

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 370**

[FRL 3251-9]

Emergency and Hazardous Chemical Inventory Forms and Community Right-to-Know Reporting Requirements**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

SUMMARY: Section 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA), signed into law on October 17, 1986, required the Administrator to publish a uniform format for emergency and hazardous chemical inventory forms within three months. Under sections 311 and 312 of SARA, facilities required to prepare or have available a material safety data sheet (MSDS) under the Occupational Safety and Health Act (OSHA) and its implementing regulations must submit the MSDS and the inventory forms to local and State officials. These reporting provisions give public access to information on hazardous chemicals present in the local community for a wide variety of uses including emergency response and environmental and public health planning priorities. Today, EPA publishes a revision of the form for inventory reporting based on public comment received on the January 27, 1987, proposal and the July 14, 1987, notice reopening the comment period on several issues. EPA is also publishing the final rules for reporting under sections 311 and 312.

EFFECTIVE DATES: This rule becomes effective on October 15, 1987. Other dates relevant to this rule include the following:

1. Initial submission of material safety data sheets or alternative list: October 17, 1987 (or 90 days after the owner or operator of a facility is required to prepare or have available an MSDS for a hazardous chemical under OSHA regulations, whichever is later: For facilities newly subject to OSHA MSDS requirements in May 1988, MSDS or alternative lists will be due in August 1988).

2. Initial submission of the inventory form containing Tier I information: March 1, 1988 (or March 1 of the first year after a facility is required to prepare or have available an MSDS for that hazardous chemical under OSHA regulations, whichever is later: For facilities newly subject to OSHA MSDS requirements in May 1988, Tier I

information must be submitted annually beginning March 1, 1989).

ADDRESS: The record supporting this rulemaking is contained in the Superfund Docket located in Room Lower Garage at the U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The docket is available for inspection by appointment only between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, excluding federal holidays. The docket phone number is (202) 382-3046. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

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I. Introduction**A. Statutory Authority**

These regulations are issued under Title III of the Superfund Amendments and Reauthorization Act of 1986 (Pub. L. 99-499), ("SARA" or "the Act"). Title III of SARA is known as the Emergency Planning and Community Right-to-Know Act of 1986.

B. Background**1. Superfund Amendments and Reauthorization Act of 1986 (SARA)**

On October 17, 1986, the President signed into law the Superfund Amendments and Reauthorization Act of 1986 (SARA), which revises and extends the authorities established under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). Commonly known as "Superfund," CERCLA provides authority for federal clean-up of sites where hazardous materials have been deposited or released and for response to releases of hazardous substances or other contaminants. Title III of SARA establishes new authorities for emergency planning and preparedness, community right-to-know reporting, and toxic chemical release reporting.

2. Title III

Title III of SARA, also known as the Emergency Planning and Community Right-to-Know Act of 1986, is intended to encourage and support emergency planning efforts at the State and local levels and to provide citizens and local governments with information concerning potential chemical hazards present in their communities.

Title III is organized into three subtitles. Subtitle A establishes the framework for State and local emergency planning. Final rules for facilities subject to Subtitle A requirements were published on April 22, 1987. 52 FR 13378. Subtitle B provides the mechanism for community awareness concerning hazardous chemicals present in the locality. This information is critical for effective local contingency planning. Subtitle B includes requirements for the submission of material safety data sheets and emergency and hazardous chemical inventory forms to State and local governments as well as the submission of toxic chemical release forms to the States and EPA. Subtitle C contains general provisions concerning trade secret protection, enforcement, citizen suits, and public availability of information.

3. Subtitle B

Subtitle B of Title III is primarily concerned with providing information to appropriate local, State, and federal officials on the type, amount, location, use, disposal, and release of chemicals at certain facilities.

Subtitle B contains three reporting provisions. Section 311 requires the owner or operator of facilities subject to the Occupational Safety and Health Act of 1970 (OSHA) and regulations promulgated under that Act (15 U.S.C. 651 *et seq.* as amended, 52 FR 31852 (August 24, 1987)) to submit material safety data sheets (MSDS), or a list of the chemicals for which the facility is required to have an MSDS, to the local emergency planning committees, State emergency response commissions, and local fire departments. The facilities are required to submit the MSDS or alternative list by October 17, 1987, or three months after the facility is required to prepare or have an MSDS for a hazardous chemical under OSHA regulations, whichever is later. Information collection requirements are approved by Office of Management and Budget under control number 2050-0072.)

Under section 312, owners and operators of facilities that must submit an MSDS under section 311 are also required to submit additional information on the hazardous chemicals present at the facility. Beginning March 1, 1988, and annually thereafter, the owner or operator of such a facility must submit an inventory form containing an estimate of the maximum amount of hazardous chemicals present at the facility during the preceding year, an estimate of the average daily amount of hazardous chemicals at the facility, and the location of these chemicals at the facility. Section 312(a) requires owners or operators of such facilities to submit the inventory form to the appropriate local emergency planning committee, State emergency response commission, and local fire department on or before March 1, 1988 (or March 1 of the first year after the facility first becomes subject to the OSHA MSDS requirements for a hazardous chemical) and annually thereafter on March 1.

Section 312 specifies that there be two reporting "tiers" containing information on hazardous chemicals at the facility in different levels of detail. "Tier I," containing general information on the amount and location of hazardous chemicals by category, is submitted annually. "Tier II," containing more detailed information on individual chemicals, is submitted upon request.

A proposed rule setting forth sections 311 and 312 reporting requirements and forms for inventory reporting under section 312 was published on January 27, 1987. 52 FR 2836. Additionally, on July 14, 1987, EPA announced reopening of the comment period on three issues raised during the initial rulemaking and held a public meeting on those issues. 52 FR 26357 (July 14, 1987). Today's rule finalizes the reporting requirements and the inventory forms, which have been revised based on public comment.

Section 313 requires that certain facilities with ten or more employees that manufacture, process, or use a "toxic chemical" in excess of a statutorily-prescribed quantity submit annual information on the chemical and releases of the chemical into the environment. This information must be submitted to EPA and to the appropriate State offices annually beginning on July 1, 1988. EPA is required under section 313(i) to establish a national toxic chemical inventory database for the management of these data. A proposed rule setting forth section 313 reporting requirements and a form for submission of such reports was published on June 4, 1987, 52 FR 21152.

The public has access to most Title III information at locations designated by the Administrator, the State emergency response commission, or local emergency planning committee, as appropriate.

II. Summary of the Public Comments on the Proposed Rule

A total of 241 letters was received on the proposed rule setting forth sections 311 and 312 requirements and an additional 94 letters following the notice of the reopening of the comment period on July 14, 1987. There were a number of comments requesting clarification of terms and exemptions provided in the rule. Specific comments focused on the definition of "facility" and the need for clarification of the exemptions that are applicable to the definition of "hazardous chemical," particularly the exemptions related to research laboratories, household products, and solids.

There were numerous comments on the proposed reporting threshold; these focused on the appropriate length of phase-in, appropriate reporting threshold quantities in each year, and the threshold for the extremely hazardous substance list. Many related comments identified the need for funds to implement these reporting requirements.

Another issue commonly addressed by commenters was the need to reduce the number of physical and health

hazard categories by which the MSDS list and Tier I and Tier II submissions are compiled. There were also comments on the design and content of the reporting forms.

Other major issues were the need for integration of the federal reporting requirements into existing State and local programs and flexibility for effective implementation by State and local governments.

Other comments addressed information management, the economic analysis and small business analysis, confidentiality of information, and enforcement and penalties.

III. Summary of Revisions to the Proposed Rule

This section describes the significant changes that EPA has made to sections 311 and 312 reporting regulations based upon the public comments on the proposed rule. The following summary, which is organized according to the sections of the rule, describes each of the changes.

Section 370.2 Definitions

Under section 311, an alternative to submitting the actual MSDS for each "hazardous chemical" at a facility is the submission of a list of such chemicals, grouped in "categories of health and physical hazards" as set forth under OSHA or its implementing regulations. Section 312 specifies that these categories should also be used in Tier I inventory reporting. EPA is authorized under these sections to alter these hazard categories.

The proposed rule required use of the OSHA hazard classification but solicited comment on several other options for establishing hazard categories. Based on the numerous comments requesting modifications of the categories in the proposed rule, EPA has consolidated the 23 OSHA hazard categories into five categories, as discussed in more detail in Section IV.D. of this preamble.

A definition for "hazard category" has been added to indicate the hazard classification to be used for Tier I and Tier II reporting and when the alternative list of chemicals rather than MSDS is submitted under § 370.21 of the rule.

Definitions of "extremely hazardous substance" and "threshold planning quantity" (TPQ) have also been added because of the reference to these terms in the minimum threshold regulation. Additionally, "present in the same form and concentration as a product packaged for distribution and use by the general public" is defined to help clarify

the "household product" exemption. EPA also eliminated the reference to 40 CFR Part 300 for additional definition of terms, since all necessary terms are now defined in Parts 350 and 370. Finally, EPA eliminated the definition on "Act" because that term does not appear elsewhere in the regulations.

Section 370.20 Applicability

Several changes were made to this section based on public comment. First, EPA has revised the threshold levels for reporting, as discussed in more detail in Section IV.B. of this preamble. EPA has revised the rule to raise the threshold in the second year and to establish a threshold of 500 pounds or the TPQ, whichever is less, for extremely hazardous substances. (For list of extremely hazardous substances, see 52 FR 13378 (April 22, 1987), to be codified at 49 CFR Part 355.) Section 370.20 of the final rule has been revised to reflect these changes.

Several commenters requested clarification on whether the threshold applies to the calendar year or to the year preceding October 17. The final rule was modified to delete reference to year in order to make clear that MSDS reporting on October 17, 1987, is to be made for chemicals present at or above the threshold on that date. With regard to inventory reporting, § 370.25 has been modified to make clear that reporting is for the preceding calendar year as specified under Section 312. In addition, the rule has been clarified by setting out the threshold as they apply to MSDS reporting, inventory reporting, and facilities that become subject to these requirements after October 17, 1987.

Section 370.21 MSDS Reporting

In response to a request for clarification regarding reporting of mixtures under the MSDS list reporting, § 370.21(b)(iii) has been modified to indicate that the hazardous components of mixtures do not need to be reported on the list if the mixture itself is reported.

The title of subsection (c) of § 370.21 has been changed from "update reporting" to "supplemental reporting" to reflect more accurately the content. This paragraph has also been modified to require that revised MSDS be submitted not only to the committee as indicated in the proposed rule, but also to the commission and the fire department. This change was made to ensure accuracy of the files held by these entities.

Section 370.21(d) has been revised to clarify that facilities must respond to all requests for MSDS, including requests

for MSDS below the threshold and MSDS for listed chemicals.

Section 370.25(c) of the final rule indicates that the Tier II form must be submitted to the commission, the committee, and the fire department upon the request of such entities. In the proposed rule, the commission was omitted erroneously.

Section 370.28 Mixtures

Section (a) has been modified to indicate that reporting of mixtures under §§ 370.21 and 370.25 should be consistent "where practicable." This was done because one commenter pointed out that consistency in reporting may not always be possible; e.g., the percentage of the hazardous components may not be known.

A new section (b) was added to describe the calculation of the quantity of mixtures. If the reporting is on each component that is a hazardous chemical, then the concentration of the hazardous chemical, in weight percent (greater than 1% or 0.1% if carcinogenic) must be multiplied by the mass (in pounds) of the mixture to determine the quantity of the hazardous chemical therein. If the reporting is on the mixture itself, the total quantity of the mixture must be reported.

Sections 370.40 and 370.41 Inventory Forms

As discussed in Section IV.I. of this preamble, several commenters sought clarification on the extent to which State or local forms similar in purpose and content could be used in lieu of the form published under section 312. Because facilities will need some certainty in meeting their reporting obligations, EPA is clarifying the rule to indicate that the forms published today are to be considered uniform formats for reporting. However, State or local governments may add supplemental questions. New §§ 370.40(a) and 370.41(a) address this issue in the final rule. This section has also been revised to correct an error in the proposed rulemaking that indicated that the Tier II form must be submitted to EPA. Section 370.41 in today's rule correctly indicates that the Tier II form must be submitted to the SERC, LEPC, and fire department as required in § 370.25(c).

In response to several comments concerning the average daily amount, EPA has changed the method of calculating this figure. The commenters' primary concern was the EPA's proposed method of calculation would create misleadingly low figures for chemicals that are present on-site for only short periods of time. On the final form, average daily amount is to be

calculated by dividing the total of all daily weights by the number of days and chemical was present on the site. To reflect the amount more accurately, however, EPA will require facilities to report the number of days used in the calculation.

Although several commenters requested that EPA eliminate the requirement for a 24-hour emergency contact, the Agency has retained this requirement with minor changes, as discussed in Section IV.H. of this preamble. The final forms for both Tier I and Tier II have space for two emergency contacts and contain amended instructions that allow the naming of an office, instead of an individual, as a contact.

After considering numerous comments about the certification statement, EPA has deleted the word "immediately" from the proposed Tier I and Tier II certification statements. In its present form, the statement indicates that the person signing has read all the information in the inventory and has been responsible in a supervisory capacity—directly or indirectly—for the gathering of the information.

EPA made several other minor changes in both the Tier I and Tier II forms. The revised forms include the correct 6-2-1 block format for CAS numbers and a 4-block format for SIC codes. The revised instructions include an explanation of where a facility can find its Dun & Bradstreet number, a clarification of the reporting of CAS numbers of mixtures, a statement of the thresholds promulgated by the regulations, and a clarification that those thresholds apply to the calendar year preceding the reporting deadline. Additionally, the instructions for the forms have been modified to differentiate between Title III and OSHA exemption, including the supplementary OSHA exemptions that apply under the newly revised hazard communication standard.

In response to numerous comments regarding the location identification system on the Tier II form, the Agency has clarified that the building and lot be indicated, at a minimum, and has added the option of providing a brief narrative statement of location to the site plan and site co-ordinates options. EPA has removed the 3-space site co-ordinate abbreviation and added a blank line to provide more space for this narrative description. Minor changes made to the Tier II form also include more space for the chemical name. In addition, code 6 of the temperature and pressure codes ("less than ambient temperature") was revised slightly to avoid overlap

between code 6 and code 7 ("cryogenic conditions").

IV. Responses to Major Public Comments

A document summarizing the comments and providing EPA's responses to all the public comments is available in the public docket to this final rule. The major issues raised by the commenters and the Agency's response to them are described below.

A. Definitions

1. "Facility"

Several commenters requested a clarification of the general definition of "facility" for purposes of Title III. Commenters requested that the term be limited to manufacturing, distribution, and storage facilities, or to operations required to prepare or have available an MSDS rather than the whole site. Other commenters asked the Agency to clarify whether the term excludes motor vehicles, rolling stock, and aircraft. Additional comments questioned whether the term "facility" includes non-adjacent warehouses and contractors who bring hazardous materials onto a plant site.

In both the proposed and final rules, EPA has codified the definition of "facility" provided in section 329 of SARA. Section 370.2 provides that, for the purposes of these regulations, "facility" means all buildings and other stationary items located on contiguous property under common ownership or control. Certain non-stationary items (motor vehicles, rolling stock, and aircraft) are also considered facilities, but only for the purposes of emergency release notification under section 304 of the Act (codified at 40 CFR 355.40). Thus, transportation vehicles are not "facilities" for purposes of this rule. ("Transportation-related facilities" under Title III are further defined in 40 CFR 355.20.)

In response to comments requesting EPA to limit "facility" to manufacturing, distribution, and storage, under Section 329, the term "facility" is not limited to manufacturing, distribution, and storage facilities, or operations required to prepare or have available an MSDS. However, sections 311 and 312 requirements are applicable only to facilities required to comply with the OSHA hazard communication standard, which is currently limited to facilities in SIC codes 20-39. OSHA has recently expanded the application of the hazard communication standard to facilities in the non-manufacturing sector, to be effective over the next nine months. 52 FR 51852 (August 24, 1987). With respect to the non-adjacent warehouses, any

offsite storage would be considered a separate facility because the definition of "facility" includes only adjacent or contiguous property.

With respect to contractors bringing hazardous material on-site, the hazardous material brought to a facility is subject to sections 311 and 312 requirements if the facility is required to prepare or have available an MSDS for the material. Off-site contractors, if subject to OSHA MSDS requirements, will be required to submit MSDS and inventory forms for the material.

2. "Hazardous Chemical" Issues

Several commenters believed that federal agencies should develop a common definition of "hazardous substance" and "hazardous chemical."

Title III uses several different terms to describe related groups of substances. "Hazardous substances" are substances subject to CERCLA provisions and are defined in section 101(14) of that Act. "Extremely hazardous substances" are substances subject to the emergency planning provisions of Title III and are defined in section 302 of SARA. "Hazardous chemical" comprises the group of substances subject to sections 311 and 312 and is defined as all "hazardous chemicals" as defined under OSHA and its implementing regulations, but with five additional exclusions under section 311(e) of Title III. Because all of these groups of substances are specifically defined by statute, EPA is not able to revise the definitions to eliminate all differences among them. However, EPA is attempting to clarify the requirements pertaining to these different types of substances both through the Title III rulemakings and in future rulemakings concerning CERCLA hazardous substances so that any confusion generated by the different definitions is minimized.

EPA received numerous requests for clarification of the OSHA definition of "hazardous chemical."

Under OSHA's hazard communication standard, "hazardous chemical" is defined as any element, chemical compound, or mixture of elements and compounds that is a physical or health hazard. 29 CFR 1910.1200(c). OSHA does not specifically list all of the substances that may be "hazardous chemicals" but provides definitions of hazards, criteria for evaluating hazard information, and sources of information to determine the physical and health hazards of each chemical. Section 311(e) provides five exclusions from this definition. These exclusions are listed under the definition of "hazardous chemical" under § 370.2 of this regulation.

OSHA regulations also exempt other substances and products from the MSDS requirements, including Resource Conservation and Recovery Act (RCRA) hazardous wastes, tobacco products, wood, and manufactured articles. Because these are not exclusions from the definition of "hazardous chemical" but rather from the applicability of the MSDS requirements, these exclusions are not listed under § 370.2 of the final rule, as requested by a commenter, but are provided in the instructions on the Tier I and Tier II forms.

