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Facility and LEPC Assistance

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Guide to the Accidental Release Prevention Requirements (Section 112(r)) of the Clean Air Act

For More Information

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LIST OF SUBSTANCES FOR ACCIDENTAL RELEASE PREVENTION
CLEAN AIR ACT SECTION 112(R) - FACT SHEET

On 31January 1994, EPA promulgated a final rule under provisions of the Clean Air Act (CAA) Amendments s.112(r) for the prevention of accidental releases of hazardous substances. The rule establishes a list of chemicals and threshold quantities that identify facilities subject to subsequent accident prevention regulations. The listed substances have the potential to pose the greatest hazard to public health and the environment in the event of an accidental release. On 15 April 1996, EPA proposed several amendments to the final rule. The list constitutes the first of two necessary elements for the prevention of chemical accidents under EPA's CAA mandate. The second element is the requirement for risk management planning. A facility that handles more than a threshold quantity of a listed substance in a process is subject to the risk management planning requirements of CAA section112(r).

The purpose of the CAA provisions for accident prevention is to ensure that facilities reduce the likeli-hood and severity of accidental chemical releases that could harm the public and the environment. These provisions also ensure that the public and state and local governments can receive facility-specific information on potential hazards and the steps being taken to prevent accidents.

Regulatory Background

In 1986 the Emergency Planning and Community Right-to-Know Act (EPCRA) became law. EPCRA improves the ability of communities to prepare for and respond to chemical accidents. Under EPCRA, communities must develop emergency response plans, based on information that facilities must provide on the hazardous chemicals they handle. In the 1990 amendments to the Clean Air Act, Congress included requirements for accidental release prevention regulations in section 112(r). Congress also mandated that the Occupational Safety and Health Administration (OSHA) adopt a process safety management standard to protect workers from the workplace effects of chemical accidents; the standard was issued on 24 February 1992.

Characterisitics of the Final Rule

Under the CAA, EPA must develop an initial list of at least 100 substances that, in the event of an accidental release, could cause death, injury, or serious adverse effects to human health or the environment.

If a facility has more than a threshold quantity of these substances in a process, then it must develop and implement a risk management program. That program must include a hazard assessment, prevention program, and an emergency response program. Summary risk management plans will be submitted to a central location and will be made electronically available to state and local authorities as well as the public. The final rule for risk management planning was promulgated on 20 June 1996.

The statutory criteria EPA considered in selecting substances for the list include severity of acute adverse health effects, likelihood of release, and potential magnitude of human exposure. EPA set threshold quantities for each regulated substance based on its toxicity, reactivity, volatility, dispersibility, and flammability, as well as the amount known or anticipated to cause effects of concern.

The list EPA promulgated in 1994 includes 77 acutely toxic chemicals, 63 flammable gases and volatile flammable liquids, and Division 1.1 high explosive substances as listed by DOT in 49 CFR 172.101. The final rule establishes threshold quantities for toxic substances ranging from 500 to 20,000 pounds. For all listed flammable substances, the threshold quantity is 10,000 pounds, while all explosive substances have a threshold quantity of 5,000 pounds. The rule sets forth the procedures for determining whether a threshold quantity of a regulated substance is present at a stationary source. Specific exemptions to the threshold determination are also included for mixtures, articles, and certain uses and activities. The rule also specifies the requirements for petitions to the Agency to add substances to, or delete substances from, the list.

Proposed Changes

Following EPA's promulgation of the final list rule, some members of the regulated community raised questions about certain provisions they felt were inconsistent with the intent EPA expressed in the preamble and other documents supporting the final rule. In response, EPA published proposed amendments to the final rule on 15 April 1996.

The first proposed modification would be to delete the category of Division 1.1 explosives. The Agency also proposes to exempt from threshold quantity determinations regulated flammable substances in gasoline used as fuel and in naturally occurring hydrocarbon mixtures prior to initial processing. Further, the Agency proposes clarification of the provision for threshold determination of flammable substances in a mixture. Modifications to the definition of "stationary source" are proposed to clarify the exemption of transportation and storage related to transportation and to clarify that naturally occurring hydrocarbon reservoirs are not stationary sources or parts of stationary sources. In addition, EPA proposes to clarify that 40 CFR part 68 does not apply to sources located on the Outer Continental Shelf. EPA believes these proposed changes will focus accident prevention more appropriately on stationary sources with high hazard operations and reduce duplication with other similar requirements.

For those provisions of the list rule that EPA is proposing to amend, the Agency has finalized a stay of effectiveness until it takes final action on the proposed modifications. Thus, owners and operators of processes and sources that EPA has proposed not be subject to risk management planning requirements would not have to comply with CAA section 112(r) until EPA has determined whether to finalize the proposed list rule amendments.

Affected Universe

EPA estimates that approximately 66,000 facilities will be affected by the list and risk management planning rules, if the proposed list amendments are adopted. The facilities include chemical and many other manufacturers, cold storage facilities with ammonia refrigeration systems, public water treatment systems, wholesalers and distributors of these chemicals, propane retailers, utilities, and federal facilities.

Conclusion

According to the risk management planning requirements of the Clean Air Act, facilities that handle certain hazardous substances must act to prevent chemical accidents. They must also share information about their prevention efforts with the public, workers, and government. EPA expects these new partnerships among stakeholders in prevention activity to prove a dynamic force in reducing the number and severity of chemical accidents.

RISK MANAGEMENT PLANNING: ACCIDENTAL RELEASE PREVENTION
Final Rule: Clean Air Act section 112(r) - Factsheet

Preventing accidental releases of hazardous chemicals is the shared responsibility of industry, government, and the public. The first steps toward accident prevention are identifying the hazards and assessing the risks. Once information about chemicals is openly shared, industry, government, and the community can work together toward reducing the risk to public health and the environment. Important new provisions in the Clean Air Act advance the process of risk management planning and public disclosure of risk. These requirements will affect facilities that produce, handle, process, distribute, or store certain chemicals. The final rule for risk management planning was promulgated on 20 June 1996.

Managing Chemicals Safely

Section 112(r) of the amended Clean Air Act (CAA), signed into law on 15 November 1990, mandates a new federal focus on the prevention of chemical accidents. The objective of section 112(r) is to prevent serious chemical accidents that have the potential to affect public health and the environment. Under these requirements, industry has the obligation to prevent accidents, operate safely, and manage hazardous chemicals in a safe and responsible way. Government, the public, and many other groups also have a stake in chemical safety and must be partners with industry for accident prevention to be successful.

