting to the National Response Center is not practicable, the person in charge may report to the nearest Coast Guard- or EPA-predesignated On-Scene Coordinator (OSC). If it is not possible to notify the National Response Center or predesignated OSC immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge notifies the National Response Center as soon as possible (40 CFR 300.63(b) and 33 CFR 153.203).

Section 103(b) authorizes penalties, including criminal sanctions, for persons in charge of vessels or facilities who fail to report releases of hazardous substances which equal or exceed RQs. Section 109 of SARA amends section 103(b) of CERCLA, increasing the maximum penalties and years of imprisonment. Any person who, as soon as that person has knowledge of a reportable release, fails to report the release immediately pursuant to section 103(b) or who submits any information which he knows to be false or misleading, shall, upon conviction, be fined in accordance with the applicable provisions of Title 18, United States Code (not more than $250,000 or $500,000, depending upon whether the violator is an individual or an organization), or imprisoned for not more than three years (or not more than five years for second and subsequent convictions), or both. Notifications received under section 103(b) or information obtained by exploitation of such notifications cannot be used against any reporting person in any criminal case, except a prosecution for perjury or for giving a false statement. Section 109 of SARA also provides for a system of administrative penalties for violations of CERCLA section 103(b), enforceable through civil proceedings.

B. Background of this Rulemaking

On May 25, 1983, EPA proposed a rule (48 FR 23552) to clarify procedures for reporting releases of CERCLA hazardous substances and to adjust RQs for 387 of the then 696 CERCLA hazardous substances.[5] The May 25, 1983 NPRM also compiled for the first time the list of "hazardous substances" defined under section 101(14) of CERCLA. The NPRM discussed in detail the CERCLA notification provisions (including the persons required to notify the National Response Center of a release, the hazardous 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 RQ levels, and the RQ adjustments proposed under section 102 of CERCLA and under section 311 of the CWA. On April 4, 1985, EPA promulgated a final rule (50 FR 13456), that clarified reporting procedures and finalized RQ adjustments for 340 hazardous substances, including 21 waste streams.

The April 4, 1985 Federal Register also contained an NPRM proposing RQ adjustments for 105 additional CERCLA hazardous substances, including seven waste streams (50 FR 13514). On September 29, 1986, the Agency promulgated a rule (51 FR 34534) that finalized RQ adjustments for 102 of these 105 hazardous substances.

Today's NPRM proposes RQ adjustments for a total of 273 hazardous substances (including 78 waste streams). The RQ adjustments proposed in this rule would amend Table 302.4 of 40 CFR 302.4 and, consistent with 40 CFR 117.3, would apply not only to CERCLA RQs, but also to the RQs established for hazardous substances under section 311(b)(4) of the CWA.

Section II of this preamble discusses key issues relating to RQ adjustments and CERCLA notification requirements that are not addressed in this rulemaking. Section III discusses the RQ adjustments and the methodology used in making these adjustments, focusing in particular on the methodology for adjusting RQs based on potential carcinogenicity. Section IV addresses RQ adjustments under section 311 of the CWA. Section V provides a summary of the analyses supporting this proposed rule.

It is important to note that other provisions of CERCLA may apply even when the statute 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, unless specifically exempted under CERCLA, a party responsible for a release is liable for the costs of cleaning up that release and for any natural resource damages caused by the release, 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 sections 103 (a) and (b) will not preclude EPA or other government agencies from taking response actions under section 104, seeking reimbursement from responsible parties under section 107, or pursuing an enforcement action against responsible parties under section 106. Note also that this proposed rule does not affect hazardous substance reporting requirements imposed by other

a reaction product equals or exceeds the RQ for that substance, the release must be reported to the National Response Center.

[5] Since the May 25, 1983 NPRM, 21 additional substances have been listed under section 101(14): waste stream F024 under section 3001 of the Resource Conservation and Recovery Act (RCRA) (49 FR 5308); coke oven emissions under section 112 of the Clean Air Act (CAA) (49 FR 38580); waste streams F020, F021, F022, F023, F026, F027, and F028 under section 3001 of RCRA (50 FR1978); waste streams K111, K112, K113, K114, K115, and K116, o-toluidine and p-toluidine under section 3001 of RCRA (50 FR 42936); waste streams K117, K118, and K136 under section 3001 of RCRA (51 FR 5327); and 2-ethoxyethanol under section 3001 of RCRA (51 FR 6537).

regulations and statutes (except the CWA—see Section IV below).

Neither today's NPRM, the September 29, 1986 final rule, nor the April 4, 1985 final rule addresses the designation under section 102(a) of hazardous substances which are not designated under other statutes listed in CERCLA section 101(14). The Agency has conducted several preliminary economic and technical analyses on this subject, and an Advance Notice of Proposed Rulemaking (ANPRM) (48 FR 23602), published on May 25, 1983, invited public comment. Section 302 of the recently enacted SARA legislation requires EPA to publish a list of extremely hazardous substances. On November 17, 1986, the Agency published this list (51 FR 41570). Because some of the substances on this recently published list are not CERCLA hazardous substances, EPA has decided to initiate a proposed rulemaking under section 102 of CERCLA to designate these extremely hazardous substances as CERCLA hazardous substances, both to better protect public health, welfare, and the environment, and to promote regulatory consistency.

II. Key Issues Not Addressed in This Rule

A. Continuous Releases

Under sections 103 (a) and (b) of CERCLA, no distinction is made between episodic and continuous releases. Section 103 (f)(2), however, sets forth a reduced reporting requirement for certain releases of hazardous substances. Releases may be reported less frequently than under sections 103 (a) and (b) if they are "continuous," "stable in quantity and rate," and notification has been given under sections 103 (a) and (b) "for a period sufficient to establish the continuity, quantity, and regularity" of the release. Notification must still be given "annually, or at such time as there is any statistically significant increase" in the quantity of the hazardous substance being released. Thus, instead of reporting every release as it occurs, certain continuous releases may be reported less often.

In the May 25, 1983 proposal, EPA noted that enforcement efforts would be focused on episodic rather than continuous releases. The Agency presented alternative interpretations of which releases could be included within the continuous release definition, and discussed an ongoing (e.g., annual) notification scheme for releases initially determined to be within the definition.

The Agency received more than 40 comments in response to the discussion of continuous releases in the May 25, 1983 NPRM. At the present time, EPA is in the process of developing continuous release reporting regulations to clarify this reduced reporting requirement.

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 certain other state or federal programs.

In the May 25, 1983 NPRM, EPA explained its interpretation of each type of release exempted by the definition of "federally permitted release." The Agency received many comments on the scope of the federally permitted release exemption, most of which urged a broad interpretation of one or more of the federally permitted releases. Due to the complexity of the issues involved, the Agency decided to examine further the scope of the federally permitted release exemption. Currently, the Agency is developing a rule clarifying the definition of "federally permitted releases."

C. Radionuclide RQs

Radionuclides are hazardous substances under CERCLA because they are designated as a hazardous air pollutant under section 112 of the Clean Air Act (CAA). In the preambles to the May 25, 1983 NPRM and the April 4, 1985 final rule, the Agency recognized that the statutory RQ of one pound may not be appropriate for radionuclides, but deferred regulatory action to adjust this RQ until the Agency's analysis of radionuclides was completed. The statutory one-pound RQ for radionuclides is proposed for adjustment in a separate NPRM in today's Federal Register.

III. Reportable Quantity Adjustments

A. Introduction

Section 102(b) of CERCLA establishes RQs for releases of hazardous substances at one pound unless other RQs were established under section 311 of the CWA. For these latter substances, section 102(b) adopts the established CWA RQs. 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 hazardous substance in an RQ. These proposed RQs, therefore, when finally adjusted, will 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 273 of the 275 hazardous substances not assigned adjusted RQs by either the April 4, 1985 final rule or the September 29, 1986 final rule. These 273 hazardous substances have been evaluated for potential carcinogenicity and/or chronic toxicity, and the proposed RQ adjustments are based on the results of these evaluations. RQs are also proposed for six of the constituents used to determine the RCRA characteristic of extraction procedure (EP) toxicity.[6]

The primary purpose of notification is to ensure that persons in charge 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 CERCLA substance will be hazardous at the RQ level and not hazardous below that level. EPA has not made such a determination because the Agency has found that 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 are designed to be a trigger for notification and reflect the Agency's judgment that the federal government should be notified of certain releases to which a federal response might be necessary. The RQs represent a determination only of possible or potential harm, not that releases of a particular amount of a hazardous substance necessarily will be harmful to public health or welfare or the environment.

Many considerations aside from the quantity released affect the government's decision concerning whether and how it should undertake a response action pursuant to the NCP 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, response actions taken by responsible parties, and other factors must be assessed by the federal OSC on a case-by-case basis. The reporting requirement enables the federal

[6] For a discussion of these six constituents, including their proposed RQs, see Section III.D.2. of this preamble.

government to learn when such assessments should be made.

Because the CERCLA RQ adjustment methodology is broader than that used pursuant to section 311 of the CWA, some of the RQs proposed today are not the same as those initially promulgated under the CWA. The April 4, 1985 final rule (50 FR 13456), amended 40 CFR 117.3 to make RQs adjusted under CERCLA the applicable RQs for purposes of CWA section 311. Thus, when finalized, today's proposed RQ adjustments will apply to both CERCLA and the applicable CWA RQs. A person in charge need not report a single release twice in order to satisfy CERCLA and CWA reporting requirements; one report to the National Response Center suffices.

B. Summary of the General Methodology Underlying the Reportable Quantity Adjustments

The Agency has wide discretion in adjusting the statutory RQs for hazardous substances under CERCLA.[7] Administrative feasibility and practicality are important considerations. The Agency's selected methodology for adjusting RQs begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each 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.

The Agency ranks each intrinsic property (except potential carcinogenicity) 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 and 44 FR 50776). For hazardous substances evaluated for potential carcinogenicity, each substance is assigned a hazard ranking of "high," "medium," or "low." These hazard rankings correspond with RQ levels of 1, 10, and 100 pounds, respectively. Each substance receives several tentative RQ values based on its particular properties.[8] The lowest of all of the tentative RQs becomes the "primary criteria RQ" for that substance.

This proposed rule discusses the RQ adjustment methodology based on the primary criterion of potential carcinogenicity. For a more detailed discussion of the other five primary criteria, see the preamble to the May 25, 1983 NPRM (48 FR 23562–23565), the preamble to the April 4, 1985 final Rule (50 FR 13456, Section V.D.1), and the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 1, March 1985, available for inspection at Room LG–100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

After the primary criteria RQs are assigned, substances are further evaluated for their susceptibility to certain degradative processes. These natural degradative processes are biodegradation, hydrolysis, and photolysis (BHP). These processes tend to reduce the relative potential for harm to public health and welfare and the environment of many hazardous substance releases. Subject to the qualifications set forth below, if analysis indicates that an eligible hazardous substance degrades relatively rapidly to form a less harmful substance or compound through one or more of the BHP processes when it is released into the environment, the primary criteria RQ for that substance is raised one level on the basis of BHP. The single RQ assigned to each hazardous substance on the basis of the primary criteria and BHP becomes the adjusted RQ for the substance. Under no circumstances may the RQ for a substance be raised more than one level based on BHP. If hazardous 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, they are not eligible for a one-level RQ increase on the basis of BHP. In this rulemaking, the Agency has not adjusted RQs for potential carcinogens beyond 100 pounds based on BHP. The Agency, however, solicits comments with supporting data on whether BHP should be used as a basis for raising RQs for potential carcinogens beyond the 100–pound level.

For a more detailed discussion of the BHP criteria and their use in combination with the primary criteria, see the preamble to the May 25, 1983 NPRM (48 FR 23565), the preamble to the April 4, 1985 final rule adjusting reportable quantities (50 FR 13456, Sections V.C.1. and V.D.2.), and the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 1, March 1985, available for inspection at Room LG.100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

C. Summary of the Methodology for Adjusting the RQs of Potential Carcinogens

1. Identification Methodology

To identify those CERCLA hazardous substances that may be potential carcinogens, EPA reviewed four sources of human epidemiologic and/or animal bioassay data on hazardous substances that suggest possible carcinogenic effect. These sources are: (1) the Annual Reports on Carcinogens of the National Toxicology Program, U.S. Department of Health and Human Services (DHHS); (2) the Monographs of the International Agency for Research on Cancer (IARC); (3) final Agency determinations published in the **Federal Register** identifying substances as potential carcinogens; and (4) ongoing determinations by the Agency's Office of Health and Environmental Assessment that substances may be potential carcinogens, based on either published or unpublished data. The Agency compared the list of substances derived from these four sources with the list of the 717 CERCLA hazardous substances to determine which hazardous substances should be evaluated for potential carcinogenicity.

Sources 3 and 4 listed above have been recently added to supplement the Agency's screening criteria for identifying potential carcinogens. The Agency currently is in the process of screening for potential carcinogenicity the hazardous substances that received adjusted RQs in the April 4, 1985 final rule and the September 29, 1986 final rule. Any hazardous substance identified as a potential carcinogen as a result of this review will receive a ranking for potential carcinogenicity, as described below, and may have its RQ readjusted on that basis in a future rulemaking.

2. Ranking Methodology

The Agency's Carcinogen Assessment Group (CAG) has developed a method

[7] 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."

[8] If available evidence shows that a substance undergoes biodegradation, hydrolysis, or photolysis to form a more hazardous reaction product, the primary criteria are applied to the more hazardous product rather than to the original substance to determine the tentative RQ values for the original substance. For example, substances known to generate hydrofluoric acid, hydrogen sulfide, or phosphine upon hydrolysis are assigned primary criteria RQs on the basis of these more hazardous degradation products.

for ranking CERCLA hazardous substances for potential carcinogenicity. The CERCLA methodology for evaluating hazardous substances for potential carcinogenicity is set out for public comment for the first time in today's proposal. The weight-of-evidence portion of the CERCLA methodology was developed independently of this rulemaking, as part of the Agency's Proposed Guidelines for Carcinogen Risk Assessment (49 FR 46294, November 23, 1984).[9] The CERCLA methodology is not a risk assessment and it does not yield an absolute measure of harm. Rather, the methodology simply represents a means of sorting potentially carcinogenic substances into categories, which may then be equated to RQ levels.