3. "Research Laboratory"

The Agency received numerous comments requesting clarification of the exemption under section 311(e) for chemicals used in research or medical facilities.

Section 311(e)(4) of SARA and § 370.2 of the regulations exclude from the definition of "hazardous chemical" any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual. EPA believes that this exclusion is designed to exempt facilities where small amounts of many types of chemicals are used, or stored for short periods, that are not hazardous to the general public when administered or used under appropriate supervision.

In addition, it is important to recognize that the exemption applies to the substance used, rather than to the entire facility. Thus, research and medical facilities are not exempted from reporting requirements under sections 311 and 312; rather, they will not need to provide information on many of their chemicals.

With respect to research laboratories, EPA interprets the exclusion to apply to research facilities as well as quality control laboratory operations located within manufacturing facilities. However, laboratories that produce chemical specialty products or full-scale pilot plant operations are considered to be part of manufacturing rather than research operations and would not be a "research laboratory." EPA has adopted this interpretation of "research laboratories" because it is consistent with the interpretation of "laboratory operations" used by OSHA in enforcing its limited requirements under the hazard communication standard for such facilities. In addition, the Agency believes this definition is consistent with the purpose of this exemption because it confines the exclusion to operations where small quantities of hazardous substances are used for short periods of time under the supervision of highly trained individuals.

With respect to medical facilities, commenters requested that EPA exempt veterinary and dental operations and portions of facilities dedicated to medical or first-aid purposes. In contrast, one commenter requested that EPA eliminate the exclusion for medical facilities.

EPA does not believe that it has the authority to expand the definition of "hazardous chemical" beyond that provided by Congress in section 311(e) and therefore cannot eliminate the exclusion for substances used in medical facilities. However, as noted earlier, the exclusion is not for medical facilities but is limited to substances used in the facility for medical purposes. In addition, such substances must be used under the direct supervision of a technically qualified individual. A medical facility might also use or store hazardous chemicals that are not used for medical purposes under the supervision of a "technically qualified individual." Such chemicals would be subject to sections 311 and 312 requirements unless excluded under another exemption under section 311 or OSHA.

With respect to the scope of the definition of "medical facility," EPA believes that the term includes veterinary and dental operations and any portion of a facility devoted to medical treatment, including first-aid.

4. "Household Products"

Several commenters requested clarification of the household product exemption. One commenter specifically requested clarification about petroleum products.

Section 311(e) exempts from the definition of "hazardous chemical" any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public. EPA interprets this exclusion to apply to household or consumer products, either in use by the general public or in commercial or industrial use when in the same form and concentration as the product intended for use by the public. Because the public is generally familiar with such substances, their hazards, and their likely locations, the disclosure of such substances is unnecessary for right-to-know purposes.

This exemption is for general household and domestic products, and thus the clearest example of its application is ordinary household products stored in a home or located on a retailer's shelf. However, EPA believes that this exemption also applies to such products prior to distribution to the

consumer when in the same form and concentration, and to such products when not intended for use by the general public. Thus, the exemption also applies to any substance packaged in the same form and concentration as a consumer product whether or not it is used for the same purpose as the consumer product. In addition, the exemption applies to such products when purchased in larger quantities by industrial facilities if packaged in substantially the same form as the consumer product and present in the same concentration. The exemption will not apply to substances present in different concentrations from the consumer products even if the substance is only used in small quantities.

In the July 14, 1987, notice, EPA requested comment on the scope of the exemption from the definition of "hazardous chemical" under section 311(e) for consumer or household products. EPA specifically requested comment on whether the term "form" in the phrase "present in the same form and concentration as a product packaged for distribution and use by the general public" should refer to the packaging of the product or only the physical state.

Most commenters on the notice supported EPA's interpretation that this exemption would apply to a substance in the same concentration as the analogous consumer product whether or not it is used for the same purpose or intended for use or distribution to the general public. Thus, a product labelled "for industrial use only" would qualify for this exemption if it was in the same form and concentration as the analogous product used by the general public.

However, several commenters disagreed with EPA's proposed interpretation that the term "form" refer to the packaging, rather than the physical state, of the substance. One commenter argued that the packaging of a product does not usually affect its hazardous properties. EPA disagrees; the packaging of the product not only may affect the hazard presented by a particular substance but also will affect the degree to which the public will be generally familiar with the substance, its hazards, and its likely locations. For instance, if "form" refers only to physical state, then the amount of the product present in a container is irrelevant. Thus, a substance may be packaged in small containers when distributed as a household product but transported or stored in bulk quantities when used for other purposes. Even though in the same concentration as the household product, a substance may pose much greater hazards when

present in significantly larger quantities. In addition, while the general public may be familiar with the hazards posed by small packages of hazardous materials, they may not be as aware of the hazards posed by or likely locations of the same substances when transported or stored in bulk. As a result, EPA has retained the proposed interpretation of the consumer product exemption as more consistent with the community right-to-know purpose of section 311 and the section 311(e) exemptions. EPA has also added a definition of this exemption to the regulation.

One commenter stated that the reference to this exemption as the "household product exemption" implies that products used for personal or family purposes but that would not normally be considered "household products" are not exempted. However, section 311(e) explicitly refers to substances used for "personal, family, or household purposes," and EPA did not intend to imply any limitation on this exemption that would exclude only substances used for household purposes.

Concerning the effect of the exemption, EPA agrees with commenters who suggested that the exemption for consumer products applies even if the owner or operator of the facility must prepare or have available an MSDS for the substance. The requirements for MSDS submission, both in the statute and under the regulation, apply only to a facility that is required to prepare or have available an MSDS for a hazardous chemical. Because Title III contains exemptions from the definition of hazardous chemical that do not occur under the OSHA hazard communication standard, not all MSDS are subject to the MSDS reporting requirement under Title III. This is true of all exemptions under section 311(e), not just the household product exemption.

With respect to petroleum products, a petroleum product is excluded from the definition of hazardous chemical only when used for personal, family, or household purposes, such as gasoline in a family motor vehicle, or when the petroleum product is packaged in the same manner as a product available to the general public, such as a can of motor oil. Certain petroleum products or petroleum-derived materials may also be excluded under section 311(e)(5) when they are used as part of routine agricultural operations or are fertilizers held for sale by retailers.

5. Other Exemptions

A number of comments dealt with exemptions of specific substances or facility types.

With respect to questions concerning the exemption of radioactive sources, non-isolated intermediates, and scrap steel or steel and metal components, MSDS for these substances are required under Title III only if MSDS are necessary for them under OSHA and they meet the definition of "hazardous chemical" under section 311(e). For example, OSHA requires MSDS for non-isolated intermediates, and EPA does not see the need to exempt these substances from reporting.

OSHA has not included radioactivity as a hazard to be covered under the HCS. Such hazards would generally be covered under rules of the Nuclear Regulatory Commission or OSHA's radiation rule. Thus, radioactive substances are not subject to reporting under sections 311 and 312.

Steel and other similar non-reactive solids are generally exempt from MSDS requirement under OSHA (and thus from sections 311 and 312) when they are articles shaped during manufacture whose end use depends upon that shape. (See 29 CFR 1910.1200(b).) Even if subject to the OSHA MSDS requirements, steel and other manufactured solids are excluded from sections 311 and 312 reporting under section 311(e)(2).

Other comments concerning exemptions touched on the applicability of these requirements to newspaper producers, general merchandise retailers, and suppliers, dealers, or wholesalers who are not involved in the manufacture, repackaging, or use of hazardous chemicals.

Contrary to the commenters' suggestions that reporting by such facilities would be unnecessary, the Agency does not believe that exemptions for these facilities would be justified at this time. The basis of community right-to-know is not simply the risk that the specific facility may pose to a community by virtue of its manufacture, processing, or direct use of a chemical, but rather, the availability of information to the surrounding community concerning the amounts and location of certain substances that are present at a facility. Thus, if newspaper producers or merchandise suppliers, retailers, or dealers use, handle, or store "hazardous chemicals" for which an MSDS is required under OSHA, the public should have access to that information.

One commenter sought clarification of whether "storage" includes materials in pipelines and similar transportation systems.

Pipelines are part of the transportation exclusion under section 327, which excludes transportation-related facilities from all requirements under Title III except Section 304 release notification. Thus, materials on pipelines are not subject to the Section 311 and 312 reporting requirements.

Several commenters offered recommendations on exemptions in the agricultural area. Section 311(e)(5) is a 2-part exemption that excludes retailers of fertilizer from reporting requirements for the fertilizer and also excludes any substance when used in routine agricultural operations. EPA believes that this exemption is designed to eliminate reporting of fertilizers, pesticides, and other chemical substances when applied, administered, or otherwise used as part of routine agricultural activities. Fertilizers handled by retailers, even though not directly utilized by such persons for agricultural purposes, are also excluded. Because the general public is familiar with the application of agricultural chemicals as part of common farm, nursery, or livestock production activities, and the retail sale of fertilizers, there is no community need for reporting of the presence of these chemicals.

EPA agrees with the commenter who requested that the agricultural exemption be applied to horticultural growers. The term "agricultural" is a broad term encompassing a wide range of growing operations, not just farms, and includes nurseries and other horticultural operations. In addition, the general public is likely to expect pesticides and fertilizers to be used in such operations.

Another commenter would exempt farm supply co-operatives and other retail distributors of agricultural chemicals.

Under section 311(e)(5), substances sold as fertilizers would not need to be reported under sections 311 and 312 by retail sellers because such substances are not "hazardous chemicals." However, other agricultural chemicals, such as pesticides, would need to be reported by retailers and suppliers of such chemicals if and when they become subject to the OSHA hazard communication standard. The exemption for substances used in routine agricultural operations applies only to substances stored or used by the agricultural user.

Thus, agricultural chemical retail and storage operations not now covered by the OSHA hazard communication standard will also become subject to reporting under sections 311 and 312 of Title III when the OSHA MSDS

requirements for such businesses become effective.

B. Thresholds

1. Threshold Quantities for the Hazardous Chemicals in Each Year and the Appropriate Phase-in

Section 370.20 of the proposed rule was designed to allow facilities and State and local governments to phase in the receipt and submission of reports under sections 311 and 312 over three years. In the first year, only chemicals stored in excess of 10,000 pounds were to be reported; in the second year, the threshold was to drop to 500 pounds, triggering reporting on chemicals stored between 500 and 10,000 pounds; in the third year, there was no threshold, so that all remaining hazardous chemicals were to be reported. EPA solicited comments in the proposed rule on the appropriate length of the phase-in period and threshold levels for each year. After receiving and considering the comments concerning the phase-in threshold, EPA reopened the comment period on those issues in the July 14, 1987, notice. EPA requested comment on an option under which the first-year threshold would be 10,000 pounds, maintained at 10,000 pounds in the second year, and dropped to 500 pounds in the third and final year of the phase-in.

a. *Length of phase-in.* Numerous commenters addressed the issues of the number of years for phase-in of reporting and the appropriate threshold levels for each year. By far, most comments on the phase-in approach viewed it favorably, either stating specifically that the commenter was in favor of a phase-in approach, or suggesting alternative phase-in schemes ranging from two to ten years in length. The general reasons given in favor of phasing-in the reporting were: alleviating the administrative burden on government and industry and allowing time for information management planning and for the development of information management systems.

Fewer than ten of the more than 90 comments dealing with the phase-in opposed the approach. Some of these comments questioned whether or not EPA had statutory authority to use the phase-in approach; others said that the information should be immediately available or suggested that a phase-in would not alleviate the burdens on government and industry but simply spread the burdens out over time.

Most of the commenters who favored the phase-in approach supported a 3-year phase-in schedule. Some commenters, however, suggested that

the phase-in be lengthened, in order to provide more time for proper evaluation and management of incoming data, as well as to give industry time to set up appropriate data management systems.

Comments suggesting a phase-in longer than three years fell into three categories. About half of these used EPA's proposed initial threshold but maintained at least one initial or intermediate threshold for two or more years, allowing for more gradual adjustment to the final threshold level. Approximately one-quarter of the comments requested higher initial threshold quantities (ranging from 20,000 up to 100,000 pounds) and suggested reasonable extension to the phase-in period. The third group requested a longer phase-in, without specific quantity suggestions. Several individuals favored a "wait and see" approach, suggesting that EPA should re-evaluate the final threshold decision in the second or third year. Nearly all commenters on the July 14 notice supported the 3-year phase-in.

EPA disagrees with commenters who questioned EPA's statutory authority to establish phase-in thresholds. Section 311(b) provides very broad authority to the Administrator to establish threshold quantities below which a facility may be exempted from reporting under sections 311 and 312. Given the serious concerns raised in the legislative history over the paperwork burden that may be created for State and local governments under these provisions, EPA believes that Congress intended EPA to use this broad authority to establish thresholds that would appropriately balance the public right-to-know with the potentially overwhelming flood of information to State and local governments, especially in the first years of the program. EPA has thus used its authority to fashion the thresholds to meet this Congressional objective. EPA has found no indication in the statutory language or legislative history that the establishment of thresholds based on time as well as amounts of chemicals would be inconsistent with Congressional intent.

EPA agrees with the majority of commenters, who stressed the importance of providing time for local and State governments to set up data management systems by reducing the volume of information being processed initially. Because EPA continues to believe that the phase-in of information is crucial to the development of effective Title III right-to-know programs and that there is no specific limitation on the type of threshold EPA may establish under the statute, EPA has decided to retain

the 3-year phase-in approach in the final rule with some modifications.

EPA recognizes the concern expressed by some commenters over the immediate need to have access to valuable information on chemicals stored below the threshold level. In response, EPA believes that the rule reduces the potential loss of important information due to the threshold in several ways. First, as discussed below, § 370.20 provides no phase-in of thresholds for extremely hazardous substances, which are substances identified by Title III as significant for emergency planning. Second, the public retains access, by request, to MSDS for chemicals stored below the threshold. Third, EPA has retained a relatively short, 3-year phase-in schedule so that the baseline threshold is achieved quickly.

EPA recognizes that extending the phase-in beyond three years would provide government and industry with additional time to adjust and thus might be beneficial. There is, however, some burden potentially associated with extending the phase-in period, since it delays the date at which full reporting above the permanent threshold is mandatory. In doing so, it prolongs the uncertainty over how much and what information may be generated and may increase the number of requests during that time. In addition, as discussed below, EPA is not raising the initial threshold above the proposed threshold level (10,000 pounds), thus obviating the need to prolong the phase-in on that ground.

b. Threshold Quantities—i. Final Threshold Level. One of the most significant issues in the rulemaking was the issue of whether or not EPA should establish a non-zero threshold in the last year of the phase-in.

Approximately 100 commenters addressed the issue of whether or not zero was an appropriate permanent reporting threshold, with or without the phase-in approach. Of these, few favored the proposed reduction of the threshold to zero in the final year.

Arguments made by those favoring the zero threshold emphasized (a) the volume of information that would be lost through establishment of a non-zero threshold, (b) the difficulty of requesting desired information below the threshold without the chemical-specific information in section 311 for all volumes of chemicals, and (c) the potential hazards posed by small quantities of chemicals.

The points raised by proponents of non-zero thresholds fall into several general groups. First, because there are

numerous chemicals stored in very small quantities, the data management burden created by zero thresholds could be overwhelming for the recipients of the data, thus jeopardizing public access to the information. Second, they argued that non-zero threshold levels could be established that would capture all substances of concern to the community or emergency response personnel and fire departments. Finally, a large majority of those arguing for non-zero thresholds also suggested that the same threshold should not apply to the extremely hazardous substance list; thus, they argued that information on chemicals of concern at lower levels could be made available without requiring reporting at those levels for all chemicals.

Although several commenters requested that the final threshold be non-zero without specifying the amount, the majority of comments contained suggestions for a final threshold, ranging from de minimis or one-pound quantities up to 50,000 pounds. However, few commenters provided a justification for the numbers they suggested.

EPA believes that there are several competing concerns that must be weighed in determining an appropriate final threshold level. First, information on chemicals of most concern to planners and communities must be readily available. In addition, enough information should be available for members of the public and public officials to be able to ascertain what additional information they want to request. Third, the burden generated for government recipients of the reports should be manageable.

After considering the arguments both supporting and opposing the establishment of a non-zero threshold in the final year of the phase-in, and after considering the comments on the 500-pound permanent threshold that EPA suggested in the July 14 notice, EPA believes that the balance of these concerns weighs in favor of a non-zero threshold.

However, at this time the Agency is not setting a final threshold, but will propose one after conducting a study of alternative thresholds. The Agency has considered 500 pounds (approximately the weight of a 55-gallon drum) as the final threshold beginning in the third year of reporting. Five hundred pounds thus will be the point of departure for discussion of a final threshold. This threshold would eliminate automatic reporting of numerous chemicals that are stored in smaller quantities. As discussed in more detail below, estimates based on available evidence

suggest that 35 to 57 percent of MSDS would be subject to sections 311 and 312 reporting, except upon request, as a result of the 500-pound threshold.

While a 500-pound threshold would eliminate numerous reports of de minimis levels of hazardous chemicals, a substantial volume of information would still be provided to State and local governments. The 500-pound level is also the most common non-zero threshold in effect in States with community right-to-know laws. Over half of all States have community right-to-know laws. Almost one-third of these have a threshold of 500 pounds; the remaining States have thresholds ranging from zero to 500 pounds. This is important since EPA's primary concern in establishing thresholds under sections 311 and 312 is to prevent State and local governments from being so overwhelmed with submissions under this program that effective public access and government use of the information are not possible. A significant number of commenters also supported the 500-pound threshold.

Finally, the expansion of OSHA's hazard communication standard to non-manufacturing employers and the consequent changes in both the number of MSDS and the number of facilities covered by Title III magnify the difficulties associated with a lower, or zero threshold. Because the community right-to-know laws in some of the States described above provide broader coverage than is currently provided under sections 311 and 312 (i.e., they include non-manufacturing facilities that will not be subject to sections 311 and 312 requirements until May, 1988), they provide a significant measure of the continued appropriateness of this threshold when these requirements become applicable concurrently with the expanded hazard communication standard.