The risk management planning requirements of CAA section 112(r) complement and support the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA). A milestone in federal actions, EPCRA helps local communities prepare for and respond to chemical accidents. It requires communities to develop emergency response plans, based on information from industry concerning hazardous chemicals. Under the new CAA requirements, stationary sources (facilities) must identify and assess their chemical hazards and carry out certain activities designed to reduce the likelihood and severity of accidental chemical releases. Information summarizing these activities will be available to state and local governments, the public, and all other stakeholders. Using this information, citizens will have the opportunity to work with industry to reduce risks to the community from chemical accidents.

In the broadest sense, risk management planning relates to local emergency preparedness and response, to pollution prevention at facilities, and to worker safety. In a more focussed sense, it forms one element of an integrated approach to safety and complements existing industry codes and standards. The risk management planning requirements build on OSHA's Process Safety Management Standard, the chemical safety guidelines of the Center for Chemical Process Safety of the American Institute of Chemical Engineers, and similar standards of the American Petroleum Institute and Chemical Manufacturers Association, as well as the practices of many other safety-conscious companies.

It's the Law...

CAA section 112(r) mandates that EPA publish rules and guidance for chemical accident prevention. These rules must include requirements for sources to develop and implement risk management programs that incorporate three elements: a hazard assessment, a prevention program, and an emergency response program. These programs are to be summarized in a risk management plan (RMP) that will be made available to state and local government agencies and the public.

Who's Covered

Any source with more than a threshold quantity of a listed "regulated substance" in a single process must comply with the regulation. "Process," in terms of the regulation, means manufacturing, storing, distributing, handling, or using a regulated substance in any other way. Transportation, including pipelines and vehicles under active shipping orders, is excluded. On 31 January 1994, EPA promulgated a final list of 139 regulated substances: 77 acutely toxic substances, 63 flammable gases and volatile liquids, and Division 1.1 high explosives as listed by DOT. The final list rule established threshold quantities for toxics ranging from 500 to 20,000 pounds. For all listed flammables, the threshold quantity is 10,000 pounds. EPA proposed modifications to the final list on 15 April 1996. These modifications would exclude facilities handling explosives, exploration/production facilities for oil and gas, and gasoline.

EPA estimates that approximately 66,000 sources will be covered by the rule, assuming the proposed list amendments are adopted. The universe includes chemical manufacturers, other manufacturers, certain wholesalers and retailers, drinking water systems, wastewater treatment works, ammonia refrigeration systems, utilities, and federal facilities. Sources with at least one covered process must comply with the rule by June 20, 1999.

Three Levels of Compliance

The final risk management planning regulation (40 CFR part 68) defines the activities sources must undertake to address the risks posed by regulated substances in covered processes. To ensure that individual processes are subject to appropriate requirements that match their size and the risks they may pose, EPA has classified them into three categories ("Programs").

Program 1 requirements apply to processes for which a worst-case release, as evaluated in the hazard assessment, would not affect the public. These are sources or processes that have not had an accidental release that caused serious offsite consequences. Remotely located sources and processes using listed flammables are primarily those eligible for this program.

Program 2 requirements apply to less complex operations that do not involve chemical processing (e.g., retailers, propane users, non-chemical manufacturers, and other

processes not regulated under OSHA's PSM Standard).

Program 3 requirements apply to higher risk, complex chemical processing operations and to processes already subject to the OSHA PSM.

RMP Basics

Sources with processes with a regulated substance above a threshold quantity will be required to carry out the following elements of risk management planning:

An offsite consequence analysis that evaluates specific potential release scenarios, including worst-case and alternative scenarios

A 5-year history of certain accidental releases of regulated substances from covered processes

An integrated prevention program to manage risk

An emergency response program

An overall management system to supervise the implementation of these program elements

A risk management plan (RMP), revised at least once every five years, that summarizes and documents these activities for all covered processes

Based on their limited potential for serious offsite consequences, sources are not required to implement a prevention program, an emergency response program, or a management system for Program 1 processes. Sources with processes in Program 2 and Program 3 must address each of the above elements.

Links

The OSHA PSM Standard (29 CFR 1910.119) reflects the key elements that the petrochemical industry, trade associations, and engineering societies have deemed essential to safe management of hazardous substances for complex, chemical-processing operations. EPA has adopted OSHASM requirements as the Program 3 prevention program, with only minor changes in terminology. With few exceptions, processes assigned to Program 3 are already subject to the OSHA PSM Standard; the remaining Program 3 processes are in industry sectors that have a significant accident history.

EPA has also worked closely with other regulatory programs that focus on risk management issues for hazardous chemicals in order to foster co-ordination and reduce burden. EPA and the National Response Team have prepared Integrated Contingency Plan Guidance to assist sources subject to multiple regulations in preparing a consolidated emergency response plan. Further, EPA believes that many of the prevention program

requirements for Program 2 processes and the emergency response program requirements can be satisfied without additional effort because of existing compliance with other federal and state regulations, industry standards and codes, and good engineering practices.

Making It Work

To document compliance with the rule and provide risk information, all sources must submit to a central location a risk management plan that includes a registration, an executive summary, a 5-year accident history, and offsite consequence analysis information. Sources with Program 2 and 3 processes also must submit information in the RMP regarding compliance with requirements for the prevention program and the emergency response program.

EPA is developing a reporting mechanism and form to collect RMPs in a way that encourages electronic submission. This will make risk management planning information available far more widely to the public and at a far lower cost than would traditional reporting. To support electronic submission and reduce the reporting burden, EPA has standardized the RMP requirements. With the exception of the executive summary, data elements will be primarily check-off boxes, yes/no answers, or numerical entries.

An "implementing agency" will oversee these requirements and receive the RMPs. It will audit and inspect a percentage of sources each year and require whatever revisions to the RMPs are necessary. Under CAA section 112(l), states may request that EPA delegate the authority to serve as the implementing agency to a state or local agency with the appropriate expertise, resources, and authority. States may implement their own programs, although the law demands that program requirements must be as stringent as EPAnd must include all EPA-regulated substances and processes. Approximately 30 per cent of the sources subject to the risk management program requirements must also comply with Title V of the Clean Air Act, which requires permits for emissions of air pollutants. Section 112(r) is an applicable requirement for Title V permits.

