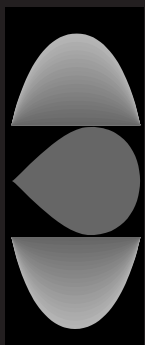




GUIDANCE FOR IMPLEMENTATION OF THE GENERAL DUTY CLAUSE CLEAN AIR ACT SECTION 112(r)(1)



RMP SERIES

Table of Contents

| | |
|---|----|
| 1.0 Introduction | 2 |
| 1.1. Objective of this Document | 3 |
| 1.2. Background on Other Chemical Safety Programs | 3 |
| 1.3. Approaches towards Implementing the General Duty Clause | 5 |
| 1.4 Facility/Industry Selection | 7 |
| 1.5 Facility/Industry Sector Background Information | 7 |
| 2.0. The General Duty Clause | 10 |
| 2.1. Jurisdiction | 10 |
| 2.2. Applicability | 10 |
| 2.3. Obligations under the General Duty Clause | 11 |
| 2.3.1. Has the owner and operator identified hazards which may result from accidental releases? | 12 |
| 2.3.2. Has the owner and operator designed and maintained a safe facility? | 14 |
| 2.3.3. Has the owner and operator minimized the consequences of a release? | 16 |
| 3.0. Evaluating Prevention and Release Mitigation Programs | 19 |
| 3.1. Measure of Prevention and Preparedness/Compliance with the General Duty Clause ... | 19 |
| 3.2. Hazard Identification Checklist | 19 |
| 3.3. Facility Design/Maintenance Checklist | 20 |
| 3.4. Consequence Minimization Checklist | 21 |
| 4.0. Authorities | 23 |
| 4.1. Information Collection/Entry and Access | 23 |
| 4.2. Imminent/Substantial Endangerment Order Authority | 24 |
| 4.3. Other Investigative Tools | 26 |
| Appendices | 28 |

Appendix 1 - Sample CAA Judicial Warrant for Site Access, Sampling 29

Appendix 2 - Sample Request to File Warrants Under Seal 30

Appendix 3 - Sample Order to Seal Warrants 31

Appendix 4 - CAA/CERCLA Sample Administrative Warrants 32

Appendix 5 - Sample Application for an Administrative Warrant 33

Appendix 6 - Sample Emergency Order under CAA Section 303 35

Appendix 7 - Sample Clean Air Act Section 114 Information Request Letters 37

Appendix 8 - Sample CERCLA Section 104(e) Information Request Letter 44

Appendix 9 - Sample Site Safety Plan For On-Site Activities 48

Appendix 10- Sample Inspection Information Material 50

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Chapter 1: Introduction

1.0 Introduction

Public awareness of the potential danger from accidental releases of hazardous substances has increased over the years as serious chemical accidents have occurred around the world. Public concern intensified following the 1984 release of methyl isocyanate in Bhopal, India, which killed more than 2,000 people. A similar chemical release in Institute, West Virginia, sent more than 100 people to the hospital and made Americans aware that such incidents do happen in the United States. These incidents, among others, increased congressional awareness of the threat posed by chemical releases. As a result, Congress enacted legislation to help prevent accidents from occurring, and to promptly report and respond to accidents that do occur.

In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA) to require state and local governments to prepare to respond to accidental chemical releases. In 1990, Congress amended the Clean Air Act (CAA) and added Section 112(r). Section 112(r) of the CAA requires that owners and operators of stationary sources identify hazards, and prevent, and minimize the effects of accidental releases whenever extremely hazardous substances are present at their facility. The *general duty clause* in Section 112(r)(1) and regulations issued pursuant to other provisions of Section 112(r) define these requirements and establish the deadlines for compliance.

Specifically, Section 112(r)(1) states:

(r) Prevention of Accidental Releases

- (1) Purpose and General Duty - It shall be the objective of the regulations and programs authorized under this subsection to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance. The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty, in the same manner and to the same extent as section 654, title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.**

The general duty clause has been in effect and enforceable since November 15, 1990. It applies to any facility where extremely hazardous substances are present. The general duty clause is a performance based authority recognizing that owners and operators have primary responsibility in the prevention of chemical accidents. As part of this responsibility, many industries have developed standards and generally recognized safe practices to manage the risks associated with extremely hazardous substances. EPA believes that owners and operators who have these substances must adhere, at a minimum, to recognized industry standards and practices (as well as any government regulations) in order to be in compliance with the general duty clause. The Agency recognizes that unique circumstances may make a particular standard inapplicable. Also, there may be instances in which a facility must address specific conditions that are not addressed by industry standards, practices, or government regulations. Such a facility must nevertheless address its specific conditions in order to be in compliance with the general duty clause. Finally, there may be situations in which an existing industry standard or practice is simply inadequate to prevent accidents, and here the Agency may exercise its authority to require an owner or operator to implement additional measures to address the hazard.

1.1. Objective of this Document

This guidance focuses on the general duty clause of Section 112(r)(1) and its implementation to promote safe operating practices and prevent chemical accidents. The objective of the Agency's Section 112(r) program is to have owners and operators take responsibility for chemical accident prevention and mitigation. This guidance is for use by EPA inspectors/auditors/investigators to develop programs to increase compliance with the general duty clause in Section 112(r)(1) of the CAA.

This document will introduce the concept of the general duty clause, suggest approaches for increasing compliance, and provide examples of tools for conducting an investigation and evaluating prevention programs. Before discussing in detail the general duty clause, Section 1.2 of this document will briefly describe other programs implemented previously by the Agency to address chemical safety and explain their relationship with Section 112(r) of the CAA. These programs included chemical safety audits, risk management program regulations and other audits and investigations. The remainder of this guidance will then lay out in detail approaches to implement the general duty clause; elaborate upon the statutory requirements of the general duty clause; and, describe how to assess compliance with the general duty clause.

1.2. Background on Other Chemical Safety Programs

Historically, the Agency has worked with sources to improve their safety management programs, assisted communities in risk reduction activities with facilities in their communities, and assisted with emergency preparedness and response to chemical accidents. Implementation of a program to help sources improve their safety management begins with an understanding of how and why accidents occur, how industry identifies chemical and process hazards, how industry designs, maintains, and operates a safe facility, and how the consequences of accidents that do occur can be minimized. Industry is responsible for having the expertise to ensure that all the elements of safe operation (procedures, training, maintenance, etc.) are brought together and managed day-after-day. But, government can help sources by analyzing their safety management programs, comparing them to successful practices used by other sources, and stimulating improvements.

In addition to the general duty clause, EPA has several tools with which to work with owners and operators to prevent chemical accidents. While the focus of this document is on the general duty clause, we wanted to briefly describe other tools. Each is designed to help identify the causes of accidental releases and the means to prevent them from occurring. Additionally, these activities should be used to promote coordination within the community and initiatives throughout the industry.

a. Chemical Safety Audits Conducted by EPA

Chemical Safety Audits provide EPA an opportunity to:

- visit sources handling hazardous substances to learn about safety practices and technologies;
- 7 heighten awareness of the need for, and to promote, chemical safety among sources handling hazardous substances, as well as in communities where chemicals are located; and
- 7 build cooperation among sources, agencies, and other authorized parties.

In the past, these audits were frequently voluntary and promoted the goal of identifying and characterizing the strengths and weaknesses of specific chemical accident prevention program areas to highlight the elements of effective programs, and to share information on successful practices and recommend safety improvements. With the enactment of the general duty clause and the Risk Management Program (RMP), EPA recognizes that the chemical safety program will continue. However, chemical safety audits generally should no longer be conducted on processes covered by the risk management program because it would be inappropriate to conduct a voluntary review of processes which are subject to federal regulation. Further, these audits should not be conducted at a source which is subject to a pending enforcement action. (For additional information concerning chemical safety audits, see the technical assistance section.)

b. Accident Investigations

Chemical accident investigations help to determine why an accident occurred, by examining the facts and circumstances surrounding an event. Ideally, such investigations determine the root cause or system failures that contributed or led to the accident. This information can then be used to reduce the likelihood of recurrence, minimize the consequences associated with accidental releases, and make chemical production, processing, handling, and storage safer. Along with the root cause, the investigation looks at contributing factors of the event that may have broad applicability to industry, and the potential to develop recommendations and lessons learned to prevent future accidents of this type.

Section 112(r)(6) of the Clean Air Act established an independent safety board known as the Chemical Safety and Hazard Investigation Board (“the Chemical Safety Board”). One of the objectives of the Chemical Safety Board, as directed by the Clean Air Act, is to investigate, determine and report to the public, the facts, conditions, circumstances, and cause or probable cause of any accidental release resulting in fatality, serious injury or substantial property damage. The Chemical Safety Board began operating in November, 1997 when it was funded by Congress. EPA and the Chemical Safety Board have developed a Memorandum of Understanding which addresses the respective authorities of each organization to investigate chemical accidents.¹ To view this MOU, see www.epa.gov/ceppo/pubs/csbepa.pdf. The conclusions, findings or recommendations of the Chemical Safety Board may not be admitted as evidence or used in any action or suit for damages; however, that does not preclude EPA from conducting its own investigation for violations of the general duty clause.

c. Risk Management Plan Audits

Section 112(r)(7) of the CAA directed EPA to promulgate regulations for sources to develop and implement a risk management program. These regulations, found in 40 C.F.R. Part 68, establish three elements of a risk management plan (RMP) : hazard assessment, prevention and response. As part of this program, the implementing agency must “periodically audit” RMPs to review their adequacy and require revisions when necessary, 40 C.F.R. §68.220. As stated in the preamble to the Risk Management Program regulation, “...EPA intends to use the audit process as a way to verify the quality of the program summarized in the RMP. When it is appropriate, EPA will require sources to make modifications to the RMP that may lead to quality improvements in the underlying program.”

¹For further information concerning the Chemical Safety Board, visit the web site at <http://chemsafety.gov> or <http://csb.gov>

Prior to determining whether modifications to an RMP are required, a Regional inspector must determine whether a stationary source is covered by the general duty clause or the Risk Management Program. There may be instances in which a stationary source may be subject to both. For example, a source may have certain processes that are subject to RMP but may have others that are not, or may have hazards not addressed by the RMP regulations. In order to determine which authority to apply in that situation, a Regional inspector should first apply the specific RMP regulatory requirements. If none are applicable, the Regional inspector should perform the analysis outlined in this guidance to determine if there is a general duty clause violation.

d. Conducting audits and investigations

Each agency, whether federal, state, or local, must determine what authorities it presently has to conduct chemical safety audits, accident investigations, general duty clause enforcement actions or RMP audits. Most will find that their present authorities are sufficient but in case of any question, the implementing agency should consult with their general counsel or appropriate legal authority to determine the most effective use of their authorities.