The methodology for ranking potential carcinogens begins by reviewing available information in the scientific literature on each substance identified as a potential carcinogen. This information is then evaluated using a two-stage process. The first stage is a qualitative assessment of the likelihood that a particular hazardous substance is a human carcinogen. During this stage, the available data is evaluated using EPA's "weight-of-evidence" classification system, presented in the Agency's Guidelines for Carcinogen Risk Assessment. The second stage is a quantitative assessment designed to predict the relative strength of a hazardous substance to elicit a carcinogenic response ("potency factor"). The quantitative stage allows the Agency to rank potential carcinogens on a numerical scale by identifying the most potent substances as the most hazardous. The results of the qualitative and quantitative assessments are then combined to arrive at a "hazard ranking" for each hazardous substance evaluated for potential carcinogenicity. The CAG methodology for ranking potential carcinogens is discussed in more detail below.

During the qualitative assessment stage, the Agency evaluates the quality and reliability of the available data to determine the "weight of evidence" (or degree of certainty) that a particular hazardous substance is a human carcinogen. The data used are derived primarily from human epidemiology studies and animal bioassay studies, but supportive information such as mutagenicity and chemical structure also is considered. In this process, the degree of evidence in human and animal studies is evaluated separately and classified as "sufficient" evidence, "limited" evidence, "inadequate" evidence, "no data," or "no evidence." The guidelines used for the weight-of-evidence determination follow the Agency's Guidelines for Carcinogen Risk Assessment. These classifications are then combined with supportive evidence to arrive at an overall weight-of-evidence category (A, B1, B2, C, D, or E) representing the degree of certainty that a particular hazardous substance is a human carcinogen.

A hazardous substance is placed in Group A (known human carcinogen) only if "sufficient" evidence from human epidemiologic studies supports a causal connection between exposure to the hazardous substance and cancer. Group B (probable human carcinogen) includes hazardous substances for which the weight of evidence of human carcinogenicity based on epidemiologic studies is "limited," or for which the weight of evidence of carcinogenicity based on animal studies is "sufficient" (in the absence of sufficient human evidence). Group B is divided into two subgroups, B1 and B2. Where there is limited evidence of carcinogenicity from epidemiologic studies, a hazardous substance usually is placed in Group B1. Hazardous substances for which there is "sufficient" evidence from animal studies and "inadequate" evidence or "no data" from human epidemiologic studies usually are placed in Group B2. Because it is reasonable to treat hazardous substances for which there is sufficient evidence of carcinogenicity in animals as if they present a carcinogenic risk to humans, such substances are classified as probable human carcinogens (Group B). Group C (possible human carcinogen) includes hazardous substances with "limited" evidence of carcinogenicity in animals and "inadequate evidence" or "no data" from human epidemiologic studies. A hazardous substance is placed in Group D (not classifiable for human carcinogenicity) if there is "inadequate" human and animal evidence of carcinogenicity or no data are available. Group E (evidence of non-carcinogenicity for humans) includes hazardous substances that show no evidence of carcinogenicity in at least two animal tests in different species or in both human epidemiologic and animal studies. The designation of a Group E substance is based on the available evidence and should not be interpreted as a definitive conclusion that the substance will not elicit a carcinogenic response under any circumstances. Group D and E substances are not considered to be "potential carcinogens" for purposes of this proposed rulemaking (see note 11 below). No hazard ranking is made for these substances and other primary criteria are used to assign RQs.

During the quantitative stage, the Agency uses the available data to estimate the dose of a hazardous substance associated with a lifetime increased cancer risk of 10 percent (ED_{10}). The estimated dose is then used to calculate a potency factor (F), where F equals $1/ED_{10}$. The 10 percent lifetime risk is used because this risk level is within the experimental range and does not require additional extrapolation to estimate the carcinogenic response at extremely low doses. Details of the calculation of potency factors for specific hazardous substances evaluated for potential carcinogenicity may be found in the individual chemical profiles for each potential carcinogen. These chemical profiles are available for inspection at Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

Based on the calculated potency factors, each potential carcinogen is ranked and then placed in one of three potency groups. Group 1 includes those hazardous substances with the highest potencies. Other potential carcinogens with medium and low potencies are placed in Groups 2 and 3, respectively.

Whenever available information allows EPA to quantify potency, a substance is placed in potency Group 1, 2, or 3. However, for certain potential carcinogens, there is either "sufficient" or "limited" evidence of carcinogenic effect, but the quantitative information is not adequate to allow the Agency to estimate a potency factor using the Agency's current methodology. There are two classes of such substances. First, if the best available data indicates that a substance may be a strong carcinogen (i.e., all animals exposed to *every* experimental dose developed tumors), the Agency will assign the substance to the highest potency group (Group 1). Second, if the best available data are inadequate for calculating a potency factor and allow no quantitative inferences to be made, the substance will be assigned to Group 2, as though it had a mid-range potency factor.[10] These

[9] The Final Guidelines for Carcinogen Risk Assessment were signed by the Administrator on August 22, 1986, and published in the Federal Register on September 24, 1986 (see 51 FR 33992). The weight-of-evidence methodology contained in the Proposed Guidelines was not changed in the Final Guidelines or in the CERCLA methodology described above.

[10] For similar reasons, asbestos is assigned to potency Group 2. Asbestos is a unique case because

Continued

assigned potency factors enable the Agency to assign hazard rankings to these substances following the standard procedure of combining the weight-of-evidence group with the potency group, as described below.

The final step in the hazard ranking procedure is to combine the qualitative weight-of-evidence groups and the quantitative potency factor groups using a matrix to yield a relative hazard ranking for each substance. Thus, hazard rankings are based jointly on two factors—weight of evidence and potency—that the Agency believes are important in describing carcinogenic hazards. The three relative rankings are identified as "high," "medium," and "low." The matrix is arranged so that as the weight of evidence and the potency factors decrease, the hazard ranking decreases also.

Depending on whether a weight-of-evidence Group B carcinogen falls into potency Groups 1, 2, or 3, a hazard ranking of high, medium, or low is assigned. Hazard rankings are one level higher (high, high, or medium) for weight-of-evidence Group A carcinogens. This increased concern is justified because there is direct human evidence establishing that Group A substances cause cancer. Hazard rankings are one level lower (medium, low, or low) for Group C carcinogens. This reduced concern is justified because of the lack of evidence implicating Group C substances as human carcinogens, i.e., either the available studies are well-conducted but unreplicated or the evidence is of marginal biological or statistical significance.

Before settling on these hazard ranking assignments, alternative ranking schemes were considered. Proposals that all Group A substances be ranked high or that all Group C substances be ranked low were rejected because the Agency believes strongly that potency, too, is important in describing a carcinogenic hazard. Similarly, a proposal to base hazard rankings on potency alone was rejected because the Agency believes that the weight of evidence must be considered as well. The Agency believes that the hazard scheme finally selected allows proper consideration of both weight of evidence and potency. For further discussion of the hazard ranking matrix, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, December 1986, available for inspection at Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. The following is the matrix the Agency used to arrive at hazard rankings:

HAZARD RANKING

Weight-of-evidence group	Potency group		
	1 (highest)	2	3 (lowest)
A	High	High	Medium.
B	High	Medium	Low.
C	Medium	Low	Low.
D	No hazard ranking is made. The other primary criteria are used to assign the RQ.		
E	No hazard ranking is made. The other primary criteria are used to assign the RQ.		

This grouping of all potential carcinogens [11] into "high," "medium," and "low" hazard categories on the basis of biological information is used to assign RQ levels. RQ levels are assigned to the hazard rankings as follows: high—one-pound RQ; medium—10-pound RQ; and low—100-pound RQ.

In deciding whether to assign RQs for potential carcinogens at all five RQ levels, the Agency examined the special properties associated with these substances, used the Agency's air dispersion model to analyze the risks posed by their release, and evaluated them in light of the Agency's chronic toxicity methodology. The Agency decided not to use the two highest RQ levels for potential carcinogens for several reasons. First, cancer can be considered to be a chronic health effect. EPA therefore believes that reference to the Agency's chronic toxicity methodology is appropriate in assigning RQs to potential carcinogens. Under the chronic toxicity methodology, each substance is assigned two rating values, one based on the dose that causes a particular effect and one based on the severity of the effect. The dose ratings range from one to 10, with 10 representing the most toxic substances. The effect ratings also range from one to 10, with 10 representing the most severe effect. The product of the dose and effect ratings for each substance yields a composite ranking score between one and 100. For a more detailed discussion of the chronic toxicity methodology, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 1, March 1985, available for inspection at Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. Because cancer is a life-threatening or life-shortening effect, the effect rating for cancer would be 10 if cancer were ranked on the chronic toxicity scale. Therefore, the composite score for any potential carcinogen would be at least 10. A composite score of 10 corresponds to an RQ of 1000 pounds. Thus, a 5000-pound RQ for a potential carcinogen would be inappropriate based on the Agency's chronic toxicity scale.

Second, application of an air dispersion model developed by the Agency shows that substantial cancer risks can result from releases of 1000 pounds or more of moderate to weak potential carcinogens. The results of the Agency's evaluation using the air dispersion model indicate that reporting levels of 100 pounds or less for potential carcinogens are necessary to protect public health from releases of these hazardous substances. The model is based on an exposure scenario that includes the following release conditions: the substance is a stable gas, volatile liquid, or aerosol that remains in the air long enough to reach the point of exposure, the duration of exposure is 24 hours, the release occurs under stable meteorological conditions (one meter per second wind speed), and exposure occurs 30 meters downwind from the point of release. For a more detailed discussion of the Agency's air dispersion model and the assumptions on which it is based, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, December 1986, available for inspection at Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

The Agency has rejected the use of scenarios for RQ adjustment purposes in previous RQ rulemakings (see 50 FR 13456, 13466, April 4, 1985). In this proposed rulemaking, however, the Agency has used worst case exposure assumptions in its analysis. The Agency made these assumptions because of uncertainty about the duration, magnitude, and route of future exposures. Because of the factors described below, future exposures to potential carcinogens may be of concern. First, in contrast with other toxic effects, threshold levels of exposure below which a potential carcinogen does not present some risk of cancer have not been demonstrated. Doses that have been shown to cause cancer are generally lower than the lowest dose that induces a chronic effect. The linear non-threshold mechanisms of carcinogenesis contained in the Agency's Guidelines for

although data are available, these data are based on particle size rather than weight so that a relative potency ranking cannot be calculated for asbestos (see discussion in Section III.D.1 of this preamble).

[11] For purposes of this proposed rule, the term "potential carcinogens" refers to all hazardous substances assigned to Group A, B, or C under the Agency's weight-of-evidence methodology.

Carcinogen Risk Assessment (51 FR 33992) suggest that appropriately-designed studies could demonstrate onset of cancer at even lower doses. Second, cancer risks are considered to be cumulative, therefore a number of small releases can be as serious as a single large release. Because the cancer risk depends on the cumulative dose, uncertainties about future exposures are cause for concern. Future releases of the same potential carcinogen add to the risk. Future releases of other potential carcinogens that cause cancer by the same mechanism also add to the risk. Occupational exposures or ambient environmental exposures increase the risk further. This is in contrast to non-cancer health effects, for which a number of small exposures below the threshold pose no future risk. For these reasons, together with the fact that cancer has a latent period that does not allow direct observation of carcinogenic risks from substances newly released into the environment, the Agency proposes to calculate the appropriate maximum RQ level for potential carcinogens using a model that is based on conservative assumptions.

Although this proposed rule does not assign 1000-pound or 5000-pound RQs to any potential carcinogen, EPA solicits comments with supporting data on whether individual potential carcinogens should be eligible for 1000-pound or 5000-pound RQs because such substances lack the special characteristics that distinguish potential carcinogens from other hazardous substances. At this time, the Agency does not plan to assign final adjusted RQs of greater than 1000 pounds to any potential carcinogen because this result would be inconsistent with the Agency's chronic toxicity methodology discussed above.

3. Changes in Ranking Methodology

In its evaluation of CERCLA hazardous substances identified as potential carcinogens, the Agency initially employed a ranking methodology that used a weight-of-evidence scheme developed by IARC. EPA subsequently revised the IARC weight-of-evidence scheme, and used this revised weight-of-evidence methodology in conjunction with potency factors, to obtain hazard rankings for CERCLA hazardous substances that are potential carcinogens. The revised ranking methodology has been summarized in Section III.C.2. of this preamble and is discussed in greater detail in the CAG report entitled "Technical Support Document and Summary Table for the Ranking of Chemicals Based on Carcinogenicity," OHEA–C–073, February 1986. This report is reproduced as Appendix A of the December 1986 Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, available for inspection at Room LG–100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

EPA decided to use the revised weight-of-evidence methodology because the revised methodology refines the IARC approach and has had extensive peer review both within and outside the Agency. In order to distinguish more accurately those substances for which there is limited evidence of carcinogenicity, but not enough evidence to satisfy Group B requirements, EPA divided IARC Group 3 (insufficient evidence) into Group C (possible human carcinogen) and Group D (not classifiable for carcinogenicity). The revised weight-of-evidence methodology allows Group C substances to be assigned RQs based on potential carcinogenicity. IARC Group 3 substances could not be so assigned.

In addition, the Agency's Guidelines for Carcinogen Risk Assessment provide for consideration of certain benign as well as malignant tumor data, when appropriate, and pooling of significantly elevated tumor sites and types. Because the RQ adjustment process for this proposed rule was initiated while the Guidelines still were being developed, the potency factors for some potential carcinogens may not fully reflect the position set forth in the Guidelines regarding consideration of benign tumors and pooling of tumor sites and types. Therefore, as the Agency publishes this proposed rule, we are in the process of verifying that all potency factor calculations are in accordance with the Guidelines. Because many potency factor calculations will not be affected by this review and potency factors would have to change substantially to change hazard rankings, we expect that few, if any, of the substances still undergoing verification will have proposed RQs altered as a result of this review. Therefore, the Agency has decided to proceed now with this proposed rulemaking. The list of substances subject to verification is available for review in the public docket for this rule. This verification process will be completed during the comment period and the resulting chemical profiles and adjusted RQs will be available in the public docket for public review and comment. If necessary, the public comment period will be extended for those substances where reasonable notice and comment time is not available.[12]

D. Substances for Which Adjusted RQs are Proposed

Today's rule proposes to adjust RQs for 273 of the remaining 275 hazardous substances.[13] The proposed RQs lower the statutory RQs of 58 hazardous substances, raise the statutory RQs of 123 hazardous substances, and leave the statutory RQs of 94 hazardous substances unchanged. The 273 hazardous substances include 195 individual hazardous substances and 78 hazardous waste streams. EPA requests comments on the RQ adjustments for particular hazardous substances proposed in this rulemaking, as well as the Agency's methodology for adjusting the RQs for hazardous substances based on potential carcinogenicity.