Help for Small Business

Small and medium-sized enterprises may receive information about CAA section 112(r) through the Small Business Assistance Program in each state, through the Federal Small Business Assistance Program, through the network of Small Business Development Centers across the country, through the EPCRA Hotline, and through a range of electronic outlets.

To make compliance easier for small businesses, EPA is working with industry groups to develop model risk management programs. Initially, these model programs will be developed for ammonia refrigeration, propane handling, and water treatment operations. The RMP Offsite Consequence Analysis Guidance will eliminate the need for covered small operations to invest in computer modeling programs and to answer complex technical questions (e.g., how to model liquefied gases) related to this element of the hazard assessment.

Looking Ahead...

As this final rule is implemented, EPA plans to publish general technical guidance, guidance for states on implementation, guidance for Local Emergency Planning Committees on ways to use RMP information in the community, and additional model plans for certain industry sectors and regulated substances. In addition, the Agency will produce training packages and disseminate training through a variety of educational outlets. Workshops, in co-operation with industry and engineering societies, will also be presented around the country, as well as teleconferences to introduce the new risk management planning requirements to a diversity of stakeholders.

With risk management planning as the basis for accident prevention, everybody wins. Industry has an opportunity to demonstrate excellence in safety. Government can show effective, efficient leadership in developing sensible requirements. And communities will have a powerful right-to-know tool, as citizens work together toward reducing chemical risks to public health and the environment.

List of Regulated Substances and Thresholds for Accidental Release Prevention
(Table includes synonyms)

Name	CAS	Threshold (lbs)
1,1-Dichloroethylene	75-35-4	10,000
1,1-Dimethyl hydrazine	57-14-7	15,000
1,2-Ethanediamine	107-15-3	20,000
1,2-Propadiene	463-49-0	10,000
1,3-Butadiene	106-99-0	10,000
1,3-Butadiene, 2-methyl-	78-79-5	10,000
1,3-Pentadiene	504-60-9	10,000
1-Buten-3-yne	689-97-4	10,000
1-Butene	106-98-9	10,000
1-Butyne	107-00-6	10,000
1-Chloropropylene	590-21-6	10,000
1-Pentene	109-67-1	10,000
1-Propene	115-07-1	10,000
1-Propene, 1-chloro-	590-21-6	10,000
1-Propene, 2-chloro-	557-98-2	10,000
1-Propene, 2-methyl-	115-11-7	10,000
1-Propyne	74-99-7	10,000
2,2-Dimethylpropane	463-82-1	10,000
2-Butenal	4170-30-3	20,000
2-Butenal, (e)-	123-73-9	20,000
2-Butene	107-01-7	10,000
2-Butene, (E)	624-64-6	10,000
2-Butene-cis	590-18-1	10,000
2-Butene-trans	624-64-6	10,000
2-Chloropropylene	557-98-2	10,000
2-Methyl-1-butene	563-46-2	10,000
2-Methylpropene	115-11-7	10,000
2-Pentene, (E)-	646-04-8	10,000
2-Pentene, (Z)-	627-20-3	10,000
2-Propanamine	75-31-0	10,000
2-Propen-1-amine	107-11-9	10,000

Name	CAS	Threshold (lbs)
2-Propen-1-ol	107-18-6	15,000
2-Propenal	107-02-8	5,000
2-Propenenitrile	107-13-1	20,000
2-Propenenitrile, 2-methyl-	126-98-7	10,000
2-Propenoyl chloride	814-68-6	5,000
3-Methyl-1-butene	563-45-1	10,000
Acetaldehyde	75-07-0	10,000
Acetic acid ethenyl ester	108-05-4	15,000
Acetylene	74-86-2	10,000
Acrolein	107-02-8	5,000
Acrylonitrile	107-13-1	20,000
Acrylyl chloride	814-68-6	5,000
Allyl alcohol	107-18-6	15,000
Allylamine	107-11-9	10,000
Ammonia (anhydrous)	7664-41-7	10,000
Ammonia (conc 20% or greater)	7664-41-7	20,000
Arsenous trichloride	7784-34-1	15,000
Arsine	7784-42-1	1,000
Aziridine	151-56-4	10,000
Aziridine, 2-methyl	75-55-8	10,000
Benzene, 1,3-diisocyanato-2-methyl-	91-08-7	10,000
Benzene, 1,3-diisocyanatomethyl-	26471-62-5	10,000
Benzene, 2,4-diisocyanato-1-methyl-	584-84-9	10,000
Bis(chloromethyl) ether	542-88-1	1,000
Borane, trichloro-	10294-34-5	5,000
Borane, trifluoro-	7637-07-2	5,000
Boron trichloride	10294-34-5	5,000
Boron trifluoride	7637-07-2	5,000
Boron trifluoride compound with methyl ether (1:1)	353-42-4	15,000
Boron, trifluoro[oxybis[methane]]-, (T-4)-	353-42-4	15,000
Bromine	7726-95-6	10,000
Bromotrifluoroethylene	598-73-2	10,000
Butane	106-97-8	10,000
Butane, 2-methyl-	78-78-4	10,000

Name	CAS	Threshold (lbs)
Butene	25167-67-3	10,000
Carbon disulfide	75-15-0	20,000
Carbon oxide sulfide (COS)	463-58-1	10,000
Carbonic dichloride	75-44-5	500
Carbonochloridic acid, 1-methylethyl ester	108-23-6	15,000
Carbonochloridic acid, methylester	79-22-1	5,000
Carbonochloridic acid, propylester	109-61-5	15,000
Carbonyl sulfide	463-58-1	10,000
Chlorine	7782-50-5	2,500
Chlorine dioxide	10049-04-4	1,000
Chlorine monoxide	7791-21-1	10,000
Chlorine oxide	7791-21-1	10,000
Chlorine oxide (ClO2)	10049-04-4	1,000
Chloroethane	75-00-3	10,000
Chloroform	67-66-3	20,000
Chloromethane	74-87-3	10,000
Chloromethyl ether	542-88-1	1,000
Chloromethyl methyl ether	107-30-2	5,000
Crotonaldehyde	4170-30-3	20,000
Crotonaldehyde, (E)-	123-73-9	20,000
Cyanogen	460-19-5	10,000
Cyanogen chloride	506-77-4	10,000
Cyanogen chloride ((CN)Cl)	506-77-4	10,000
Cyclohexanamine	108-91-8	15,000
Cyclohexylamine	108-91-8	15,000
Cyclopropane	75-19-4	10,000
Diborane	19287-45-7	2,500
Diborane(6)	19287-45-7	2,500
Dichloromethyl ether	542-88-1	1,000
Dichlorosilane	4109-96-0	10,000
Difluoroethane	75-37-6	10,000
Dimethylamine	124-40-3	10,000
Dimethyldichlorosilane	75-78-5	5,000
Dimethylhydrazine	57-14-7	15,000