Even if EPA were to establish such a 500-pound threshold, this would not suggest that no chemicals of interest to emergency responders, planners, fire departments, or the public are stored in quantities less than 500 pounds, or that all chemicals stored above 500 pounds pose a hazard to the community. Rather, this threshold would attempt to establish a balance between setting the level high enough to avoid an overwhelming paper burden for State and local governments and low enough to avoid a loss of substantial amounts of information. Similarly, a threshold less than 500 pounds would likely present an unmanageable administrative burden. Thus, States or local governments could request information on substances

below the threshold, or a State could require reporting at lower thresholds under State law.

EPA has also considered higher final threshold levels. As part of the Regulatory Impact Analysis (RIA) in support of the proposed rulemaking, EPA estimated the percentage of chemicals and facilities that would be covered at different threshold levels. This analysis was revised and expanded for the RIA in support of final rulemaking. The analysis is the final RIA of the effects of thresholds on reporting is based on data sets provided by three States (New Jersey, New York, and Michigan) on the quantity of chemicals stored at a substantial number of manufacturing facilities, for limited lists of hazardous substances. Although the data from each State were adjusted so that the results would be representative of the effects of thresholds nationwide, the limited numbers of facilities reporting, the restrictive chemical lists, and other limitations of the data suggest that the results be viewed with caution.

EPA analyzed four alternatives for the final threshold. Estimates indicate that a 500-pound threshold would lead to reporting by between 50 and 82 percent of the facilities covered by current OSHA requirements, and submissions of between 35 and 57 percent of the MSDS for these chemicals. At this level, the cost to industry in the third year is estimated to be \$348 million. At higher thresholds, reporting would be further reduced; a 2,000-pound threshold could result in between 35 and 47 percent of facilities reporting and 22 to 32 percent of chemicals being reported. At the 2,000 pound level, the cost to industry in the third year is estimated to be \$225 million. In addition, a threshold that reduces reporting significantly could place substantial burdens on all parties by increasing the numbers of requests made by government and the public for additional information from facilities. On the other hand, a 50-pound threshold could result in between 77 and 90 percent of facilities reporting and between 64 and 79 percent of chemicals reported. At this level, the cost to industry in the third year is estimated to be \$387 million. At a zero threshold level, the cost to industry in the third year is estimated to be \$500 million. Although information indicates that the 500-pound threshold may represent the most appropriate balance between the broad right-to-know information submission objectives of these provisions and the need to avoid overwhelming State and local governments with the submission of vast amounts of information on de

minimis amounts of chemicals, EPA is deferring the establishment of a threshold in the third year of the phase-in. The substantial number and variation of comments received on this issue and the great uncertainty over the impact of these requirements on the recipients of this information, and ultimately on the effectiveness of this program, create a need for further study prior to establishing a permanent threshold level.

After the initial submission of the Section 312 inventory forms in March, 1988, EPA will have more information about the effectiveness of the regulatory thresholds under the federal right-to-know program. During this evaluation, EPA will examine compliance experience with both State and federal right-to-know programs, the completeness of information generated under these programs, the ability of State and local officials to manage and provide public access to this information, the number and source of requests for additional facility information, and volumes of hazardous chemicals covered at a range of thresholds. As stated above, following such review, EPA will initiate another rulemaking to establish the final year thresholds.

ii. *Initial Threshold Levels.*

Approximately 50 comments on the proposal addressed the issue of the threshold level in the initial year of a phase-in, either by proposing a specific phase-in schedule of quantities or by registering support of the EPA proposal but suggesting a modification for the final year. Over half of these comments favored 10,000 pounds. The remaining suggestions ranged between 15,000 and 100,000 pounds (one comment suggested up to 500,000 pounds for some chemicals), with a substantial number favoring 50,000 pounds.

In general, arguments that supported raising the first-year threshold emphasized the consequent decrease in the reporting burden and the belief that adequate information on large volume chemicals would still be available with a higher threshold.

After considering comments on the proposal and the July 14 notice, EPA has decided to retain 10,000 pounds as the initial threshold because that level provides the appropriate balance between ensuring that the public has access to information on large volume chemicals and reducing the number of reports to manageable levels in the first years of the program. EPA has rejected establishing higher initial thresholds because it believes that a threshold greater than 10,000 pounds might not

provide sufficient information in the first year of reporting; the best estimates available to EPA indicate that a threshold equal to 10,000 pounds may reduce reporting to less than 13 to 22 percent of facilities or 8 to 13 percent of chemicals. EPA believes that a reduction in reporting below these levels would not be consistent with the community right-to-know purpose of these provisions and would provide marginal benefits in terms of information management, in comparison with a 10,000-pound reporting threshold.

iii. *Thresholds for Non-manufacturing Facilities.* As indicated in the January 27 proposal and in the July 14 notice, EPA believes that section 311 and 312 reporting requirements apply to any facilities subject to OSHA's MSDS requirements for any Title III "hazardous chemical." Because these requirements are self-implementing under the statute, EPA does not need to promulgate a rule in order for these reporting requirements to become effective. Under section 311(d), facilities must submit an MSDS for each hazardous chemical (or a list of such chemicals) to the appropriate State and local authorities by October 17, 1987, or within three months after they are required to have or prepare such an MSDS. Thus, under the statute, facilities newly covered by the OSHA MSDS requirements must submit those MSDS within three months after they are required to comply with the MSDS requirements. Because OSHA's MSDS requirements will become effective for the non-manufacturing sector in May, 1988 (see 52 FR 31852, (August 24, 1987)), such facilities will be required to submit these MSDS under section 311 in August, 1988. Similarly, inventory forms under section 312 for these facilities must be submitted annually beginning March 1, 1989.

However, although the section 311 and 312 requirements take effect without any regulatory action on the part of EPA, the Agency may, by exercising its discretion under the statute to establish minimum thresholds for reporting, limit the facilities or number of MSDS to be submitted under these provisions. EPA has, under this rule, established such thresholds and amended the proposed threshold regulation specifically to provide analogous thresholds to facilities newly subject to these requirements after October 17, 1987.

Some commenters have suggested that EPA limit this rule to facilities currently subject to the OSHA MSDS requirements, i.e., facilities in SIC codes 20-39. However, the effect of such limitation would not be to limit the

scope of the section 311 and 312 reporting requirements since such requirements are effective without regulation, but rather to limit the thresholds established by this rule to manufacturing facilities. A zero threshold would thus be in effect for facilities in the non-manufacturing sector that become subject to the MSDS requirements in May, 1988, and would result in precisely the paperwork burden that the thresholds in this rule are intended to avoid.

Moreover, EPA solicited comment on the appropriateness of the thresholds in today's rule as they would apply to the expected OSHA expansion universe. Based on information currently available, EPA believes that the thresholds applicable to the manufacturing sector currently subject to sections 311 and 312 would be equally applicable to the non-manufacturing facilities that will soon be subject to the MSDS requirements. However, as a result of concerns raised over the possible need to provide different thresholds for the facilities newly subject to these requirements as a result of OSHA's expanded MSDS requirements, EPA is undertaking additional analysis of the universe newly-covered by the OSHA MSDS requirements. This analysis will include a more detailed analysis of small business impacts, a review of some current State right-to-know programs that cover non-manufacturing, and the need for different thresholds for such facilities. Following such review and prior to the time that this rule requires actions by the newly covered non-manufacturing universe, EPA will make the analysis public, receive comment, and, if appropriate, revise the relevant thresholds.

2. Thresholds for the Extremely Hazardous Substances and Other Chemical Lists

In the proposed rule, EPA provided an exception to the phase-in for substances on the list of extremely hazardous substances under section 302 of Title III. The threshold for reporting of such substances was zero in the first year. EPA requested comments on whether the threshold provision should contain this exception and whether there should be additional exceptions for other special chemical lists.

A majority of the over 60 comments on this issue suggested that thresholds should be lower for some classes of hazardous chemicals (than for hazardous chemicals in general), but that the threshold for such substance should still be non-zero. Several comments requested that there be no

"special chemical exception" to the reporting thresholds on the basis that it complicated the process. A few commenters suggested zero or very low thresholds for varying lists of chemicals (e.g., SARA section 302 Extremely Hazardous Substances (EHS), carcinogens on the IARC list, other known human carcinogens, or SARA section 313 chemicals). Those comments that addressed the EHS list were split between suggesting thresholds equal to the "reportable quantities" (RQs) and thresholds equal to the "threshold planning quantities" (TPQs) for the EHS. (See the April 22, 1987, final rule for further discussion of RQs and TPQs. 52 FR 13378.)

Of the comments favoring thresholds that are lower for the EHS than for hazardous substances in general, most favored a non-zero threshold and argued that the burden of accounting for and reporting de minimis quantities far outweighs the risk posed by the EHS in very small quantities. Several commenters argued that reporting of minute quantities of these chemicals creates an unnecessary burden on local and State governments and on emergency response groups who receive the information.

Several arguments were made concerning the appropriateness of the TPQs or the RQs for EHS thresholds. The risk of off-site hazard posed by these chemicals either for emergency planning or for emergency response purposes has already been explicitly taken into account in determining the TPQs and RQs. Thus, several comments argued, quantities stored below these amounts are unimportant for planning, response, or other purposes of sections 311 and 312.

After consideration of the several arguments and approaches suggested by commenters, EPA suggested a one-pound de minimis threshold for the EHS list in the July 14 notice. Based on the additional comments received on the notice, EPA has decided to revise the rule to establish a reporting threshold for each EHS of 500 pounds or the TPQ, whichever is less. This threshold will be effective from the first year of reporting onward.

There are several reasons for establishing these thresholds. First, EPA continues to believe that reporting on the EHS should not be subject to the phase-in. Because, based on the information available to date, EPA believes that the 500-pound level represents an appropriate permanent threshold, the Agency is requiring reporting of EHS at a 500-pound threshold during the first year of

reporting, so that information on these chemicals can be made available to the community, while initial planning efforts under section 303 are underway.

In addition, the EHS list represents chemicals that are of particular interest to the community; the TPQs have been established as representing quantities of these chemicals that may pose risks to the community and, thus, are of interest to emergency planners. The Agency has decided, therefore, that for each EHS for which the TPQ is less than 500 pounds, the threshold in the first year and in subsequent years should be the TPQ. This will ensure that information concerning these chemicals will be available not only to emergency planners, but to emergency responders and the general community as well.

EPA is not expanding the list of chemicals subject to the "special chemical threshold" beyond the EHS list. EPA has singled out the EHS list as an exception to the phase-in for several reasons. Although there are numerous chemical lists referenced in Title III, the Agency believes that information concerning EHS will be critical for States and local governments during the next year when emergency planning efforts are under way. Under section 303 of Title III, local committees must prepare an emergency response plan by October, 1988. Because the EHS list developed under section 302 of Title III is intended to be the basis of initial emergency planning efforts under section 303, information concerning all EHS present at facilities will be critical in the first year of section 311 reporting. EPA believes that such information should be made easily accessible to the local planning committee through mandatory reporting under sections 311 and 312, rather than burdening the committee in the first year of its organization with the need to request information on EHS from each facility under section 303(d) or section 311(c).

C. Submission of Material Safety Data Sheets

1. Material Safety Data Sheet (MSDS) or List Option

A facility may meet the requirements of section 311 either through submission of MSDS or a list of chemicals for which an MSDS is required. In the preamble to the proposed rule, the Agency encouraged facilities to exercise the list option whenever possible.

With one exception, the commenters indicated unqualified support of the list option. In addition, many commenters inquired whether use of MSDS for routine reporting of potential community hazards is actually productive and cost-

effective. However, numerous commenters indicated that the lists would be difficult to prepare because of the difficulty in using the 23 hazard categories.

As discussed in more detail in Section III. D. EPA has reduced the number of hazard categories in this final rulemaking in order to facilitate list reporting. EPA is continuing to encourage list reporting because it reduces the information management burden on recipients of the information without substantially reducing the amount of information provided.

One commenter requested clarification regarding the right of a State emergency response commission or local emergency planning committee to mandate the submission of a list rather than the actual MSDS. Because the federal law expressly provides that facilities may choose whether to submit a chemical list or each MSDS, EPA has also provided this option in today's final rule. However, State or local governments may effectively limit this choice by establishing reporting requirements pursuant to their own authority.

2. Format and Content of Material Data Sheets

Several commenters requested various changes to the MSDS format, such as the inclusion of the hazard categories on the MSDS.

EPA agrees that the addition of hazard categories on the MSDS would be useful and encourages chemical manufacturers to include this information. However, EPA does not believe that modification of the MSDS can be required in this rule; the content of the MSDS is subject to the regulatory authority of OSHA, not EPA.

A number of commenters raised concerns about the responsibility for accuracy of MSDS information on the part of manufacturers and chemical users who pass on an MSDS received from other manufacturers.

"Downstream" recipients of an MSDS are not generally responsible for its content. However, EPA believes that if an owner or operator is aware of inaccurate or inconsistent information, he should take reasonable steps to clarify the information or alert the recipients of the information when it is distributed that it may be inaccurate.

3. Revisions and Updates

Two commenters requested clarification of the requirement to submit revised material safety data sheets as applied to a facility that had exercised the list option. Further clarification was also requested

regarding any obligation to submit a revised MSDS if the original was submitted as a result of a public request.

Section 311(d) requires a facility to submit an MSDS or list by October 17, 1987, or within three months after the owner or operator is required to prepare or have available an MSDS for the chemical, whichever is later. An owner or operator is also required to submit a revised MSDS within three months of the discovery of significant new information concerning a chemical for which an MSDS was submitted. If a facility has submitted only a list of chemicals rather than the actual MSDS, the facility does not need to file a revised MSDS upon discovery of new information. However, after October 17, 1987, if additional hazardous chemicals become present at such facility, a list of these (or the MSDS) must be submitted to the State commission, local committee, and fire department within three months.

Once an MSDS is submitted, even as a result of a request, a revised MSDS must be submitted if the owner or operator receives significant new information concerning the substance. Because the OSHA regulations require MSDS to be revised within three months after a chemical manufacturer or employer becomes aware of significant new information concerning the hazards of a chemical, the Title III regulations merely require that such revised MSDS also be submitted to the agencies that have the original MSDS.

D. Categories for Reporting

Section 311 list reporting and section 312 Tier I reporting requirements were initially based on the 23 physical and health hazards identified under OSHA regulations. To facilitate reporting under sections 311 and 312, Title III permits the Administrator to modify the categories of health and physical hazards set forth under OSHA regulations by requiring information to be reported in terms of "groups of hazardous chemicals which present similar hazards in an emergency." Additionally, for Tier I reporting, the Administrator may require reporting on individual hazardous chemicals of special concern to emergency response personnel.

In the January 27 proposal, the Agency proposed the use of the 23 OSHA categories for reporting but solicited comments on approaches for modification of the reporting categories. EPA recognized that a smaller number of reporting categories might facilitate the manageability of the information and enhance its usefulness, particularly since information on chemicals that

present more than one hazard must be provided in all applicable categories. EPA specifically requested comment on two approaches for modification: Use of the eight DOT hazard labeling categories and use of a 5-category scheme with two health hazard categories and three physical hazard categories. The July 14, 1987, Federal Register notice specifically requested comment on the proposed use of the 5-category scheme.

In response to the January 27 proposed rule, EPA received over 100 comments that disagreed with the use of the 23 OSHA categories, while only four commenters supported their use. Many of those commenters that disagreed provided alternative categorization schemes. Many comments supported the Department of Transportation (DOT) categorization scheme in combination with additional health hazard categories. The main advantage to using the DOT categorization would be that emergency response personnel are already familiar with these categories. However, it was designed for hazardous material transportation and reflects an emphasis primarily on immediate health and physical hazards. Thus, the Agency believes that the DOT categories would have to be revised to address delayed (chronic) hazards adequately before this option could be used for Sections 311 and 312. EPA believes that altering the DOT categorization scheme would result in some confusion and reduce the effectiveness of this option.

EPA received several additional proposals for the modification of the reporting categories. However, all of these alternatives were rejected because they either did not adequately encompass the OSHA hazard classes, did not sufficiently reduce multiple reporting, or did not sufficiently reduce the burden of reporting and interpreting data by decreasing the number of reporting categories.

After consideration of these comments, the suggested alternatives, and the burden of using the proposed 23 categories, EPA has revised the rule to reduce the number of reporting categories. Today's rule contains the 5-category scheme described by EPA in the Preamble to the proposal and in the July 14 notice: two health hazard categories (immediate or acute hazards and delayed or chronic hazards) and three physical hazard categories (fire hazards, sudden release of pressure hazards, and reactivity hazards). This scheme was supported by a substantial number of commenters.

A number of other commenters disagreed with the use of the 5-category scheme because they thought the

categories were too general and did not represent groups of hazardous chemicals that present similar hazards in an emergency. EPA disagrees with these commenters. Although the categories could be subdivided further, the Agency believes this could complicate the categorization process and could result in inconsistencies in reporting. EPA believes the 5-category scheme will be useful to emergency response personnel by conveying general information on the types of hazards a chemical may present in an emergency response situation and by supplementing other sources of information commonly used by emergency response personnel.

EPA agrees with the numerous commenters who noted that this categorization scheme should significantly reduce the paperwork burden of reporting, minimize multiple reporting and double counting, and enhance the clarity and usefulness of the information reported. The five categories have several advantages over the other proposed alternatives because they encompass all of the OSHA categories as well as all of the DOT categories, and they address delayed (chronic) health hazards as well as immediate (acute) health hazards. The Agency plans to provide written guidance to help facilitate reporting so that this categorization scheme can be easily used by both large and small reporting entities.

E. Mixtures

EPA received several comments regarding the reporting of mixtures. One commenter requested clarification of the term "mixture." Another desired guidance in applying threshold levels to mixtures. Several commenters stated their belief that reporting of mixtures would be difficult since many mixtures have unknown compositions.