It is also important to note that these activities mentioned above are not mutually exclusive. Many times, a combination of activities may be employed to achieve the results sought by the agency. For example, a Region may choose to conduct an accident investigation following a chemical accident at a source. This investigation may determine a root cause; however, the Region may also conduct a chemical safety audit later to confirm safe practices are in place to reduce the risk of future accidents. Additionally, the Region may choose to pursue violations of the general duty or RMP nature, if circumstances warrant.

1.3. Approaches towards Implementing the General Duty Clause

As previously stated, the focus of the remainder of this guidance document will be upon implementing the general duty clause and the approaches available to the Regions. These approaches include compliance outreach, technical assistance, and enforcement. This guidance is relevant to all of these agency functions.

a. Compliance Outreach

Compliance outreach involves communicating hazards, lessons learned from accident investigations, prevention/mitigation information and enforcement actions to an industry sector through an open letter, an alert or other means to provide this information.

EPA's Chemical Emergency Preparedness and Prevention Office (CEPPO) continues to prepare and distribute safety alerts which educate regulated industries of hazards posed by specific chemicals or chemical processes. See www.epa.gov/ceppo/ap-chsa.htm for examples of these alerts. EPA's Office of Regulatory Enforcement (ORE) also prepares and distributes enforcement alerts to inform and educate the public and regulated communities of important environmental enforcement issues, recent trends and significant enforcement actions. See www.epa.gov/oeca/ore/enfalert for examples of these alerts.

There are also numerous non-governmental entities which provide guidance documents addressing process safety management. These non-governmental entities include the Center for Chemical Process Safety, industry trade associations (e.g. Chemical Manufacturers Association, American Petroleum Institute, Chlorine Institute), and education institutions (e.g., Mary K.

b. Technical Assistance

Technical assistance involves helping owners and operators evaluate their hazard identification, prevention, and mitigation programs. There are many forms of technical assistance available to aid the owner/operator to comply with the general duty clause. Since 1989, EPA has conducted Chemical Safety Audits. In the past, these audits have focused on steps facilities might voluntarily implement to enhance their ability to prevent and mitigate chemical accidents. While the focus remains on the ability to prevent and mitigate chemical accidents, the chemical safety audits may now provide useful compliance assistance by helping identify ways that companies can comply with the general duty clause or the regulatory requirements of the risk management program. Deficiencies in a source's safety program may now be considered violations of the general duty clause or if the deficiencies are associated with a process covered by to 40 C.F.R. Part 68, there may be a violation of the risk management program.

In some circumstances, Regional personnel may work with the facility, the community and local emergency planning committees to reduce the risk of accidents or to help improve responses to accidents should they occur. This local dialogue should assist the local community to better prevent, prepare for and respond to accidents involving the stationary source. For this reason, the general duty clause contacts in the EPA Regions should involve the RMP and EPCRA program contacts in their Regions since these programs work closely with local communities and emergency response personnel.

c. Civil and Criminal Enforcement

Enforcement by EPA includes inspecting facilities to evaluate for compliance and/or to inspect facilities in order to identify deficiencies in the accidental release prevention and mitigation programs. Pursuant to Section 114(a)(1) and (2) of the Clean Air Act, Regional inspectors may require an owner/operator to provide information to EPA to determine whether the facility is in compliance with the general duty clause of Section 112(r) of the Act. In situations with a release or threat of a release of hazardous substances, pollutants and contaminants, CERCLA 104(e) may also be used to gather information.

EPA may also pursue enforcement actions to require and/or improve accidental release prevention and mitigation programs by seeking penalties and/or injunctive relief for violations of the general duty clause. Pursuant to Section 113(d) of the Clean Air Act, EPA Regional personnel may issue an administrative penalty order or pursuant to Section 113(a)(3) of the Clean Air Act, EPA Regional personnel may issue an administrative compliance order requiring an owner/operator to comply with the general duty clause. EPA may also bring a civil judicial action pursuant to Section 113(b) of the Act for violations of the general duty clause or request that the Attorney General commence a criminal action in accordance with Section 113(c) of the Clean Air Act against owners/operators for knowing violations of the general duty clause.

Pursuant to Section 112(r)(9) of the Clean Air Act, EPA may also order any action necessary to abate a danger or threat if the Agency determines that there may be an imminent and substantial endangerment to human health or welfare or the environment because of an actual or threatened accidental release of a regulated substance.

1.4 Facility/Industry Selection

Regions may choose among compliance outreach, technical assistance or enforcement when basing their approach towards a particular stationary source or industry. Each Region has flexibility to determine where it is most appropriate to exercise general duty clause authority consistent with the statute and taking this guidance document into account. As a guide, Regional personnel may consider the factors listed below:

- stationary source has an accident (or a “near miss” that could have been an accident) that warrants an investigation
- stationary source appears on Agency databases for having repeated releases
- industry hazard identified after a similar source has had a major accident
- request from a state or local government official or other members of a community for assistance with a particular source
- request from a source for assistance regarding a particular hazard
- stationary sources with a significant quantity of an extremely hazardous chemical in close proximity to population centers or sensitive population (e.g. schools, hospitals, etc.)

1.5 Facility/Industry Sector Background Information

Before a site visit, the inspector should gather information on the facility, which may include:

- 7 Type of process to be inspected
- 7 Chemicals that are part of the process
- 7 Hazards associated with the chemicals in the process (including accident history)
- 7 Potential for runaway reactivity/explosivity
- 7 Temperatures/pressure factors in the process
- 7 Possible critical contamination (e.g. water, metals) to the process
- 7 Industry practices to manage the hazards of the chemicals or this type of process

| Type of Information | Sources of Information |
|---------------------------------|---|
| Accident History | <ul style="list-style-type: none"> # ERNS Database # Acute Hazards Events Database # Accidental Release Information Program # Large Property Damage Losses in the Hydrocarbon-Chemical Industries; A Thirty Year Review, J & H Marsh & McLennan # Major Hazard Incidents Data Service (MHIDAS) database (at www.epa.gov/ceppo/ap-chan.htm) # Major Accident Reporting Center (MARS)(at www.epa.gov/ceppo/ap-chan.htm) |
| Chemical Hazards | <ul style="list-style-type: none"> # Electronic MSDSs (e.g. Vermont SIRI at www.hazard.com) # NIOSH Pocket Guide # EHS Chemical Profiles # CAMEO RIDS # Chemfinder Webserver (http://chemfinder.camsoft.com) # Chemical Reactivity Worksheet (http://response.restoration.noaa.gov/chemaids/react.html) # [See “Use Multiple Data Sources for Safer Emergency Response” Alert (www.epa.gov/ceppo) # Bretherick’s <i>Handbook of Reactive Chemical Hazards</i> |
| Process Hazards | <ul style="list-style-type: none"> # EPA Sector profiles, if available # Kirk-Othmer Encyclopedia of Chemical Technology # Chemical Safety Alerts (www.epa.gov/ceppo) # Hazard Reviews performed by the source or industry # Chemical Safety Audit Database |
| Accident Prevention Information | <ul style="list-style-type: none"> # Chemical safety audit/accident investigation performed by the Agency on a similar process (Chemical Safety Audit database available through CEPPPO in EPA Headquarters) # Chemical Safety Audit Program’s Status Reports (annually since FY1996) # NFPA Codes # Brochures/Alerts from Trade Association # Center for Chemical Process Safety Publications # <i>Loss Prevention in the Process Industries</i> (Frank Lees) # RMP Info (www.epa.gov) |
| Community Involvement | <ul style="list-style-type: none"> # LEPC and SERC # EPCRA Sections 311, 312 and 313 reports # Community’s emergency plan under Section 303 of EPCRA |

Unless otherwise noted, the preceding information sources are available through the Chemical Emergency Preparedness and Prevention Office at EPA Headquarters.

Chapter 2: The General Duty Clause

2.0. The General Duty Clause

2.1. Jurisdiction

The general duty clause reflects Congressional intent that the owners and operators of stationary sources/facilities have the primary responsibility for the prevention of accidents. EPA has jurisdiction to implement and enforce the general duty clause through Sections 113 and 114 of the Clean Air Act at any facility where extremely hazardous substances are present. Owners and operators have been subject to the general duty clause since November 15, 1990.

2.2. Applicability

The general duty clause applies to "owners and operators of stationary sources producing, processing, handling or storing any extremely hazardous substances."

- # "**Stationary source**" is defined in Section 112(r)(2)(C) as "any buildings, structures, equipment, installations or substance emitting stationary activities (I) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur."
- # "**Accidental release**" is defined in Section 112(r)(2)(A) as "an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source."²
- # "**Extremely hazardous substances**" are not defined in Section 112(r). They are not limited to the list of regulated substances listed under Section 112(r) nor the extremely hazardous substances under EPCRA.³

²The legislative history of the 1990 Clean Air Act Amendments indicates that the term accidental release does not include releases which are authorized by a permit or are subject to an emission limitation or standard under the Clean Air Act or other Federal law. The legislative history states that accidental releases would not include releases from vents and releases resulting from process upsets that are planned and are designed to prevent catastrophic events. Further, the legislative history indicates that an accidental release is one which causes or may cause immediate (or near term) death, serious injury or substantial property damage as the result of exposure to an extremely hazardous substance over limited periods of time. It does not include releases, when even accidental, where the potential impact on public health is a measurable increase in probability of death, illness or adverse effects which are normally associated with "chronic" exposures over a long period of time. Senate Report at p. 210-211

³Although there is no definition for extremely hazardous substances, the legislative history of the 1990 Clean Air Act Amendments suggests criteria which EPA may use to determine if a substance is extremely hazardous. The Senate Report stated the intent that the term "extremely hazardous substance" would include any agent "which may or may not be listed or otherwise identified by any Government agency which may as the result of short-term exposures associated with releases to the air cause death, injury or property damage due to its toxicity, reactivity, flammability, volatility, or corrosivity" (Senate Committee on Environment and Public Works, Clean Air Act Amendments of 1989, Senate Report No. 228, 101st Congress, 1st Session 211 (1989) - "Senate Report"). Further, the Senate Report states, "the release of any

Reference sources which may be used to establish that a substance may be extremely hazardous include: EPA's Toxic Substances Control Act Inventory (see www.epa.gov), National Institute of Occupational Safety and Health (see www.cdc.gov/niosh/homepage), Occupational Safety Health Administration (see www.osha.gov), American Conference of Governmental Industrial Hygienists (see www.acgih.org), Agency for Toxic Substances Disease Registry (see www.cdc.gov/atsdrhome), Centers for Disease Control (see www.cdc.gov) and National Fire Protection Association (see www.nfpa.org).