Name	CAS	Threshold (lbs)
Epichlorohydrin	106-89-8	20,000
Ethanamine	75-04-7	10,000
Ethane	74-84-0	10,000
Ethane, 1,1'-oxybis-	60-29-7	10,000
Ethane, 1,1-difluoro-	75-37-6	10,000
Ethane, chloro-	75-00-3	10,000
Ethanedinitrile	460-19-5	10,000
Ethaneperoxoic acid	79-21-0	10,000
Ethanethiol	75-08-1	10,000
Ethene	74-85-1	10,000
Ethene, 1,1-dichloro-	75-35-4	10,000
Ethene, 1,1-difluoro-	75-38-7	10,000
Ethene, bromotrifluoro-	598-73-2	10,000
Ethene, chloro-	75-01-4	10,000
Ethene, chlorotrifluoro-	79-38-9	10,000
Ethene, ethoxy-	109-92-2	10,000
Ethene, fluoro-	75-02-5	10,000
Ethene, methoxy-	107-25-5	10,000
Ethene, tetrafluoro-	116-14-3	10,000
Ethyl acetylene	107-00-6	10,000
Ethyl chloride	75-00-3	10,000
Ethyl cyanide	107-12-0	10,000
Ethyl ether	60-29-7	10,000
Ethyl mercaptan	75-08-1	10,000
Ethyl nitrite	109-95-5	10,000
Ethylene	74-85-1	10,000
Ethylene oxide	75-21-8	10,000
Ethylenediamine	107-15-3	20,000
Ethyleneimine	151-56-4	10,000
Ethyne	74-86-2	10,000
Fluorine	7782-41-4	1,000
Formaldehyde	50-00-0	15,000
Formaldehyde (solution)	50-00-0	15,000
Formic acid, methyl ester	107-31-3	10,000

Name	CAS	Threshold (lbs)
Furan	110-00-9	5,000
Hydrazine	302-01-2	15,000
Hydrazine, 1,1-dimethyl-	57-14-7	15,000
Hydrazine, methyl-	60-34-4	15,000
Hydrochloric acid (conc 30% or greater)	7647-01-0	15,000
Hydrocyanic acid	74-90-8	2,500
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	1,000
Hydrogen	1333-74-0	10,000
Hydrogen chloride (anhydrous)	7647-01-0	5,000
Hydrogen chloride (gas only)	7647-01-0	5,000
Hydrogen cyanide	74-90-8	2,500
Hydrogen fluoride (anhydrous)	7664-39-3	1,000
Hydrogen selenide	7783-07-5	500
Hydrogen sulfide	7783-06-4	10,000
Iron carbonyl (Fe(CO)5), (TB-5-11)-	13463-40-6	2,500
Iron, pentacarbonyl-	13463-40-6	2,500
Isobutane	75-28-5	10,000
Isobutyronitrile	78-82-0	20,000
Isopentane	78-78-4	10,000
Isoprene	78-79-5	10,000
Isopropyl chloride	75-29-6	10,000
Isopropyl chloroformate	108-23-6	15,000
Isopropylamine	75-31-0	10,000
Methacrylonitrile	126-98-7	10,000
Methanamine	74-89-5	10,000
Methanamine, N,N-dimethyl-	75-50-3	10,000
Methanamine, N-methyl-	124-40-3	10,000
Methane	74-82-8	10,000
Methane, chloro-	74-87-3	10,000
Methane, chloromethoxy-	107-30-2	5,000
Methane, isocyanato-	624-83-9	10,000
Methane, oxybis-	115-10-6	10,000
Methane, oxybis[chloro-	542-88-1	1,000
Methane, tetranitro-	509-14-8	10,000