1. Individual Hazardous Substances

The bases for the proposed adjusted RQs of the 195 individual hazardous substances are as follows: 137 on the basis of potential carcinogenicity alone, 23 on the basis of potential carcinogenicity and at least one other primary criterion, and 35 on the basis of criteria other than potential carcinogenicity.[14] The following discussion provides an explanation of the proposed RQs for certain individual hazardous substances.

Within the 273 hazardous substances (195 individual hazardous substances and 78 hazardous waste streams), subject to today's proposed rule, there are four hazardous substances that were not evaluated for the primary RQ

[12] In addition, the Agency has completed a separate primary review of the RQ profiles for each of the 191 individual hazardous substances that have been evaluated for potential carcinogenicity. Currently, the Agency is conducting a secondary level of review of these profiles. The Agency expects that this secondary review will be completed during the public comment period. If, as a result of this review, reasonable notice and comment time is not available for particular substances, the public comment period will be extended for those substances.

[13] The two substances whose RQs are not adjusted in this rulemaking are being evaluated as follows: methyl isocyanate on the basis of inhalation toxicity; and lead on the basis of potential carcinogenicity. The statutory one-pound RQs for methyl isocyanate and lead will be retained, pending completion of the Agency's analysis of their toxicity or potential carcinogenicity.

[14] Thirty-one of these 35 substances were identified as potential carcinogens. The proposed RQs for these 31 substances are not based on potential carcinogenicity, however, because their tentative RQs based on potential carcinogenicity are higher than the tentative RQs based on other criteria. Four of these 35 substances were not evaluated for potential carcinogenicity (see discussion following in text).

adjustment criterion of potential carcinogenicity (chloral, hexachlorocyclopentadiene, 2-ethoxyethanol, and parathion). The proposed RQs for these four hazardous substances are based on primary criteria other than potential carcinogenicity.

Chloral originally was identified as a potential carcinogen because it was thought to hydrolyze to chloroform, a potential carcinogen. The May 25, 1983 NPRM (48 FR 23552) indicated that chloral was to be evaluated for potential carcinogenicity based on its potentially carcinogenic reaction product, chloroform. One comment received in response to the May 25, 1983 NPRM noted, however, that chloral does not readily hydrolyze. The Agency agrees with this observation, and therefore has decided to base the proposed RQ for chloral (5000 pounds) on evaluation of the primary criteria for chloral itself, and not on an evaluation of the primary criteria for any reaction products.

Parathion and hexachlorocyclopentadiene have not been identified as potential carcinogens for RQ adjustment purposes. The RQs for both substances are being reproposed from the one-pound RQs proposed in the May 25, 1983 NPRM for both substances on the basis of the primary RQ adjustment criterion of aquatic toxicity. A comment received on the May 25, 1983 NPRM cited more recent aquatic toxicity data using preferred species. The new aquatic toxicity data support a proposed 10-pound RQ for parathion. Since publication of the May 25, 1983 NPRM, the Agency has also obtained additional data on the degradation of hexachlorocyclopentadiene in the environment. These additional data support raising the previously proposed one-pound RQ for hexachlorocyclopentadiene to 10 pounds based on BHP. Finally, 2-ethoxyethanol also has not been identified as a potential carcinogen and its proposed 1000-pound RQ is based on the primary RQ adjustment criterion of chronic toxicity. After the most recent rulemaking proposing RQ adjustments (50 FR 13514, April 4, 1985), 2-ethoxyethanol was added to the list of CERCLA hazardous substances as a result of its listing as a hazardous waste under section 3001 of RCRA (51 FR 6537, February 25, 1986). Therefore, the proposed RQ adjustment for 2-ethoxyethanol is included in this proposed rule.

Two substances (pentachloroethane and methyl chloride) for which adjusted RQs originally were proposed in the April 4, 1985 NPRM (50 FR 13514) have their RQs reproposed for adjustment in today's rule. As noted in the September 29, 1986 final rule (51 FR 34534), the statutory one-pound RQs for these two substances were retained, pending analysis of their potential carcinogenicity. That analysis is now complete and the proposed RQ for methyl chloride is 100 pounds based on ignitability and potential carcinogenicity. Pentachloroethane was evaluated for potential carcinogenicity, but received a lower RQ of 10 pounds based on aquatic toxicity. Therefore, the proposed RQ for pentachloroethane is 10 pounds based on aquatic toxicity.

In the May 25, 1983 NPRM (48 FR 23552), the Agency proposed to lower the RQ for PCBs from the statutory level of 10 pounds (established on the basis of aquatic toxicity data under section 311 of the CWA) to one pound, on the basis of other aquatic toxicity data. EPA received 28 comment letters containing 66 total comments, all of which objected to the proposed one-pound RQ for PCBs. The Agency stated in the April 4, 1985 final rule that it was evaluating PCBs for potential carcinogenicity and would retain the 10-pound statutory RQ until that analysis was completed.

The Agency's analysis of PCBs for potential carcinogenicity is now complete, and that analysis has yielded a hazard ranking of "medium," corresponding to a 10-pound RQ. However, based on a re-examination of all of the comments received on the appropriate RQ for PCBs in response to the May 25, 1983 proposal and a re-evaluation of all available aquatic toxicity data concerning PCBs, the Agency has decided to repropose a one-pound RQ for PCBs in this rulemaking, based on aquatic toxicity.

The Agency's current methodology for adjusting RQs based on aquatic toxicity favors use of data from tests using adult life stages. However, use of data from tests using juvenile life stages is appropriate for adjusting the RQ for PCBs because PCBs bioaccumulate, are insoluble, and are sinkers. Because of the combined effect of these chemical and physical properties, PCBs pose a particular threat to benthic organisms (including the early life stages of many aquatic species). The Agency used early life stage data to support the original proposed one-pound RQ for PCBs in the May 25, 1983 NPRM. As mentioned earlier, EPA received extensive comments opposing a one-pound RQ for PCBs. None of these comments, however, objected to the Agency's reliance on early life stage data. In addition, use of such data is entirely consistent with EPA's 1985 Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses.

Available aquatic toxicity data from tests using early life stages supports a one-pound RQ for PCBs. Available data from tests using adult life stages supports a 10-pound RQ for PCBs. The Agency has decided that where both early life stage and adult life stage data are available for substances that are bioaccumulative insoluble sinkers, the early life stage data will be preferred because this approach is consistent with the Agency's 1985 National Water Quality Guidelines mentioned above. For further information on the substances EPA has identified as bioaccumulative insoluble sinkers, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, December 1986, available for inspection at Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

Thus, EPA reproposes to adjust the 10-pound statutory RQ for PCBs to one pound in today's rule. The Agency solicits comments on the proposed one-pound RQ for PCBs as well as the possible future revision of the aquatic toxicity methodology to provide for use of early life stage data for hazardous substances (such as PCBs) that are bioaccumulative insoluble sinkers.

Asbestos has been identified as a known human carcinogen (weight-of-evidence Group A). However, exposure to asbestos is measured by calculating the size and number of airborne fibers, and not by the standard method of measuring quantitative exposure to potential carcinogens based on weight, volume, or concentration. Therefore, a numerical potency factor based on weight cannot be calculated for asbestos to achieve a direct potency ranking. Thus, EPA has assigned asbestos to potency Group 2, as though it had a mid-range potency factor. Using the Agency's matrix for ranking potential carcinogens, a substance in weight-of-evidence Group A and potency Group 2 receives a high hazard ranking, and thus a one-pound RQ. EPA is, therefore, proposing a one-pound RQ for asbestos.

For three hazardous substances evaluated for potential carcinogenicity (cacodylic acid, dichlorophenylarsine, and diethylarsine), CAG found no evidence demonstrating that these substances themselves cause cancer. However, because each of these three hazardous substances can and will degrade to arsenic trioxide and arsenic pentoxide (both of which are potential carcinogens) when released into the environment, the Agency has decided to

propose a one-pound RQ for each substance, based on the one-pound RQs for these two inorganic arsenic oxides. The proposed RQs for cacodylic acid, dichlorophenylarsine, and diethylarsine are consistent with the Agency's established methodology of basing the RQ of a substance on its more hazardous degradation products, where those degradation products have been identified.

As discussed in Section III.B. above, hazardous substances are eligible for a one-level RQ increase on the basis of BHP. For five hazardous substances identified as potential carcinogens (bis(chloromethyl)ether, chloromethyl methyl ether, dimethyl sulfate, formaldehyde, and 2-naphthylamine), sufficient data are available to justify a one-level RQ increase based on BHP. Therefore, the RQs of these five hazardous substances are increased to 10, 10, 100, 100, and 10 pounds, respectively (these increases are from the one-level lower primary criteria RQs).

In addition, one potential carcinogen, sulfur selenide, hydrolyzes to form two hazardous reaction products, hydrogen sulfide and selenium dioxide. The RQ for hydrogen sulfide is 100 pounds and the RQ for selenium dioxide is 10 pounds. Therefore, a 10-pound RQ is proposed for sulfur selenide, based on the lower RQ of its two reaction products. Another potential carcinogen, 3,3'-dichlorobenzidine, is subject to rapid photolysis if released into the environment, yielding benzidine as one of the photolysis products. Therefore, although the CAG methodology yields a "*medium*" *ranking (10-pound RQ) for* 3,3'-dichlorobenzidine, the Agency is proposing a one-pound RQ for this hazardous substance, based on the "high" hazard ranking (one-pound RQ) for its photolysis product, benzidine.

2. Hazardous Waste Streams

In addition to the 195 individual hazardous substances for which this rulemaking proposes adjusted RQs, the Agency also proposes to adjust the RQs for 78 hazardous waste streams. The proposed RQ for each hazardous waste stream is the lowest RQ associated with the individual hazardous constituents of the waste stream. However, under 40 CFR 302.6, if a person in charge knows of the percentage composition of a waste stream, the CWA mixture rule may be applied. The CWA mixture rule provides that "[d]ischarges of mixtures and solutions are subject to [regulation] 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). As explained in the *April 4, 1985 final rule* (50 FR 13463), the RQs for different hazardous substances are not additive under the mixture rule, so that the release of a mixture containing half an RQ of one hazardous substance and half an RQ of another hazardous substance does not trigger the CERCLA section 103 reporting requirements.

The RQs for the 78 hazardous waste streams for which today's rule proposes adjusted RQs are all currently at the statutory one-pound level. The proposed adjustments leave the RQs of 44 hazardous waste streams at one pound, raise the RQs of 32 hazardous waste streams to 10 pounds, and raise the RQs of two hazardous waste streams to 100 pounds.

Today's rule also proposes RQs for six of the constituents used to determine the RCRA characteristic of EP toxicity for unlisted hazardous wastes. These six components have been assigned proposed RQs as follows: one pound for arsenic and chromium and 10 pounds for cadmium, all on the basis of potential carcinogenicity; 100 pounds for lead on the basis of chronic toxicity; and one pound for lindane and toxaphene on the basis of aquatic toxicity. Under 40 CFR 302.5(b), the proposed RQ applies to the unlisted waste itself, not merely to the toxic substance. The RQ for the metal constituents is based on the RQ for soluble metal salts, and not the metal itself.

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

The *April 4, 1985 final rule* (50 FR 13456) amended 40 CFR 117.3 to make RQs adjusted under CERCLA the applicable RQs for notification of discharges of hazardous substances pursuant to CWA section 311. Thus, the RQ adjustments proposed in this rulemaking will, when finalized, apply to both CERCLA and CWA section 311 RQs. Of the 195 individual hazardous substances in this rulemaking, 63 were originally listed as hazardous substances and assigned RQs under section 311 of the CWA. The proposed RQs lower the statutory CWA RQs of 49 of these substances, raise the statutory RQs of two of the substances, and leave the RQs of 12 of the substances at the statutory level. RQs under both CERCLA and the CWA are set forth in Table 302.4. Where there is a release of a hazardous substance in an RQ into navigable waters, a single report to the National Response Center by the person in charge will satisfy the notification requirements of both statutes. For further discussion of the relationship between CERCLA RQs and CWA *section 311 RQs, see the* May 25, 1983 proposed rule preamble at 48 FR 23569, and the April 4, 1985 final rule preamble at 50 FR 13473.

V. Summary of Supporting Analyses

Executive Order 12291 requires that regulations be classified as major or non-major for purposes of review by the Office of Management and Budget (OMB). 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 LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, shows that today's proposed rule is non-major, because the rule will result in net costs of approximately $3.9 million annually. The annual net cost savings of RQ adjustments made to date (including those proposed in this NPRM) is $13.8 million. It should be noted that these costs and cost savings reflect only those effects of the RQ adjustments that are readily quantifiable in dollars.

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 on a substantial number of small entities." To determine whether a Regulatory Flexibility Analysis is necessary for today's proposed rule, a preliminary analysis was conducted using a computer model that simulated the typical operation of a small U.S. chemical company. The results of the simulation indicate that the upper-bound total cost of compliance to small firms is negligible. See the Regulatory Impact Analysis of Reportable Quantity Adjustments Under Sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act, Volume III, November 1966, available for inspection at Room LG-100, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. Therefore, because today's proposed rule is not expected to have a significant impact on small entities, EPA

certifies that no Regulatory Flexibility Analysis is necessary.

The Information Impact Analysis performed for the April 4, 1985 final rule indicated that that final rule would decrease the paperwork burden imposed on parties other than EPA by about 50,000 hours. Today's proposed RQ adjustments will provide a small increase 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 minimal, EPA has determined that no further Information Impact Analysis need be performed.

In accordance with the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, the reporting or recordkeeping provisions that are included in this proposed rule have been submitted for approval to OMB under section 3504(h) of the Paperwork Reduction Act. Any final rule will include an explanation of how the reporting or recordkeeping provisions contained therein respond to any comments by OMB and the public.

List of Subjects

40 CFR Part 117

Hazardous substances, Penalties, Reporting and recordkeeping requirements, Water pollution control.

40 CFR Part 302

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

Dated: December 31, 1986.

Lee M. Thomas,

Administrator.

For the reasons set out in the preamble, it is proposed to amend Title 40 of the Code of Federal Regulations as follows:

PART 302—DESIGNATION, REPORTABLE QUANTITES AND NOTIFICATION

1. The authority citation for Part 302 is revised to read as follows:

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

2. Section 302.4 is amended by revising the following entries in Table 302.4 and in its Appendix A to read as set forth below. The note preceding Table 302.4 is republished without change.

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 proposed reportable quantity adjustment for each hazardous substance in pounds and kilograms.