In response to the request for clarification of the term "mixture," EPA has revised § 370.28 of the rule to include the definition of mixture used by OSHA in the hazard communications standard. 29 CFR 1910.1200. In addition, § 370.28 has been revised to indicate how the threshold levels apply to mixtures. The rule now states that if the reporting is on each component of the mixture that is a hazardous chemical, then the concentration of the hazardous chemical, in weight percent (greater than 1% or 0.1% if carcinogenic) should be multiplied by the mass (in pounds) of the mixture to determine the quantity of the hazardous chemical in the mixture. If a mixture is reported as whole, the threshold applies to the total weight of the mixture.

Finally, where mixtures have unknown composition, facilities should report the mixture as a whole.

F. Public Access to Information

Title III contains a number of provisions relating to public access to information submitted under sections 311 and 312, many of which were codified in today's final rule. Section 324 of Title III, which is not codified in the final rule, requires SERCs and LEPCs to make all MSDS, lists, and inventory forms that are submitted under sections 311 and 312 available to the public during normal working hours. This is the only source of Tier I information for the general public, and there is no access to Tier I below the regulatory threshold.

Section 370.30(a) of the regulation codifies section 311(c) of Title III and provides that any person may request an MSDS through the LEPC. If the MSDS is not in the possession of the LEPC (because a facility had the hazardous chemical only in amounts below the threshold or a facility had submitted only the list of chemicals), the LEPC must request the MSDS from the facility and the facility must, under § 370.21(d), submit the MSDS within 30 days. Under § 370.31, the LEPC must provide the requested information to the requester.

Section 370.30(b) codifies section 312(e) of Title III and provides that any person may request Tier II information concerning a specific chemical at a facility through the LEPC or SERC. If the Tier II information is not in their possession, the SERC or LEPC must request it from the facility if the chemical is stored at the facility in quantities above 10,000 pounds or if the requester is a public official. If the chemical is present in quantities below 10,000 pounds, the response by the SERC or LEPC is discretionary. Under § 370.25(c) of the final rule, a facility must submit requested Tier II information within 30 days. Under § 370.31, the LEPC or SERC must then provide the Tier II information to the requester.

1. Information below Thresholds

In the proposed rule EPA established temporary thresholds below which facilities would not be required to report under sections 311 and 312. However, those thresholds were not applicable to public requests for information on hazardous chemicals. Thus, facilities would need to report on hazardous chemicals below the thresholds, but only upon request. Although EPA codified the requirement that below-threshold requests be justified for Tier II information under section 312, no such

justification was proposed for below-threshold requests for MSDS. EPA solicited comment on its approach to thresholds and public access.

Commenters were split over the issue of public access to information below thresholds through the LEPC. In addition, some commenters believed that requests for below-threshold MSDS information should be justified, and some asked EPA to set guidelines for demonstrating adequate justification.

With respect to issues concerning request justification, section 312 is explicit about the justification of need required in public requests for Tier II information below 10,000 pounds if such information is not already in the possession of the SERC or LEPC but is silent on the issue of what should be included in the statement of need. EPA believes that the task of defining appropriate criteria for the justification of need should be left to the SERCs and LEPCs, who must ultimately decide whether to remit such a request. With regard to MSDS information below the threshold, neither the statute nor this regulation requires that the need underlying a request be justified. Congress specified in section 311(c)(2) that MSDS be submitted upon request by any person. The Agency thus believes that the preservation of access to all MSDS information by the public is most consistent with the intent of section 311.

2. Justification of Need

A number of commenters posed more specific questions on the necessity of justifying requests for Tier II information. One felt "need" should relate to the potential of a hazardous chemical directly to affect either person or property. Others noted that facilities should be able to review requests for Tier II information and be allowed to comment on sensitivity of information.

As indicated above, however, the LEPC and SERC have ultimate responsibility for setting guidelines in this area since the statute and today's final rule give them the decision-making authority in granting requests for Tier II information. Therefore, EPA believes that issues concerning the statement of need should be left to local and State officials.

A few commenters requested that a strategy be developed to assist the SERC and LEPC in fulfilling their responsibilities for public availability. Several other commenters felt programs should be developed to help the general public interpret and use the information. EPA intends to provide such guidance in the form of brochures and pamphlets to be published and distributed through the

regional offices to SERCs and LEPCs at a later date. EPA recently used a series of workshops and other presentations to provide information on Title III to the public.

3. Other Clarification

Several commenters requested changes in the time frames for providing information to the public. Some commenters had general questions about how the public would have access to MSDS and inventory information. The public may request Tier II information through either the SERC or the LEPC. For quantities below 10,000 pounds, the SERC or LEPC may exercise discretion in forwarding these requests to a specific facility. Concerning MSDS requests, section 311 and today's final rule place the responsibility for handling requests only in the LEPC. States may, however, under their own authority, also require provision of such MSDS to the SERC.

One commenter requested that the rule clarify that any person may request Tier II information. Although the rule explicitly states that any person may request Tier II information, there are certain instances in which it is not automatically provided. For instance, a facility may opt to withhold chemical location information from the Tier II form, and the public would not have access to this location information. A person may request Tier II information for chemicals stored at a facility in quantities less than 10,000 pounds, but if the SERC or LEPC does not already possess the information, the requester would be required to give a written statement of need. Based on the statement, the LEPC or SERC may, where appropriate, request the information from the facility. A facility may also withhold chemical identity from disclosure by submitting a trade secret claim under section 322. Where a facility withholds chemical identity by virtue of trade secret provisions, the public may challenge the withholding by submitting a petition to EPA pursuant to section 322.

G. Trade Secrets and Confidentiality

EPA received several comments in support of the provision for withholding location information from the public at the facility's request. While a few commenters indicated a need for criteria for determining a confidential location, EPA agreed with other commenters that a request on the part of a facility owner or operator is sufficient. Section 324 allows a facility to request withholding of location information without any determination that such location would be confidential.

The Agency also received numerous comments regarding the protection of trade secret information under sections 322 and 323 of SARA. These will be addressed as part of EPA's rulemaking on trade secrets under sections 322 and 323, to be proposed later this year. It should be noted, though, that if a facility wishes to make a trade secret claim, it is required to submit the federal Tier II inventory form to EPA, rather than any alternative State form, with appropriate substantiation. Such trade secret claims should be sent to: U.S. Environmental Protection Agency, Emergency Planning and Community Right-to-Know, P.O. Box 70266, Washington, DC 20024-0266.

H. Design and Content of Forms

The most significant comments on the design and content of the Tier I and Tier II forms concerned the calculation of the average daily amount and the reporting format for storage location. Other significant comments concerned the emergency contact, the certification statement, and the Dun & Bradstreet number. In response to these comments, as well as comments on the general layout and graphic design of the forms, EPA has revised the section 312 reporting forms. Following is a discussion of these comments and EPA's response.

On the proposed Tier I and Tier II forms, EPA required facilities to report maximum daily amount and average daily amount in prescribed ranges. Several commenters approved of the proposed reporting ranges on the Tier I and Tier II forms, but several more believed the ranges were too broad. EPA received suggestions to narrow the ranges, add a range category of 0-9 pounds, combine the two lowest ranges, or devise ranges that correspond to powers of ten. A few commenters favored broader ranges.

Upon consideration of these comments, EPA has chosen to retain the ranges set forth in the proposed rule. The Agency believes that the ranges adequately balance the trade-off between protection of confidential information and provision of useful data. In addition, the present ranges are consistent with those proposed for use on the section 313 reporting form and those used on the Toxic Substances Control Act (TSCA) inventory form.

Several commenters favored EPA's proposed method of calculating average daily amount; that is, by totaling all daily weights and dividing by 365, or totaling all monthly weights and dividing by 12. Several other commenters, however were concerned that the results obtained by the

proposed method would be misleading because it would produce artificially low amounts for those chemicals present on site during only short periods of time throughout the year.

The Agency has decided to revise the method of calculating average daily amount so that the figure is based upon the number of days the chemical is actually on site. Thus, facilities should total all daily weights and divide by the number of days the chemical was on site. This method of calculation produces a more accurate figure for average daily amount, particularly for those chemicals that are on site for only a short time each year. To reflect the amount more accurately, however, EPA believes that it will be necessary to report the number of days used in the calculation and has revised the form to require reporting of this information.

The Agency received several comments concerning the maximum daily amount. As many commenters favored the method of calculation as expressed doubts concerning its ultimate usefulness. One commenter suggested that EPA require facilities to report maximum storage capacity instead of maximum daily amount.

Because the maximum daily amount describes a "worst case" scenario, it is useful to both emergency planners and emergency responders. It is important for them to know the maximum amount of hazardous chemicals that they might actually encounter at any time. Because storage capacity may not be an accurate reflection of the amount of hazardous chemicals actually on site at any one time, EPA believes that the reporting of maximum storage capacity is not an appropriate substitute for the maximum daily amount. Thus, EPA has not required reporting of maximum storage capacity instead of maximum daily amount. However, EPA is aware that maximum storage capacity may be the best information available to some facilities in calculating the maximum daily amount.

EPA received numerous comments regarding the "location" section of the Tier II form. Several commenters requested the use of any site identification procedure acceptable to local emergency response agencies; others suggested that EPA design the location coding system solely for ease of data entry. Several commenters gave specific suggestions for revision of the location identification system—namely, grid or quadrant systems. Several other commenters suggested that EPA allow facilities to report that chemicals are ubiquitous at the plant. Based on these comments, EPA has revised the Tier II form to provide for reporting of the

building or lot, at a minimum, and to allow facilities to describe briefly on the form itself the location of hazardous chemicals, rather than requiring them to provide a site plan or site co-ordinates. EPA believes that the narrative approach will provide more flexibility for a facility, in conjunction with its SERC, LEPC, and fire department, to identify the method of providing the most useful chemical location information for specific emergency response and information management needs and capabilities of the community in which the facility is located.

EPA believes that additional requirements for location information, such as site plans or quadrants or grid systems, may be useful on a site-by-site basis, but are not necessary for each facility. If a State or local government desires such additional information, it may require it to be submitted under State or local law as a supplement to the federal form. However, the Agency encourages State and local governments to co-ordinate reporting formats so that facilities are not subject to duplicate or inconsistent reporting requirements.

Some commenters requested EPA to state the exceptions to reporting on the inventory forms. Another inquired about the correct number of exemptions.

The exemptions from reporting under both the OSHA hazard communication standard and section 311 of Title III are set out in the instructions to the form. The instructions on the proposed forms included eight reporting exemptions because EPA merged the OSHA and Title III exemptions where there appeared to be substantial overlap. In this final rule, the instructions to the inventory forms state the OSHA and Title III exemptions separately for clarity and accuracy.

EPA received numerous comments regarding the certification statement on the Tier I and Tier II forms. Several commenters raised concerns that the statement implied the owner's or operator's first-hand knowledge of the conditions at the facility relevant to Title III. In response to these concerns, EPA has modified the certification on the final form by deleting the word "immediately," to make clear that the signatory is responsible for the data on the form but has not personally interviewed those principally responsible for performing the calculations. The certification on the final form now reads: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the

information, I believe that the submitted information is true, accurate and complete."

A number of commenters wanted EPA to eliminate or revise the requirement for a 24-hour contact and telephone number. One commenter suggested that EPA require the same number of emergency contacts on Tier II as on Tier I.

The emergency contact is a person, or office at which persons will be available, who can aid responders in the event of an emergency at the facility. The emergency contact need not be a person with expertise concerning the chemical hazards at the facility, but he or she must be available to act as a referral if emergency responders need assistance in responding to a chemical accident at the facility. Although the Agency requires facilities to supply the name of only one emergency contact, both the Tier I and Tier II forms will have space for two. A facility may supply two emergency contacts as necessary to ensure 24-hour availability.

Numerous commenters inquired about the extent to which they could use their computers for reporting. The majority of the comments focused on the acceptability of computer-generated facsimiles of the forms; others dealt with electronic transmittal of data.

To the extent possible, EPA has designed the Tier I and Tier II forms to accommodate computer output. Since EPA will not receive the information, however, the issues regarding computer facsimiles and electronic transmittal are more appropriately addressed to the recipients of the information at the State and local levels. However, EPA does not believe that any provisions of section 312 would prohibit computer generated facsimile forms or electronic transmittal of data.

Several commenters stated that EPA should not require hazard category information on the Tier II form. Although the legislation requires hazard category information only on the Tier I form, EPA has designed Tier II as a worksheet for the preparation of Tier I. For this reason, and because the hazards may provide helpful data to the users of chemical-specific information, EPA believes that hazard categories are an essential element of the Tier II form and has retained this requirement in the final form.

Although several commenters questioned the necessity for the Dun & Bradstreet identification number, the Agency has opted to retain this requirement because of its general usefulness as a widely known and accessible identifier, unique for each

facility. In response to commenters who stated that Dun & Bradstreet numbers should not be required because they did not have such a number, EPA has revised the instructions to the form to indicate where facilities can obtain the number. (Information collection requirements are approved by Office of Management and Budget under control number 2050-0072.)

I. Integration of Title III Federal Requirements With State and Local Programs

A large number of commenters registered concern about the potential for duplication in data collection, since Title III requirements overlap with reporting provisions under some State and/or local laws. Some commenters would prefer to comply with Title III through equivalent State programs; others suggested that the reporting rules be flexible enough to allow integration with existing programs.

Although section 321 states that Title III generally does not pre-empt State or local laws, including similar community right-to-know reporting, the Agency strongly discourages duplicative reporting systems that would increase the community right-to-know paperwork burden and thus potentially reduce the effectiveness of the program and of public access to information. EPA encourages States to modify their community right-to-know requirements to accommodate Title III without eliminating additional requirements that are beneficial to State or local needs. The Agency also advises States to consider reporting requirements that are applicable to local emergency planning committees and fire departments. To the extent possible in this final rule, the Agency has attempted to provide flexibility for State and local implementation and integration with their existing programs.

Several commenters recommended that State and local jurisdictions be allowed to determine the method of reporting.

In the final rule, EPA has tried to provide as much flexibility as possible to the local and State officials who must implement this program, while at the same time provide a degree of standardization to the regulated community and ensure that statutory requirements are met. EPA has thus revised the regulations to specify the circumstances under which a State or local form can be used in lieu of the Tier I and Tier II forms published today. Revised §§ 370.40 and 370.41 of the final rule state that facilities will meet the Section 312 requirements if they submit the published form, or any State or local

form that contains identical content. "Identical content" means that, at a minimum, the same information requested on the form published in today's final rule must be requested in some portion of the State form. States may, in addition, use the form as published today but add supplemental questions, either interspersed throughout the form or attached at the end.

J. Information Management

With respect to data management issues, commenters focused on two principal points. First, the majority of commenters on this issue strongly expressed the conviction that the entire program can be made workable only if the information is handled by computer systems. The second principal issue raised by commenters was the need for assistance in organizing the material; designing and selecting systems; coordinating the use of the material among SERCs, LEPCs, and fire departments; and ultimately making the information available to the general public.

Specific comments concerned the need to allow information submission in computer-readable media and for guidance from the federal government to aid information management at the State and local levels. A recurring message in the comments was the need for the federal government to play an active role in solving the extensive data management problems triggered by Title III. Suggestions were for EPA, alone or with OSHA, to develop model MSDS databases, to design or develop effective data management and communications techniques for information systems, to convene a high level workgroup to draft a plan for solving the problems, and to provide seed money to each SERC for development of its own MSDS information system. Commenters also raised general concerns about the sources for financial support to implement the legislation and the time necessary to prepare for implementation.

In response to the general information management concerns raised by commenters, the Agency agrees that the data resulting from Title III compliance would best be managed through a computerized system. EPA recommends that the LEPCs and fire departments work closely with the SERCs to develop flexible systems that address the particular requirements of each planning district. However, because most of Title III is carried out through State and local organizations, it is not appropriate for the Agency itself to recommend or design data management systems, to establish a national database under

sections 311 and 312, to specify data collection points, or to make any other information management decisions that belong to the State and local authorities implementing the community right-to-know program. Thus, although EPA shares commenters' concerns over the critical data management needs generated by Title III, EPA believes that the most appropriate role for the Agency in information management under sections 311 and 312 will be one of technical assistance to State and local entities in developing effective information management systems. The Agency is reviewing such systems in an effort to identify useful systems that could meet State and local needs and also intends to publish technical guidance regarding the development of such systems by States.

EPA acknowledges that the provisions of Title III concerning hazardous chemicals and community right-to-know present information management problems that are difficult to implement, given the statutory time-frames and governmental budget constraints. Of all the sections of Title III, sections 311 and 312 present by far the largest information management burden for State and local governments. EPA's concern over this issue has been the principal basis for several key regulatory decisions during this rulemaking. For instance, to permit time to work out information management systems and to ensure that State and local capabilities are not overwhelmed during initial implementation, EPA is establishing a 3-year phase-in schedule with high initial reporting thresholds for both sections 311 and 312.

State and local governments also need time to obtain funding and to establish the organizations and processes to implement this legislation. In order to provide as much flexibility as possible to State and local governments in establishing their Title III programs, EPA is leaving decision-making concerning the medium to be used in reporting (e.g., paper, magnetic tape, telecommunication lines) to States and local governments.

Some State and local governments already receive information required under sections 311 and 312 from facilities in their jurisdictions, and some make this information available to the public. To the extent that these submissions under State or local law meet the requirements of sections 311 and 312 regarding the content of submission, timing, and recipients of the information, facilities submitting such information will be in compliance with the federal requirements. Duplicate

submissions under the federal community right-to-know program are unnecessary. Also, in some instances, it may be permissible for fire departments to designate such State systems as the address for their MSDS submissions, provided that these systems will support the emergency response needs.

K. Regulatory Impact Analysis

A number of comments addressed various aspects of the Regulatory Impact Analysis. Comments ranged from general concerns that estimated costs for industry or government were too low to specific comments on the time, personnel, or equipment attributed to individual compliance activities. The comments also addressed the methodology used in the RIA, including compliance activities they felt had been omitted by government, the inclusion of costs for requests and trade secrets in aggregate costs, estimating costs for facilities covered by the OSHA expansion, and expanding the treatment of small business costs.