“[H]ave a general duty in the same manner and to the same extent as section 654, title 29 of the United States code” means owners and operators must comply with the general duty clause in the same manner and the same extent as employers must comply with the Occupational Safety Health Act administered by OSHA.⁴

2.3. Obligations under the General Duty Clause

The general duty clause imposes the following primary obligations on the owners and operators of stationary sources:⁵

- # Identify hazards which may result from accidental releases using appropriate hazard assessment techniques,
- # Design and maintain a safe facility taking such steps as are necessary to prevent releases, and
- # Minimize the consequences of accidental releases which do occur.

substance which causes death or serious injury because of its acute toxic effect or as a result of an explosion or fire or which causes substantial property damage by blast, fire, corrosion or other reaction would create a presumption that such substance is extremely hazardous.” Senate Report at 211.

⁴The standard for applying the general duty clause of the OSH Act was described in Secretary of Labor v. Duriron Company, Inc. 11 OSHC 1405. According to the legislative history of the CAA general duty clause, Duriron is cited as a guide for EPA's application of the general duty clause. In accordance with the general duty clause of OSH Act, an employer must render a workplace free of a hazard; the hazard must be recognized either by the employer or generally within the employer's industry; the hazard causes or was likely to cause death or serious harm; and, it was feasible for the employer to have eliminated or materially reduced the hazard, Secretary of Labor v. Duriron Co., 11 OSHC at 1407. For purposes of complying with the CAA general duty clause, owners and operators must maintain a facility that is free of a hazard, the hazard must be recognized by the owner/operator or recognized by the owner/operator's industry, the hazard from an accidental release was likely to cause harm, and that the owner/operator could have eliminated or reduced the hazard.

⁵The Risk Management Program requirements of 40 CFR Part 68 are enforceable as of June 21, 1999. After June 21st, EPA Regional inspectors should analyze whether the requirements of the general duty clause or the RMP, or both, are applicable.

Each of these obligations requires that a series of measures be taken by the owners and operators but the general duty clause does not prescribe these measures. Each measure should achieve a level of quality, accuracy, and completeness in order to prevent releases and to mitigate any actual releases.

As stated in Section 112(r)(1), the objective of Section 112(r) of the Clean Air Act is to prevent the accidental release of extremely hazardous substances (EHS) and minimize the consequences of a release if one occurs. The general duty clause does not require the development of a list of chemicals subject to this requirement, nor does it require the promulgation of regulations defining how to meet the general obligations established by the clause. As a result, EPA will look to hazards identified by the facility or industry rather than a specific list of chemicals; this is consistent with many industry standards that do not contain a specific list of chemicals. Likewise, the Agency will look, in part, to industry practices and standards for addressing a hazard in determining how each regulated entity should comply with the general duty clause.

Accordingly, to evaluate compliance with the general duty clause, the Agency must assess the extent to which owners and operators have implemented hazard assessment, design, process hazard analysis, maintenance, operation and mitigation measures that meet or exceed any applicable industry practices or standards, or state or federal regulations. If no industry practice, standard, or regulatory requirement exists for the substance or process, or if the practice or standard is not protective of public health and the environment, the owners or operators are responsible for identifying hazards and taking appropriate measures to prevent releases and minimize the consequences of a release.

For example, in order to prevent a release from a storage vessel, the owners and operators should not only identify the intrinsic hazards of the substance in the vessel, they should also identify the hazards of the process in which the substance is used. The facility should design and maintain the process equipment (which includes the vessel) and instrumentation in order to minimize the risk of release. To meet this obligation, they should identify and implement appropriate equipment/vessel design and maintenance practices, codes, or standards that are relevant to the process and the substance involved.

In addition, the owners and operators should operate the process/equipment in a safe manner (e.g., keep volumes, temperatures, pressures, flows, concentrations, pH within specified limits). The owner or operator should comply with all applicable state and local regulations; meeting or exceeding the applicable industry practices, codes or standards for that process; and, following all recommended practices of the process equipment manufacturers. They should also be prepared to minimize the effects on the public and the environment if a release should occur by identifying at-risk receptors in the event of the maximum possible release and other probable releases as may be identified in the appropriate hazard analysis/review. In addition, the mitigation activities should include coordination between facility management, employees and the local response agencies.

The following subsections describe basic current practices and may be utilized as a guide for EPA personnel to assess compliance with the general duty clause obligations.

2.3.1. Has the owner and operator identified hazards which may result from accidental releases?

The owners and operators are responsible for determining the intrinsic hazards of the chemicals

used in the processes, the risks of accidental releases from the processes through possible release scenarios, and the potential effects of these releases on the public and the environment.

Although the general duty clause does not specify how the owner/operator should identify hazards, the hazard assessment, when concluded, should result in the following information.

- # The hazards associated with the EHS and the process,
- # potential release scenarios developed from site specific hazard analysis/review and facility/industry historical data and
- # the consequences of the release in each case.

The hazards of the substance will include not only the flammability and toxicity of the EHS but also the conditions of the specific process. These include temperature and pressure of processing along with human factors and process siting.

A sufficient hazard assessment should include the type, rate and duration of potential releases. Modeling or an applicable dispersion analytical technique should be used to determine the potential impact of the releases. Models or analytical techniques selected for this activity should be appropriate for the material released and the process, atmospheric, and geographic conditions for the particular release scenario. Use of an inappropriate model will not provide accurate information for release prevention or emergency plan development and evaluation. A hazard assessment should also include approximate downwind or down gradient concentrations and how these factors impact the effect of the release on affected populations, systems and environments.

In order to have a comprehensive hazard assessment, the scenario identification methods used by industry typically fall into one of the following categories: experience, analytical and creative. When reviewing hazard assessments, Regional inspectors should determine whether the assessment performed falls into one or more of these categories. These categories are described as follows.

a. Scenario Identification Method - Experience

Collective experience is provided in safety newsletters, standard engineering designs based on records of earlier problems, and design codes produced collaboratively by users, suppliers and technical bodies such as the American Society for Testing and Materials, the American National Standards Institute, the National Fire Protection Association and others.

An additional source of information is the EPA ERNS database.

The experience of the specific process can be developed from the accident history of the facility. All key elements should be included in the incident investigation of prior releases and those incidents which might have led to releases.

b. Scenario Identification Method - Analytical

In the chemical industry, the most common of the formal hazard analysis method is the Hazard and Operability (HAZOP) study. The HAZOP analysis assumes that the process is safe as long as the parameters of the process remain within their designed limits. The HAZOP analysis uses

guide words to assess how deviations of each element (vessel, pipe, valve, controller, and human) may result in an accidental release or other operational failures or inefficiencies.

Logic trees as methods of formal hazard assessment are more common to non-chemical industries. The most developed and widely used of the logic trees is called a fault tree. In this approach, a hazardous occurrence, such as a fire or vessel rupture, is defined as the *top event*. The logical combination of faults which can lead to this top event would require the simultaneous presence of a flammable substance, an oxidant and a source of ignition.

A similar type of tree structure using a complementary approach is called an *event tree*. It works opposite to a fault tree, beginning with an initial event and exploring whether a "top event" could result.

The simplest form of structured hazard analysis to develop a scenario is the checklist. The checklist can only identify those hazards that are associated with a general process. It is not applicable to processes that are one-of-a-kind or have unique components or uses.

c. Hazard Identification Method - Creative

The "What-if" method is quick and easy. This question is asked by the team members for each piece of equipment and each process step. This method may allow the discovery of hazards that would not be identified in any of the more formal methodologies.

Brainstorming is also quick and can give new perspectives on safety problems. A team tries to identify as many ways as possible that an event (e.g., a release) could occur. The owners and operators should consider whether and how processes adjacent to processes involving EHS's may contribute or provoke a release of an EHS. For example, vessels may be designed following all appropriate safety codes for the application but there may be a possibility that external forces (shrapnel, lightning, etc.) may cause them to release an EHS.

Either of these creative methodologies may be used alone for simple projects (evaluation of one Standard Operating Procedure) or as an adjunct to a more structured method. Once the release scenario has been developed and the accidental release characterized (EHS, quantity, duration, etc), the consequences of the potential release should be determined. This includes the modeling of the discharge plume and the identification of the possible receptors that may be affected. Many modeling programs are free and easily available to the public (ARCHIE, ALOHA, RMP*Comp, Degadis, etc). Facilities may use proprietary programs that are more chemical or site specific. A Region may want to consider the assumptions of the scenario that make up the model as part of the investigation.

2.3.2. Has the owner and operator designed and maintained a safe facility?

a. Design a Safe Facility

EPA considers the requirement to design a safe facility to include construction of a new facility or the design of modifications at existing facilities. EPA Regional inspectors should review the safety information and information gathered in the process hazard analysis (PHA) to assess whether owners and operators based design considerations upon applicable design codes, federal and state regulations, and recognized industry practices. EPA Regional inspectors should also assess whether owners and operators had an obligation to exceed these design consideration parameters if the parameters were not adequate to prevent releases or minimize their impacts. The

following discussion provides examples of information sources that EPA Regional inspectors may review to assess whether an owner/operator met its statutory obligation to design a safe facility.

Codes: The owners and operators should design the process and the hardware in order to minimize the risks of a release; that is, identify, research and apply design safety codes applicable to the substance and the process. Designs should also consider risks from adjacent processes, which may pose a threat to the process involving extremely hazardous substances, even if the adjacent processes do not involve extremely hazardous substances themselves. Owners and operators must update equipment to current codes and standards, as appropriate (e.g. state regulation, past accident history, generally accepted industry practices).

Chemicals: The owners and operators should try to substitute less hazardous substances for extremely hazardous substances or minimize inventories when possible. This is usually the most effective way to prevent accidents and should be the priority of a prevention program.