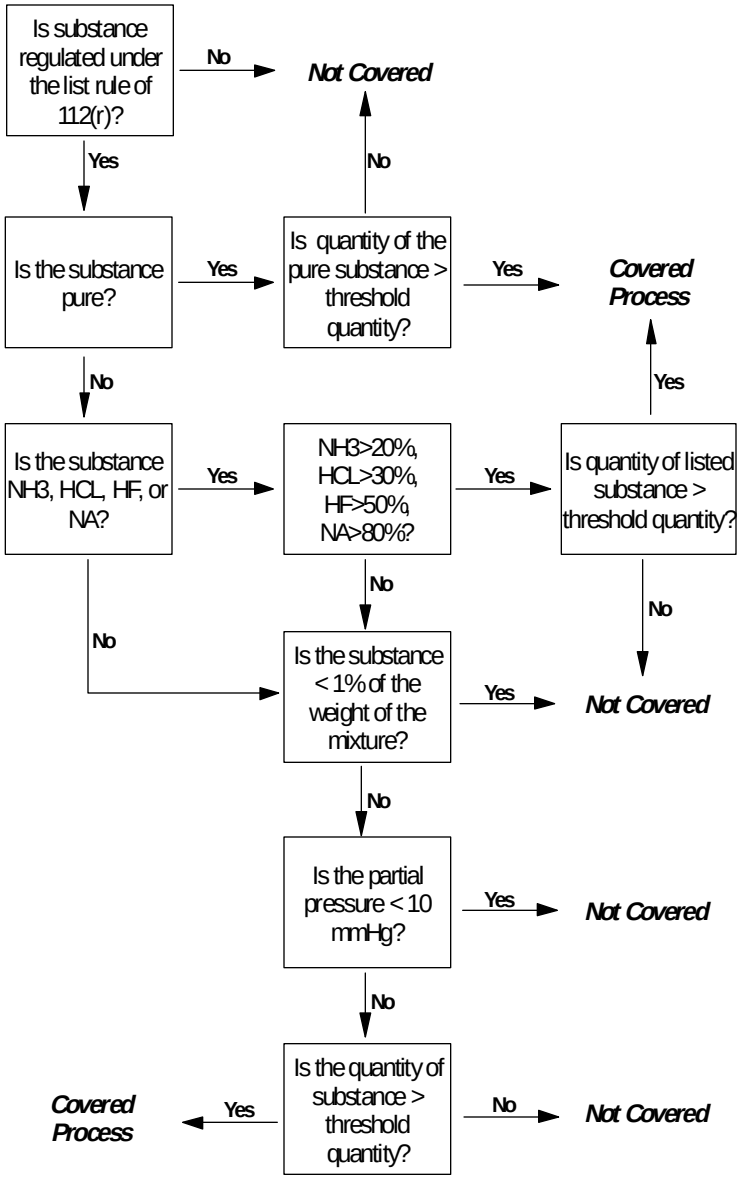
Name	CAS	Threshold (lbs)
Methane, trichloro-	67-66-3	20,000
Methanesulfenyl chloride, trichloro-	594-42-3	10,000
Methanethiol	74-93-1	10,000
Methyl chloride	74-87-3	10,000
Methyl chlorocarbonate	79-22-1	5,000
Methyl chloroformate	79-22-1	5,000
Methyl ether	115-10-6	10,000
Methyl formate	107-31-3	10,000
Methyl hydrazine	60-34-4	15,000
Methyl isocyanate	624-83-9	10,000
Methyl mercaptan	74-93-1	10,000
Methyl thiocyanate	556-64-9	20,000
Methyltrichlorosilane	75-79-6	5,000
Monoethylamine	75-04-7	10,000
Monomethylamine	74-89-5	10,000
Nickel carbonyl	13463-39-3	1,000
Nitric acid (conc 80% or greater)	7697-37-2	15,000
Nitric oxide	10102-43-9	10,000
Nitrogen oxide (NO)	10102-43-9	10,000
Nitrous acid, ethyl ester	109-95-5	10,000
Oleum (fuming sulfuric acid)	8014-95-7	10,000
Oxirane	75-21-8	10,000
Oxirane, (chloromethyl)-	106-89-8	20,000
Oxirane, methyl-	75-56-9	10,000
Pentane	109-66-0	10,000
Peracetic acid	79-21-0	10,000
Perchloromethyl mercaptan	594-42-3	10,000
Phosgene	75-44-5	500
Phosphine	7803-51-2	5,000
Phosphorous trichloride	7719-12-2	15,000
Phosphorus oxychloride	10025-87-3	5,000
Phosphorus trichloride	7719-12-2	15,000
Phosphoryl chloride	10025-87-3	5,000
Piperidine	110-89-4	15,000

Name	CAS	Threshold (lbs)
Plumbane, tetramethyl-	75-74-1	10,000
Propadiene	463-49-0	10,000
Propane	74-98-6	10,000
Propane, 2,2-dimethyl-	463-82-1	10,000
Propane, 2-chloro-	75-29-6	10,000
Propane, 2-methyl	75-28-5	10,000
Propanenitrile	107-12-0	10,000
Propanenitrile, 2-methyl-	78-82-0	20,000
Propene	115-07-1	10,000
Propionitrile	107-12-0	10,000
Propyl chloroformate	109-61-5	15,000
Propylene	115-07-1	10,000
Propylene oxide	75-56-9	10,000
Propyleneimine	75-55-8	10,000
Propyne	74-99-7	10,000
Silane	7803-62-5	10,000
Silane, chlorotrimethyl-	75-77-4	10,000
Silane, dichloro-	4109-96-0	10,000
Silane, dichlorodimethyl-	75-78-5	5,000
Silane, tetramethyl-	75-76-3	10,000
Silane, trichloro-	10025-78-2	10,000
Silane, trichloromethyl-	75-79-6	5,000
Sulfur dioxide (anhydrous)	7446-09-5	5,000
Sulfur fluoride (SF4), (T-4)-	7783-60-0	2,500
Sulfur tetrafluoride	7783-60-0	2,500
Sulfur trioxide	7446-11-9	10,000
Sulfuric acid (fuming)	8014-95-7	10,000
Sulfuric acid, mixture with sulfur trioxide	8014-95-7	10,000
Tetrafluoroethylene	116-14-3	10,000
Tetramethyllead	75-74-1	10,000
Tetramethylsilane	75-76-3	10,000
Tetranitromethane	509-14-8	10,000
Thiocyanic acid, methyl ester	556-64-9	20,000
Thiomethanol	74-93-1	10,000

Name	CAS	Threshold (lbs)
Titanium chloride (TiCl4) (T-4)-	7550-45-0	2,500
Titanium tetrachloride	7550-45-0	2,500
Toluene diisocyanate (unspecified isomer)	26471-62-5	10,000
Toluene-2,4-diisocyanate	584-84-9	10,000
Toluene-2,6-diisocyanate	91-08-7	10,000
Toluenediisocyanate (mixed isomers)	26471-62-5	10,000
Trichloromethanesulfenyl chloride	594-42-3	10,000
Trichlorosilane	10025-78-2	10,000
Trifluorochloroethylene	79-38-9	10,000
Trimethylamine	75-50-3	10,000
Trimethylchlorosilane	75-77-4	10,000
Vinyl acetate	108-05-4	15,000
Vinyl acetate monomer	108-05-4	15,000
Vinyl acetylene	689-97-4	10,000
Vinyl chloride	75-01-4	10,000
Vinyl ethyl ether	109-92-2	10,000
Vinyl fluoride	75-02-5	10,000
Vinyl methyl ether	107-25-5	10,000
Vinylidene chloride	75-35-4	10,000
Vinylidene fluoride	75-38-7	10,000