A number of commenters stated that the time estimated for industry to fill out the forms, or the estimates of the time and space required by government to maintain MSDS, were too low. Other commenters argued generally that estimates of industry costs were too low and gave estimates ranging from one and one-half to ten times the EPA estimates.

EPA has revised the analysis to reflect variations in costs for sections 311 and 312 by facility size and number of MSDS. EPA has also modified the section 312 inventory forms and clarified the instructions in this final rulemaking, which should reduce the amount of time it will take industry to comply with these requirements. Wage rates used in the RIA have also been increased to reflect growth in wages and the technical personnel being used to comply with regulations. EPA believes that the costs imputed to the final rule reasonably estimate, on average, the time and other costs that will be incurred by facilities complying with the requirements of the regulation.

Several commenters addressed government costs, stating that estimated costs were too low, that not all necessary government activities were considered, or that additional personnel would be required to comply with sections 311 and 312. One commenter stated that EPA's estimated costs were too low by as much as an order of magnitude.

In response to these comments, EPA has revised the time requirements to include additional time spent, particularly by State and local

government, on several activities. Wage rates in the government are assumed equal to those in the private sector; thus, government wage rates have also been revised to reflect the estimated change in private sector wages. It should be noted that the RIA has assumed that government agencies do the minimum activities necessary to comply with the regulations. Costs are intended to reflect, on average, the costs that will be incurred by representative government entities undertaking these activities. However, community right-to-know is essentially a State and local program, and the costs of implementing its provisions will depend on the activities undertaken by each entity. Thus, the costs presented in the RIA may underestimate the actual costs to individual government entities with sufficient funding and the ability, need, or constituency to be proactive in implementing Title III.

Several commenters said that EPA has not included in the RIA the costs of requesting information, responding to requests, or making trade secret claims. EPA has modified its approach and provides additional sensitivity analysis on the possible magnitude of some of the costs associated with information requests. However, it should, again, be stressed that community right-to-know is a State and local program; the number of requests is highly dependent on the extent and nature of the uses to which data are put, both by public officials and by private citizens and organizations. These uses, in turn, depend on the manner and breadth of the implementation and outreach plans of State and local governments, which makes the costs associated with requests for information difficult to predict. Thus, while a sensitivity analysis is provided, the costs of requests are not aggregated into total costs. The costs associated with trade secrets are being addressed in a separate rulemaking that is under way for the Title III trade secret provisions, sections 322 and 323 of SARA.

Numerous comments point out that EPA did not address the costs that may be associated with any forthcoming expansion of the OSHA hazard communication standard. These costs are included in a supplemental analysis, which is part of the final RIA. These costs are not aggregated into total costs of sections 311 and 312; total costs reflect the costs to facilities and government of complying with sections 311 and 312, given the current scope of the OSHA hazard communication standard.

Other commenters said that the costs estimated for small business were too

low or that the regulation constituted a significant impact on small business. An additional group of commenters submitted a form letter saying that the regulations would be an immense burden on small business.

EPA has expanded its small business analysis considerably for the final rulemaking. In particular, per facility costs are varied to reflect both facility size and the estimated number of hazardous chemicals that are present, on average, at a facility in a particular SIC code and size class. To determine whether the regulation will have an impact on small business, a small facility is defined as one with fewer than 20 employees. This group is more likely to show an impact than the broader group (50-150 employees) suggested in the comments. The analysis then looks at the impact on small business using several criteria, including the ratio of costs per facility to sales. After consideration of this additional analysis, EPA reached the same conclusion as in the proposed rulemaking; a substantial number of small businesses will be affected, but the impact will not be significant. Thus, the Agency is not performing a Regulatory Flexibility Analysis.

L. Miscellaneous

1. Enforcement/Penalties

The Agency received numerous comments and queries on the subject of enforcement. Some commenters stated that a violation should be treated as a one-time occurrence and not a continuous violation as specified in the proposed rule. Others requested flexibility in determining violations and assessing penalties, especially where the owner or operator makes good faith efforts toward compliance. Still another commenter asked how enforcement would be accomplished.

With regard to one-time versus continuous violations, section 325(c)(3) of Title III provides that each day a violation of section 311 and 312 continues shall constitute a separate violation. EPA has therefore retained this provision in the final rule. With respect to issues concerning how EPA will enforce compliance with these provisions, EPA is preparing a compliance strategy for Title III that will address these issues. Criteria for determining penalties will also be set out in that document.

2. Compliance/Timing

Two dozen commenters addressed questions concerning compliance and scheduling. Their statements ranged

from a view that the 45-day response period for Tier II requests is unrealistic, to a request that EPA stipulate a 15-day period for a SERC or LEPC to respond to a public request for MSDS or Tier II forms and that the same 15-day deadline be placed on the facility.

EPA has retained the 45-day schedule for response to Tier II public requests as specifically provided under section 312. In the regulation, EPA establishes a 30-day schedule for response by an owner or operator to SERC or LEPC requests for MSDS and Tier II information. EPA believes that the 30-day timetable for Tier II information is necessary to ensure adequate time for the SERC and LEPC to meet the statutorily-established response time. The same period was established for MSDS responses to avoid confusion over applicable time periods under this rule. However, the Agency has also rejected the establishment of other time limitations in order to preserve flexibility at the State and local levels with respect to timing of responses.

3. Use of Tier I and Tier II Forms

Numerous comments were received indicating that Tier II information is more useful than Tier I information. EPA agrees with these commenters. For this reason, the Tier II form has been designed for potential use as a worksheet and guide for gathering information ultimately to be used in the Tier I aggregate data. Section 312 and § 370.25(b) of the regulations allow facilities to submit the Tier II form in lieu of Tier I.

Several commenters asked whether the Tier II inventory form could be submitted instead of the MSDS or list; others favored the option of submitting the MSDS instead of Tier I and Tier II. Under today's rule, the Tier II inventory form cannot be submitted in lieu of the MSDS; nor can the MSDS submission constitute compliance with inventory form reporting. Title III establishes several distinct reporting requirements under community right-to-know that serve different purposes. The MSDS submission under section 311 allows the public to find out what chemicals are present at facilities and the types of hazards they present. The 312 inventory forms provide more specific location, storage, and quantity information. These requirements are not alternative.

4. Need for Funds

A dozen commenters indicated a need for funding in order to carry out the Title III requirements.

No federal funding has been provided in support of Title III community right-to-know requirements at State and local

levels. However, EPA intends to provide technical support to States in carrying out their responsibilities.

The Agency received a number of comments regarding the burden that Title III places on both industry and State and local agencies in terms of costs, manpower, and record-keeping. EPA has made every effort in this rulemaking to minimize this burden, while effectively satisfying the legislative intent of Title III. The Agency has instituted a 3-year phase-in period, encouraged the use of the list option as opposed to the MSDS option, and reduced the number of reporting categories for physical and health hazards. Additionally, the Agency as conducted outreach activities such as teleconferences and workshops targeted at overall Title III implementation.

5. Responsibility for and Appropriateness of Data

EPA received many comments requesting clarification of the submitter's responsibility for the accuracy and completeness of submitted data.

Several commenters felt that only producers, importers, and distributors should be responsible for the accuracy of chemical hazard assessments and that users should not be responsible for initiation or verification of data.

While producers, importers, and distributors are responsible for providing accurate MSDS information, downstream users who submit, or rely upon, such MSDS should make reasonable efforts to correct information that they know to be inaccurate or to inform the recipients of the information of its inaccuracies.

A number of commenters noted that many workplace substances classified as hazardous chemicals under OSHA regulations do not present a danger to communities. Others mentioned cleaning and maintenance products as examples and asked that they be excluded.

Many work-place substances do not, in fact, constitute a hazard to the community. Sections 311 and 312 focus primarily on the presence of hazardous chemicals within the community and the need for public access to information about their existence whether or not they pose a present hazard to the community. However, many cleaning and maintenance products are excluded from the definition of hazardous chemical as consumer products, or need be reported only on request if they are present in quantities below the threshold.

One commenter asked for a clarification of the obligations of facility owners or operators who voluntarily

provide MSDS to customers and employees.

If an owner or operator chooses to provide MSDS to customers and employees even though he is not required to do so under OSHA, the owner or operator does not need to submit the MSDS or Tier I and Tier II forms under Title III since these requirements only apply to persons required to prepare or have available MSDS for hazardous chemicals under OSHA regulations.

6. Scope of the Section 311 and 312 Requirements

Several commenters remarked on the transitory nature of some of the information and the necessity of frequent revisions.

Under section 312, the reporting requirement is annual and thus will automatically capture new or revised information. Facilities may, and in most cases should, inform their local or State government or fire department immediately if there is a change in the emergency contact number or other significant information on the inventory forms. Facilities subject to section 303 must provide information on relevant changes at the facility to the LEPC for planning purposes. With respect to MSDS submission under section 311, under today's rule, a revised MSDS must be filed with the LEPC, the SERC, and the local fire department within three months after significant new information is discovered.

EPA received a number of comments on the scope of the reporting requirements. According to one commenter, reporting on all chemicals required to have an MSDS is too broad, because chemical suppliers have interpreted the OSHA hazard communication standard to include the broadest range of chemicals in order to avoid future liability. Another commenter felt that the reporting requirements would be too narrow if only SIC codes 20-39 were covered.

Title III requires that MSDS be submitted for each hazardous chemical for which an MSDS is required under OSHA except where EPA establishes a threshold for reporting. EPA does not believe that sections 311 and 312 requirements can or should be applied to facilities not required to have MSDS under OSHA regulations. However, when OSHA's expansion of the hazard communication standard to non-manufacturing facilities becomes effective, the reporting requirements under sections 311 and 312 will automatically apply to the facilities newly covered by the OSHA

requirements. Also, EPA does not believe that the expansive interpretation of the OSHA hazard communication standard given by members of the regulated community provides a sufficient basis for limiting the scope of section 311 and 312 requirements, especially in light of explicit statutory coverage and specific statutory exclusions.

To the extent possible, EPA has taken into consideration the expansion of the 311 and 312 universe. EPA has limited authority to revise sections 311 and 312 requirements and has in this rule exercised its full authority to ensure an effective community right-to-know program. In this rule, EPA has mitigated impact by setting high initial thresholds to avoid undue burden in early implementation stages, reducing hazard categories, developing outreach programs, and retaining flexibility for local and State governments as much as possible. However, as discussed earlier, EPA will review the minimum thresholds established in this rule when OSHA's expansion of its hazard communication standard becomes effective and will undertake a rulemaking, if necessary, to revise those thresholds to avoid overwhelming MSDS and Tier I submissions to State and local officials as a result of the expansion.

One commenter recommended that all required information, including updates, be submitted to both the State and local organizations to maintain consistency in reporting.

EPA agrees and has exercised its general rulemaking authority under Section 328 to require submission of the updated MSDS to all entities receiving the original MSDS. Otherwise, under the proposed rule, only the LEPC would receive updated information and thus have current information on a facility. A new MSDS at the facility must also be submitted to all three entities (as indicated in § 370.21(c)(2)).

V. Relationship to Other EPA Programs

A. Other Title III Programs

1. Subtitle A—Emergency Planning

Title III of SARA establishes several reporting and notification requirements in addition to sections 311 and 312. Subtitle A of Title III contains several notification provisions that are critical to local emergency planning. In order to facilitate local emergency planning, under section 302 facilities that have present an amount of an extremely hazardous substance in excess of the corresponding threshold planning quantity were required to notify the State emergency response commission

by May 17, 1987, or within 60 days of acquisition of such a substance. Section 303 requires that such facilities designate a representative to work with the local emergency planning committees in the Title III planning process and provide information concerning the facility that may be relevant to emergency planning. Section 304 establishes immediate release reporting requirements to enable timely and effective local response to releases of extremely hazardous substances and CERCLA hazardous substances. These emergency planning requirements are set forth in a final rule published on April 22, 1987. 52 FR 13380. These requirements are unaffected by today's rule.

Today's rule sets out the reporting requirements under sections 311 and 312, Subtitle B of Title III. The focus of Subtitle B is public access to information concerning chemicals in their communities rather than emergency response, and thus reporting requirements under Subtitle B are both broader in scope than Subtitle A and, under section 312, continuing in nature. However, the information obtained or made available under sections 311 and 312 of Subtitle B may also be of significant value to emergency responders.

Subtitle B will make available to the local and State emergency planners information on other chemicals and facilities, beyond those identified under Subtitle A, that they may wish to include in their emergency planning efforts. Tier II information under section 312 will provide specific information on the quantities and locations of hazardous chemicals. Thus, sections 311 and 312 provide information beneficial to the emergency planning required under Subtitle A. As discussed in the April 22, 1987, final rule, the facilities identified as a result of that rule are only a "first cut" of the facilities and potential chemical hazards for which emergency planning may be necessary.

2. Subtitle B—Section 313 Toxic Chemical Release Inventory

Subtitle B also establishes reporting requirements under Section 313. Beginning July 1, 1988, certain manufacturing facilities at which there is a "toxic chemical" manufactured, processed, or otherwise used in excess of a statutory quantity must annually report to EPA and the State, with respect to each substance, the maximum amount present at the facility, the treatment or disposal methods used, and the annual quantity released into the environment. These requirements are the subject of a separate rulemaking,

proposed for public comment on June 4, 1987. 52 FR 21152.

3. Trade Secrets

Title III also establishes provisions for the protection of trade secrets. Section 322 of Title III entitles persons required to submit information under sections 303, 311, 312, and 313 to withhold the specific chemical identity from disclosure under certain conditions. In order to withhold such information, however, a person must submit the withheld information and an explanation to EPA. Under section 322(c), EPA is required to publish regulations to implement the trade secret provisions as soon as practicable after the enactment of SARA. EPA intends to propose trade secret regulations under Section 322 later this year.

B. CERCLA Reporting Requirements

CERCLA section 103 establishes notification requirements for facilities at which there is a release of a reportable quantity (RQ) of a CERCLA hazardous substance. Such releases must be immediately reported to the National Response Center (800-424-8802, or in the Washington, DC metropolitan area at 202-426-2675). These reporting requirements and the list of hazardous substances and RQs are found in 40 CFR Part 302 and are for the purpose of alerting federal responders to a potentially dangerous release of a hazardous substance so that any necessary response can be made in a timely fashion. These notification requirements are similar to the release notification requirements under section 304 of Title III that must be made to local and State response personnel and are unaffected by today's rule.

VI. Effective Date

Section 553(d) of the Administrative Procedure Act (APA) generally requires that the effective date of substantive rules be no earlier than 30 days after publication in the *Federal Register*. However, section 553(d) also provides exceptions to the 30-day effective date requirement for rules that grant an exemption or relieve a restriction and for other "good cause."

EPA has made this rule immediately effective upon publication for several reasons. First, the submission of MSDS or alternative lists is required under section 311 by October 17, 1987. Providing a 30-day effective date would make this regulation, which implements those requirements, effective after October 17 and thus may cause serious confusion within the regulated

community over how to comply with statutory and regulatory reporting requirements. In addition, this final rule reduces the categories for reporting and establishes minimum thresholds, which relieves the impact of the statutory requirements otherwise effective on October 17, 1987. Finally, the other requirements implemented by this rule relate to section 312 reporting, which is not required until March 1, 1988. Thus, those requirements would not be affected by the 30-day effective date requirement under section 553(d) of the APA.

Because EPA believes that it thus has "good cause" to suspend the 30-day effective date requirement and this rule relieves reporting otherwise required by statute, the Agency has made this rule immediately effective in accordance with section 553(d) of the APA.

VII. Regulatory Analyses

A. Regulatory Impact Analysis

1. Purpose

Executive Order No. 12291 requires each federal agency to determine if a regulation is a "major" rule as defined by the Order and to prepare and consider a Regulatory Impact Analysis (RIA) in connection with each major rule. Because EPA has determined that the reporting requirements for hazardous chemicals in this rulemaking constitute a major rule under Executive Order No. 12291, the Agency has prepared an RIA to assess the economic impact on the final regulation on affected industry and State and local government entities. The following results are presented in detail in the analysis documented in *Regulatory Impact Analysis in Support of Final Rulemaking Under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986*, which is available for review in the public docket for this rulemaking.

This rule was submitted to the Office of Management and Budget for review as required by E.O. No. 12291.

2. Methodology and Data Sources

EPA conducted an assessment of the costs, benefits, and economic impacts associated with the final rule and the primary regulatory alternatives. The regulation affects employers covered by some provisions of OSHA's hazard communication standard and three types of government entities—State emergency response commissions, local emergency planning committees, and fire departments. Both industry and government are required by sections 311 and 312 of SARA to undertake certain activities, and, thus, both types of entities incur costs to comply with these regulations.

Benefits for both industry and government may also arise in conjunction with compliance activities. In addition, industry, government, and other groups may, as a result of these regulations, undertake additional voluntary activities that generate benefits both for these groups as well as for the general community. The interrelationships among the activities undertaken by these diverse groups, the provisions of Title III, and the potential consequences for health and the environment are complex. Thus, time constraints did not permit EPA to perform a quantitative evaluation of the benefits of these provisions; a qualitative discussion of the benefits is provided in the RIA.

Costs of complying with sections 311 and 312 of SARA are incurred by covered facilities, State emergency response commissions, local emergency planning committees, and fire departments. Total costs depend on the number of facilities reporting, the total number of MSDS, and the number of government entities receiving the data.

For the industry analysis, EPA analyzed the activities that each facility would have to undertake to comply with sections 311 and 312 and the unit costs associated with each activity. It was assumed that the cost incurred by a facility varied in different years depending on the regulatory alternative being considered, the size of the facility, and the number of chemicals at the facility. Total costs to industry, thus, depend on the number of facilities affected or reporting, the number of chemicals for which MSDS are maintained at these facilities, and the unit costs associated with each of the compliance activities.