Equipment: The owners and operators should implement a quality control program to ensure that components and materials meet design specifications and to construct the process equipment as designed. The owners and operators should apply the same standard of care when modifying or repairing the facility. Safety equipment and inherently safer technology can be used to lessen the hazards posed by an extremely hazardous substance. Making vessels containing flammable materials inert, using alternate processes that require lower temperatures or pressures, installing relief systems, determining process siting, installing anti-static devices and other equipment are common mechanisms to lessen the hazards. Owners and operators should consult trade associations, industry consultants (e.g., Center for Chemical Process Safety, others) and safety engineers to determine standards and safety equipment employed at facilities.

b. Maintain a Safe Facility

An aspect of maintaining a safe facility is a review of information developed to ensure the safe operation of the facility. The Regional inspector should request and review standard operating procedures, evaluate the existence and implementation of employee training programs, review managing change procedures and evaluate the effectiveness of a facility's incident investigation program. The following provides a description of these types of documents.

Standard Operating Procedures: The owners and operators are responsible for ensuring that the process and equipment are operated within safe limits. To achieve this, standard operating procedures (SOPs) should be written for every aspect of the processes. These procedures should identify safe upper and lower limits for process variables and identify corrective measures and emergency situations. These procedures should be correct and accurate, clear, concise, and written at the appropriate reading level for the operator. SOPs should include the various phases of operation, including pre-startup checks, startup, normal operations, temporary operations, normal shutdown and emergency shutdown. SOPs should also address receiving, storing, transferring and shipping of extremely hazardous substances to minimize the likelihood of a release from other than chemical process areas. These procedures should clearly warn about conditions/practices likely to cause a release as identified in the PHA and steps that the employee/operator must take to prevent a release if these conditions are encountered.

Training Programs: The owners and operators should implement and evaluate programs for training employees on the hazards of the substances, any additional hazards presented by the processes, proper process operations (including the significance of process variable changes and consequences), proper maintenance procedures, and procedures for receiving, storing, transferring

and shipping hazardous substances. Training programs should contain clear and concise objectives and the owners and operators should ensure that evaluation of trainee competence is included in the program.

Managing Changes: When changes in the processes are planned, the owners and operators should evaluate how those changes will affect the hazards identified in the PHAs. These changes should be evaluated to determine if hazards, materials of construction, operating and maintenance procedures, and prevention programs need to be updated.

Incident Investigation Program: When an incident occurs that results in a release or that could have escalated into a release, the owners and operators should investigate the cause of the incident/accident. The investigation should result in recommendations designed to prevent future similar occurrences. The owners and operators should document how these recommendations were evaluated and implemented or why recommendations were not implemented. Investigation findings should be evaluated to ensure that any new information is included in periodic PHA reviews, changes in procedures, and changes in operation and maintenance programs.

Self Audits: The owners and operators should practice self auditing of the facility's prevention programs. Generally a self audit would involve a third party evaluating the effectiveness of a facility's prevention and mitigation program.

Preventive Maintenance Programs: Maintenance requirements should have been identified in the design phase of a process. However, as facilities are operated, experience may provide a more realistic picture of maintenance requirements. The owners and operators should ensure that a preventive maintenance program is implemented that maintains the mechanical integrity of the process equipment and the safety mechanisms. This program should, at a minimum, meet guidelines from standard industry sources such as the American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), National Association of Corrosion Engineers (NACE), American National Standards Institute (ANSI), and the American Institute of Chemical Engineers (AIChE). At a minimum, the maintenance program should include schedules for replacement, repairs, or regular maintenance (cleaning, lubrication, other) to the equipment, quality requirements for spare parts, installation and repair procedures, testing, quality controls, replacement in kind controls, and maintenance enforcement procedures. Reasonably detailed maintenance records should be kept for periodic maintenance program evaluation.

2.3.3. Has the owner and operator minimized the consequences of a release?

In order to assess whether an owner and operator has minimized the consequences of an accidental release, the Regional inspector should, at a minimum, review the emergency response plan at the facility. The emergency response plan should include the following elements: planning, coordination with local officials, training and exercises.

a. Planning

An owner/operator should develop an emergency response plan that specifically addresses release scenarios developed from the PHAs and historical information. The potential releases identified in the PHAs should be used in preparing the emergency response plans. Planning and preparation includes identifying populations, systems and environments that may be impacted, and specific procedures for employees to follow to stop further chemical releases and/or mitigate the effects of the substances released. The plan should also identify emergency response

equipment that is available for response activities and state whether the equipment is located at the facility or its location within the community.

Guidance such as the "one plan" guidance can be used to determine the necessary elements of an emergency plan for a specific industry. At a minimum, the plan should contain the following elements:

- 7 Anticipation of the types of releases that may occur from the process.
- 7 Mitigation process.
- 7 Notification process to local responders.
- 7 Local responder involvement.

b. Coordination with Local Officials

The facility should open communications with local emergency planning and response officials, including the local emergency planning committee (LEPC), if one exists. Involvement in the activities of the LEPC can have positive effect on the facility's emergency response program. The facility should provide the LEPC with draft versions of any emergency response program related to local emergency planning efforts. The facility should coordinate with the LEPC, local response organizations, local hospitals, and other response organizations upon completion of the emergency response plan for the facility.

c. Training

All employees need to be trained on recognizing circumstances which are "out of the norm" (i.e., how to immediately recognize that an accident is occurring), as well as what to do in the event of an accident. This training would be specific to the facility and include relevant SOP's and emergency plans.

d. Exercises

Once plans have been developed, training needs identified and met, and equipment has been identified and obtained; the owners and operators should conduct periodic exercises to ensure that the plan is adequate to address the identified emergency scenarios.

The owners and operators should include local and state emergency response and management agencies in the planning process as well as in exercises designed to test and evaluate the emergency response plan. Because much of the specific knowledge and skills necessary to handle hazardous chemicals resides at the facility and may be lacking in the response community, the owners and operators may decide to provide training specific to the hazardous chemicals and mitigation techniques to state and local response personnel.

Depending on the hazards of the chemical and the potential impact of a chemical release, the owners and operators should evaluate the need for and the effectiveness of warning systems, evacuation procedures, and/or shelter-in-place procedures that protect employees. The owners and operators should plan mock emergencies to practice procedures on a regular basis to test workers' ability to perform in the event of an emergency.

Chapter 3: Evaluating Prevention and Release Mitigation Programs

3.0. Evaluating Prevention and Release Mitigation Programs

As discussed in Section 2, the owners and operators shall identify the hazards; take steps to prevent releases; and be prepared to mitigate any actual releases. The following steps and parameters may be utilized by EPA Regional inspectors to evaluate hazard identification, prevention and release mitigation programs. The objective of the evaluation conducted by EPA Regional inspectors is to determine whether owners and operators complied with the general duty clause requirements and to assess the adequacy of these programs. The evaluation of prevention and release mitigation programs will be the same whether initiated by a chemical safety audit, a compliance inspection, or an accident investigation. However, in the case of accident investigations, the evaluation of the programs will generally occur after additional work has taken place at the scene of the accident.

The following lists contain elements which may be considered when evaluating a prevention / release mitigation program. Each item may be expanded as needed to examine any of the elements of the program in more detail.

3.1. Measure of Prevention and Preparedness/Compliance with the General Duty Clause

When investigating possible violations of the general duty clause, EPA Regional inspectors should seek answers to the following questions:

Has the owner or operator of the source complied with the following three elements of the general duty clause?

- # Did the owner or operator identify all chemical and process hazards associated with extremely hazardous substances?
- # Did the owner or operator design and maintain a safe facility taking necessary steps to prevent releases?
- # Did the owner or operator take necessary steps to minimize the effects of releases?

In order to answer fully the three questions posed above, EPA Regional inspectors may conduct a two step investigation. First, Regional inspectors should obtain documentation corresponding to each element and determine its quality, appropriateness, correctness and effectiveness. This task may be accomplished before visiting a facility. Second, if Regional inspectors determine that a facility visit is appropriate, once on site, EPA Regional inspectors should determine if the actions described in the documentation previously provided are being effectively implemented at the facility.

The following questions are designed to assist Regional inspectors when assessing compliance with the three obligations imposed by the general duty clause. They are not intended to be comprehensive of all applicable requirements.

3.2. Hazard Identification Checklist

- 7 Have the owners and operators completed Process Hazards Analyses (PHA) for each process involving extremely hazardous substances (EHSs)?

- 7 Did the owners and operators use appropriate hazard assessment techniques?
- 7 Are the PHAs complete, accurate, correct, and do they
 - 7 identify the intrinsic hazards of the substances and the processes?
 - 7 identify the potential releases from the processes?
 - 7 identify the potential impacts on the public and the environment? Are these impacts realistic, accurate, correct?

3.3. Facility Design/Maintenance Checklist

a. Design

- 7 Are design documents for each EHS process correct, accurate, and current?
- 7 Do designs minimize risks of releases based on PHA's?
- 7 Evaluation of design documents:
 - 7 Are design codes used in the design identified and appropriate to the processes?
 - 7 Was the facility constructed or modified according to design specifications?
 - 7 Are there quality control procedures to ensure construction materials meet design specifications?
 - 7 Do critical process components have redundant systems installed?
 - 7 Has the facility design been updated to current codes and standards?
 - 7 Are there remote monitoring and remote control capabilities for dealing with upsets?

b. Maintenance

- 7 Are there preventive maintenance procedures to ensure the mechanical integrity of the process equipment?
- 7 Do the maintenance procedures and preventive schedules follow generally accepted engineering practices?
- 7 Are maintenance personnel trained on the intrinsic hazards of the chemicals, the processes, and in the maintenance procedures?
- 7 Does training include understanding and proficiency evaluation?
- 7 Is there a maintenance supplies and parts inventory that corresponds with maintenance schedules, especially for critical components that affect process safety?
- 7 Is there a quality control program to ensure spare parts meet specifications, and is it implemented and working?
- How has the facility minimized the possibility of an unauthorized entry?

c. Operations

- Are there Standard Operating Procedures (SOPs) for each process? Are the SOPs current?
- 7 Do SOPs cover each phase of each process (startup, normal operations, shut down, emergency shut down)?
- 7 Are SOPs clear, concise, correct, and written at the appropriate level of understanding for the operator?
- 7 Do SOPs identify upper and lower limits for operating parameters like temperatures, pressures, flows, volumes, levels, pH, concentrations, etc.?
- 7 Do limits for parameters agree with those identified in the PHAs?
- 7 Are process equipment components such as valves, gauges, pumps, vessels clearly marked and do the labels match SOP nomenclature?
- 7 Are SOPs revised periodically? Are SOPs revised after incidents or process changes?

d. Training

- 7 Are employees trained and tested for competence on the safe operating procedures for the processes they operate?
- 7 Is training adequate?
- 7 Are employees trained on the intrinsic hazards of the substances and the process, and the consequences of deviation from the limits for process parameters?
- 7 What is the frequency of the training?
- 7 Are there communication procedures to ensure that instructions given are clear and understood correctly (i.e., “repeat back” the instructions)?
- 7 Are employees trained to recognize emergency situations and are they authorized to take actions to prevent them or mitigate them?
- 7 Does training reflect current operations?