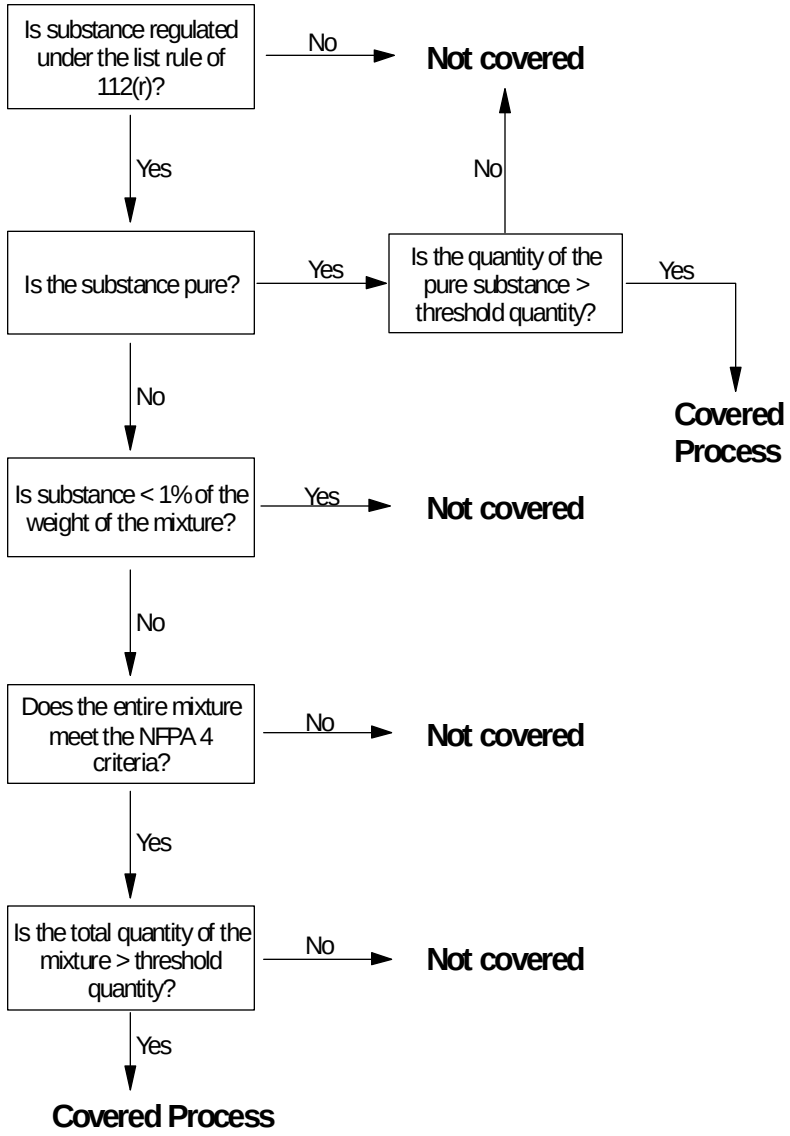
Threshold Determination

Is a threshold quantity of a regulated substance in a process?
For Toxics



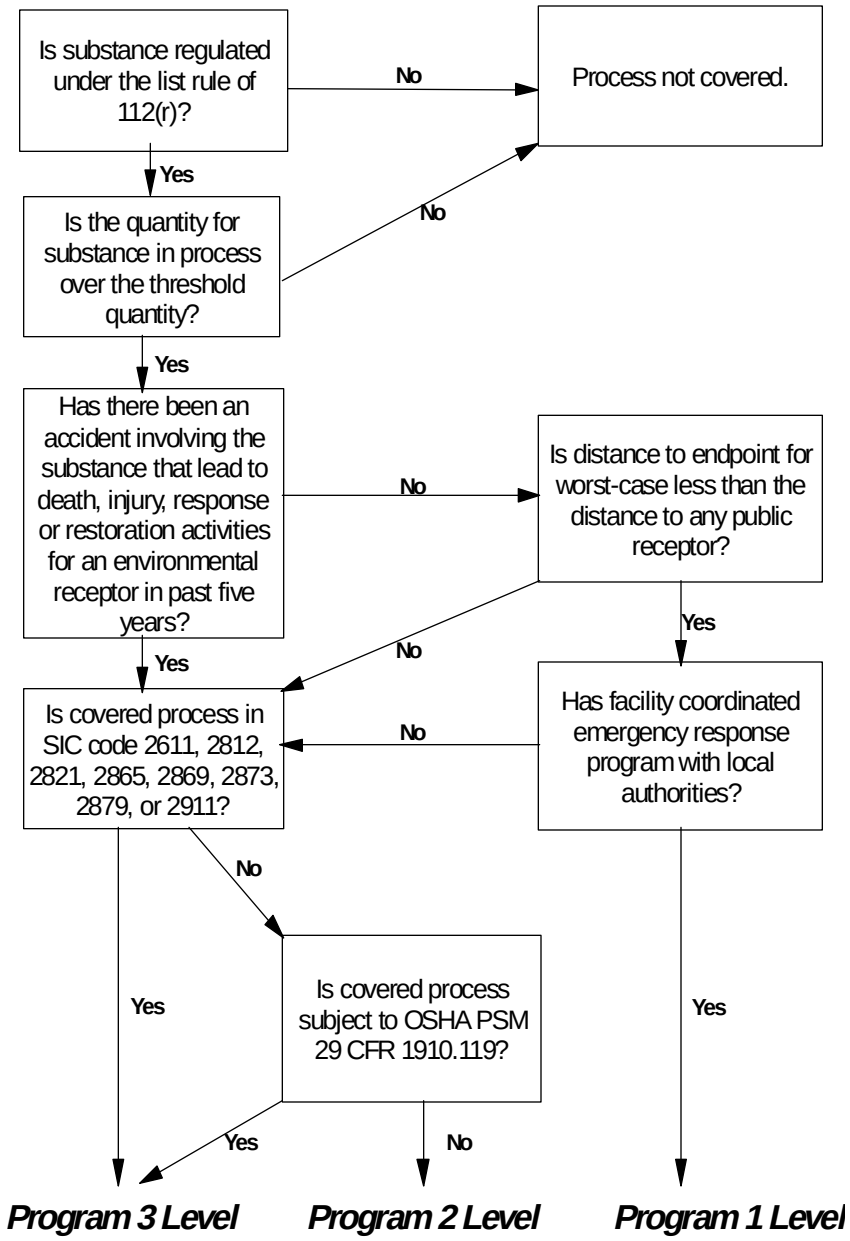
Threshold Determination

Is a threshold quantity of a regulated substance in a process?
For Flammables



* There are some exceptions - see list rule

CAA 112(r) Applicability and Program Level



Program Level Requirements

Program 1	Program 2	Program 3
Hazard Assessment Worst-case analysis	Hazard Assessment Worst-case analysis Alternative releases	Hazard Assessment Worst-case analysis Alternative releases
5-year Accident History	5-year Accident History	5-year Accident History
Management Program	Management Program Document management system	Management Program Document management system
Prevention Program Certify no additional steps needed	Prevention Program Hazard review Operating Procedures Training Maintenance Incident Investigation Compliance audit	Prevention Program Hazard review Operating Procedures Training Maintenance Incident Investigation Compliance audit Management of Change Pre-startup review Contractors Employee Particip. Hot Work Permits
Emergency Response P. Coordinate with local responders	Emergency Response P. Develop plan and program	Emergency Response P. Develop plan and program
RMP Contents Executive summary Registration Worst-case data 5-year accident history Certification	RMP Contents Executive summary Registration Worst-case data 5-year accident history Prevention program Emergency response Certification	RMP Contents Executive summary Registration Worst-case data 5-year accident history Prevention program Emergency response Certification