OSHA's hazard communication standard (HCS) currently covers facilities in the manufacturing sector (Standard Industrial Classification (SIC) codes 20 through 39), although OSHA has recently expanded the HCS to the non-manufacturing sector, to be effective in May, 1988. The number of facilities in each two-digit manufacturing SIC code nationwide was obtained from the Bureau of the Census (County Business Patterns, U.S. Department of Commerce, 1984) for four facility sizes: (1) 1-19 employees, (2) 20-99 employees, (3) 100-249 employees, and (4) more than 249 employees. Based on census data, there are an estimated 350,740 manufacturing facilities that could potentially be affected by this rule.

The number of MSDS present, on average, at a facility in each SIC code and facility size class was provided by updating OSHA's 1980 estimates of the number of "regulated chemicals" (i.e., MSDS) in each SIC code and size class

to 1986. The total number of MSDS maintained at all manufacturing facilities is estimated to be 35,004,503, which implies that an average facility maintains 100 MSDS. On average, the smallest facilities (those with 1-19 employees) are estimated to have 74 MSDS, and the largest facilities (more than 250 employees) have 306 MSDS.

The costs to industry of complying with each of the regulatory alternatives have been estimated as have the costs of complying with the default legislative requirements if EPA had promulgated no regulations. Five regulatory alternatives are identified for analysis in this report. The regulatory options differ from each other with regard to the threshold that is in effect in each year. Raising the threshold in a given year reduces industry costs in that year by reducing the number of chemicals that facilities report under both Sections 311 and 312 and by reducing the number of facilities that report.

Estimates of the numbers of covered facilities and reportable chemicals for each threshold level were obtained from a data set that was compiled as part of an industrial survey conducted by the State of New Jersey in 1979. To perform this analysis, the chemical reports in the New Jersey data set were weighted to make the mix of facilities by SIC code more representative of the mix of facilities nationwide. The effects of different thresholds on the numbers of facilities and chemicals covered were then calculated. The cost methodology assumed that the effect of thresholds on the percent of facilities or chemicals covered is unaffected by SIC code or the size of the facility. At 10,000 pounds, it is estimated that 22 percent of the facilities (78,000) will be required to report, and that 13 percent of the chemicals (4.5 million) will be reported. At 500 pounds, it is estimated that 82 percent of the facilities (288,000) and 57 percent of the chemicals (19.9 million) will be covered.

Similar weighting procedures were followed for data sets obtained from two other states, Michigan and New York. The data from these states did not contradict the New Jersey data; the latter were used in the analysis since they were more complete in several variables and also provided a more conservative view of the extent to which thresholds reduce costs.

In addition to differences in the reporting thresholds, the regulatory alternatives differ from the default statutory requirements in two respects. First, the statutory default for hazard categorization is the OSHA categories, which were defined as 23 categories of health and physical hazards for the proposed rule. EPA is promulgating five

hazard categories; performing hazard categorization should be less costly for industry than under the 23 OSHA categories. Second, EPA is publishing inventory forms for reporting; if no forms exist, the legislation requires that facilities submit section 312 information by letter. Both these factors reduce the estimated cost of the regulatory alternatives in comparison with the legislation.

The analysis of costs to government proceeded along lines similar to the industry analysis. The analysis estimated costs for a representative State commission, local committee, and fire department. It was assumed that the costs incurred by each entity in each year depended on the number of reports received, on the number of facilities reporting, and on the number of government entities. EPA assumed that there would be only one commission per State and estimated the number of local committees and fire departments.

Both the industry and government analyses assume that reporting and receiving entities undertake the minimum activities that they must perform to comply with SARA. The analysis, therefore, does not take into account the costs associated with voluntary activities, such as designing and using computer systems to store and access the data, alterations in chemical usage patterns that may arise at facilities as a result of these sections of SARA, or other activities or effects.

Several supplemental analyses were performed to provide evidence on the sensitivity of the results to changes in various assumptions of the methodology. In particular, present value total costs were computed (a) for two discount rates, 4% and 10%, (b) using an alternative set of results on the effects of thresholds, (c) for the 23 OSHA categories as well as the five categories in the rule, and (d) for the non-manufacturing facilities that will be covered by the OSHA expansion of the HCS.

An analysis of some of the costs potentially associated with requests is also presented. In particular, a sensitivity analysis of the aggregate cost to government of responding to requests for MSDS or Tier I information when the information is already in the files is included. The cost to a facility of responding to an individual request for MSDS or Tier I information is provided as is the cost to a government entity of requesting MSDS or Tier I information if it is not in the files. The cost to a facility of responding to Tier II requests, under alternative assumptions on the number of chemicals for which Tier II

information is requested, is also provided.

3. Results

The RIA analyzes five regulatory alternatives as well as the statutory or default baseline. In addition, two alternative hazard categorization schemes are considered. The five threshold options considered are:

Alternative I: No threshold

Alternative II: (Proposed)

10,000 pounds in year 1

500 pounds in year 2

No threshold in year 3 and subsequent years

Alternative III:

10,000 pounds in year 1

10,000 pounds in year 2

500 pounds in year 3 and beyond

Alternative IV:

10,000 pounds in year 1

10,000 pounds in year 2

50 pounds in year 3 and beyond

Alternative V:

10,000 pounds in year 1

10,000 pounds in year 2

2,000 pounds in year 3 and beyond.

In present value (PV) terms, the cost of each of the regulatory alternatives is lower than the cost associated with the statutory requirements. Present value costs for each of these threshold alternatives were computed by discounting annual costs over the first ten years of reporting at ten percent. Assuming the five hazard categories promulgated in the final rule, the PV costs to industry for the five alternatives range between \$520 million and just over \$1 billion, in comparison with \$1.6 billion for the statutory requirements (the baseline).

For government, present value costs range between \$120 million and \$260 million; the costs of the no-threshold option are the greatest and are identical with the costs of the baseline under the assumptions of the analysis. For both industry and government, Alternative V, which has the highest permanent threshold, has the lowest continuing costs and the lowest present value costs. Alternative I, the no-threshold option, has the highest costs. Alternative III, the preferred alternative for this rulemaking, is towards the low end: \$708 million for industry and \$178 million for government.

For Alternative III, first-year industry costs equal approximately \$162 million, second-year costs drop to \$24 million since the threshold is unchanged, third year costs rise to \$348 million, since the reduction in the threshold requires many more facilities to report on additional chemicals. Costs level off at \$59 million

in the fourth and subsequent years. Costs for the other alternatives in the fourth and subsequent years range between \$39 million and \$66 million, depending on the threshold level in those years.

In the first year of reporting, all system set-up and design costs are attributed to section 311; thus, the costs to industry of complying with section 311 slightly outweigh those associated with section 312 for all regulatory alternatives except Alternative I, the no-threshold option. For year three onward, section 312 costs outweigh section 311 costs; for Alternative III in year four, the costs associated with section 312 are approximately 64 percent of the combined costs to industry of sections 311 and 312.

In general, annual government costs for sections 311 and 312 combined are much smaller than those estimated for industry. This reflects the assumption in the analysis that many costs, such as rule familiarization and system design, are incurred by each individual facility or government entity and are not directly related to the number of forms being handled. First-year costs equal \$43 million for all alternatives except the no-threshold option; second-year costs drop substantially; third-, fourth- (and subsequent) year costs level off at between \$15 million and \$32 million. Although costs to an individual State commission far exceed those to a local committee or fire department, there are many more fire departments than commissions or committees so that, in aggregate, costs to fire departments may account for as much as one-third to more than one-half of government costs in any given year.

The above costs do not reflect the costs of the regulatory alternatives if OSHA's 23 hazard categories had been used in the final rule. In present value terms, using the original 23 categories rather than five leads to a 28% to 38% increase in costs over 10 years, depending on the alternative.

Both industry and government will incur costs in conjunction with requests. SERCs, LEPCs and fire departments, as well as other government officials, may have access to the information reported under these sections and may request additional information. In addition, SERCs and LEPCs will, under certain circumstances, have to make available MSDS and inventory forms that they have received from facilities. They will also have to request information that either was not reported or that concerns chemicals below the threshold, and they will need to make determinations on, and possibly request, Tier II

information. Similarly, facilities will need to respond to requests by government. It is difficult to estimate the aggregate costs associated with requests, since the magnitude of these costs depends crucially on the behavior of the public and government and the types of programs that are set up on the threshold level in effect, and on the government's implementation of the Tier II provisions.

An estimate of the potential costs to government of responding to requests for MSDS was obtained assuming that requests for between five and 25 percent of facilities are received by government. If government agencies provide copies of all MSDS that a facility has submitted, estimated costs to government of handling these requests range between less than \$400,000 to over \$1.8 million.

The number of Tier II requests to which industry must respond will depend on the criteria used by local committees to evaluate public requests, the number of public requests made, the distribution of these requests across chemical volumes, and the number of requests originating with the government. It is thus difficult to estimate the aggregate costs associated with Tier II information; however, the costs to an individual facility of responding to a Tier II request may range between approximately \$800 and \$6,500, depending on the number of chemicals for which the request is received and the size of the facility.

Similarly, the number of requests that government will make to industry for MSDS stored below the threshold will depend on the number of requests that governments receive, which, in turn, depends on the size of the threshold and the outreach program and policies of government. Further, if facilities choose to submit lists, additional requests for MSDS will be generated.

No aggregate estimates of the costs of complying with requests below the threshold are presented. However, the cost to government of requesting all MSDS from a facility, photocopying, and mailing the information to the requester when the information is not on file is estimated to be \$52 per request; the cost to industry of complying with the request is \$31. Those activities and associated costs are intended to represent one reasonable method of making information available to the public and may not be used by all government entities.

The analysis also examined the effects of OSHA's expansion of its HCS on industry and government costs. This expansion may affect as many as 3.5 million non-manufacturing facilities with

approximately 67 million MSDS. Very rough cost estimates suggest that, for the chosen alternative, present value costs to non-manufacturing facilities of complying with sections 311 and 312 combined may be as high as \$3.7 billion; this is approximately five times the costs estimated for manufacturing. For government, incremental costs associated with the expansion are approximately \$1.1 billion, which is over six times the costs associated with the current scope of the HCS.

Benefits arise in conjunction with several parts of the reporting requirements of this rule. Potential benefits arise in conjunction with this rule primarily because the information that is reported is used (e.g., more effective planning occurs, which reduces the probability of accidents or chronic exposures). Thus, the provisions of the regulation affect the benefits generated, in comparison with those generated by the statutory requirements, in several ways. First, the reporting thresholds affect the volume of information submitted. Reducing the number of submissions generates benefits if the information is more manageable. However, raising thresholds may reduce benefits if public access to complete information on chemical hazards in the community is reduced or impeded.

Second, simplifying the hazard classification system affects benefits. On the one hand, it promotes efficient use of the information; conversely, it reduces the level of detail available to the government and the public.

Benefits also raise in conjunction with two public access provisions that have been incorporated into the final rule: reporting on the list of EHS at 500 pounds or the TPQ and access by the public, on request, to information on chemicals stored below the threshold. Both these provisions provide benefits to communities with specific needs for complete information.

Finally, use of the published form by industry for Section 312 reporting may provide benefits. Consistently formatted information is easier to process, manage, and use and thus may encourage utilization of the information by the general public and government entities.

B. Regulatory Flexibility Act

1. Purpose

Under the Regulatory Flexibility Act, whenever an agency is required to issue any proposed or final rule for publication in the *Federal Register*, it must prepare and make available a Regulatory Flexibility Analysis that describes the impact of the rule on small

entities (i.e., small businesses, small organizations, and small governmental jurisdictions), unless the agency's Administrator certifies that the rule will not have a significant impact on a substantial number of small entities. The analyses contained in the RIA address the impact of this rule on small entities. Based on these analyses, EPA has concluded that, while the rule affects a substantial number of small entities, the impact on each is not significant.

2. Methodology and Results

To examine the impacts on small businesses, EPA compared average costs for small facilities (defined to be those with 1-19 employees) to average and median sales for those facilities, by two-digit SIC code.

There are a substantial number of small businesses under this definition; 225,423 facilities—64 percent of total manufacturing—are estimated to be small. All of these facilities must, at least, incur the cost of becoming familiar with the requirements of these Sections, and thus, incur some costs of complying with sections 311 and 312.

In order to assess the impacts on small businesses, several guidelines were used. The primary criterion, however, is the ratio of annual costs to average or median sales. A worst-case scenario is provided by examining the first year of Alternative I, no threshold. Average costs to industry for small businesses, by SIC code, range between \$1,400 and \$2,100. As a percentage of average sales, the range is .12 to .71 percent. The range as a percentage of median sales is narrower—.20 to .64 percent. This is well within EPA's guidelines that cost remain below 5 percent of sales in order to avoid significant impacts.

However, EPA is concerned that it has been unable to provide a complete assessment of the impact of this rule on small businesses in all business sectors that will in the future become subject to these requirements due to OSHA's expanded hazard communication standard. As indicated earlier, EPA is understanding a more detailed review of the appropriateness of these thresholds in this rule as they apply to the expanded coverage of the OSHA MSDS requirements. EPA will also be conducting a further analysis of small businesses newly subject to OSHA and Title III requirements.

3. Certification

On the basis of the analyses contained in the RIA with respect to the impact of this rule on small entities, I hereby certify that this rule will not have a significant impact on a

substantial number of small entities. This rule, therefore, does not require a Regulatory Flexibility Analysis.

C. Paperwork Reduction Act

The information collection requirements contained in this rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq. and have been assigned OMB control number 2050.0072.

VIII. Submission of Reports

If necessary to obtain reporting forms, facilities should contact their State emergency response commission. Although EPA intends to provide camera-ready copy of the federal form for use by the SERCs, the commission will be responsible for co-ordinating with the LEPCs and fire departments regarding the printing and distribution of the inventory forms.

To obtain the address of a SERC, an individual or facility should contact their Governor's office or the Chemical Emergency Preparedness Hotline at (800) 535-0202 or (202) 479-2449 (DC and Alaska). The SERC should be able to provide information concerning the LEPCs within the State.

List of Subjects in 40 CFR Part 370

Chemicals, Hazardous substances, Extremely hazardous substances, Intergovernmental relations, Community right-to-know, Superfund Amendments and Reauthorization Act, Chemical accident prevention, Chemical emergency preparedness, Community emergency response plan, Contingency planning, Reporting and recordkeeping requirements.

Date: October 8, 1987.

Lee M. Thomas,
Administrator.

For the reasons set out in the Preamble, Subchapter J of Title 40 of the Code of Federal Regulations is amended by adding Part 370 to read as follows:

PART 370—HAZARDOUS CHEMICAL REPORTING: COMMUNITY RIGHT-TO-KNOW

Subpart A—General Provisions

- Sec.
370.1 Purpose
370.2 Definitions
370.5 Penalties

Subpart B—Reporting Requirements

- Sec.
370.20 Applicability
370.21 MSDS Reporting
370.25 Inventory Form Reporting
370.28 Mixtures

Subpart C—Public Access and Availability of Information

- Sec.
370.30 Requests for Information
370.31 Provision of Information

Subpart D—Inventory Forms

- Sec.
370.40 Tier I Emergency and Hazardous Chemical Inventory Form
370.41 Tier II Emergency and Hazardous Chemical Inventory Form
Authority: Secs. 311, 312, 324, 325, 328, 329 of Pub. L. 99-499, 100 Stat. 1613, 42 U.S.C. 11011, 11012, 11024, 11025, 11028, 11029.

Subpart A—General Provisions

§ 370.1 Purpose.

These regulations establish reporting requirements which provide the public with important information on the hazardous chemicals in their communities for the purpose of enhancing community awareness of chemical hazards and facilitating development of State and local emergency response plans.

§ 370.2 Definitions.

"Commission" means the State emergency response commission, or the Governor if there is no commission, for the State in which the facility is located.

"Committee" means the local emergency planning committee for the emergency planning district in which the facility is located.

"Environment" includes water, air, and land and the interrelationship that exists among and between water, air, and land and all living things.

"Extremely hazardous substance" means a substance listed in the Appendices to 40 CFR Part 355, Emergency Planning and Notification.

"Facility" means all buildings, equipment, structures, and other stationary items that are located on a single site or on contiguous or adjacent sites and that are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with, such person). For purposes of emergency release notification, the term includes motor vehicles, rolling stock, and aircraft.

"Hazard Category" means any of the following:

(1) "Immediate (acute) health hazard," including "highly toxic," "toxic," "irritant," "sensitizer," "corrosive," (as defined under § 1910.1200 of Title 29 of the Code of Federal Regulations) and other hazardous chemicals that cause an adverse effect to a target organ and which effect usually occurs rapidly as a result of short term exposure and is of short duration;

(2) "Delayed (chronic) health hazard," including "carcinogens" (as defined under § 1910.1200 of Title 29 of the Code of Federal Regulations) and other hazardous chemicals that cause an adverse effect to a target organ and which effect generally occurs as a result of long term exposure and is of long duration;

(3) "Fire hazard," including "flammable," "combustible liquid," "pyrophoric," and "oxidizer" (as defined under § 1910.1200 of Title 29 of the Code of Federal Regulations);

(4) "Sudden release of pressure," including "explosive" and "compressed gas" (as defined under § 1910.1200 of Title 29 of the Code of Federal Regulations); and

(5) "Reactive," including "unstable reactive," "organic peroxide," and "water reactive" (as defined under § 1910.1200 of Title 29 of the Code of Federal Regulations).

"Hazardous chemical" means any hazardous chemical as defined under § 1910.1200(c) of Title 29 of the Code of Federal Regulations, except that such term does not include the following substances:

(1) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.

(2) Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use.

(3) Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public.

(4) Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual.

(5) Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

"Inventory form" means the Tier I and Tier II emergency and hazardous chemical inventory forms set forth in Subpart D of this Part

"Material Safety Data Sheet" or "MSDS" means the sheet required to be developed under § 1910.1200(g) of Title 29 of the Code of Federal Regulations.

"Person" means any individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of State, or interstate body.

"Present in the same form and concentration as a product packaged for

distribution and use by the general public" means a substance packaged in a similar manner and present in the same concentration as the substance when packaged for use by the general public, whether or not it is intended for distribution to the general public or used for the same purpose as when it is packaged for use by the general public.

"State" means any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the United States has jurisdiction.