3.4. Consequence Minimization Checklist

- 7 Do the hazard assessments identify potential release scenarios and their potential impacts on the public and the environment?
- 7 Is there an emergency response plan to respond to emergency situations based on the accidental release scenarios?
- 7 Does the plan clearly identify responsibilities, functions, and contacts for emergency response?
- 7 Does the plan include coordination with local emergency responders?
- 7 Are employees trained on emergency response actions?
- 7 Are routine exercises conducted to practice emergency response?
- 7 Are employees trained to recognize emergency situations and are they empowered to take actions to prevent them or mitigate them?
- 7 Is the plan revised as processes change?

Chapter 4: Authorities

4.0. Authorities

The purpose of this section is to provide a listing of authorities which are available to Regional enforcement personnel while conducting inspections or making general duty clause compliance determinations. These statutory tools include provisions regarding entry and access, information collection, and abatement of imminent and substantial endangerment situations pursuant to the Clean Air Act and Comprehensive Environmental Response Compensation and Liability Act.

4.1. Information Collection/Entry and Access

The following information collection and site entry and access provisions are available under the Clean Air Act (CAA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

CAA Section 114(a), 42 U.S.C. § 7414(a)

For the purposes...(iii) of carrying out any provision of this Act...

- (1) the Administrator may require any person who owns or operates any emission source...to...provide such information as the Administrator may reasonably require and
- (2) the Administrator or authorized representative, upon presentation of credentials shall have a right of entry to...any premises of such person...and may at reasonable times have access to and copy any records...

CERCLA Section 104(e), 42 U.S.C. § 9604

- (2) Any officer, employee, or representative...may require any person who has or may have information relevant to any of the following to furnish, upon reasonable notice, information or documents relating to such matter...
 - (A) identification, nature and quantity of materials which have been or are generated, treated, stored or disposed of at a vessel or facility or transported to a vessel or facility
 - (B) the nature or extent of a release or threatened release of a hazardous substance or pollutant or contaminant at or from a vessel or facility
 - (C) information relating to the ability of a person to pay or to perform a clean up.
- (3) Any officer, employee, or representative...is authorized to enter at reasonable times...
 - (A) Any vessel, facility, establishment, or other place or property where any hazardous substance or pollutant or contaminant may be or has been generated, stored, treated, disposed of, or transported from.
 - (B) Any vessel, facility establishment, or other place or property from which or to which a hazardous substance or pollutant or contaminant has been or may have been released.
 - (C) Any vessel, facility, establishment, or other place or property where such release is or may be threatened.

4.2. Imminent/Substantial Endangerment Order Authority

The following order authorities to be used for situations which may pose an imminent and substantial endangerment to public health, welfare and the environment are available under the Clean Air Act and the Comprehensive Environmental Response Compensation and Liability Act.

CAA Section 112(r), 42 U.S.C. § 7412

(9) Order Authority

(A)...When the Administrator determines that there may be an imminent and substantial endangerment to the human health or welfare or the environment because of an actual or threatened release of a regulated substance, the Administrator may secure such relief as is necessary to abate such danger or threat...The Administrator shall take action under section 303...whenever the authority of such section is adequate to protect human health and the environment.

CAA Section 303, 42 U.S.C. § 7603

Emergency Powers

...[T]he Administrator upon receipt of evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to public health or welfare or the environment may bring suit on behalf of the United States...to immediately restrain any person causing or contributing to the alleged pollution to stop the emission of air pollutants causing or contributing to such pollution or to take such other action as may be necessary...Any order issued by the Administrator...shall be effective upon issuance and shall remain in effect for a period of not more than 60 days unless the Administrator brings an action...before the expiration of that period. Whenever the Administrator brings such an action within the 60-day period, such order shall remain in effect for an additional 14 days or for such longer period as may be authorized by the court in which such action is brought.

CERCLA Section 106, 42 U.S.C. § 9606

Abatement Actions

(a)...[W]hen the President determines that there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility, he may require the Attorney General...to secure such relief as may be necessary to abate such danger or threat...

There are statutory authorities under Resource Conservation Recovery Act (RCRA), Safe Drinking Water Act (SDWA), Clean Water Act (CWA) and Toxic Substances Control Act (TSCA) addressing situations which may pose an imminent and substantial endangerment.

RCRA Section 7003, 42 U.S.C. § 6973

Authority of Administrator

...[U]pon receipt of evidence that the past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, the Administrator may bring suit on behalf of the United States in the appropriate district court against any person (including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility) who has contributed or who is contributing to such handling, storage, treatment, transportation, or disposal to restrain such person from such handling, storage, treatment, transportation, or disposal, to order such person to take such other action as may be necessary, or both...

CWA Section 504, 33 U.S.C. § 1364

Emergency Powers

...[t]he Administrator upon receipt of evidence that a pollution source or combination of sources is presenting an imminent and substantial endangerment to the health of persons or to the welfare of persons where such endangerment is to the livelihood of such persons, such as inability to market shellfish, may bring suit on behalf of the United States in the appropriate district court to immediately restrain any person causing or contributing to the alleged pollution to stop the discharge of pollutants causing or contributing to such pollution or to take such other action as may be necessary.

SDWA Section 1431, 42 U.S.C. § 330i

Emergency Powers

(a) ...[t]he Administrator, upon receipt of information that a contaminant which is present in or is likely to enter a public water system or an underground source of drinking water may present an imminent and substantial endangerment to the health of persons, and that appropriate State and local authorities have not acted to protect the health of such persons, may take such actions as he may deem necessary in order to protect the health of such persons. To the extent he determines it to be practicable in light of such imminent endangerment, he shall consult with the State and local authorities in order to confirm the correctness of the information on which action proposed to be taken under this subsection is based and to ascertain the action which such authorities are or will be taking. The action which the Administrator may take may include (but shall not be limited to) (1) issuing such orders as may be necessary to protect the health of persons who are or may be users of such system (including travelers), including orders requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment, and (2) commencing a civil action for appropriate relief, including a restraining order or permanent or temporary injunction.

TSCA Section 7, 15 U.S.C. § 2606

Actions authorized and required

(a) The Administrator may commence a civil action in an appropriate district court of the United States—

(A) for seizure of an imminently hazardous chemical substance or mixture or any article containing such a substance or mixture,

(B) for relief...against any person who manufactures, processes, distributes in commerce, or uses, or disposes of, an imminently hazardous chemical substance or mixture or any article containing such a substance or mixture or

(C) for both such seizure and relief.

4.3 Other Investigative Tools

The following general investigative authorities may be used in lieu of or in conjunction with the information collection authorities cited above. These authorities are available under the Clean Air Act and the Comprehensive Environmental Response, Compensation and Liability Act.

CAA Section 113(a)(3), 42 U.S.C. § 7413

EPA Enforcement of Other Requirements

...[w]henever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of any other requirement or prohibition of this title, section 303, of title III, title IV, title V, or title VI, including but not limited to, a requirement or prohibition of any rule, plan, order, waiver, or permit promulgated, issued or approved under those provisions or titles, or for the payment of any fee owed to the United States under this Act (other than Title II), the Administrator may -

- (A) issue an administrative penalty order in accordance with subsection (d)
- (B) issue an order requiring such person to comply with such requirement or prohibition
- (C) bring a civil action in accordance with subsection (b) or section 305, or
- (D) request the Attorney General to commence a criminal action in accordance with subsection (c).

CAA Section 307(a), 42 U.S.C. § 7607

Administrative Subpoenas

...for purposes of...any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under this chapter (including but not limited to section 113, 114, 120, 124, 167, 205, 206, 208, 303, or 306), the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents or information or particular part thereof, if made public would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States...Witnesses summoned shall be paid the same fees and mileage as are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person...the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to

order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books and documents before the Administrator, or both and any failure to obey such order of the court may be punished by such court as a contempt thereof.

CERCLA Section 104(b), 42 U.S.C. § 9604(b)

Investigations, monitoring, etc. by President

(1) Information, studies and investigations

Whenever the President is authorized to act pursuant to subsection (a) of this section or whenever the President has reason to believe that a release has occurred or is about to occur, or that illness, disease, or complaints thereof may be attributable to exposure to a hazardous substance, pollutant or contaminant and that a release may have occurred or be occurring, he may undertake such investigations, monitoring, surveys, testing, and other information gathering as he may deem necessary or appropriate to identify the existence and extent of the release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health or welfare or to the environment. In addition, the president may undertake such planning, legal, fiscal, economic engineering, architectural, and other studies or investigations as he may deem necessary or appropriate to plan and direct response actions, to recover the costs thereof, and to enforce the provisions of this chapter.

Appendices

Appendices

Appendix 1 - Sample CAA Judicial Warrant for Site Access, Sampling

UNITED STATES DISTRICT COURT
NAME OF JUDICIAL DISTRICT

In re *Ex Parte* Application for an Administrative Warrant for the United States Environmental Protection Agency to Enter and Inspect the premises at *Company Address*, Owned and Operated by **Company Name**, a/k/a Other Names, Pursuant to Section 114 of the Clean Air Act

**ADMINISTRATIVE WARRANT
UNDER THE CLEAN AIR ACT**

TO ANY AUTHORIZED EMPLOYEE OR REPRESENTATIVE OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Upon the annexed Application of the United States of America, submitted pursuant to Section 114 of the Clean Air Act, 42 U.S.C. § 7414, on behalf of the United States Environmental Protection Agency (EPA) and the supporting Affidavit of *EPA Official* and the exhibits annexed thereto, demonstrating sufficient justification for right of entry to, upon, or through the premises of *Company Name*, located at *Company Address* (the Premises) for carrying out the objectives of the Clean Air Act, including without limitation, enforcing 42 U.S.C. § 7545;

YOU ARE HEREBY AUTHORIZED TO:

1. Have a right of entry to, upon, or through the Premises during business hours for the purpose of inspecting, taking of samples, taking of photographs, collecting information and copying records relating to *Company Name* sale and delivery of diesel fuel in non-compliance of 40 CFR § 80.29-30, during the period beginning October 1, 1993 through the present, including, but not limited to: documents relating to *Company Name* business transactions, policies and practices regarding the diesel regulations, documents relating to *Company Name* sale or offering for sale, dispensing, supplying or offering for supply, or transporting of diesel fuel for use in motor vehicles, such as invoices, delivery records, bills of lading, driver delivery logs or other documents describing the sale and delivery of non-complying diesel fuel for use in motor vehicles; documents for reporting to any other federal or state governmental agency (including tax records) which contain information regarding *Company Name* sale or offering for sale, dispensing, supplying or offering for supply, or transporting of diesel fuel; records relating to *Company Name* corporate ownership, structure, financing and employees. Such documents include those which are in the form of automated data. The inspection may include collecting information, taking photographs, taking samples and copying records, including those which are in the form of automated data and the copying of records off the premises, provided that, if such records are copied off premises, (1) any such records so removed shall be properly receipted for by the representatives of the EPA, and (2) such records shall be returned within 72 hours of the time they are first removed from the premises; and
2. Bring sampling devices and equipment, bottles, cameras and safety gear onto the Premises to effectuate said purpose. The United States Marshal for the *Judicial District* is **HEREBY AUTHORIZED AND DIRECTED** to assist in such manner as may be reasonably necessary and required to execute this Warrant and all the provisions contained herein. The entry and activities authorized by this Warrant must take place within 24 hours from the date of this Warrant. During this time period, the property may be entered and re-entered as needed. Upon execution of this Warrant, a copy of this Warrant shall be left at the premises.