TABLE 302.4 - LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Proposed RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds(Kg)
Acetaldehyde, trichloro-	75876	Chloral	1*	4	U034	D	5000 (2270)
Acetamide, N-(4-ethoxyphenyl)-	62442	Phenacetin	1*	4	U187	B	100 (45.4)
Acetamide, N-fluoren-2-yl-	53963	2-Acetylaminofluorene	1*	4	U005	A	10 (4.54)
Acetic acid, lead salt	301042	Lead acetate	5000	1,4	U144	A	10 (4.54)
2-Acetylaminofluorene	53963	Acetamide, N-fluoren-2-yl-	1*	4	U005	A	10 (4.54)
Acrylonitrile	107131	2-Propenenitrile	100	1,2,4	U009	A	10 (4.54)
Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L-	148823	Melphalan	1*	4	U150	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)
2-Amino-1-methylbenzene	95534	o-Toluidine	1*	4	U328	B	100 (45.4)
4-Amino-1-methylbenzene	106490	p-Toluidine	1*	4	U353	B	100 (45.4)
Amitrole	61825	1H-1,2,4-Triazol-3-amine	1*	4	U011	A	10 (4.54)
Ammonium bichromate	7789095		1000	1		X	1 (0.454)
Ammonium chromate	7788989		1000	1		X	1 (0.454)
Aroclor 1016	12674112	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1221	11104282	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1232	11141165	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1242	53469219	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1248	12672296	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1254	11097691	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1260	11096825	Polychlorinated Biphenyls (PCBs)	10	1,2		X	1 (0.454)
Arsenic ††	7440382		1*	2,3		X	1 (0.454)
Arsenic acid	1327522 7778394		1*	4	P010	X	1 (0.454)

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)
Arsenic disulfide	1303328		5000	1		X	1 (0.454)
Arsenic (III) oxide	1327533	Arsenic trioxide	5000	1,4	P012	X	1 (0.454)
Arsenic (V) oxide	1303282	Arsenic pentoxide	5000	1,4	P011	X	1 (0.454)
Arsenic pentoxide	1303282	Arsenic (V) oxide	5000	1,4	P011	X	1 (0.454)
Arsenic trichloride	7784341		5000	1		X	1 (0.454)
Arsenic trioxide	1327533	Arsenic (III) oxide	5000	1,4	P012	X	1 (0.454)
Arsenic trisulfide	1303339		5000	1		X	1 (0.454)
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	B	100 (45.4)
Azaserine	115026	L-Serine, diazoacetate (ester)	1*	4	U015	A	10 (4.54)
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-[((aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-	50077	Mitomycin C	1*	4	U010	A	10 (4.54)
Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-.	56495	3-Methylcholanthrene	1*	4	U157	A	10 (4.54)
Benz[c]acridine	225514	3,4-Benzacridine	1*	4	U016	A	10 (4.54)
3,4-Benzacridine	225514	Benz[c]acridine	1*	4	U016	A	10 (4.54)
Benz[a]anthracene	56553	Benzo[a]anthracene 1,2-Benzanthracene	1*	2,4	U018	A	10 (4.54)
1,2-Benzanthracene	56553	Benz[a]anthracene Benzo[a]anthracene	1*	2,4	U018	A	10 (4.54)
1,2-Benzanthracene, 7,12-dimethyl-	57976	7,12-Dimethylbenz[a]anthracene	1*	4	U094	X	1 (0.454)
Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-.	492808	Auramine	1*	4	U014	B	100 (45.4)
Benzenamine, 4-chloro-2-methyl-, hydrochloride.	3165933	4-Chloro-o-toluidine, hydrochloride	1*	4	U049	B	100 (45.4)
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	A	10 (4.54)
Benzenamine, 2-methyl-, hydrochloride	636215	o-Toluidine hydrochloride	1*	4	U222	B	100 (45.4)
Benzenamine, 2-methyl-5-nitro-	99558	5-Nitro-o-toluidine	1*	4	U181	B	100 (45.4)
Benzene	71432		1000	1,2,3,4	U019	A	10 (4.54)
Benzene, chloromethyl-	100447	Benzyl chloride	100	1,4	P028	B	100 (45.4)
Benzene, hexachloro-	118741	Hexachlorobenzene	1*	2,4	U127	A	10 (4.54)
Benzene, 1-methyl-2,4-dinitro-	121142	2,4-Dinitrotoluene	1000	1,2,4	U105	A	10 (4.54)
Benzene, 1-methyl-2,6-dinitro-	606202	2,6-Dinitrotoluene	1000	1,2,4	U106	B	100 (45.4)
Benzene, 1,2-methylenedioxy-4-allyl-	94597	Safrole	1*	4	U203	B	100 (45.4)
Benzene, 1,2-methylenedioxy-4-propenyl-	120581	Isosafrole	1*	4	U141	B	100 (45.4)
Benzene, 1,2-methylenedioxy-4-propyl-	94586	Dihydrosafrole	1*	4	U090	A	10 (4.54)
Benzene, pentachloronitro-	82688	Pentachloronitrobenzene	1*	4	U185	B	100 (45.4)
Benzene, (trichloromethyl)-	98077	Benzotrichloride	1*	4	U023	X	1 (0.454)
Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl-alpha-hydroxy-,ethyl ester.	510156	Ethyl 4,4'-dichlorobenzilate	1*	4	U038	A	10 (4.54)
1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester.	117817	Bis(2-ethylhexyl) phthalate	1*	2,4	U028	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	B	100 (45.4)
Benzo[a]anthracene	56553	Benz[a]anthracene 1,2-Benzanthracene	1*	2,4	U018	A	10 (4.54)
Benzo[b]fluoranthene	205992		1*	2		X	1 (0.454)
Benzo(k)fluoranthene	207089		1*	2		D	5000 (2270)
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)
Benzotrichloride	98077	Benzene, (trichloromethyl)-	1*	4	U023	X	1 (0.454)
1,2-Benzphenanthrene	218019	Chrysene	1*	2,4	U050	A	10 (4.54)
Benzyl chloride	100447	Benzene, chloromethyl-	100	1,4	P028	B	100 (45.4)
Beryllium ††	7440417	Beryllium dust ††	1*	2,3,4	P015	A	10 (4.54)
Beryllium chloride	7787475		5000	1		X	1 (0.454)
Beryllium dust ††	7440417	Beryllium ††	1*	2,3,4	P015	A	10 (4.54)
Beryllium fluoride	7787497		5000	1		X	1 (0.454)