"TPQ" means the threshold planning quantity for an extremely hazardous substance as defined in 40 CFR Part 355.

§ 370.5 Penalties

(a) *MSDA reporting.* Any person other than a governmental entity who violates any requirement of § 370.21 shall be liable for civil and administrative penalties of not more than \$10,000 for each violation.

(b) *Inventory reporting.* Any person other than a governmental entity who violates any requirement of § 370.25 shall be liable for civil and administrative penalties of not more than \$25,000 for each violation.

(c) *Continuing violations.* Each day a violation described in paragraphs (a) or (b) of this section continues shall constitute a separate violation.

Subpart B—Reporting Requirements

§ 370.20 Applicability.

(a) *General.* The requirements of this subpart apply to any facility that is required to prepare or have available a material safety data sheet (or MSDS) for a hazardous chemical under the Occupational Safety and Health Act of 1970 and regulations promulgated under that Act.

(b) *Minimum threshold levels.* Except as provided in paragraph (b)(3) of this section, the minimum threshold level for reporting under this subpart shall be according to the following schedule.

(1) The owner or operator of a facility subject to this Subpart shall submit an MSDS:

(i) On or before October 17, 1987 (or 3 months after the facility first becomes subject to this subpart), for all hazardous chemicals present at the facility in amounts equal to or greater than 10,000 pounds, or that are extremely hazardous substances present at the facility in an amount greater than or equal to 500 pounds (or 55 gallons) or the TPQ, whichever is less, and

(ii) On or before October 17, 1989 (or 2 years and 3 months after the facility first becomes subject to this Subpart), for all hazardous chemicals present at the facility between 10,000 and zero pounds for which an MSDS has not yet been submitted.

(2) The owner or operator of a facility subject to this Subpart shall submit the Tier I form:

(i) On or before March 1, 1988 (or March 1 of the first year after the facility first becomes subject to this Subpart), covering all hazardous chemicals present at the facility during the preceding calendar year in amounts equal to or greater than 10,000 pounds, or that are extremely hazardous substances present at the facility in an amount greater than or equal to 500 pounds (or 55 gallons) or the TPQ, whichever is less, and

(ii) On or before March 1, 1989 (or March 1 of the second year after the facility first becomes subject to this Subpart), covering all hazardous chemicals present at the facility during the preceding calendar year in amounts equal to or greater than 10,000 pounds, or that are extremely hazardous substances present at the facility in an amount greater than or equal to 500 pounds (or 55 gallons) or the TPQ, whichever is less, and

(iii) On or before March 1990 (or March 1 of the third year after the facility first becomes subject to this Subpart), and annually thereafter, covering all hazardous chemicals present at the facility during the preceding calendar year in amounts equal to or greater than zero pounds or that are extremely hazardous substances present at the facility in an amount equal to or greater than 500 pounds (or 55 gallons) or the TPQ, whichever is less.

(3) The minimum threshold for reporting in response to requests for submission of an MSDS or a Tier II form pursuant to §§ 370.21(d) and 370.25(c) of this Part shall be zero.

§ 370.21 MSDS reporting.

(a) *Basic requirement.* The owner or operator of a facility subject to this Subpart shall submit an MSDS for each hazardous chemical present at the facility according to the minimum threshold schedule provided in paragraph (b) of § 370.20 to the committee, the commission, and the fire department with jurisdiction over the facility.

(b) *Alternative reporting.* In lieu of the submission of an MSDS for each hazardous chemical under paragraph (a) of this section, the owner or operator may submit the following:

(1) a list of the hazardous chemicals for which the MSDS is required, grouped by hazard category as defined under § 370.2 of this Part;

(2) the chemical or common name of each hazardous chemical as provided on the MSDS; and

(3) except for reporting of mixtures under § 370.28(a)(2), any hazardous component of each hazardous chemical as provided on the MSDS.

(c) *Supplemental reporting.* (1) The owner or operator of a facility that has submitted an MSDS under this section shall provide a revised MSDS to the committee, the commission, and the fire department with jurisdiction over the facility within three months after discovery of significant new information concerning the hazardous chemical for which the MSDS was submitted.

(2) After October 17, 1987, the owner or operator of a facility subject to this section shall submit an MSDS for a hazardous chemical pursuant to paragraph (a) of this section or a list pursuant to paragraph (b) of this section within three months after the owner or operator is first required to prepare or have available the MSDS or after a hazardous chemical requiring an MSDS becomes present in an amount exceeding the threshold established in § 370.20(b).

(d) *Submission of MSDS upon request.* The owner or operator of a facility that has not submitted the MSDS for a hazardous chemical present at the facility shall submit the MSDS for any such hazardous chemical to the committee upon its request. The MSDS shall be submitted within 30 days of the receipt of such request.

§ 370.25 Inventory reporting.

(a) *Basic requirement.* The owner or operator of a facility subject to this Subpart shall submit an inventory form to the commission, the committee, and the fire department with jurisdiction over the facility. The inventory form containing Tier I information on hazardous chemicals present at the facility during the preceding calendar year above the threshold levels established in § 370.20(b) shall be submitted on or before March 1 of each year, beginning in 1988.

(b) *Alternative reporting.* With respect to any specific hazardous chemical at the facility, the owner or operator may submit a Tier II form in lieu of the Tier I information.

(c) *Submission of Tier II information.* The owner or operator of a facility subject to this Section shall submit the Tier II form to the commission, committee, or the fire department having

jurisdiction over the facility upon request of such persons. The Tier II form shall be submitted within 30 days of the receipt of each request.

(d) *Fire department inspection.* The owner or operator of a facility that has submitted an inventory form under this section shall allow on-site inspection by the fire department having jurisdiction over the facility upon request of the department, and shall provide to the department specific location information on hazardous chemicals at the facility.

§ 370.28 Mixtures.

(a) *Basic reporting.* The owner or operator of a facility may meet the reporting requirements of §§ 370.21 (MSDS reporting) and 370.25 (inventory form reporting) of this Subpart for a hazardous chemical that is a mixture of hazardous chemicals by:

(1) Providing the required information on each component in the mixture which is a hazardous chemical, or

(2) Providing the required information on the mixture itself, so long as the reporting of mixtures by a facility under § 370.21 is in the same manner as under § 370.25, where practicable.

(b) *Calculation of the quantity.* (1) if the reporting is on each component of the mixture which is a hazardous chemical, then the concentration of the hazardous chemical, in weight percent (greater than 1% or 0.1% if carcinogenic) shall be multiplied by the mass (in pounds) of the mixture to determine the quantity of the hazardous chemical in the mixture.

(2) If the reporting is on the mixture itself, the total quantity of the mixture shall be reported.

Subpart C—Public Access and Availability of Information

§ 370.30 Requests for information.

(a) *Request for MSDS information.* (1) Any person may obtain an MSDS with respect to a specific facility by submitting a written request to the committee.

(2) If the committee does not have in its possession the MSDS requested in paragraph (a)(1) of this section, it shall request a submission of the MSDS from the owner or operator of the facility that is the subject of the request.

(b) *Requests for Tier II information.*

(1) Any person may request Tier II information with respect to a specific facility by submitting a written request to the commission or committee in accordance with the requirements of this section.

(2) If the committee or commission does not have in its possession the Tier II information requested in paragraph (b)(1) of this section, it shall request a submission of the Tier II form from the owner or operator of the facility that is the subject of the request, provided that the request is from a State or local official acting in his or her official capacity or the request is limited to hazardous chemicals stored at the facility in an amount in excess of 10,000 pounds.

(3) If the request under paragraph (b)(1) of this section does not meet the requirements of paragraph (b)(2) of this section, the committee or commission may request submission of the Tier II form from the owner or operator of the facility that is the subject of the request if the request under paragraph (b)(1) of this section includes a general statement of need.

§ 370.31 Provision of information.

All information obtained from an owner or operator in response to a request under this subpart and any requested Tier II form or MSDS otherwise in possession of the commission or the committee shall be made available to the person submitting the request under this Subpart; provided upon request of the owner or operator, the commission or committee shall withhold from disclosure the location of any specific chemical identified in the Tier II form.

Subpart D—Inventory Forms

§ 370.40 Tier I emergency and hazardous chemical inventory form.

(a) The form set out in paragraph (b) of this section shall be completed and submitted as required in § 370.25(a). In lieu of the form set out in paragraph (b) of this section, the facility owner or operator may submit a State or local form that contains identical content.

(b) Tier I Emergency and Hazardous Chemical Inventory Form.

BILLING CODE 6560-50-M

Tier One **EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
Aggregate Information by Hazard Type

FOR OFFICIAL USE ONLY

ID # _____
Date Received _____

Important: Read instructions before completing form

Reporting Period From January 1 to December 31, 19____

Facility Identification

Name _____
Street Address _____
City _____ State _____ Zip _____
SIC Code [][][][] Dun & Brad Number [][]-[][][][]-[][][][][]

Owner/Operator

Name _____
Mail Address _____
Phone () _____

Emergency Contacts

Name _____
Title _____
Phone () _____
24 Hour Phone () _____

Name _____
Title _____
Phone () _____
24 Hour Phone () _____

Physical Hazards	Hazard Type	Max Amount*	Average Daily Amount*	Number of Days On-Site	General Location	<input type="checkbox"/> Check if site plan is attached
	Fire	[][]	[][]	[][][][]	_____	
Sudden Release of Pressure	[][]	[][]	[][][][]	_____	_____	
Reactivity	[][]	[][]	[][][][]	_____	_____	

Health Hazards	Immediate (acute)	Delayed (Chronic)	General Location	
	[][]	[][]	[][][][]	_____
Delayed (Chronic)	[][]	[][]	[][][][]	_____

Certification (Read and sign after completing all sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete

Name and official title of owner/operator OR owner/operator's authorized representative

Signature Date signed _____

Reporting Ranges	Range Value	Weight Range in Pounds From... To...
00	0	99
01	100	999
02	1000	9,999
03	10,000	99,999
04	100,000	999,999
05	1,000,000	9,999,999
06	10,000,000	49,999,999
07	50,000,000	99,999,999
08	100,000,000	499,999,999
09	500,000,000	999,999,999
10	1 billion	higher than 1 billion

TIER ONE INSTRUCTIONS

GENERAL INFORMATION

Submission of this form is required by Title III of the Superfund Amendments and Reauthorization Act of 1986, Section 312, Public Law 99-499.

The purpose of this form is to provide State and local officials and the public with information on the general types and locations of hazardous chemicals present at your facility during the past year.

YOU MUST PROVIDE ALL INFORMATION REQUESTED ON THIS FORM.

You may substitute the Tier Two form for this Tier One form. (The Tier Two form provides detailed information and must be submitted in response to a specific request from State or local officials.)

WHO MUST SUBMIT THIS FORM

Section 312 of Title III requires that the owner or operator of a facility submit this form if, under regulations implementing the Occupational Safety and Health Act of 1970, the owner or operator is required to prepare or have available Material Safety Data Sheets (MSDS) for hazardous chemicals present at the facility. MSDS requirements are specified in the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, found in Title 29 of the Code of Federal Regulations at §1910.1200.

WHAT CHEMICALS ARE INCLUDED

You must report the information required on this form for every hazardous chemical for which you are required to prepare or have available an MSDS under the Hazard Communication Standard. However, OSHA regulations and Title III exempt some chemicals from reporting.

Section 1910.1200(b) of the OSHA regulations currently provides the following exemptions:

- (i) Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended (42 U.S.C. 6901 et seq.) when subject to regulations issued under that Act;
- (ii) Tobacco or tobacco products;
- (iii) Wood or wood products;
- (iv) "Articles"— defined under §1910.1200 (b) as a manufactured item;
 - Which is formed to a specific shape or design during manufacture;
 - Which has end use function(s) dependent in whole or in part upon the shape or design during end use; and
 - Which does not release, or otherwise result in exposure to a hazardous chemical under normal conditions of use.
- (v) Food, drugs, cosmetics or alcoholic beverages in a retail establishment which are packaged for sale to consumers;
- (vi) Foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace;

(vii) Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 1251 et seq.) respectively, where the employer can demonstrate it is used in the workplace in the same manner as normal consumer use, and which use results in a duration and frequency of exposure which is not greater than exposures experienced by consumers; and

(viii) Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (i.e., tablets or pills).

In addition, Section 311(e) of Title III excludes the following substances:

- (i) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration;
- (ii) Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use;
- (iii) Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;
- (iv) Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual;
- (v) Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

Also, minimum reporting thresholds have been established under Title III, Section 312. You need to report only those hazardous chemicals that were present at your facility at any time during the preceding calendar year at or above the levels listed below:

- January to December 1987 (or first year of reporting) ...10,000 lbs.
- January to December 1988 (or second year of reporting) ...10,000 lbs.
- January to December 1989 (or third year of reporting) ...zero lbs.*
 - * EPA will publish the final threshold, effective in the third year, after additional analysis.
- For extremely hazardous substances...500 lbs. or the threshold planning quantity, whichever is less, from the first year of reporting and thereafter.

WHEN TO SUBMIT THIS FORM

Beginning March 1, 1988, owners or operators must submit the Tier One form (or substitute the Tier Two form) on or before March 1 of every year.

INSTRUCTIONS

Please read these instructions carefully. Print or type all responses.

WHERE TO SUBMIT THIS FORM

Send one completed inventory form to each of the following organizations:

1. Your State emergency planning commission
2. Your local emergency planning committee
3. The fire department with jurisdiction over your facility.

PENALTIES

Any owner or operator of a facility who fails to submit or supplies false Tier One information shall be liable to the United States for a civil penalty of up to \$25,000 for each such violation. Each day a violation continues shall constitute a separate violation. In addition, any citizen may commence a civil action on his or her own behalf against any owner or operator who fails to submit Tier One information.

You may use the Tier Two form as a worksheet for completing Tier One. Filling in the Tier Two chemical information section should help you assemble your Tier One responses.

If your responses require more than one page, fill in the page number at the top of the form.

REPORTING PERIOD

Enter the appropriate calendar year, beginning January 1 and ending December 31.

FACILITY IDENTIFICATION

Enter the complete name of your facility (and company identifier where appropriate).

Enter the full street address or state road. If a street address is not available, enter other appropriate identifiers that describe the physical location of your facility (e.g., longitude and latitude). Include city, state, and zip code.

Enter the primary Standard Industrial Classification (SIC) code and the Dun & Bradstreet number for your facility. The financial officer of your facility should be able to provide the Dun & Bradstreet number. If your firm does not have this information, contact the state or regional office of Dun & Bradstreet to obtain your facility number or have one assigned.

OWNER/OPERATOR

Enter the owner's or operator's full name, mailing address, and phone number.

EMERGENCY CONTACT

Enter the name, title, and work phone number of at least one local person or office that can act as a referral if emergency responders need assistance in responding to a chemical accident at the facility.

Provide an emergency phone number where such emergency information will be available 24 hours a day, every day.

PHYSICAL AND HEALTH HAZARDS**Descriptions, Amounts, and Locations**

This section requires aggregate information on chemicals by hazard categories as defined in 40 CFR 370.3. The two health hazard categories and three physical hazard categories are a consolidation of the 23 hazard categories defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200. For each hazard type, indicate the total amounts and general locations of all applicable chemicals present at your facility during the past year.

- What units should I use?

Calculate all amounts as *weight in pounds*. To convert gas or liquid volume to weight in pounds, multiply by an appropriate density factor.

- What about mixtures?

If a chemical is part of a mixture, you have the option of reporting either the weight of the entire mixture or only the portion of the mixture that is a particular hazardous chemical (e.g., if a hazardous solution weighs 100 lbs. but is composed of only 5% of a particular hazardous chemical, you can indicate either 100 lbs. of the mixture or 5 lbs. of the chemical).

Select the option consistent with your Section 311 reporting of the chemical on the MSDS or list of MSDS chemicals.

- Where do I count a chemical that is a fire reactivity physical hazard and an immediate (acute) health hazard?

Add the chemical's weight to your totals for all three hazard categories and include its location in all three categories. Many chemicals fall into more than one hazard category, which results in double-counting.

MAXIMUM AMOUNT

The amounts of chemicals you have on hand may vary throughout the year. The peak weights -- greatest single-day weights during the year -- are added together in this column to determine the maximum weight for each hazard type. Since the peaks for different chemicals often occur on different days, this maximum amount will seem artificially high.

To complete this and the following sections, you may choose to use the Tier Two form as a worksheet.

To determine the Maximum Amount:

1. List all of your hazardous chemicals individually.
2. For each chemical...
 - a. Indicate all physical and health hazards that the chemical presents. Include all chemicals, even if they are present for only a short period of time during the year.

- b. Estimate the maximum weight in pounds that was present at your facility on any single day of the reporting period.
3. For each hazard type -- beginning with Fire and repeating for all physical and health hazard types...
 - a. Add the maximum weights of all chemicals you indicated as the particular hazard type.
 - b. Look at the Reporting Ranges at the bottom of the Tier One form. Find the appropriate range value code.
 - c. Enter this range value as the Maximum Amount.

EXAMPLE:

You are using the Tier Two form as a worksheet and have listed raw weights in pounds for each of your hazardous chemicals. You have marked an X in the Immediate (acute) hazard column for phenol and sulfuric acid. The maximum amount raw weight you listed were 10,000 lbs. and 50 lbs. respectively. You add these together to reach a total of 10,050 lbs. Then you look at the Reporting Range at the bottom of your Tier One form and find that the value of 03 corresponds to 10,050 lbs. Enter 03 as your Maximum Amount for Immediate (acute) hazards materials.

You also marked an X in the Fire hazard box for phenol. When you calculate your Maximum Amount totals for fire hazards, add the 10,000 lb. weight again.

AVERAGE DAILY AMOUNT

This column should represent the average daily amount of chemicals of each hazard type that were present at your facility at any point during the year.