Dated:

HONORABLE _____
UNITED STATES MAGISTRATE JUDGE
JUDICIAL DISTRICT

Appendix 2 - Sample Request to File Warrants Under Seal

UNITED STATES DISTRICT COURT
NAME OF JUDICIAL DISTRICT

IN THE MATTER OF:)

Company Name)

) APPLICATION TO FILE

Company Address)

) DOCUMENTS UNDER SEAL

)
)

TO: THE HONORABLE UNITED STATES MAGISTRATE OF THE
JUDICIAL DISTRICT

The United States of America Environmental Protection Agency (EPA), through the Assistant United States Attorney for the *Judicial Distret*, hereby applies for an order that the Application For Warrant To Enter, Inspect, Collect Information, Copy Records and Take Photographs, the Affidavit of *EPA Official* in support thereof and the Warrant issued thereon be filed under seal until such time as the warrant is executed. The purpose in having all the documents filed under seal is to insure that no records are destroyed prior to the inspection being conducted. It is anticipated that if the warrant is approved on *Date*, it will be executed on *Date*. Thus, the duration of the order placing the documents under seal is reasonable.

Respectfully submitted,

United States Attorney

Assistant United States Attorney

By: *Name*

Appendix 3 - Sample Order to Seal Warrants

IN THE UNITED STATES DISTRICT COURT
FOR THE *NAME OF JUDICIAL DISTRICT*

IN THE MATTER OF:)

Company Name)
Company Address) Magistrate No. _____
_____)

ORDER TO SEAL

ON THIS DAY came on for consideration the government's motion to seal (1) Application and Affidavit for search Warrant filed herein on *Date*, (2) Search Warrant signed in this case on *Date*, (3) government's Motion to Seal filed herein on *Date*, and (4) this Order. Upon consideration of said Motion, the Court is of the opinion that said Motion is meritorious and should be granted.

Now, therefore, is ORDERED that the four documents described above, including this order, be sealed by the Clerk of the Court until the Search Warrant is executed.

SIGNED this ____ day of *Month*, 20__.

United States Magistrate

Month , 20__.

Appendix 4 - CAA/CERCLA Sample Administrative Warrants

IN THE UNITED STATES DISTRICT COURT
FOR THE NAME OF JUDICIAL DISTRICT

IN THE MATTER OF:)

COMPANY NAME) Case No. _____

ADMINISTRATIVE SEARCH WARRANT

TO: EPA Personnel Name
Title
Office
United States Environmental Protection Agency, Region XXX

Application has been made and reasonable cause has been shown for the entry and inspection of property where hazardous substances may be present and which is owned by _____, , County/City Name, State. The property is the facility located at _____.

IT IS HEREBY ORDERED that, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §§ 9601, et seq., (CERCLA), and the Clean Air Act, 42 U.S.C. §§ 7401, et seq., YOU AND/OR YOUR DULY DESIGNATED REPRESENTATIVES are authorized to enter the above-described property during the daytime (7:00 a.m. to 7:00 p.m.) and to search for, inspect, investigate, take records, and take samples from said site where hazardous substances, pollutants, contaminants or debris may have been stored or disposed, dumped, spilled or buried; in all areas related to the storage, disposal, spillage, dumping or burial of said materials; in all pertinent structures, soils, creeks, ditches, containers and facilities; and in all things thereon at the site. The activities authorized by this warrant include: (1) sampling to fully identify and quantify the amount of hazardous substances within the facility; (2) sampling to identify any releases of hazardous substances from the facility; (3) photographing the facility;(4) obtaining any records necessary to complete the inspection; (5) removing quantities of materials found within the facility for the purpose of sampling; (6) determining the need for a response and, if necessary, effectuating an emergency response to a release or threatened release of hazardous substances at the facility; and (7) sampling debris resulting from the *Date*, incident/accident at the facility.

IT IS FURTHER ORDERED, that the United States Marshall is hereby authorized and directed to assist you and representatives of the United States Environmental Protection Agency in such manner as may be reasonably necessary and required to execute this warrant.

IT IS FURTHER ORDERED that a return shall be made to this Court showing that the inspection has been completed. This authorized inspection shall be completed within thirty (30) days of issuance of this warrant, and a return shall be made to the Court within fifteen (15) days of the completion of the inspection.

Dated: _____ By: _____
United States Magistrate
Judicial District

Appendix 5 - Sample Application for an Administrative Warrant

IN THE UNITED STATES DISTRICT COURT
FOR THE NAME OF JUDICIAL DISTRICT

IN THE MATTER OF:)
)
COMPANY NAME) Case No. _____

APPLICATION FOR ADMINISTRATIVE SEARCH WARRANT COMES NOW the Regional Administrator of the United States Environmental Protection Agency (EPA) Region ____, by and through the United States Attorney, and applies for an Administrative Warrant to enter property, search for hazardous substances, contaminants or pollutants, take photographs, and collect samples in order to identify the nature and extent of contamination on the property owned by *Company Name* located _____. *Brief description of facility and location.*

This warrant is for the purpose of inspecting and sampling the *Company Name* property so that EPA can identify the existence and extent of a release or threat of a release of a hazardous substance, contaminant or pollutant; and determine the need for response action(s) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C. §§ 9601, et seq., and to determine what steps were taken by *Company Name* to design and maintain a safe facility to prevent releasing and to minimize the consequences of accidental releases which do occur, pursuant to Section 112(r) of the Clean Air Act ("CAA") 42 U.S.C. § 7412.

This entry is requested pursuant to the authority granted to the President by Section 104(b) and (e) of CERCLA, 42 U.S.C. § 9604(b) and (e), delegated to the Administrator of EPA by Executive Order No. 12580, § 2(g) and (I), 52 Fed. Reg. 1923 (1987), and further delegated to the Regional Administrator of EPA by EPA Delegation No. 14-6. Section 104(b) of CERCLA, 42 U.S.C. § 9604(b), provides, in part:

Whenever the President is authorized to act pursuant to subsection (a) of this section, or whenever the President has reason to believe that a release has occurred or is about to occur, he may undertake such investigations, monitoring, surveys, testing, and other information gathering as he may deem necessary or appropriate to identify the existence and extent of the release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health or welfare or to the environment.

Section 104(e) of CERCLA, 42 U.S.C. § 9604(b) provides, in part:

Any [authorized person as defined in Section 204(e)(1)] is authorized to inspect and obtain samples from any facility, establishment, or other place or property [from which or to which a hazardous substance or pollutant or contaminant has been or may have been released] or from any location of any suspected hazardous substance or pollutant or contaminant.

Further, pursuant to 40 C.F.R. § 300.400(d), the United States has the authority to enter any property to determine the need for a response to a release or threatened release of hazardous substances. 40 C.F.R. § 300.415(a)(2) gives EPA the authority to determine whether the responsible parties "can and will perform the necessary removal action promptly and properly."

Section 114 of the CAA, 42 U.S.C. § 7414, permits EPA to enter and conduct inspections as follows:

- (a) For the purpose ... (iii) [of] carrying out any provision of this Act --
 - (1) the Administrator may require any person who is subject to any requirement of this Act (other than a manufacturer) to (G) provide such other information as the Administrator may reasonably require; and
 - (2) the Administrator or his authorized representative, upon presentation of his credentials--
 - (A) shall have a right of entry to, upon, or through any premises of such person ..., and
 - (B) may at reasonable times have access to and copy any records.

The United States requests that the warrant sought by this application be issued to any employee of EPA who is assigned to *EPA Personnel, Name and Title*. As the *EPA Personnel Title*, pursuant to 40 C.F.R. § 300.120 and 300.400(d), *EPA Personnel Name* is authorized to direct and coordinate response actions by authorized EPA representatives as may be necessary at the *Company Name* property.

Description of facility, process, and chemical accident, including environmental

EPA seeks access to the *Company Name* property in order to conduct sampling activities. Sampling activities at the *Company Name* facility will consist of obtaining _____.

EPA attempted to obtain access voluntarily from the owners of the *Company Name* facility on *Date*. The access sought was for sampling activities and inspection of the *Company Name* facility. The owners denied access to EPA. The efforts made by EPA to obtain access are documented in the affidavits of *EPA Personnel Name*, attached as Exhibit 4.

The requested access to the *Company Name* facility is for a reasonable period of time. EPA seeks access to take samples from the *Company Name* property in order to determine the need for a response action to address the release or threatened release of hazardous substances and to determine what steps were taken by *Company Name* to design and maintain a safe facility to prevent releases and to minimize the consequences of accidental releases which do occur, pursuant to Section 112(r) of the Clean Air Act, 42 U.S.C. § 7412. The sampling should require approximately no more than thirty (30) working days to complete.

Pursuant to Section 104(e) of CERCLA, 42 U.S.C. § 9604, and Section 114 of the Clean Air Act, 42 U.S.C. § 7414, and based upon the evidence described above and the attached Exhibit 1, incorporated by reference herein, the United States believes that it has the statutory authority and sufficient cause to merit entry to the *Company Name* property. The United States requests that its Application for an Administrative Warrant be granted.