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)
Beryllium nitrate	13597994		5000	1		X	1 (0.454)
	7787555						
alpha - BHC	319846		1*	2		A	10 (4.54)
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)
2,2'-Bioxirane	1464535	1,2:3,4-Diepoxybutane	1*	4	U085	A	10 (4.54)
(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	B	100 (45.4)
(1,1'Biphenyl)-4,4'-diamine,3,3'-dimethyl-	119937	3,3'-Dimethylbenzidine	1*	4	U095	B	100 (45.4)
Bis(2-chloroethyl) ether	111444	Dichloroethyl ether	1*	2,4	U025	A	10 (4.54)
Bis(chloromethyl) ether	542881	Ethane, 1,1'-oxybis[2-chloro- Methane, oxybis(chloro-	1*	4	P016	A	10 (4.54)
Bis(2-ethylhexyl) phthalate	117817	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester.	1*	2,4	U028	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	A	10 (4.54)
Butanoic acid, 4-[bis(2-chloroethyl) amino]benzene.	305033	Chlorambucil	1*	4	U035	A	10 (4.54)
Cacodylic acid	75605	Hydroxydimethylarsine oxide	1*	4	U136	X	1 (0.454)
Cadmium ††	7440439		1*	2		A	10 (4.54)
Cadmium acetate	543908		100	1		A	10 (4.54)
Cadmium bromide	7789426		100	1		A	10 (4.54)
Cadmium chloride	10108642		100	1		A	10 (4.54)
Calcium arsenate	7778441		1000	1		X	1 (0.454)
Calcium arsenite	52740166		1000	1		X	1 (0.454)
Calcium chromate	13765190	Chromic acid, calcium salt	1000	1,4	U032	X	1 (0.454)
Camphene, octachloro-	8001352	Toxaphene	1	1,2,4	P123	X	1 (0.454)
Carbamic acid, ethyl ester	51796	Ethyl carbamate (Urethan)	1*	4	U238	B	100 (45.4)
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	A	10 (4.54)
Carbamide, N-methyl-N-nitroso	684935	N-Nitroso-N-methylurea	1*	4	U177	X	1 (0.454)
Carbamide, thio-	62566	Thiourea	1*	4	U219	A	10 (4.54)
Carbamoyl chloride, dimethyl-	79447	Dimethylcarbamoyl chloride	1*	4	U097	X	1 (0.454)
Carbon tetrachloride	56235	Methane, tetrachloro-	5000	1,2,4	U211	A	10 (4.54)
Chloral	75876	Acetaldehyde, trichloro-	1*	4	U034	D	5000 (2270)
Chlorambucil	305033	Butanoic acid, 4-[bis(2-chloroethyl) amino]benzene.	1*	4	U035	A	10 (4.54)
Chlordane	57749	Chlordane, technical	1	1,2,4	U036	X	1 (0.454)
Chlordane, technical	57749	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- Chlordane	1	1,2,4	U036	X	1 (0.454)
Chlornaphazine	494031	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- 2-Naphthylamine, N,N-bis(2-chloroethyl)-	1*	4	U026	B	100 (45.4)
1-Chloro-2,3-epoxypropane	106898	Epichlorohydrin	1000	1,4	U041	B	100 (45.4)
Chloroform	67663	Oxirane, 2-(chloromethyl)- Methane, trichloro-	5000	1,2,4	U044	A	10 (4.54)
Chloromethyl methyl ether	107302	Methane, chloromethoxy-	1*	4	U046	A	10 (4.54)
4-Chloro-o-toluidine, hydrochloride	3165933	Benzenamine, 4-chloro-2-methyl-, hydrochloride.	1*	4	U049	B	100 (45.4)
Chromic acid	11115745		1000	1		X	1 (0.454)
	7738945						
Chromic acid, calcium salt	13765190	Calcium chromate	1000	1,4	U032	X	1 (0.454)
Chromium ††	7440473		1*	2		X	1 (0.454)
Chrysene	218019	1,2-Benzphenanthrene	1*	2,4	U050	A	10 (4.54)
COKE OVEN EMISSIONS	N.A.		1*	3		X	1 (0.454)
Creosote	8001589		1*	4	U051	X	1 (0.454)
Cupric acetoarsenite	12002038		100	1		X	1 (0.454)
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-.	77474	Hexachlorocyclopentadiene	1	1,2,4	U130	A	10 (4.54)
Cyclophosphamide	50160	2H-1,3,2-Oxazaphosphorine,2-[bis(2-chloroethyl)amino]tetrahydro-2-oxide.	1*	4	U056	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)
Daunomycin	20830813	5,12-Naphthacenedione, (8s-cis)-8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranoxyl)oxyl-7,6,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-.	1*	4	U059	A	10 (4.54)
DDD	72548	Dichlorodiphenyl dichloroethane TDE 4,4'-DDD	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	Dichlorodiphenyl trichloroethane 4,4'-DDT	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)
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	B	100 (45.4)
Diamine	302012	Hydrazine	1*	4	U133	X	1 (0.454)
Diaminotoluene	95807 496720 825405 25376458	Toluenediamine	1*	4	U221	A	10 (4.54)
Dibenz[a,h]anthracene	53703	Dibenzo[a,h]anthracene 1,2:5,6-Dibenzanthracene	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	A	10 (4.54)
Dibenz[a,i]pyrene	189559	1,2:7,8-Dibenzopyrene	1*	4	U064	A	10 (4.54)
1,2-Dibromo-3-chloropropane	96128	Propane, 1,2-dibromo-3-chloro-	1*	4	U066	A	10 (4.54)
S-(2,3-Dichloroallyl) diisopropylthiocarbamate.	2303164	Diallate	1*	4	U062	B	100 (45.4)
3,3'-Dichlorobenzidine	91941	(1,1'-Biphenyl)-4,4'diamine,3,3'dichloro-	1*	2,4	U073	X	1 (0.454)
Dichlorodiphenyl dichloroethane	72548	DDD TDE 4,4'-DDD	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)
1,2-Dichloroethane	107062	Ethane, 1,2-dichloro- Ethylene dichloride	5000	1,2,4	U077	B	100 (45.4)
1,1-Dichloroethylene	75354	Ethene, 1,1-dichloro- Vinylidene chloride	5000	1,2,4	U078	B	100 (45.4)
Dichloroethyl ether	111444	Bis(2-chloroethyl) ether	1*	2,4	U025	A	10 (4.54)
Dichlorophenylarsine	696286	Ethane, 1,1'-oxybis[2-chloro- Phenyl dichloroarsine	1*	4	P036	X	1 (0.454)
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	1464535	2,2'-Bioxirane	1*	4	U085	A	10 (4.54)
Diethylarsine	692422	Arsine, diethyl-	1*	4	P038	X	1 (0.454)
1,4-Diethylene dioxide	123911	1,4-Dioxane	1*	4	U108	B	100 (45.4)
N,N'-Diethylhydrazine	1615801	Hydrazine, 1,2-diethyl-	1*	4	U086	A	10 (4.54)
Diethylstilbestrol	56531	4,4'-Stilbenediol, alpha,alpha'-diethyl-	1*	4	U089	X	1 (0.454)
Dihydrosafrole	94586	Benzene, 1,2-methylenedioxy-4-propyl-	1*	4	U090	A	10 (4.54)
3,3'-Dimethoxybenzidine	119904	(1,1'-Biphenyl)-4,4'diamine,3,3'dimethoxy-	1*	4	U091	B	100 (45.4)
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	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	A	10 (4.54)
1,2-Dimethylhydrazine	540738	Hydrazine, 1,2-dimethyl-	1*	4	U099	X	1 (0.454)
Dimethylnitrosamine	62759	N-Nitrosodimethylamine	1*	2,4	P082	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)
Dimethyl sulfate	77781	Sulfuric acid, dimethyl ester	1*	4	U103	B	100 (45.4)
Dinitrotoluene	25321146		1000	1,2		A	10 (4.54)
3,4-Dinitrotoluene	610399						
2,4-Dinitrotoluene	121142	Benzene, 1-methyl-2,4-dinitro-	1000	1,2,4	U105	A	10 (4.54)
2,6-Dinitrotoluene	606202	Benzene, 1-methyl-2,6-dinitro-	1000	1,2,4	U106	B	100 (45.4)
1,4-Dioxane	123911	1,4-Diethylene dioxide	1*	4	U108	B	100 (45.4)
1,2-Diphenylhydrazine	122667	Hydrazine, 1,2-diphenyl-	1*	2,4	U109	A	10 (4.54)
Di-n-propylnitrosamine	621647	N-Nitrosodi-n-propylamine	1*	2,4	U111	A	10 (4.54)
Epichlorohydrin	106898	Oxirane, 2-(chloromethyl)-	1000	1,4	U041	B	100 (45.4)
		1-Chloro-2,3-epoxypropane					
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	X	1 (0.454)
Ethane, 1,2-dichloro-	107062	Ethylene dichloride	5000	1,2,4	U077	B	100 (45.4)
		1,2-Dichloroethane					
Ethane, 1,1,1,2,2,2-hexachloro-	67721	Hexachloroethane	1*	2,4	U131	B	100 (45.4)
Ethane, 1,1'-oxybis[2-chloro-	111444	Bis(2-chloroethyl) ether	1*	2,4	U025	A	10 (4.54)
		Dichloroethyl ether					
Ethane, pentachloro-	76017	Pentachloroethane	1*	4	U184	A	10 (4.54)
Ethane, 1,1,1,2-tetrachloro-	630206	1,1,1,2-Tetrachloroethane	1*	4	U208	B	100 (45.4)
Ethane, 1,1,2,2-tetrachloro-	79345	1,1,2,2-Tetrachloroethane	1*	2,4	U209	B	100 (45.4)
Ethanethioamide	62555	Thioacetamide	1*	4	U218	A	10 (4.54)
Ethane, 1,1,2-trichloro-	79005	1,1,2-Trichloroethane	1*	2,4	U227	B	100 (45.4)
Ethanol, 2,2'-(nitrosoimino)bis-	1116547	N-Nitrosodiethanolamine	1*	4	U173	X	1 (0.454)
Ethenamine, N-methyl-N-nitroso-	4549400	N-Nitrosomethylvinylamine	1*	4	P084	A	10 (4.54)
Ethene, chloro-	75014	Vinyl chloride	1*	2,3,4	U043	A	10 (4.54)
Ethene, 1,1-dichloro-	75354	Vinylidene chloride	5000	1,2,4	U078	B	100 (45.4)
		1,1-Dichloroethylene					
Ethene, 1,1,2,2-tetrachloro-	127184	Perchloroethylene	1*	2,4	U210	B	100 (45.4)
		Tetrachloroethene					
		Tetrachloroethylene					
2-Ethoxyethanol	110805	Ethylene glycol monoethyl ether	1*	4	U359	C	1000 (454)
Ethyl carbamate (Urethan)	51796	Carbamic acid, ethyl ester	1*	4	U238	B	100 (45.4)
Ethyl 4,4'-dichlorobenzilate	510156	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl-alpha-hydroxy-,ethyl ester.	1*	4	U038	A	10 (4.54)
Ethylene dibromide	106934	Ethane, 1,2-dibromo-	1000	1,4	U067	X	1 (0.454)
Ethylene dichloride	107062	Ethane, 1,2-dichloro-	5000	1,2,4	U077	B	100 (45.4)
		1,2-Dichloroethane					
Ethylene glycol monoethyl ether	110805	2-Ethoxyethanol	1*	4	U359	C	1000 (454)
Ethylene oxide	75218	Oxirane	1*	4	U115	A	10 (4.54)
Ethylenethiourea	96457	2-Imidazolidinethione	1*	4	U116	A	10 (4.54)
Ethylenimine	151564	Aziridine	1*	4	P054	X	1 (0.454)
Ethyl methanesulfonate	62500	Methanesulfonic acid, ethyl ester	1*	4	U119	X	1 (0.454)
Formaldehyde	50000	Methylene oxide	1000	1,4	U122	B	100 (45.4)
D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-.	18883664	Streptozotocin	1*	4	U206	X	1 (0.454)
Glycidylaldehyde	765344	1-Propanal, 2,3-epoxy-	1*	4	U126	A	10 (4.54)
Guanidine, N-nitroso-N-methyl-N'-nitro-	70257	N-Methyl-N'-nitro-N-nitrosoguanidine	1*	4	U163	A	10 (4.54)
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 epoxide	1024573		1*	2		X	1 (0.454)
Hexachlorobenzene	118741	Benzene, hexachloro-	1*	2,4	U127	A	10 (4.54)
Hexachlorobutadiene	87683	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	1*	2,4	U128	X	1 (0.454)
Hexachlorocyclohexane (gamma isomer)	58899	gamma - BHC	1	1,2,4	U129	X	1 (0.454)
		Lindane					
Hexachlorocyclopentadiene	77474	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-.	1	1,2,4	U130	A	10 (4.54)
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	67721	Ethane, 1,1,1,2,2,2-hexachloro-	1*	2,4	U131	B	100 (45.4)
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)
Hydrazine	302012	Diamine	1*	4	U133	X	1 (0.454)
Hydrazine, 1,2-diethyl-	1615801	N,N'-Diethylhydrazine	1*	4	U086	A	10 (4.54)
Hydrazine, 1,1-dimethyl-	57147	1,1-Dimethylhydrazine	1*	4	U098	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)
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	A	10 (4.54)
Hydroxydimethylarsine oxide	75605	Cacodylic acid	1*	4	U136	X	1 (0.454)
2-Imidazolidinethione	96457	Ethylenethiourea	1*	4	U116	A	10 (4.54)
Indeno[1,2,3-cd]pyrene	193395	1,10-(1,2-Phenylene)pyrene	1*	2,4	U137	B	100 (45.4)
Isocyanic acid, methyl ester	624839	Methyl isocyanate	1*	4	P064	X	1# # (0.454)
Isosafrole	120581	Benzene, 1,2-methylenedioxy-4-propenyl-	1*	4	U141	B	100 (45.4)
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	A	10 (4.54)
[illegible]	7439921		1*	[illegible]	[illegible]	X	1# (0.454)
Lead acetate	301042	Acetic acid, lead salt	5000	1,4	U144	A	10 (4.54)
Lead arsenate	7784409		5000	1		X	1 (0.454)
	7645252						
	10102484						
Lead phosphate	7446277	Phosphoric acid, lead salt	1*	4	U145	A	10 (4.54)
Lead subacetate	1335326		1*	4	U146	B	100 (45.4)
Lindane	58899	gamma - BHC Hexachlorocyclohexane (gamma isomer)	1	1,2,4	U129	X	1 (0.454)
Lithium chromate	14307358		1000	1		X	1 (0.454)
Melphalan	148823	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L-.	1*	4	U150	X	1 (0.454)
[illegible]	74873	Methyl chloride	1*	2,4	U045	B	100 (45.4)
Methane, chloromethoxy-	107302	Chloromethyl methyl ether	1*	4	U046	A	10 (4.54)
Methane, iodo-	74884	Methyl iodide	1*	4	U138	B	100 (45.4)
Methane, oxybis(chloro-	542881	Bis(chloromethyl) ether	1*	4	P016	A	10 (4.54)
Methane, tetrachloro-	56235	Carbon tetrachloride	5000	1,2,4	U211	A	10 (4.54)
Methane, trichloro-	67663	Chloroform	5000	1,2,4	U044	A	10 (4.54)
Methanesulfonic acid, ethyl ester	62500	Ethyl methanesulfonate	1*	4	U119	X	1 (0.454)
4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76448	Heptachlor	1	1,2,4	P059	X	1 (0.454)
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)
Methyl chloride	74873	Methane, chloro-	1*	2,4	U045	B	100 (45.4)
2-Methylaziridine	75558	1,2-Propylenimine	1*	4	P067	A	10 (4.54)
3-Methylcholanthrene	56495	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	1*	4	U157	A	10 (4.54)
4,4'-Methylenebis(2-chloroaniline)	101144	Benzenamine, 4,4'-methylenebis(2-chloro-.	1*	4	U158	A	10 (4.54)
Methylene oxide	50000	Formaldehyde	1000	1,4	U122	B	100 (45.4)
Methyl iodide	74884	Methane, iodo-	1*	4	U138	B	100 (45.4)
Methyl isocyanate	624839	Isocyanic acid, methyl ester	1*	4	P064	X	1# # (0.454)
N-Methyl-N'-nitro-N-nitrosoguanidine	70257	Guanidine, N-nitroso-N-methyl-N'-nitro-	1*	4	U163	A	10 (4.54)
Methylthiouracil	56042	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	1*	4	U164	A	10 (4.54)
Mitomycin C	50077	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione,6-amino-8-[((aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-.	1*	4	U010	A	10 (4.54)
5,12-Naphthacenedione, (8s-cis)-8-acetyl-10-[3- amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranoxyl) oxyl-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	20830813	Daunomycin	1*	4	U059	A	10 (4.54)
2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'- dimethyl-(l,1'-biphehyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.	72571	Trypan blue	1*	4	U236	A	10 (4.54)
1-Naphthylamine	134327	alpha-Naphthylamine	1*	4	U167	B	100 (45.4)
2-Naphthylamine	91598	beta-Naphthylamine	1*	4	U168	A	10 (4.54)
alpha-Naphthylamine	134327	1-Naphthylamine	1*	4	U167	B	100 (45.4)
beta-Naphthylamine	91598	2-Naphthylamine	1*	4	U168	A	10 (4.54)
2-Naphthylamine, N,N-bis(2-chloroethyl)-	494031	Chlornaphazine	1*	4	U026	B	100 (45.4)
Nickel ††	7440020		1*	2		X	1 (0.454)