To determine this amount:

1. List all of your hazardous chemicals individually (same as for Maximum Amount).
2. For each chemical...
 - a. Indicate all physical and health hazards that the chemical presents (same as for Maximum Amount).
 - b. Estimate the average weight in pounds that was present at your facility throughout the year. To do this, total all daily weights and divide by the number of days the chemical was present on the site.
3. For each hazard type -- beginning with Fire and repeating for all physical and health hazards...
 - a. Add the average weights of all chemicals you indicated for the particular hazard type.
 - b. Look at the Reporting Ranges at the bottom of the Tier One form. Find the appropriate range value code.
 - c. Enter this range value as the Average Daily Amount.

EXAMPLE:

You are using the Tier Two form, and have marked an X in the Immediate (acute) hazard column for nicotine and phenol. Nicotine is present at your facility 100 days during the year, and the sum of the daily weights is 100,000 lbs. By dividing 100,000 lbs. by 100 days on-site, you calculate an Average Daily Amount of 1,000 lbs. for nicotine. Phenol is present at your facility 50 days during the year, and the sum of the daily weights is 10,000 lbs. By dividing 10,000 lbs. by 50 days on-site, you calculate an Average Daily Amount of 200 lbs. for phenol. You then add the two average daily amounts together to reach a total of 1,200 lbs. Then you look at the Reporting Range on your Tier One form and find that the value 02 corresponds to 1,200 lbs. Enter 02 as your Average Daily Amount for Immediate (acute) Hazard.

You also marked an X in the Fire hazard column for phenol. When you calculate your Average Daily Amount for fire hazards, use the 200 lb. weight again.

NUMBER OF DAYS ON-SITE

Enter the greatest number of days that a single chemical within that hazard category was present on-site.

EXAMPLE:

At your facility, nicotine is present for 100 days and phosgene is present for 150 days. Enter 150 in the space provided.

GENERAL LOCATION

Enter the general location within your facility where each hazard may be found. General locations should include the names or identifications of buildings, tank fields, lots, sheds, or other such areas.

For each hazard type, list the locations of all applicable chemicals. As an alternative you may also attach a site plan and list the site coordinates related to the appropriate locations. If you do so, check the Site Plan box.

EXAMPLE:

On your worksheet you have marked an X in the Fire hazard column for acetone and butane. You noted that these are kept in steel drums in Room C of the Main Building, and in pressurized cylinders in Storage Shed 13, respectively. You could enter Main Building and Storage Shed 13 as the General Locations of your fire hazards. However, you choose to attach a site plan and list coordinates. Check the Site Plan box at the top of the column and enter site coordinates for the Main Building and Storage Shed 13 under General Locations.

If you need more space to list locations, attach an additional Tier One form and continue your list on the proper line. Number all pages.

CERTIFICATION

This must be completed by the owner or operator or the officially designated representative of the owner or operator. Enter your full name and official title. Sign your name and enter the current date.

§ 370.41 Tier II emergency and hazardous chemical inventory form.

(a) The form set out in paragraph (b) of this Section must be completed and submitted as required in § 370.25(c). In lieu of the form set out in paragraph (b) of this section, the facility owner or operator may submit a State or local form that contains identical content.

(b) Tier II Emergency and Hazardous Chemical Inventory Form.

BILLING CODE 6560-50-M

<p>Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY <i>Specific Information by Chemical</i></p>	<p>Facility Identification</p> <p>Name _____ State _____ Zip _____</p> <p>Street Address _____ City _____</p> <p>SIC Code _____ Dun & Brad Number _____</p> <p>FOR OFFICIAL USE ONLY ID # _____ Date Received _____</p>
<p>Owner/Operator Name</p> <p>Name _____ Phone (____) _____</p> <p>Mall Address _____</p> <p>Emergency Contact</p> <p>Name _____ Title _____ 24 Hr. Phone (____) _____</p> <p>Name _____ Title _____ 24 Hr. Phone (____) _____</p>	<p>Reporting Period From January 1 to December 31, 19____</p>

Important: Read all instructions before completing form

Chemical Description	Physical and Health Hazards <small>(check all that apply)</small>	Inventory	Storage Codes and Locations <small>(Non-Confidential)</small>																																																																																																				
		Max. Daily Amount (code)	Storage Code																																																																																																				
		Avg. Daily Amount (code)	Storage Locations																																																																																																				
		No. of Days On-site (days)																																																																																																					
<p>CAS _____ Trade Secret <input type="checkbox"/></p> <p>Chem. Name _____</p> <p>Check all that apply: Pure <input type="checkbox"/> Mix <input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/></p>	<p>Fire <input type="checkbox"/> Sudden Release of Pressure <input type="checkbox"/> Reactivity <input type="checkbox"/></p> <p>Immediate (acute) <input type="checkbox"/> Delayed (chronic) <input type="checkbox"/></p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																																																				
<p>CAS _____ Trade Secret <input type="checkbox"/></p> <p>Chem. Name _____</p> <p>Check all that apply: Pure <input type="checkbox"/> Mix <input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/></p>	<p>Fire <input type="checkbox"/> Sudden Release of Pressure <input type="checkbox"/> Reactivity <input type="checkbox"/></p> <p>Immediate (acute) <input type="checkbox"/> Delayed (chronic) <input type="checkbox"/></p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td><td style="width:5%;"></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																																																				
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Certification (Read and sign after completing all sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner/operator OR owner/operator's authorized representative _____ Signature _____ Date signed _____

Optional Attachments (Check one)

I have attached a site plan

I have attached a list of site coordinate abbreviations

TIER TWO INSTRUCTIONS

GENERAL INFORMATION

Submission of this Tier Two form (when requested) is required by Title III of the Superfund Amendments and Reauthorization Act of 1986, Section 312, Public Law 99-499. The purpose of this Tier Two form is to provide State and local officials and the public with specific information on hazardous chemicals present at your facility during the past year.

YOU MUST PROVIDE ALL INFORMATION REQUESTED ON THIS FORM TO FULFILL TIER TWO REPORTING REQUIREMENTS.

This form may also be used as a worksheet for completing the Tier One form or may be submitted in place of the Tier One form.

WHO MUST SUBMIT THIS FORM

Section 312 of Title III requires that the owner or operator of a facility submit this Tier Two form if so requested by a State emergency planning commission, a local emergency planning committee, or a fire department with jurisdiction over the facility.

This request may apply to the owner or operator of any facility that is required, under regulations implementing the Occupational Safety and Health Act of 1970, to prepare or have available a Material Safety Data Sheet (MSDS) for a hazardous chemical present at the facility. MSDS requirements are specified in the Occupational Safety and Health Administration (OSHA) Hazard Communications Standard, found in Title 29 of the Code of Federal Regulations at §1910.1200.

WHAT CHEMICALS ARE INCLUDED

You must report the information required on this form for each hazardous chemical for which Tier Two information is requested. However, OSHA regulations and Title III exempt some chemicals from reporting.

Section 1910.1200(b) of the OSHA regulations currently provides the following exemptions:

(i) Any hazardous waste as such term is defined by the Solid Waste Disposal Act as amended (42 U.S.C. 6901 et seq.) when subject to regulations issued under that Act;

(ii) Tobacco or tobacco products;

(iii) Wood or wood products;

(iv) "Articles" - defined under §1910.1200(b) as a manufactured item:

- Which is formed to a specific shape or design during manufacture;
- Which has end use function(s) dependent in whole or in part upon the shape or design during end use; and
- Which does not release, or otherwise result in exposure to a hazardous chemical under normal conditions of use.

(v) Food, drugs, cosmetics or alcoholic beverages in a retail establishment which are packaged for sale to consumers;

(vi) Foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace.

(vii) Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 1251 et seq.) respectively, where the employer can demonstrate it is used in the workplace in the same manner as normal consumer use, and which use results in a duration and frequency of exposure which is not greater than exposures experienced by consumers

(viii) Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (i.e., tablets or pills).

In addition, Section 311(e) of Title III excludes the following substances:

(i) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration;

(ii) Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use;

(iii) Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;

(iv) Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual;

(v) Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

Also, minimum reporting thresholds have been established for Tier One under Title III, Section 312. You need to report only those hazardous chemicals that were present at your facility at any time during the preceding calendar year at or above the levels listed below:

- January to December 1987
(or first year of reporting) ...10,000 lbs.
- January to December 1988
(or second year of reporting) ...10,000 lbs.
- January to December 1989
(or third year of reporting) ...zero lbs.*
- * EPA will publish the final threshold, effective in the third year, after additional analysis.
- For extremely hazardous substances...500 lbs. or the threshold planning quantity, whichever is less, from the first year of reporting and thereafter.

A requesting official may limit the responses required under Tier Two by specifying particular chemicals or groups of chemicals. Such requests apply to hazardous chemicals regardless of established thresholds.

INSTRUCTIONS

Please read these instructions carefully. Print or type all responses.

WHEN TO SUBMIT THIS FORM

Owners or operators must submit the Tier Two form to the requesting agency within 30 days of receipt of a written request from an authorized official.

WHERE TO SUBMIT THIS FORM

Send the completed Tier Two form to the requesting agency.

PENALTIES

Any owner or operator who violates any Tier Two reporting requirements shall be liable to the United States for a civil penalty of up to \$25,000 for each such violation. Each day a violation continues shall constitute a separate violation.

You may use the Tier Two form as a worksheet for completing the Tier One form. Filling in the Tier Two Chemical Information section should help you assemble your Tier One responses.

If your responses require more than one page, fill in the page number at the top of the form.

REPORTING PERIOD

Enter the appropriate calendar year, beginning January 1 and ending December 31.

FACILITY IDENTIFICATION

Enter the full name of your facility (and company identifier where appropriate).

Enter the full street address or state road. If a street address is not available, enter other appropriate identifiers that describe the physical location of your facility (e.g., longitude and latitude). Include city, state, and zip code.

Enter the primary Standard Industrial Classification (SIC) code and the Dun & Bradstreet number for your facility. The financial officer of your facility should be able to provide the Dun & Bradstreet number. If your firm does not have this information, contact the state or regional office of Dun & Bradstreet to obtain your facility number or have one assigned.

OWNER/OPERATOR

Enter the owner's or operator's full name, mailing address, and phone number.

EMERGENCY CONTACT

Enter the name, title, and work phone number of at least one local person or office who can act as a referral if emergency responders need assistance in responding to a chemical accident at the facility.

Provide an emergency phone number where such emergency chemical information will be available 24 hours a day, every day.

CHEMICAL INFORMATION: Description, Hazards, Amounts, and Locations

The main section of the Tier Two form requires specific information on amounts and locations of hazardous chemicals, as defined in the OSHA Hazard Communication Standard.

- What units should I use?

Calculate all amounts as *weight in pounds*. To convert gas or liquid volume to weight in pounds, multiply by an appropriate density factor.

- What about mixtures?

If a chemical is part of a mixture, you have the option of reporting either the weight of the entire mixture or only the portion of the mixture that is a particular hazardous chemical (e.g., if a hazardous solution weighs 100 lbs. but is composed of only 5% of a particular hazardous chemical, you can indicate either 100 lbs. of the mixture or 5 lbs. of the chemical).

Select the option consistent with your Section 311 reporting of the chemical on the MSDS or list of MSDS chemicals.

CHEMICAL DESCRIPTION

1. Enter the Chemical Abstract Service number (CAS#).

For mixtures, enter the CAS number of the mixture as a whole if it has been assigned a number distinct from its components. For a mixture that has no CAS number, leave this item blank or report the CAS numbers of as many constituent chemicals as possible.

If you are withholding the name of a chemical in accordance with criteria specified in Title III, Section 322, enter the generic chemical class (e.g., list toluene diisocyanate as organic isocyanate) and check the box marked Trade Secret. Trade secret information should be submitted to EPA and must include a substantiation. Please refer to Section 322 of Title III for detailed information on how to comply with trade secret requests.

2. Enter the chemical name or common name of each hazardous chemical.

3. Circle ALL applicable descriptors: pure or mixture, and solid, liquid, or gas.

EXAMPLE:

You have pure chlorine gas on hand, as well as two mixtures that contain liquid chlorine. You write "chlorine" and enter the CAS#. Then you circle "pure" and "mix" -- as well as "liq" and "gas".

PHYSICAL AND HEALTH HAZARDS

For each chemical you have listed, check all the physical and health hazard boxes that apply. These hazard categories are defined in 40 CFR 370.3. The two health hazard categories and three physical hazard categories are a consolidation of the 23 hazard categories defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

MAXIMUM AMOUNT

1. For each hazardous chemical, estimate the greatest amount present at your facility on any single day during the reporting period.
2. Find the appropriate range value code in Table I.
3. Enter this range value as the Maximum Amount.

Table I REPORTING RANGES

Range Value	Weight Range in Pounds	
	From...	To...
00	0	99
01	100	999
02	1,000	9,999
03	10,000	99,999
04	100,000	999,999
05	1,000,000	9,999,999
06	10,000,000	49,999,999
07	50,000,000	99,999,999
08	100,000,000	499,999,999
09	500,000,000	999,999,999
10	1 billion	higher than 1 billion

If you are using this form as a worksheet for completing Tier One, enter the actual weight in pounds in the shaded space below the response blocks. Do this for both Maximum Amount and Average Daily Amount.

EXAMPLE:

You received one large shipment of a solvent mixture last year. The shipment filled your 5,000-gallon storage tank. You know that the solvent contains 10% benzene, which is a hazardous chemical.

You figure that 10% of 5,000 gallons is 500 gallons. You also know that the density of benzene is 7.29 pounds per gallon, so you multiply 500 by 7.29 to get a weight of 3,645 pounds.

Then you look at Table I and find that the range value 02 corresponds to 3,645. You enter 02 as the Maximum Amount.

(If you are using the form as a worksheet for completing a Tier One form, you should write 3,645 in the shaded area.)

1. For each hazardous chemical, estimate the average weight in pounds that was present at your facility during the year.

To do this, total all daily weights and divide by the number of days the chemical was present on the site.

2. Find the appropriate range value in Table I.
3. Enter this range value as the Average Daily Amount.

EXAMPLE:

The 5,000-gallon shipment of solvent you received last year was gradually used up and completely gone in 315 days. The sum of the daily volume levels in the tank is 929,250 gallons. By dividing 929,250 gallons by 315 days on-site, you calculate an average daily amount of 2,950 gallons.

You already know that the solvent contains 10% benzene, which is a hazardous chemical. Since 10% of 2,950 is 295, you figure that you had an average of 295 gallons of benzene. You also know that the density of benzene is 7.29 pounds per gallon, so you multiply 295 by 7.29 to get a weight of 2,150 pounds.

Then you look at Table I and find that the range value 02 corresponds to 2,150. You enter 02 as the Average Daily Amount.

(If you are using the form as a worksheet for completing a Tier One form, you should write 2,150 in the shaded area.)

NUMBER OF DAYS ON-SITE

Enter the number of days that the hazardous chemical was found on-site.

EXAMPLE:

The solvent composed of 10% benzene was present for 315 days at your facility. Enter 315 in the space provided.

STORAGE CODES AND STORAGE LOCATIONS

List all non-confidential chemical locations in this column, along with storage types/conditions associated with each location.

Storage Codes: Indicate the types and conditions of storage present.

- a. Look at Table II. For each location, find the appropriate storage type(s). Enter the corresponding code(s) in front of the parentheses.
- b. Look at Table III. For each storage type, find the temperature and pressure conditions. Enter the applicable pressure code in the first space within the parentheses. Enter the applicable temperature code in the last space within the parentheses.

AVERAGE DAILY AMOUNT

Table II - STORAGE TYPES

CODES	Types of Storage
A	Above ground tank
B	Below ground tank
C	Tank inside building
D	Steel drum
E	Plastic or non-metallic drum
F	Can
G	Carboy
H	Silo
I	Fiber drum
J	Bag
K	Box
L	Cylinder
M	Glass bottles or jugs
N	Plastic bottles or jugs
O	Tote bin
P	Tank wagon
Q	Rail car
R	Other

Optional attachments: If you choose to attach *one* of the following, check the appropriate Attachments box at the bottom of the Tier Two form.

- A *site plan* with site coordinates indicated for buildings, lots, areas, etc. throughout your facility.
- A *list of site coordinate abbreviations* that correspond to buildings, lots, areas, etc. throughout your facility.

EXAMPLE:

You have benzene in the main room of the main building, and in tank 2 in tank field 10. You attach a site plan with coordinates as follows: main building = G-2, tank field 10 = B-6. Fill in the Storage Location as follows:

B-6 [Tank 2] G-2 [Main Room]

Table III - TEMPERATURE AND PRESSURE CONDITIONS

CODES	Storage Conditions
(PRESSURE)	
1	Ambient pressure
2	Greater than ambient pressure
3	Less than ambient pressure
(TEMPERATURE)	
4	Ambient temperature
5	Greater than ambient temperature
6	Less than ambient temperature but not cryogenic
7	Cryogenic conditions

EXAMPLE:

The benzene in the main building is kept in a tank inside the building, at ambient pressure and less than ambient temperature.

Table II shows you that the code for a tank inside a building is C. Table III shows you that code for ambient pressure is 1, and the code for less than ambient temperature is 6.

You enter: C(1,6)

Under Title III, Section 324, you may elect to withhold location information on a specific chemical from disclosure to the public. If you choose to do so:

- Enter the word "confidential" in the Non-Confidential Location section of the Tier Two form.
- On a separate Tier Two Confidential Location Information Sheet, enter the name and CAS# of each chemical for which you are keeping the location confidential.
- Enter the appropriate location and storage information, as described above for non-confidential locations.
- Attach the Tier Two Confidential Location Information Sheet to the Tier Two form. This separates confidential locations from other information that will be disclosed to the public.

CERTIFICATION.

This must be completed by the owner or operator or the officially designated representative of the owner or operator. Enter your full name and official title. Sign your name and enter the current date.

Storage Locations:

Provide a brief description of the precise location of the chemical, so that emergency responders can locate the area easily. You may find it advantageous to provide the optional site plan or site coordinates as explained below.

For each chemical, indicate at a minimum the building or lot. Additionally, where practical, the room or area may be indicated. You may respond in narrative form with appropriate site coordinates or abbreviations.

If the chemical is present in more than one building, lot, or area location, continue your responses down the page as needed. If the chemical exists everywhere at the plant site simultaneously, you may report that the chemical is ubiquitous at the site.