Respectfully submitted,

Name
United States Attorney

Name
Assistant U.S. Attorney

Appendix 6 - Sample Emergency Order under CAA Section 303

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION XX

In The Matter of:

| | | |
|-----------------------------------|---|-------------------------------|
| <i>COMPANY NAME</i> |) | |
| |) | |
| Proceedings Pursuant to |) | Docket No. |
| Section 303 of the Clean Air Act, |) | |
| As Amended, |) | CLEAN AIR ACT EMERGENCY ORDER |
| 42 U.S.C. §§ 7401 <i>et seq.</i> |) | |
| 42 U.S.C. § 7603. |) | |

The Regional Administrator for Region XX of the United States Environmental Protection Agency ("EPA") makes the following Findings of Fact, reaches the following Conclusions of Law, and Issues the following Order:

FINDINGS OF FACT

The Administrator of EPA delegated the authority vested in her by Section 303 of the Clean Air Act ("the Act" or "CAA") as amended, 42 U.S.C. § 7603, to the Regional Administrator for Region XX.

1. Section 303 of the Act, 42 U.S.C. § 7603, provides that, upon receipt of evidence that a pollution source or combination of sources is presenting an imminent and substantial endangerment to public health or welfare or the environment and after consultation with appropriate State and local authorities to confirm the accuracy of the information on which the action proposed to be taken is based, the Administrator may issue such order as may be necessary to protect public health or welfare or the environment.
2. Respondent *Company Name* has discharged from its facility located at *Company Address* substantial amounts of hydrogen sulfide ("H₂S") and other gases into the ambient air. Such discharges have caused numerous individuals to be hospitalized or seek medical treatment, and further discharges of this kind would present an imminent and substantial endangerment to the public health or welfare or the environment.
3. Authorities from the *jurisdiction/county/city/state* which has jurisdiction over the industrial park where the *Company Name* facility is located, have diligently attempted to decrease the level of contamination into the atmosphere. The threat of further discharges from the facility remains, however.
4. It is not practicable to assure prompt protection of public health or welfare or the environment in the *jurisdiction* to await commencement of a civil action in United States District Court.

On August 26, 1994, my staff and I discussed the threat posed by *Company Name* air emissions with officials from *jurisdiction*, with officials of the *jurisdiction*, and with other local officials. All of them confirmed my findings and supported my decision to issue this Order based upon the risk of releases and upon their knowledge of *Company Name* operation and maintenance procedures.

CONCLUSION OF LAW

1. The Regional Administrator for Region XX is vested with the authority of the Administrator under Section 303 of the Act, 42 U.S.C. § 7603.
2. The *Company Name* facility has been found by the Regional Administrator to be presenting an imminent and substantial endangerment to the public health or welfare or the environment and to be an appropriate subject for the issuance of an order under Section 303 of the Act.

ORDER

1. The Regional Administrator for Region XX hereby orders that *Company Name*, its agents, servants, employees,

and attorneys and all persons in active concert or participation with them to start, *Date*, a safe shutdown of all manufacturing operations. All on-going reactions must be terminated in the safest manner possible, and no new manufacturing operations may begin. All operations necessary to prevent air emissions and to maintain the integrity of chemicals and equipment at the facility must continue. Furthermore, *Company Name* must make reports by telephone by 3 p.m. each day (including weekends) to *EPA Official* of the Regional XX office at *phone number* on the status of shutdown efforts. This reporting requirement shall remain in effect until the shutdown of manufacturing operations is completed.

2. This order shall be effective for a period of not more than 60 days unless the United States files a civil action in the appropriate United States district court to immediately restrain any person causing or contributing to the alleged pollution to stop the emission of air pollutants causing or contributing to such pollution or take such other actions as may be necessary.
3. This Order is effective immediately upon receipt by defendants. The Regional Administrator for Region XX hereby issues the above-identified Order which shall become effective as provided therein.

Date

EPA Official
Regional Administrator

Appendix 7 - Sample Clean Air Act Section 114 Information Request Letters

Sample Letter #1

Plant Manager
Company Name
Address

Dear Plant Manager:

Section 112(r)(1) of the Clean Air Act (Act) states that "[t]he owners and operators of stationary sources producing, processing, handling or storing such [extremely hazardous] substances have a general duty in the same manner and to the same extent as Section 654, Title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of the accidental releases which do occur."

Pursuant to Section 114(a) of the Act, 42 U.S.C. § 7414(a), the Administrator of EPA is authorized to require any person who owns or operates any emission source, or who is subject to any requirement of the Act, to establish and maintain such records, make such reports, and provide such other information as she may reasonably require, for the purposes of determining whether such person is subject to or in violation of any provision of this Act.

Therefore, in accordance with Section 114(a)(1) of the Act, 42 U.S.C. § 7414(a)(1) you are hereby required to provide the following information:

1. A Full Facility Layout diagram (such as a site map).
2. Piping and Instrumentation Diagram for the *Name of process* Plant.
3. Piping and Instrumentation Diagram for the *Name of process* Plant.
4. *Name of process* Plant Layout, including both the Plan and Elevation views.
5. *Name of process* Plant Layout, including both the Plan and Elevation views.
6. Standard Operating Procedures (SOPs) for the *name of processes* Plants including SOPs for startup, shutdown, emergency shutdown and normal operation for each Plant.
7. Feedstock Quality Control measurements for the *name of process* plant including: *substance name* chemistry (hydrocarbon content, water content, etc); *substance name* chemistry (hydrocarbon content, metals contents, anion content); and *substance name* chemistry (hydrocarbon content, metals, anion content).
8. Daily Production Reports for the *name of process* plant for the preceding 30 days from the date of this letter.
9. Operation Logs for the *name of process* plant for the preceding 30 days from the date of this letter including:
 - a. *Equipment X, Y, and C* temperature
 - b. *Equipment X, Y, and C* pH
 - c. *Equipment X, Y, and C* capacities and levels
 - d. *Substance name* and *substance name* input flow-rates
 - e. Final product flow rates.
10. Maintenance records for the *name of process* for the previous six months.
11. Management-of-Change Plans for the *name of process* plant.
12. Date of the last turn-around of the *name of process* plant.

13. The facility personnel organizational chart.
14. A description of the name of process training procedure.
15. The control system record for the *name of process* and *name of process* plants for the preceding seven (7) days from the date of this letter.
16. Names of the following Personnel: Plant Manger, Production Supervisor, Engineering Supervisor, Health and Safety Officer, Plant engineers for both the AN and NA plant, Environmental Officer, Maintenance Supervisor, Representatives from all levels of AN operations staff, and Instrumentation engineer or technician.

The above information must be submitted within ten (10) days from receipt of this letter to the following address:

U.S. Environmental Protection Agency
Office
Division
Address

ATTN: *EPA Personnel Contact*

Any request for an extension must be made in writing within five days of your receipt of this letter.

Please note that pursuant to regulations located at 40 C.F.R. Part 2, Subpart B, you are entitled to assert a business confidentiality claim covering any part of the submitted information as defined in 40 C.F.R. § 2.201(c). Asserting a business confidentiality claim does not relieve you from the obligation to fully respond to this letter. Failure to assert such a claim makes the submitted information subject to public disclosure upon request and without further notice to you, pursuant to the Freedom of Information Act, 5 U.S.C. § 552. Information subject to a business confidentiality claim may be available to the public only to the extent set forth in the above cited regulation. EPA has the authority to use the information requested herein in an administrative, civil, or criminal action. In addition, EPA has not waived any rights to take enforcement action for past or future violations.

Failure to comply with this letter may result in enforcement action being taken in accordance with Section 113 of the Act, 42 U.S.C. § 7413. This may include civil and administrative penalties of up to \$25,000 per day of noncompliance, pursuant to Sections 113(b)(2) and 113(d) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d). In addition, the submission of knowingly false or misleading statements may be punished by a fine pursuant to Title 18 of the U.S. Code, or by imprisonment for not more than two years, or both.

This letter in no way affects your obligation to comply with other local, State and federal laws and regulations. In addition, nothing in this letter shall be construed to be a waiver by EPA of any rights or remedies under the Clean Air Act.

If you have any questions, please contact *EPA Personnel (Counsel)* of my staff at *phone number*.

Sincerely,

Authorized EPA Personnel, Title
Division
Office

Plant Manager
Company Name
Address

Dear Plant Manager:

Section 112(r)(1) of the Clean Air Act (Act) states that "[the owners and operators of stationary sources producing, processing, handling or storing such [extremely hazardous] substances have a general duty in the same manner and to the same extent as Section 654, Title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of the accidental releases which do occur."

Pursuant to Section 114(a) of the Act, 42 U.S.C. § 7414(a), the Administrator of EPA is authorized to require any person who owns or operates any emission source, or who is subject to any requirement of the Act, to establish and maintain such records, make such reports, and provide such other information as she may reasonably require, for the purposes of determining whether such person is subject to or in violation of any provision of this Act.

Therefore, in accordance with Section 114(a)(1) of the Act, 42 U.S.C. § 7414(a)(1) you are hereby required to provide the following information:

1. Hazardous Operations Manuals:
 - a. A copy of the Hazardous Operations Manual (i.e., any form of process hazard analyses) for the *name of process, name of process, name of process, and name of process* plants, areas, or processes.
 - b. The dates on which the most recent Hazardous Operations Manuals required in item (a) above were completed.
 - c. A complete list of references of information relied upon in formulating the manuals required in item (a) above.
 - d. If any of the manuals required in item (a) above is less than two years old, please provide copies of previous Hazardous Operations Manuals for the plant, area, or processes described in (a) above.
2. For each *name of process* plant, area, or process, please provide copies of training materials, or a summary of such materials, used to train employees during the last five years. Please provide information for each of the following procedures:
 - a. Start up
 - b. Shutdown
 - c. Emergency shutdown
 - d. Normal operation
 - e. Maintenance, and
 - f. Emergency response.

These training materials or their summary shall include the following information:

- a. Description of training subject matter
 - b. Description of training contents
 - c. Whether training was required or optional.
3. For each employee in the *name of process* plant, area, or process, please provide an employee training profile for the last five years, containing the following information:
 - a. Employee Name
 - b. Employee's current position/title
 - c. Employee's time in current position
 - d. Employee's time with facility
 - e. All training received by the employee, answering the following for each course or session:
 - f. Dates training completed
 - g. Was employee competence-tested?; please submit a representative test for each course
 - h. Did employee pass the test?
 - I. If employee failed the test, describe follow up actions taken.