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)
Nickel ammonium sulfate	15699180		5000	1		B	100 (45.4)
Nickel carbonyl	13463393	Nickel tetracarbonyl	1*	4	P073	A	10 (4.54)
Nickel chloride	7718549 37211055		5000	1		B	100 (45.4)
Nickel cyanide	557197	Nickel(II) cyanide	1*	4	P074	A	10 (4.54)
Nickel(II) cyanide	557197	Nickel cyanide	1*	4	P074	A	10 (4.54)
Nickel hydroxide	12054487		1000	1		A	10 (4.54)
Nickel nitrate	14216752		5000	1		B	100 (45.4)
Nickel sulfate	7786814		5000	1		B	100 (45.4)
Nickel tetracarbonyl	13463393	Nickel carbonyl	1*	4	P073	A	10 (4.54)
2-Nitropropane	79469	Propane, 2-nitro-	1*	4	U171	A	10 (4.54)
N-Nitrosodi-n-butylamine	924163	1-Butanamine, N-butyl-N-nitroso-	1*	4	U172	A	10 (4.54)
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	A	10 (4.54)
N-Nitrosodi-n-propylamine	621647	Di-n-propylnitrosamine	1*	2,4	U111	A	10 (4.54)
N-Nitroso-N-ethylurea	759739	Carbamide, N-ethyl-N-nitroso-	1*	4	U176	A	10 (4.54)
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	A	10 (4.54)
N-Nitrosopiperidine	100754	Pyridine, hexahydro-N-nitroso-	1*	4	U179	A	10 (4.54)
N-Nitrosopyrrolidine	930552	Pyrrole, tetrahydro-N-nitroso-	1*	4	U180	X	1 (0.454)
5-Nitro-o-toluidine	99558	Benzenamine, 2-methyl-5-nitro-	1*	4	U181	B	100 (45.4)
1,2-Oxathiolane, 2,2-dioxide	1120714	1,3-Propane sultone	1*	4	U193	A	10 (4.54)
2H-1,3,2-Oxazaphosphorine,2-[bis(2-chloroethyl) amino]tetrahydro-2-oxide.	50180	Cyclophosphamide	1*	4	U058	A	10 (4.54)
Oxirane	75218	Ethylene oxide	1*	4	U115	A	10 (4.54)
Oxirane, 2-(chloromethyl)-	106898	Epichlorohydrin 1-Chloro-2,3-epoxypropane	1000	1,4	U041	B	100 (45.4)
Parathion	56382	Phosphorothioc acid, O,O-diethyl O-(p-nitrophenyl) ester.	1	1,4	P089	A	10 (4.54)
Pentachloroethane	76017	Ethane, pentachloro-	1*	4	U184	A	10 (4.54)
Pentachloronitrobenzene	82688	Benzene, pentachloronitro-	1*	4	U185	B	100 (45.4)
Pentachlorophenol	87865	Phenol, pentachloro-	10	1,2,4	U242	A	10 (4.54)
Perchloroethylene	127184	Ethene, 1,1,2,2-tetrachloro- Tetrachloroethene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
Phenacetin	62442	Acetamide, N-(4-ethoxyphenyl)-	1*	4	U187	B	100 (45.4)
Phenol, pentachloro-	87865	Pentachlorophenol	10	1,2,4	U242	A	10 (4.54)
Phenol, 2,4,5-trichloro-	95954	2,4,5-Trichlorophenol	10	1,2,4	U230	A	10 (4.54)
Phenol, 2,4,6-trichloro-	88062	2,4,6-Trichlorophenol	10	1,2,4	U231	A	10 (4.54)
Phenyl dichloroarsine	696286	Dichlorophenylarsine	1*	4	P036	X	1 (0.454)
1,10-(1,2-Phenylene)pyrene	193395	Indeno[1,2,3-cd]pyrene	1*	2,4	U137	B	100 (45.4)
Phosphoric acid, lead salt	7446277	Lead phosphate	1*	4	U145	A	10 (4.54)
Phosphorothioc acid, O,O-diethyl O-(p-nitrophenyl)ester.	56382	Parathion	1	1,4	P089	A	10 (4.54)
Polychlorinated Biphenyls (PCBs)	1336363		10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	12674112	Aroclor 1016	10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11104282	Aroclor 1221	10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11141165	Aroclor 1232	10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	53469219	Aroclor 1242	10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	12672296	Aroclor 1248	10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11097691	Aroclor 1254	10	1,2		X	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11096825	Aroclor 1260	10	1,2		X	1 (0.454)
Potassium arsenate	7784410		1000	1		X	1 (0.454)
Potassium arsenite	10124502		1000	1		X	1 (0.454)
Potassium bichromate	7778509		1000	1		X	1 (0.454)
Potassium chromate	7789006		1000	1		X	1 (0.454)
1-Propanal, 2,3-epoxy-	765344	Glycidylaldehyde	1*	4	U126	A	10 (4.54)
Propane, 1,2-dibromo-3-chloro-	96128	1,2-Dibromo-3-chloropropane	1*	4	U066	A	10 (4.54)
Propane, 2-nitro-	79469	2-Nitropropane	1*	4	U171	A	10 (4.54)
1,3-Propane sultone	1120714	1,2-Oxathiolane, 2,2-dioxide	1*	4	U193	A	10 (4.54)
1-Propanol, 2,3-dibromo-, phosphate (3:1)	126727	Tris(2,3-dibromopropyl) phosphate	1*	4	U235	A	10 (4.54)
2-Propenenitrile	107131	Acrylonitrile	100	1,2,4	U009	A	10 (4.54)
1,2-Propylenimine	75558	2-Methylaziridine	1*	4	P067	A	10 (4.54)
Pyridine, hexahydro-N-nitroso-	100754	N-Nitrosopiperidine	1*	4	U179	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)
4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-.	56042	Methylthiouracil	1*	4	U164	A	10 (4.54)
Pyrrole, tetrahydro-N-nitroso-	930552	N-Nitrosopyrrolidine	1*	4	U180	X	1 (0.454)
RADIONUCLIDES	N.A.		1*	3			§
Saccharin and salts	81072	1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts.	1*	4	U202	B	100 (45.4)
Safrole	94597	Benzene, 1,2-methylenedioxy-4-allyl-	1*	4	U203	B	100 (45.4)
Selenium disulfide	7488564	Sulfur selenide	1*	4	U205	A	10 (4.54)
L-Serine, diazoacetate (ester)	115026	Azaserine	1*	4	U015	A	10 (4.54)
Sodium arsenate	7631892		1000	1		X	1 (0.454)
Sodium arsenite	7784465		1000	1		X	1 (0.454)
Sodium bichromate	10588019		1000	1		X	1 (0.454)
Sodium chromate	7775113		1000	1		X	1 (0.454)
4,4'-Stilbenediol, alpha,alpha'-diethyl-	56531	Diethylstilbestrol	1*	4	U089	X	1 (0.454)
Streptozotocin	18883664	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido).	1*	4	U206	X	1 (0.454)
Strontium chromate	7789062		1000	1		X	1 (0.454)
Sulfur selenide	7488564	Selenium disulfide	1*	4	U205	A	10 (4.54)
Sulfuric acid, dimethyl ester	77781	Dimethyl sulfate	1*	4	U103	B	100 (45.4)
TDE	72548	Dichlorodiphenyl dichloroethane DDD 4,4'-DDD	1	1,2,4	U060	X	1 (0.454)
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	B	100 (45.4)
1,1,2,2-Tetrachloroethane	79345	Ethane, 1,1,2,2-tetrachloro-	1*	2,4	U209	B	100 (45.4)
Tetrachloroethene	127184	Ethene, 1,1,2,2-tetrachloro- Perchloroethylene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
Tetrachloroethylene	127184	Ethene, 1,1,2,2-tetrachloro- Perchloroethylene Tetrachloroethene	1*	2,4	U210	B	100 (45.4)
Thioacetamide	62555	Ethanethioamide	1*	4	U218	A	10 (4.54)
Thiourea	62566	Carbamide, thio-	1*	4	U219	A	10 (4.54)
Toluenediamine	95807 496720 823405 25376458	Diaminotoluene	1*	4	U221	A	10 (4.54)
o-Toluidine	95534	2-Amino-1-methylbenzene	1*	4	U328	B	100 (45.4)
p-Toluidine	106490	4-Amino-1-methylbenzene	1*	4	U353	B	100 (45.4)
o-Toluidine hydrochloride	636215	Benzenamine, 2-methyl-, hydrochloride	1*	4	U222	B	100 (45.4)
Toxaphene	8001352	Camphene, octachloro-	1	1,2,4	P123	X	1 (0.454)
1H-1,2,4-Triazol-3-amine	61825	Amitrole	1*	4	U011	A	10 (4.54)
1,1,2-Trichloroethane	79005	Ethane, 1,1,2-trichloro-	1*	2,4	U227	B	100 (45.4)
Trichloroethene	79016	Trichloroethylene	1000	1,2,4	U228	B	100 (45.4)
Trichloroethylene	79016	Trichloroethene	1000	1,2,4	U228	B	100 (45.4)
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	95954	Phenol,2,4,5-trichloro-					
2,4,6-trichlorophenol	88062	Phenol,2,4,6-trichloro-					
3,4,5-Trichlorophenol	609198						
2,4,5-Trichlorophenol	95954	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)
Tris(2,3-dibromopropyl) phosphate	126727	1-Propanol, 2,3-dibromo-, phosphate (3:1)	1*	4	U235	A	10 (4.54)
Trypan blue	72571	2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl-(l,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.	1*	4	U236	A	10 (4.54)
Unlisted Hazardous Wastes	N.A.						
- Characteristic of EP Toxicity							
Arsenic	N.A.		1*	4	D004	X	1 (0.454)
Cadmium	N.A.		1*	4	D006	A	10 (4.54)
Chromium(VI)	N.A.		1*	4	D007	X	1 (0.454)
Lead	N.A.		1*	2,4	D008	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)
Lindane	N.A.		1*	1,4	D013	X	1 (0.454)
Toxaphene	N.A.		1*	1,4	D015	X	1 (0.454)
Uracil, 5-[bis(2-chloroethyl)amino]-	66751	Uracil mustard	1*	4	U237	A	10 (4.54)
Uracil mustard	66751	Uracil, 5-[bis(2-chloroethyl)amino]-	1*	4	U237	A	10 (4.54)
Vinyl chloride	75014	Ethene, chloro-	1*	2,3,4	U043	A	10 (4.54)
Vinylidene chloride	75354	Ethene, 1,1-dichloro-, 1,1-Dichloroethylene	5000	1,2,4	U078	B	100 (45.4)
F001			1*	4	F001	A	10 (4.54)
The following spent halogenated solvents used in degreasing and sludges from the recovery of these solvents in degreasing operations:							
(a) Tetrachloroethylene	127184		1*	2,4	U210	B	100 (45.5)
(b) Trichloroethylene	79016		1000	1,2,4	U228	B	100 (45.4)
(c) Methylene chloride	75092		1*	4		C	1000 (454)
(d) 1,1,1-Trichloroethane	71556		1*	2,4		C	1000 (454)
(e) Carbon tetrachloride	56235		5000	1,2,4	U211	A	10 (4.54)
(f) Chlorinated fluorocarbons	N.A.		1*	4		D	5000 (2270)
F002			1*	4	F002	B	100 (45.4)
The following spent halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Tetrachloroethylene	127184		1*	2,4	U210	B	100 (45.4)
(b) Methylene chloride	75092		1*	4		C	1000 (454)
(c) Trichloroethylene	79016		1000	1,2,4	U228	B	100 (45.4)
(d) 1,1,1-Trichloroethane	71556		1*	2,4		C	1000 (454)
(e) Chlorobenzene	108907		100			B	100 (45.4)
(f) 1,1,2-Trichloro-1,2,2-trifluoroethane	76131		1*	4		D	5000 (2270)
(g) o-Dichlorobenzene	95501		100			B	100 (45.4)
(h) Trichlorofluoromethane	75694		1*	4		D	5000 (2270)
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..							
F019			1*	4	F019	X	1 (0.454)
Wastewater treatment sludges from the chemical conversion coating of aluminum.							
F020			1*	4	F020	X	1 (0.454)

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)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process of tri- or tetrachlorophenol, or of intermediates) used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.). F021			1*	4	F021	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives. F022			1*	4	F022	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions. F023			1*	4	F023	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.). F024			1*	4	F024	X	1 (0.454)
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 dessicants(sic), wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in Section 261.32.). F026			1*	4	F026	X	1 (0.454)

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)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.							
F027			1*	4	F027	X	1 (0.454)
Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.).							
F028			1*	4	F028	X	1 (0.454)
Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.							
K001			1*	4	K001	X	1 (0.454)
Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.							
K002			1*	4	K002	X	1 (0.454)
Wastewater treatment sludge from the production of chrome yellow and orange pigments.							
K003			1*	4	K003	X	1 (0.454)
Wastewater treatment sludge from the production of molybdate orange pigments.							
K004			1*	4	K004	X	1 (0.454)
Wastewater treatment sludge from the production of zinc yellow pigments.							
K005			1*	4	K005	X	1 (0.454)
Wastewater treatment sludge from the production of chrome green pigments.							
K006			1*	4	K006	X	1 (0.454)
Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).							
K007			1*	4	K007	X	1 (0.454)
Wastewater treatment sludge from the production of iron blue pigments.							
K008			1*	4	K008	X	1 (0.454)
Oven residue from the production of chrome oxide green pigments.							
K009			1*	4	K009	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)
Distillation bottoms from the production of acetaldehyde from ethylene. K010			1*	4	K010	A	10 (4.54)
Distillation side cuts from the production of acetaldehyde from ethylene. K011			1*	4	K011	A	10 (4.54)
Bottom stream from the wastewater stripper in the production of acrylonitrile. K013			1*	4	K013	A	10 (4.54)
Bottom stream from the acetonitrile column in the production of acrylonitrile. K015			1*	4	K015	X	1 (0.454)
Still bottoms from the distillation of benzyl chloride. K016			1*	4	K016	X	1 (0.454)
Heavy ends or distillation residues from the production of carbon tetrachloride. K017			1*	4	K017	A	10 (4.54)
Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. K018			1*	4	K018	X	1 (0.454)
Heavy ends from the fractionation column in ethyl chloride production. K019			1*	4	K019	A	10 (4.54)
Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. K020			1*	4	K020	A	10 (4.54)
Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. (Components of this waste are identical with those of K019, immediately preceding.) K021			1*	4	K021	A	10 (4.54)
Aqueous spent antimony catalyst waste from fluoromethanes production. K022			1*	4	K022	X	1 (0.454)
Distillation bottom tars from the production of phenol/acetone from cumene. K025			1*	4	K025	A	10 (4.54)
Distillation bottoms from the production of nitrobenzene by the nitration of benzene. K027			1*	4	K027	A	10 (4.54)
Centrifuge and distillation residues from toluene diisocyanate production. K028			1*	4	K028	A	10 (4.54)
Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. K029			1*	4	K029	A	10 (4.54)
Waste from the product steam stripper in the production of 1,1,1-trichloroethane. K030			1*	4	K030	X	1 (0.454)

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)
Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. K031			1*	4	K031	X	1 (0.454)
By-product salts generated in the production of MSMA and cacodylic acid. K032			1*	4	K032	A	10 (4.54)
Wastewater treatment sludge from the production of chlordane. K033			1*	4	K033	A	10 (4.54)
Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. K034			1*	4	K034	A	10 (4.54)
Filter solids from filtration of hexachlorocyclopentadiene in the production of chlordane. K035			1*	4	K035	X	1 (0.454)
Wastewater treatment sludges generated in the production of creosote. K038			1*	4	K038	A	10 (4.54)
Wastewater from the washing and stripping of phorate production. K040			1*	4	K040	A	10 (4.54)
Wastewater treatment sludge from the production of phorate. (Components of this waste are identical with those of K038, above.) K041			1*	4	K041	X	1 (0.454)
Wastewater treatment sludge from the production of toxaphene. K042			1*	4	K042	A	10 (4.54)
Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. K043			1*	4	K043	A	10 (4.54)
2,6-Dichlorophenol waste from the production of 2,4-D. K048			1*	4	K048	X	1 (0.454)
Dissolved air flotation (DAF) float from the petroleum refining industry. K049			1*	4	K049	X	1 (0.454)
Slop oil emulsion solids from the petroleum refining industry. K050			1*	4	K050	X	1 (0.454)
Heat exchanger bundle cleaning sludge from the petroleum refining industry. K051			1*	4	K051	X	1 (0.454)
API separator sludge from the petroleum refining industry. K060			1*	4	K060	X	1 (0.454)
Ammonia still lime sludge from coking operations. K061			1*	4	K061	X	1 (0.454)
Emission control dust/sludge from the primary production of steel in electric furnaces. K062			1*	4	K062	X	1 (0.454)

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)
Spent pickle liquor from steel finishing operations. K069			1*	4	K069	X	1 (0.454)
Emission control dust/sludge from secondary lead smelting. K073			1*	4	K073	A	10 (4.54)
Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. K084			1*	4	K084	X	1 (0.454)
Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. K085			1*	4	K085	A	10 (4.54)
Distillation or fractionation column bottoms from the production of chlorobenzenes. K086			1*	4	K086	X	1 (0.454)
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. K095			1*	4	K095	B	100 (45.4)
Distillation bottoms from the production of 1,1,1-trichloroethane. K096			1*	4	K096	A	10 (4.54)
Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. K097			1*	4	K097	X	1 (0.454)
Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. K098			1*	4	K098	X	1 (0.454)
Untreated process wastewater from the production of toxaphene. K099			1*	4	K099	A	10 (4.54)
Untreated wastewater from the production of 2,4,-D. K100			1*	4	K100	X	1 (0.454)
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.) K101			1*	4	K101	X	1 (0.454)
Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo- arsenic compounds. K102			1*	4	K102	X	1 (0.454)

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)
Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds K104			1*	4	K104	A	10 (4.54)
Combined wastewater streams generated from nitrobenzene/aniline chlorobenzenes. K105			1*	4	K105	A	10 (4.54)
Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. K111			1*	4	K111	A	10 (4.54)
Product washwaters from the production of dinitrotoluene via nitration of toluene. K112			1*	4	K112	A	10 (4.54)
Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene. K113			1*	4	K113	A	10 (4.54)
Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. K114			1*	4	K114	A	10 (4.54)
Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. K115			1*	4	K115	A	10 (4.54)
Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. K116			1*	4	K116	A	10 (4.54)
Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. K117			1*	4	K117	X	1 (0.454)
Wastewater from the reaction vent gas scrubber in the production of ethylene bromide via bromination of ethene. K118			1*	4	K118	X	1 (0.454)
Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide. K136			1*	4	K136	X	1 (0.454)
Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.							

† - 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).
††† - The RQ for asbestos is limited to friable forms only.
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
- indicates that the RQ is subject to change when the assessment of potential carcinogenicity and/or chronic toxicity is completed
- The Agency may adjust the RQ for methyl isocyanate in a future rulemaking; until then the statutory RQ applies.
§ - See the proposed rule on RQ adjustments for radionuclides published in today's Federal Register.