The Risk Management Plan

40 CFR Part 68 Subpart G - Risk management plan

68.150 Submission.
68.155 Executive summary.
68.160 Registration.
68.165 Offsite consequence analysis.
68.168 Five-year accident history.
68.170 Prevention program/program 2.
68.175 Prevention program/program 3.
68.180 Emergency response program.
68.185 Certification.
68.190 Updates.

68.150 Submission.

(a) The owner or operator shall submit a single RMP that includes the information required by §§ 68.155 through 68.185 of this part for all covered processes. The RMP shall be submitted in a method and format to a central point as specified by EPA prior to June 21, 1999.

(b) The owner or operator shall submit the first RMP no later than the latest of the following dates:

(1) June 21, 1999;

(2) Three years after the date on which a regulated substance is first listed under § 68.130 of this part; or

(3) The date on which a regulated substance is first present above a threshold quantity in a process.

(c) Subsequent submissions of RMPs shall be in accordance with § 68.190 of this part.

(d) Notwithstanding the provisions of §§ 68.155 to 68.190 of this part, the RMP shall exclude classified information. Subject to appropriate procedures to protect such information from public disclosure, classified data or information excluded from the RMP may be made available in a classified annex to the RMP for review by Federal and state representatives who have received the appropriate security clearances.

68.155 Executive summary.

The owner or operator shall provide in the RMP an executive summary that includes a brief description of the following elements:

(a) The accidental release prevention and emergency response policies at the stationary source;

(b) The stationary source and regulated substances handled;

(c) The worst-case release scenario(s) and the alternative release scenario(s), including administrative controls and mitigation measures to limit the distances for each reported scenario;

(d) The general accidental release prevention program and chemical-specific prevention steps;

(e) The five-year accident history;

(f) The emergency response program; and

(g) Planned changes to improve safety.

68.160 Registration.

(a) The owner or operator shall complete a single registration form and include it in the RMP. The form shall cover all regulated substances handled in covered processes.

(b) The registration shall include the following data:

(1) Stationary source name, street, city, county, state, zip code, latitude, and longitude;

(2) The stationary source Dun and Bradstreet number;

(3) Name and Dun and Bradstreet number of the corporate parent company;

(4) The name, telephone number, and mailing address of the owner or operator;

(5) The name and title of the person or position with overall responsibility for RMP elements and implementation;

(6) The name, title, telephone number, and 24-hour telephone number of the emergency contact;

(7) For each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits, the SIC code, and the Program level of the process;

(8) The stationary source EPA identifier;

(9) The number of full-time employees at the stationary source;

(10) Whether the stationary source is subject to 29 CFR 1910.119;

(11) Whether the stationary source is subject to 40 CFR part 355;

(12) Whether the stationary source has a CAA Title V operating permit; and

(13) The date of the last safety inspection of the stationary source by a Federal, state, or local government agency and the identity of the inspecting entity.

68.165 Offsite consequence analysis.

(a) The owner or operator shall submit in the RMP information:

(1) One worst-case release scenario for each Program 1 process; and

(2) For Program 2 and 3 processes, one worst-case release scenario to represent all regulated toxic substances held above the threshold quantity and one worst-case release scenario to represent all regulated flammable substances held above the threshold quantity. If additional worst-case scenarios for toxics or flammables are required by § 68.25(a)(2)(iii) of this part, the owner or operator shall submit the same information on the additional scenario(s). The owner or operator of Program 2 and 3 processes shall also submit information on one alternative release scenario for each regulated toxic substance held above the threshold quantity and one alternative release scenario to represent all regulated flammable substances held above the threshold quantity.

(b) The owner or operator shall submit the following data:

(1) Chemical name;

(2) Physical state (toxics only);

(3) Basis of results (give model name if used);

(4) Scenario (explosion, fire, toxic gas release, or liquid spill and vaporization);

(5) Quantity released in pounds;

(6) Release rate;

(7) Release duration;

(8) Wind speed and atmospheric stability class (toxics only);

(9) Topography (toxics only);

(10) Distance to endpoint;

(11) Public and environmental receptors within the distance;

(12) Passive mitigation considered; and

(13) Active mitigation considered (alternative releases only);

68.168 Five-year accident history.

The owner or operator shall submit in the RMP the information provided in § 68.42(b) of this part on each accident covered by § 68.42(a) of this part.

68.170 Prevention program/Program 2.

(a) For each Program 2 process, the owner or operator shall provide in the RMP the information indicated in paragraphs (b) through (k) of this section. If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(b) The SIC code for the process.

(c) The name(s) of the chemical(s) covered.

(d) The date of the most recent review or revision of the safety information and a list of Federal or state regulations or industry-specific design codes and standards used to demonstrate compliance with the safety information requirement.

(e) The date of completion of the most recent hazard review or update.

(1) The expected date of completion of any changes resulting from the hazard review;

(2) Major hazards identified;

(3) Process controls in use;

(4) Mitigation systems in use;

(5) Monitoring and detection systems in use; and

(6) Changes since the last hazard review.

(f) The date of the most recent review or revision of operating procedures.

(g) The date of the most recent review or revision of training programs;

(1) The type of training provided — classroom, classroom plus on the job, on the job; and

(2) The type of competency testing used.

(h) The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested.

(i) The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit.

(j) The date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation.

(k) The date of the most recent change that triggered a review or revision of safety information, the hazard review, operating or maintenance procedures, or training.