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

CAS REG. NUMBER	Hazardous Substance
50000	Formaldehyde Methylene oxide
50077	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione,6-amino-8-[((aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl- Mitomycin C
50180	Cyclophosphamide 2H-1,3,2-Oxazaphosphorine,2-[bis(2-chloroethyl) amino]tetrahydro-2-oxide
50293	DDT Dichlorodiphenyl trichloroethane 4,4'-DDT
50328	Benzo[a]pyrene 3,4-Benzopyrene
51796	Carbamic acid, ethyl ester Ethyl carbamate (Urethan)
53703	Dibenz[a,h]anthracene Dibenzo[a,h]anthracene 1,2:5,6-Dibenzanthracene
53963	Acetamide, N-fluoren-2-yl- 2-Acetylaminofluorene
55185	Ethanamine, N-ethyl-N-nitroso- N-Nitrosodiethylamine
56042	Methylthiouracil 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
56235	Carbon tetrachloride Methane, tetrachloro-
56382	Parathion Phosphorothioc acid, O,O-diethyl O-(p-nitrophenyl)ester
56495	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl- 3-Methylcholanthrene
56531	Diethylstilbestrol 4,4'-Stilbenediol, alpha,alpha'-diethyl-
56553	Benz[a]anthracene Benzo[a]anthracene 1,2-Benzanthracene
57147	Hydrazine, 1,1-dimethyl- 1,1-Dimethylhydrazine
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
60117	Benzenamine, N,N-dimethyl-4-phenylazo- Dimethylaminoazobenzene
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
62442	Acetamide, N-(4-ethoxyphenyl)- Phenacetin
62500	Ethyl methanesulfonate Methanesulfonic acid, ethyl ester
62555	Ethanethioamide Thioacetamide
62566	Carbamide, thio- Thiourea
62759	Dimethylnitrosamine N-Nitrosodimethylamine
66751	Uracil mustard Uracil, 5-[bis(2-chloroethyl)amino]-
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
71432	Benzene
72548	DDD Dichlorodiphenyl dichloroethane TDE 4,4'-DDD
72559	DDE 4,4'-DDE
72571	Trypan blue 2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'- dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt
74873	Methane, chloro Methyl chloride
74884	Methane, iodo- Methyl iodide
75014	Ethene, chloro- Vinyl chloride
75218	Ethylene oxide Oxirane
75354	Ethene, 1,1-dichloro- Vinylidene chloride 1,1-Dichloroethylene
75558	1,2-Propylenimine 2-Methylaziridine
75605	Cacodylic acid Hydroxydimethylarsine oxide
75876	Acetaldehyde, trichloro- Chloral
76017	Ethane, pentachloro- Pentachloroethane
76448	Heptachlor 4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
77474	Hexachlorocyclopentadiene 1,3-Cyclopentadiene,1,2,3,4,5,5-hexachloro-
77781	Dimethyl sulfate Sulfuric acid, dimethyl ester
79005	Ethane, 1,1,2-trichloro- 1,1,2-Trichloroethane

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

CAS REG. NUMBER	Hazardous Substance
79016	Trichloroethene Trichloroethylene
79345	Ethane, 1,1,2,2-tetrachloro- 1,1,2,2-Tetrachloroethane
79447	Carbamoyl chloride, dimethyl- Dimethylcarbamoyl chloride
79469	Propane, 2-nitro- 2-Nitropropane
81072	Saccharin and salts 1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts
82688	Benzene, pentachloronitro- Pentachloronitrobenzene
87683	Hexachlorobutadiene 1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
87865	Pentachlorophenol Phenol, pentachloro-
88062	Phenol, 2,4,6-trichloro- 2,4,6-Trichlorophenol
91598	beta-Naphthylamine 2-Naphthylamine
91941	(1,1'-Biphenyl)-4,4'diamine,3,3'dichloro- 3,3'-Dichlorobenzidine
92875	(1,1'-Biphenyl)-4,4'diamine Benzidine
94586	Benzene, 1,2-methylenedioxy-4-propyl- Dihydrosafrole
94597	Benzene, 1,2-methylenedioxy-4-allyl- Safrole
95534	o-Toluidine 2-Amino-1-methylbenzene
95807	Toluenediamine Diaminotoluene
95954	Phenol, 2,4,5-trichloro- 2,4,5-Trichlorophenol
96128	Propane, 1,2-dibromo-3-chloro- 1,2-Dibromo-3-chloropropane
96457	Ethylenethiourea 2-Imidazolidinethione
98077	Benzene, (trichloromethyl)- Benzotrichloride

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

CAS REG. NUMBER	Hazardous Substance
99558	Benzenamine, 2-methyl-5-nitro- 5-Nitro-o-toluidine
100447	Benzene, chloromethyl- Benzyl chloride
100754	N-Nitrosopiperidine Pyridine, hexahydro-N-nitroso-
101144	Benzenamine, 4,4'-methylenebis(2-chloro- 4,4'-Methylenebis(2-chloroaniline)
106490	p-Toluidine 4-Amino-1-methylbenzene
106898	Epichlorohydrin Oxirane, 2-(chloromethyl)- 1-Chloro-2,3-epoxypropane
106934	Ethane, 1,2-dibromo- Ethylene dibromide
107062	Ethane, 1,2-dichloro- Ethylene dichloride 1,2-Dichloroethane
107131	Acrylonitrile 2-Propenenitrile
107302	Chloromethyl methyl ether Methane, chloromethoxy-
110805	Ethylene glycol monoethyl ether 2-Ethoxyethanol
111444	Bis(2-chloroethyl) ether Dichloroethyl ether Ethane, 1,1'-oxybis[2-chloro-
115026	Azaserine L-Serine, diazoacetate (ester)
117817	Bis(2-ethylhexyl) phthalate 1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
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
120581	Benzene, 1,2-methylenedioxy-4-propenyl- Isosafrole
121142	Benzene, 1-methyl-2,4-dinitro- 2,4-Dinitrotoluene

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

CAS REG. NUMBER	Hazardous Substance
122667	Hydrazine, 1,2-diphenyl- 1,2-Diphenylhydrazine
123911	1,4-Diethylene dioxide 1,4-Dioxane
126727	Tris(2,3-dibromopropyl) phosphate 1-Propanol, 2,3-dibromo-, phosphate (3:1)
127184	Ethene, 1,1,2,2-tetrachloro- Perchloroethylene Tetrachloroethene Tetrachloroethylene
134327	alpha-Naphthylamine 1-Naphthylamine
143500	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta- [c,d]-pentalen-2-one Kepone
148823	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L- Melphalan
151564	Aziridine Ethylenimine
189559	Dibenz[a,i]pyrene 1,2:7,8-Dibenzopyrene
193395	Indeno[1,2,3-cd]pyrene 1,10-(1,2-Phenylene)pyrene
205992	Benzo[b]fluoranthene
207089	Benzo(k)fluoranthene
218019	Chrysene 1,2-Benzphenanthrene
225514	Benz[c]acridine 3,4-Benzacridine
301042	Acetic acid, lead salt Lead acetate
302012	Diamine Hydrazine
303344	Lasiocarpine
305033	Butanoic acid, 4-[bis(2-chloroethyl) amino]benzene Chlorambucil
309002	Aldrin 1,2,3,4,10-10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,exo-dimethanonaphthalene

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

CAS REG. NUMBER	Hazardous Substance
319846	alpha—BHC
319857	beta—BHC
492808	Auramine Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-
494031	Chlornaphazine 2-Naphthylamine, N,N-bis(2-chloroethyl)-
496720	Toluenediamine Diaminotoluene
510156	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)alpha-hydroxy-ethyl ester Ethyl 4,4'-dichlorobenzilate
540738	Hydrazine, 1,2-dimethyl- 1,2-Dimethylhydrazine
542881	Bis(chloromethyl) ether Methane, oxybis(chloro-
543908	Cadmium acetate
557197	Nickel cyanide Nickel(II) cyanide
606202	Benzene, 1-methyl-2,6-dinitro- 2,6-Dinitrotoluene
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
630206	Ethane, 1,1,1,2-tetrachloro- 1,1,1,2-Tetrachloroethane
636215	Benzenamine, 2-methyl-, hydrochloride o-Toluidine hydrochloride
684935	Carbamide, N-methyl-N-nitroso N-Nitroso-N-methylurea
692422	Arsine, diethyl- Diethylarsine
696286	Dichlorophenylarsine Phenyl dichloroarsine

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

CAS REG. NUMBER	Hazardous Substance
759739	Carbamide, N-ethyl-N-nitroso- N-Nitroso-N-ethylurea
765344	Glycidylaldehyde 1-Propanal, 2,3-epoxy-
823405	Toluenediame Diaminotoluene
924163	N-Nitrosodi-n-butylamine 1-Butanamine, N-butyl-N-nitroso-
930552	N-Nitrosopyrrolidine Pyrrole, tetrahydro-N-nitroso-
933755	2,3,6-Trichlorophenol
933788	2,3,5-Trichlorophenol
1024573	Heptachlor epoxide
1116547	Ethanol, 2,2'-(nitrosoimino)bis- N-Nitrosodiethanolamine
1120714	1,2-Oxathiolane, 2,2-dioxide 1,3-Propane sultone
1303282	Arsenic pentoxide Arsenic(V) oxide
1303328	Arsenic disulfide
1303339	Arsenic trisulfide
1327522	Arsenic acid
1327533	Arsenic trioxide Arsenic(III) oxide
1332214	Asbestos
1335326	Lead subacetate
1336363	Polychlorinated Biphenyls (PCBs)
1464535	1,2:3,4-Diepoxybutane 2,2'-Bioxirane
1615801	Hydrazine, 1,2-diethyl- N,N'-Diethylhydrazine
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
2303164	Diallate S-(2,3-Dichloroallyl) diisopropylthiocarbamate
3165933	Benzenamine, 4-chloro-2-methyl-, hydrochloride 4-Chloro-o-toluidine, hydrochloride
4549400	Ethenamine, N-methyl-N-nitroso- N-Nitrosomethylvinylamine

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

CAS REG. NUMBER	Hazardous Substance
7439921	Lead
7440020	Nickel
7440382	Arsenic
7440417	Beryllium Beryllium dust
7440439	Cadmium
7440473	Chromium
7446277	Lead phosphate Phosphoric acid, lead salt
7488564	Selenium disulfide Sulfur selenide
7631892	Sodium arsenate
7645252	Lead arsenate
7718549	Nickel chloride
7738945	Chromic acid
7775113	Sodium chromate
7778394	Arsenic acid
7778441	Calcium arsenate
7778509	Potassium bichromate
7784341	Arsenic trichloride
7784409	Lead arsenate
7784410	Potassium arsenate
7784465	Sodium arsenite
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
8001352	Camphene, octachloro- Toxaphene

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

CAS REG. NUMBER	Hazardous Substance
8001589	Creosote
10102484	Lead arsenate
10108642	Cadmium chloride
10124502	Potassium arsenite
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
12054487	Nickel hydroxide
12672296	Aroclor 1248 Polychlorinated Biphenyls (PCBs)
12674112	Aroclor 1016 Polychlorinated Biphenyls (PCBs)
13463393	Nickel carbonyl Nickel tetracarbonyl
13597994	Beryllium nitrate
13765190	Calcium chromate Chromic acid, calcium salt
14216752	Nickel nitrate
14307358	Lithium chromate
15699180	Nickel ammonium sulfate
15950660	2,3,4-Trichlorophenol
18883664	D-Glucopyranose, 2-deoxy-2-(3-methyl-3- nitrosoureido)- Streptozotocin

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

CAS REG. NUMBER	Hazardous Substance
20830813	Daunomycin 5,12-Naphthacenedione, (8s-cis)-8-acetyl-10-[3- amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranoxyl) oxyl-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy
25167822	Trichlorophenol
25321146	Dinitrotoluene

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

CAS REG. NUMBER	Hazardous Substance
25376458	Toluenediamine Diaminotoluene
37211055	Nickel chloride
52740166	Calcium arsenite
53469219	Aroclor 1242 Polychlorinated Biphenyls (PCBs)

PART 117—DESIGNATION, REPORTABLE QUANTITIES AND NOTIFICATION

1. The authority citation for Part 117 continues to read as follows:

Authority: Secs. 311 and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), and Executive Order 11735.

2. Section 117.3 is amended by revising the Note to Table 117.3 and placing it before the table heading and by revising Table 117.3 to read as follows:

Note: The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X", "A", "B", "C", and "D" associated with reportable quantities of 1, 10, 100, 1000 and 5000 pounds respectively.

TABLE 117.3—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES

Material	Category	RQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454)
Acetic acid	D	5,000 (2,270)
Acetic anhydride	D	5,000 (2,270)
Acetone cyanohydrin	A	10 (4.54)
Acetyl bromide	D	5,000 (2,270)
Acetyl chloride	D	5,000 (2,270)
Acrolein	X	1 (0.454)
Acrylonitrile	A	10 (4.54)
Adipic acid	D	5,000 (2,270)
Aldrin	X	1 (0.454)
Allyl alcohol	B	100 (45.4)
Allyl chloride	C	1,000 (454)
Aluminum sulfate	D	5,000 (2,270)
Ammonia	B	100 (45.4)
Ammonium acetate	D	5,000 (2,270)
Ammonium benzoate	D	5,000 (2,270)
Ammonium bicarbonate	D	5,000 (2,270)
Ammonium bichromate	X	1 (0.454)
Ammonium bifluoride	B	100 (45.4)
Ammonium bisulfite	D	5,000 (2,270)
Ammonium carbamate	D	5,000 (2,270)
Ammonium carbonate	D	5,000 (2,270)
Ammonium chloride	D	5,000 (2,270)
Ammonium chromate	X	1 (0.454)
Ammonium citrate	D	5,000 (2,270)
Ammonium fluoborate	D	5,000 (2,270)
Ammonium fluoride	B	100 (45.4)
Ammonium hydroxide	C	1,000 (454)

TABLE 117.3—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES—Continued

Material	Category	RQ in pounds (kilograms)
Ammonium oxalate	D	5,000 (2,270)
Ammonium silicofluoride	C	1,000 (454)
Ammonium sulfamate	D	5,000 (2,270)
Ammonium sulfide	B	100 (45.4)
Ammonium sulfite	D	5,000 (2,270)
Ammonium tartrate	D	5,000 (2,270)
Ammonium thiocyanate	D	5,000 (2,270)
Ammonium thiosulfate	D	5,000 (2,270)
Amyl acetate	D	5,000 (2,270)
Aniline	D	5,000 (2,270)
Antimony pentachloride	C	1,000 (454)
Antimony potassium tartrate	B	100 (45.4)
Antimony tribromide	C	1,000 (454)
Antimony trichloride	C	1,000 (454)
Antimony trifluoride	C	1,000 (454)
Antimony trioxide	C	1,000 (454)
Arsenic disulfide	X	1 (0.454)
Arsenic pentoxide	X	1 (0.454)
Arsenic trichloride	X	1 (0.454)
Arsenic trioxide	X	1 (0.454)
Arsenic trisulfide	X	1 (0.454)
Barium cyanide	A	10 (4.54)
Benzene	A	10 (4.54)
Benzoic acid	D	5,000 (2,270)
Benzonitrile	D	5,000 (2,270)
Benzoyl chloride	C	1,000 (454)
Benzyl chloride	B	100 (45.4)
Beryllium chloride	X	1 (0.454)
Beryllium fluoride	X	1 (0.454)
Beryllium nitrate	X	1 (0.454)
Butyl acetate	D	5,000 (2,270)
Butylamine	C	1,000 (454)
n-Butyl phthalate	A	10 (4.54)
Butyric acid	D	5,000 (2,270)
Cadmium acetate	A	10 (4.54)
Cadmium bromide	A	10 (4.54)
Cadmium chloride	A	10 (4.54)
Calcium arsenate	X	1 (0.454)
Calcium arsenite	X	1 (0.454)
Calcium carbide	A	10 (4.54)
Calcium chromate	X	1 (0.454)
Calcium cyanide	A	10 (4.54)
Calcium dodecylbenzenesulfonate	C	1,000 (454)
Calcium hypochlorite	A	10 (4.54)
Captan	A	10 (4.54)
Carbaryl	B	100 (45.4)
Carbofuran	A	10 (4.54)
Carbon disulfide	B	100 (45.4)
Carbon tetrachloride	A	10 (4.54)
Chlordane	X	1 (0.454)
Chlorine	A	10 (4.54)
Chlorobenzene	B	100 (45.4)
Chloroform	A	10 (4.54)
Chlorosulfonic acid	C	1,000 (454)
Chlorpyrifos	X	1 (0.454)
Chromic acetate	C	1,000 (454)
Chromic acid	X	1 (0.454)
Chromic sulfate	C	1,000 (454)
Chromous chloride	C	1,000 (454)
Cobaltous bromide	C	1,000 (454)
Cobaltous formate	C	1,000 (454)
Cobaltous sulfamate	C	1,000 (454)
Coumaphos	A	10 (4.54)
Cresol	C	1,000 (454)
Crotonaldehyde	B	100 (45.4)
Cupric acetate	B	100 (45.4)
Cupric acetoarsenite	X	1 (0.454)
Cupric chloride	A	10 (4.54)
Cupric nitrate	B	100 (45.4)

TABLE 117.3—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES—Continued

Material	Category	RQ in pounds (kilograms)
Cupric oxalate	B	100 (45.4)
Cupric sulfate	A	10 (4.54)
Cupric sulfate ammoniated	B	100 (45.4)
Cupric tartrate	B	100 (45.4)
Cyanogen chloride	A	10 (4.54)
Cyclohexane	C	1,000 (454)
2,4-D Acid	B	100 (45.4)
2,4-D Esters	B	100 (45.4)
DDT	X	1 (0.454)
Diazinon	X	1 (0.454)
Dicamba	C	1,000 (454)
Dichlobenil	B	100 (45.4)
Dichlone	X	1 (0.454)
Dichlorobenzene	B	100 (45.4)
Dichloropropane	C	1,000 (454)
Dichloropropene	B	100 (45.4)
Dichloropropene-Dichloropropane Mixture	B	100 (45.4)
2,2-Dichloropropionic acid	D	5,000 (2,270)
Dichlorvos	A	10 (4.54)
Dieldrin	X	1 (0.454)
Diethylamine	B	100 (45.4)
Dimethylamine	C	1,000 (454)
Dinitrobenzene	B	100 (45.4)
Dinitrophenol	A	10 (45.4)
Dinitrotoluene	A	10 (4.54)
Diquat	C	1,000 (454)
Disulfoton	X	1 (0.454)
Diuron	B	100 (45.4)
Dodecylbenzenesulfonic acid	C	1,000 (454)
Endosulfan	X	1 (0.454)
Endrin	X	1 (0.454)
Epichlorohydrin	B	100 (45.4)
Ethion	A	10 (4.54)
Ethylbenzene	C	1,000 (454)
Ethylenediamine	D	5,000 (2,270)
Ethylene dibromide	X	1 (0.454)
Ethylene dichloride	B	100 (45.4)
EDTA	D	5,000 (2,270)
Ferric ammonium citrate	C	1,000 (454)
Ferric ammonium oxalate	C	1,000 (454)
Ferric chloride	C	1,000 (454)
Ferric fluoride	B	100 (45.4)
Ferric nitrate	C	1,000 (454)
Ferric sulfate	C	1,000 (454)
Ferrous ammonium sulfate	C	1,000 (454)
Ferrous chloride	B	100 (45.4)
Ferrous sulfate	C	1,000 (454)
Formaldehyde	B	100 (45.4)
Formic acid	D	5,000 (2,270)
Fumaric acid	D	5,000 (2,270)
Furfural	D	5,000 (2,270)
Guthion	X	1 (0.454)
Heptachlor	X	1 (0.454)
Hexachlorocyclopentadiene	A	10 (4.54)
Hydrochloric acid	D	5,000 (2,270)
Hydrofluoric acid	B	100 (45.4)
Hydrogen cyanide	A	10 (4.54)
Hydrogen sulfide	B	100 (45.4)
Isoprene	B	100 (45.4)
Isopropanolamine dodecylbenzenesulfonate	C	1,000 (454)
Kelthane	A	10 (4.54)
Kepone	X	1 (0.454)
Lead acetate	A	10 (4.54)
Lead arsenate	X	1 (0.454)
Lead chloride	B	100 (45.4)
Lead fluoborate	B	100 (45.4)
Lead fluoride	B	100 (45.4)
Lead iodide	B	100 (45.4)

TABLE 117.3—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES—Continued

Material	Category	RQ in pounds (kilograms)
Lead nitrate	B	100 (45.4)
Lead stearate	D	5,000 (2,270)
Lead sulfate	B	100 (45.4)
Lead sulfide	D	5000 (2,270)
Lead thiocyanate	B	100 (45.4)
Lindane	X	1 (0.454)
Lithium chromate	X	1 (0.454)
Malathion	B	100 (45.4)
Maleic acid	D	5,000 (2,270)
Maleic anhydride	D	5,000 (2,270)
Mercaptodimethur	A	10 (4.54)
Mercuric cyanide	X	1 (0.454)
Mercuric nitrate	A	10 (4.54)
Mercuric sulfate	A	10 (4.54)
Mercuric thiocyanate	A	10 (4.54)
Mercurous nitrate	A	10 (4.54)
Methoxychlor	X	1 (0.454)
Methyl mercaptan	B	100 (45.4)
Methyl methacrylate	C	1,000 (454)
Methyl parathion	B	100 (45.4)
Mevinphos	A	10 (4.54)
Mexacarbate	C	1,000 (454)
Monoethylamine	B	100 (45.4)
Monomethylamine	B	100 (45.4)
Naled	A	10 (4.54)
Naphthalene	B	100 (45.4)
Naphthenic acid	B	100 (45.4)
Nickel ammonium sulfate	B	100 (45.4)
Nickel chloride	B	100 (45.4)
Nickel hydroxide	A	10 (4.54)
Nickel nitrate	B	100 (45.4)
Nickel sulfate	B	100 (45.4)
Nitric acid	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrogen dioxide	A	10 (4.54)
Nitrophenol	B	100 (45.4)
Nitrotoluene	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)
Parathion	A	10 (4.54)
Pentachlorophenol	A	10 (4.54)
Phenol	C	1,000 (454)
Phosgene	A	10 (4.54)
Phosphoric acid	D	5,000 (2,270)
Phosphorus	X	1 (0.454)
Phosphorus oxychloride	C	1,000 (454)
Phosphorus pentasulfide	B	100 (45.4)
Phosphorus trichloride	C	1,000 (454)
Polychlorinated biphenyls	X	1 (0.454)
Potassium arsenate	X	1 (0.454)
Potassium arsenite	X	1 (0.454)
Potassium bichromate	X	1 (0.454)
Potassium chromate	X	1 (0.454)
Potassium cyanide	A	10 (4.54)
Potassium hydroxide	C	1,000 (454)
Potassium permanganate	B	100 (45.4)
Propargite	A	10 (4.54)
Propionic acid	D	5,000 (2,270)
Propionic anhydride	D	5,000 (2,270)
Propylene oxide	B	100 (45.4)
Pyrethrins	X	1 (0.454)
Quinoline	D	5,000 (2,270)
Resorcinol	D	5,000 (2,270)
Selenium oxide	A	10 (4.54)
Silver nitrate	X	1 (0.454)
Sodium	A	10 (4.54)
Sodium arsenate	X	1 (0.454)
Sodium arsenite	X	1 (0.454)
Sodium bichromate	X	1 (0.454)
Sodium bifluoride	B	100 (45.4)

TABLE 117.3—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES—Continued

Material	Category	RQ in pounds (kilograms)
Sodium bisulfite	D	5,000 (2,270)
Sodium chromate	X	1 (0.454)
Sodium cyanide	A	10 (4.54)
Sodium dodecylbenzenesulfonate	C	1,000 (454)
Sodium fluoride	C	1,000 (454)
Sodium hydrosulfide	D	5,000 (2,270)
Sodium hydroxide	C	1,000 (454)
Sodium hypochlorite	B	100 (45.4)
Sodium methylate	C	1,000 (454)
Sodium nitrite	B	100 (45.4)
Sodium phosphate, dibasic	D	5,000 (2,270)
Sodium phosphate, tribasic	D	5,000 (2,270)
Sodium selenite	B	100 (45.4)
Strontium chromate	X	1 (0.454)
Strychnine	A	10 (4.54)
Styrene	C	1,000 (454)
Sulfuric acid	C	1,000 (454)
Sulfur monochloride	C	1,000 (454)
2,4,5-T acid	C	1,000 (454)
2,4,5-T amines	D	5,000 (2,270)
2,4,5-T esters	C	1,000 (454)
2,4,5-T salts	C	1,000 (454)
TDE	X	1 (0.454)
2,4,5-TP acid	B	100 (45.4)
2,4,5-TP acid esters	B	100 (45.4)
Tetraethyl lead	A	10 (4.54)
Tetraethyl pyrophosphate	A	10 (4.54)
Thallium sulfate	B	100 (45.4)
Toluene	C	1,000 (454)
Toxaphene	X	1 (0.454)
Trichlorfon	B	100 (45.4)
Trichloroethylene	B	100 (45.4)
Trichlorophenol	A	10 (4.54)
Triethanolamine dodecylbenzenesulfonate	C	1,000 (454)
Triethylamine	D	5,000 (2,270)
Trimethylamine	B	100 (45.4)
Uranyl acetate	B	100 (45.4)
Uranyl nitrate	B	100 (45.4)
Vanadium pentoxide	C	1,000 (454)
Vanadyl sulfate	C	1,000 (454)
Vinyl acetate	D	5,000 (2,270)
Vinylidene chloride	B	100 (45.4)
Xylene	C	1,000 (454)
Xylenol	C	1,000 (454)
Zinc acetate	C	1,000 (454)
Zinc ammonium chloride	C	1,000 (454)
Zinc borate	C	1,000 (454)
Zinc bromide	C	1,000 (454)
Zinc carbonate	C	1,000 (454)
Zinc chloride	C	1,000 (454)
Zinc cyanide	A	10 (4.54)
Zinc fluoride	C	1,000 (454)
Zinc formate	C	1,000 (454)
Zinc hydrosulfite	C	1,000 (454)
Zinc nitrate	C	1,000 (454)
Zinc phenolsulfonate	D	5,000 (2,270)
Zinc phosphide	B	100 (45.4)
Zinc silicofluoride	D	5,000 (2,270)
Zinc sulfate	C	1,000 (454)
Zirconium nitrate	D	5,000 (2,270)
Zirconium potassium fluoride	C	1,000 (454)
Zirconium sulfate	D	5,000 (2,270)
Zirconium tetrachloride	D	5,000 (2,270)

[FR Doc. 87-344 Filed 3-13-87; 8:45 am]

BILLING CODE 6560-50

M. M. GOODREAU

1986

READER FILE

40% C_{12}

25% C_{12}

XF: desk

TO: T. G. Grumbles

FROM: Michele M. Goodreau
DATE: January 24, 1986

Interoffice Communication

SUBJ: HAZARDOUS MATERIALS DESCRIPTIONS

VISTA

Hazardous material descriptions, for the products manufactured at Hammond, have been reviewed for compliance with current Hazardous Materials Transportation (HMT) regulations. Based on this review, the descriptions should be updated. Proposed descriptions and justifications for the revisions are summarized below:

SA-597 Sulfonic Acid

Current: RQ, Dodecylbenzenesulfonic acid, Corrosive Material, NA2584. [placarded "Corrosive"]

Proposed: Corrosive Liquid, N.O.S., Corrosive Material, UN1760, RQ dodecylbenzenesulfonic acid. [placarded "Corrosive"]

SA-597 is most appropriately described as a corrosive mixture of alkybenzene sulfonic acids, containing approximately 25% dodecylbenzenesulfonic acid and less than 2% free sulfuric acid. Dodecylbenzene sulfonic acid is a hazardous substance under Superfund, and packages containing more than the reportable quantity (RQ), in this case 1000 pounds, must have it indicated on the shipping papers to allow for quick reporting by emergency response personnel.

Under IATA and International regulations, use of the ID number 2584 indicates that the material contains greater than 5% free sulfuric acid and Packing Group II must be used. Packing group II materials are subject to additional restrictions and requirements. Materials containing less than 5% free sulfuric acid, as is the case for SA-597, may use packing group III, which is the most appropriate, and least restrictive packing group.

SA-697

Current: RQ, Dodecylbenzenesulfonic acid, Corrosive Material, NA2584. [Placarded "Corrosive"]

Proposed: Corrosive Liquid, N.O.S., Corrosive Material, UN1760. [Placarded "Corrosive"]

SA-697 is most appropriately described as a corrosive mixture of alkylbenzene sulfonic acids, containing no dodecylbenzene sulfonic acid and less than 2% free sulfuric acid. The current description could lead to unnecessary Superfund reporting. Use of the ID number 2584 is also inappropriate, as discussed under SA-597, and imposes additional restrictions and requirements on shipments.

C-550, C-560

Current: RQ, Sodium dodecylbenzenesulfonate, ORM-E, NA9146.

Proposed: Hazardous Substance, liquid, N.O.S., ORM-E, NA-9188, RQ sodium dodecylbenzensulfonate.

C-550 and C-560 are most appropriately described as a mixture containing 50-60% sodium alkylbenzene sulfonate (SAS). Of the total quantity of SAS, approximately 25% is sodium dodecyl benzene sulfonate. Even though these products do not meet the definition of any HMT hazard class, they are still regulated as hazardous substances when they contain greater than the reportable quantity (RQ) of a hazardous material. In this case, greater than 1000 pounds of sodium dodecylbenzene sulfonate. If they contain less than the RQ, they are not regulated for transportation purposes.

Please give me your input on this matter as soon as possible.

Thanks,

M. M. Goodreau

M. M. Goodreau

ajo/1