68.175 Prevention program/Program 3.

(a) For each Program 3 process, the owner or operator shall provide the information indicated in paragraphs (b) through (p) of this section. If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(b) The SIC code for the process.

(c) The name(s) of the substance(s) covered.

(d) The date on which the safety information was last reviewed or revised.

(e) The date of completion of the most recent PHA or update and the technique used.

(1) The expected date of completion of any changes resulting from the PHA;

(2) Major hazards identified;

(3) Process controls in use;

(4) Mitigation systems in use;

(5) Monitoring and detection systems in use; and

(6) Changes since the last PHA.

(f) The date of the most recent review or revision of operating procedures.

(g) The date of the most recent review or revision of training programs;

(1) The type of training provided — classroom, classroom plus on the job, on the job; and

(2) The type of competency testing used.

(h) The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested.

(i) The date of the most recent change that triggered management of change procedures and the date of the most recent review or revision of management of change procedures.

(j) The date of the most recent pre-startup review.

(k) The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit;

(l) The date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation;

(m) The date of the most recent review or revision of employee participation plans;

(n) The date of the most recent review or revision of hot work permit procedures;

(o) The date of the most recent review or revision of contractor safety procedures; and

(p) The date of the most recent evaluation of contractor safety performance.

68.180 Emergency response program.

(a) The owner or operator shall provide in the RMP the following information:

(1) Do you have a written emergency response plan?

(2) Does the plan include specific actions to be taken in response to an accidental releases of a regulated substance?

(3) Does the plan include procedures for informing the public and local agencies responsible for responding to accidental releases?

(4) Does the plan include information on emergency health care?

(5) The date of the most recent review or update of the emergency response plan;

(6) The date of the most recent emergency response training for employees.

(b) The owner or operator shall provide the name and telephone number of the local agency with which the plan is coordinated.

(c) The owner or operator shall list other Federal or state emergency plan requirements to which the stationary source is subject.

68.185 Certification.

(a) For Program 1 processes, the owner or operator shall submit in the RMP the certification statement provided in § 68.12(b)(4) of this part.

(b) For all other covered processes, the owner or operator shall submit in the RMP a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

68.190 Updates.

(a) The owner or operator shall review and update the RMP as specified in paragraph (b) of this section and submit it in a method and format to a central point specified by EPA prior to June 21, 1999.

(b) The owner or operator of a stationary source shall revise and update the RMP submitted under § 68.150 as follows:

(1) Within five years of its initial submission or most recent update required by paragraphs (b)(2)-(b)(7) of this section, whichever is later.

(2) No later than three years after a newly regulated substance is first listed by EPA;

(3) No later than the date on which a new regulated substance is first present in an already covered process above a threshold quantity;

(4) No later than the date on which a regulated substance is first present above a threshold quantity in a new process;

(5) Within six months of a change that requires a revised PHA or hazard review;

(6) Within six months of a change that requires a revised offsite consequence analysis as provided in § 68.36 of this part; and

(7) Within six months of a change that alters the Program level that applied to any covered process.

(c) If a stationary source is no longer subject to this part, the owner or operator shall submit a revised registration to EPA within six months indicating that the stationary source is no longer covered.

EPA ANNOUNCES INTERAGENCY INITIATIVE ON EMERG. RESPONSE

FOR RELEASE: FRIDAY, MAY 31, 1996

EPA ANNOUNCES INTERAGENCY INITIATIVE ON EMERGENCY RESPONSE

In support of President Clinton's review of federal authorities related to hazardous materials prevention, mitigation and response, EPA, today announced the publication of an agreement to implement an interagency "One-Plan Guidance" for release of oil and hazardous substances. The One-Plan Guidance was developed under the auspices of the National Response Team, with participation by industry and environmental groups, state agencies; EPA, the U.S. Coast Guard, the Occupational Safety and Health Administration, the Research and Special Programs Administration in the Department of Transportation and the Minerals Management Service in the Department of Interior.

The guidance provides facilities with a common sense option for meeting multiple emergency planning require-ments under eight different federal regulations. The guidance includes a core facility response plan for releases of oil and hazardous substances under existing federal laws. The core plan contains information that emergency responders will need to implement the initial stages of the response. The core plan will be supplemented with annexes that contain information such as a description of the facility's incident command system and data on specific hazards at the facility, required to meet specific federal regulatory requirements. Facility plans prepared in accordance with the guidance will satisfy facility emergency response planning requirements of the five agencies listed above and will be the federally preferred method of such planning. The One-Plan Guidance approach serves to minimize duplication of effort and unnecessary paperwork burdens.

Copies of the guidance can be obtained by calling the RCRA/Superfund Hotline at 1-800-424-9346 or 703-412- 9810. The guidance also can be obtained via the Internet at http://www.epa.gov/swercepp.

Phone Numbers for Spill Reporting and Hotline Environmental Information

Emergency Release/Spill Reporting -

NRC 1-800-424-8802 (National Response Center)

Individual States (SERC) call:

Alaska 1-800-478-2337

Idaho 1-208-334-4570

Oregon 1-503-378-6377

Washington 911 and then SERC at 1-800-258-5990,
then WA Dept. of Ecology closest Regional Office
NW Reg. 1-206-649-7000, or
SW Reg. 1-360-407-6300, or
Central 1-509-575-2490, or
Eastern 1-509-456-2926

Local LEPC _____

Note: Other numbers may need to be called.

CHEMTREC 1-800-424-9300 Provides 24 hour information and/or assistance to emergency responders. Operated by the Chemical Manufacturers Association & does not fulfil any statutory or regulatory reporting requirements.

Assistance with enviromental concerns about chemicals, wastes and other materials regulated by your own State.

In the State of Alaska (DEC)	1-907-428-7000
In the State of Idaho (DEQ)	
Coeur d'Alene (North Idaho Regional Off.)	1-208-769-1422
Lewiston (North Central ID Reg. Off.)	1-208-799-4370
Boise (Southwest ID Reg. Off.)	1-208-373-0550
Twin Falls (South Central ID Reg. Off.)	1-208-736-2190
Pocatello (Eastern ID Reg. Off.)	1-208-236-6160
Idaho Falls (E. ID Satellite Off.)	1-208-528-2650
In the State of Oregon (DEQ)	1-503-229-5263
In the State of Washington (DOE)	1-800-633-7585