4. A printout of control system records for the *name of process* plants/areas/processes for seven days prior to the day of receipt of this letter.
5. Copies of results and findings, including descriptions of recommendations, of any safety audits conducted in the last five years for the entire facility (all plants/processes/areas).
6. Copies of work orders, management of change records, and the dates on which recommendations from these safety audits were implemented.
7. Current P&ID and process Flow Diagrams for the *name of process* plants/areas. If the diagrams dating to 19__ which were submitted in response to EPA's inspection last MM are current and represent the plant as it is currently built and operating, please state so on your response. Otherwise, please submit current documents.

The above information must be submitted within twenty (20) days from receipt of this letter to the following address:

U.S. Environmental Protection Agency
Office
Division
Address

ATTN.: *EPA Personnel Name*

Any request for an extension must be made in writing within five (5) days of your receipt of this letter.

Please note that pursuant to regulations located at 40 C.F.R. Part 2, Subpart B, you are entitled to assert a business confidentiality claim covering any part of the submitted information as defined in 40 C.F.R. § 2.201(c). Asserting a business confidentiality claim does not relieve you from the obligation to fully respond to this letter. Failure to assert such a claim makes the submitted information subject to public disclosure upon request and without further notice to you, pursuant to the Freedom of Information Act, 5 U.S.C. § 552. Information subject to a business confidentiality claim may be available to the public only to the extent set forth in the above cited regulation. EPA has the authority to use the information requested herein in an administrative, civil, or criminal action. In addition, EPA has not waived any rights to take enforcement action for past or future violations.

Please be advised that *Company Name* has a continuing obligation to supplement their answers if additional or different information is found.

Failure to comply with this letter may result in enforcement action being taken in accordance with Section 113 of the Act, 42 U.S.C. § 7413. This may include civil and administrative penalties of up to \$25,000 per day of noncompliance, pursuant to section 113(b)(2) and 113(d) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d). In addition, the submission of knowingly false or misleading statements may be punished by a fine pursuant to Title 18 of the U.S. Code, or by imprisonment for not more than two years, or both.

This letter in no way affects your obligation to comply with other local, State and federal laws and regulations. In addition, nothing in this letter shall be construed to be a waiver by EPA of any rights or remedies under the Clean Air Act.

If you have any questions, please contact *EPA Personnel (Counsel)* of my staff at *phone number*.

Sincerely,

Authorized EPA Personnel, Title
Division
Office

Plant Manager
Company Name
Address

Dear Plant Manager:

In a letter dated _____, pursuant to Section 114(a)(1) of the Clean Air Act (Act), 42 U.S.C. § 7414(a)(1), EPA requested from you a series of documents pertaining to your facility. After an extension was granted by EPA, most of these documents have been received by EPA.

However, as of *date*, the following items have not been submitted by *Company Name* as requested by EPA:

Item 1(c). A complete list of references of information relied upon in formulating the Hazardous Operations Manuals required in item 1(a) of the *date* letter.

Item 1(d). Because the Hazardous Operations Manuals submitted by *Company Name* for the *name of process* and plants in response to item 1(a) of the *date* letter are less than two years old, *Company Name* was required to provide copies of previous Hazardous Operations Manuals for these plants.

Section 112(r)(1) of the Act states that "[the owners and operators of stationary sources producing, processing, handling or storing such [extremely hazardous] substances have a general duty in the same manner and to the same extent as Section 654, Title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of the accidental releases which do occur."

Pursuant to Section 114(a) of the Act, 42 U.S.C. § 7414(a), the Administrator of EPA is authorized to require any person who owns or operates any emission source, or who is subject to any requirement of the Act, to establish and maintain such records, make such reports, and provide such other information as she may reasonably require, for the purposes of determining whether such person is subject to or in violation of any provision of this Act.

Therefore, in accordance with Section 114(a)(1) of the Act, 42 U.S.C. § 7414(a)(1) you are hereby required to provide materials responsive to items 1(c) and 1(d) by *date*. No further extensions will be granted.

In addition, in accordance with Section 114(a)(1) of the Act, 42 U.S.C. § 7414(a)(1) you are hereby required to provide the following information by *date*.

1. **Copies of all** original training materials used at the time to deliver the training specified in your employee training profiles. Please see table below for the specific materials being requested.
2. Please also provide copies of all current training materials--if they are different in any way from those required in item 1 of this letter-- used in the same or equivalent training presently delivered or available to *Company Name* employees. Please see table below for the specific materials being requested.

Please provide materials requested in items 1 and 2 for the following training, employees, and dates listed:

| PROVIDE COPIES OF ACTUAL MATERIALS USED AT THE TIME FOR THE FOLLOWING TRAINING | DATE TRAINING DELIVERED | PROVIDE COPIES OF ACTUAL WRITTEN TEST AND RESULTS FOR THE FOLLOWING EMPLOYEES | PROVIDE COPIES OF CURRENT TRAINING MATERIALS, IF DIFFERENT, FOR THE SAME COURSE |
|--|-------------------------|---|---|
| First Responder, "Awareness Level" and Hazard Communication | | Names | No No No No |

| PROVIDE COPIES OF ACTUAL MATERIALS USED AT THE TIME FOR THE FOLLOWING TRAINING | DATE TRAINING DELIVERED | PROVIDE COPIES OF ACTUAL WRITTEN TEST AND RESULTS FOR THE FOLLOWING EMPLOYEES | PROVIDE COPIES OF CURRENT TRAINING MATERIALS, IF DIFFERENT, FOR THE SAME COURSE |
|---|-------------------------|---|---|
| Safety Training: High Temp Shutdowns on process, Scrubber Pumps; Process Mix Tank Pumps; West Substance Tank Loading Pumps; East Substance Tank Loading Pumps | | Name | Yes |
| Hazardous Materials Loading & Unloading | | Name | Yes |
| <i>Company Name</i> Policies and Procedures Training | | Name | Yes |
| PSM Application and Overview | | Name | no |
| IV Boardman | | Name | Yes |
| HAZMAT Series I | | Name | No No |
| HAZMAT Series II | | Name | |
| Process Plant I Process Plant II Process Plant III | | Names | Yes Yes |

Note: If any of the documents being requested in items 1(c), 1(d) (*date* letter) or items 1 and 2 of this letter do not exist, please identify the document and state the reasons why it does not exist.

The above information must be submitted on or before the dates specified in this letter to the following address:

U.S. Environmental Protection Agency
Office
Division
Address

ATTN.: *EPA Personnel*

Please note that pursuant to regulations located at 40 C.F.R. Part 2, Subpart B, you are entitled to assert a business confidentiality claim covering any part of the submitted information as defined in 40 C.F.R. § 2.201(c). Asserting a business confidentiality claim does not relieve you from the obligation to fully respond to this letter. Failure to assert such a claim makes the submitted information subject to public disclosure upon request and without further notice to you, pursuant to the Freedom of Information Act, 5 U.S.C. § 552. Information subject to a business confidentiality claim may be available to the public only to the extent set forth in the above cited regulation. EPA has the authority to use the information requested herein in an administrative, civil, or criminal action. In addition, EPA has not waived any rights to take enforcement action for past or future violations.

Please be advised that *Company Name* has a continuing obligation to supplement their answers if additional or different information is found.

Failure to comply with this letter may result in enforcement action being taken in accordance with section 113 of the Act, 42 U.S.C. § 7413. This may include civil and administrative penalties of up to \$25,000 per day of

noncompliance, pursuant to Sections 113(b)(2) and 113(d) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d). In addition, the submission of knowingly false or misleading statements may be punished by a fine pursuant to Title 18 of the U.S. Code, or by imprisonment for not more than two years, or both.

This letter in no way affects your obligation to comply with other local, State and federal laws and regulations. In addition, nothing in this letter shall be construed to be a waiver by EPA of any rights or remedies under the Clean Air Act.

If you have any questions, please contact *EPA Personnel (Counsel)* of my staff at *phone number*.

Sincerely,

*Authorized EPA Personnel, Title
Division
Office*

Appendix 8 - Sample CERCLA Section 104(e) Information Request Letter

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Name
Address
City, State, Zip Code

Re: Request for Information Pursuant to Section 104(e) of CERCLA
for Name of facility), in (Location).

Dear Sir or Madam:

The United States Environmental Protection Agency (U.S. EPA) is currently investigating the source, extent, and nature of releases of hazardous substances, pollutants, or contaminants pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C.

§§ 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499, including but not limited to the following accidental releases at the (Name of facility) in (Location).

1) List information of release or releases as given by originator).

Pursuant to the authority of Section 104(e) of the CERCLA, 42 U.S.C. § 9604(e), you are hereby requested to respond to the Information Request enclosed. Compliance with the enclosed Information Request is mandatory. Failure to respond fully and truthfully to each and every request within **(Number written out) (#) days** of receipt of this letter, or to adequately justify such failure to respond, can result in enforcement action by U.S. EPA and the imposition of penalties of up to TWENTY-SEVEN THOUSAND FIVE HUNDRED DOLLARS (\$27,500)⁶ for each day of noncompliance. "Non-compliance" is considered by the U.S. EPA to be not only failure to respond to the Request but also failure to respond completely and truthfully to each Request. Please be further advised that provision of false, fictitious, or fraudulent statements or representations may subject you to criminal fines or up to five (5) years of imprisonment or both under 18 U.S.C. § 1001.

⁶While the provisions of Section 104(e)(5) of CERCLA provide for a penalty per violation of up to TWENTY-FIVE THOUSAND DOLLARS (\$25,000) per day, the Civil Monetary Penalty Inflation Adjustment Rule, published at 40 C.F.R. Part 19, increased the maximum penalty for each violation occurring on or after January 31, 1997, to TWENTY-SEVEN THOUSAND FIVE HUNDRED DOLLARS (\$27,500) per day.

U.S. EPA has the authority to use the information requested herein in an administrative, civil, or criminal action. This Information Request is not subject to the approval requirements of the Paperwork Reduction Act of 1995, 44 U.S.C. § 3501, et seq.

Your response to this Information Request should be mailed to:

Office of Chemical Emergency
Preparedness and Prevention
United States Environmental Protection Agency
[EPA address]

Please direct any questions you may have regarding this Information Request to ----- at -----.

Due to the potential seriousness of the problem at the facility and the legal ramifications of your failure to respond promptly and properly, U.S. EPA strongly encourages you to give this matter your immediate attention and to respond to this Information Request within the time specified above.

Thank you for your cooperation in this matter.

Sincerely yours,

EPA Official
Office of Chemical Emergency
Preparedness and Prevention

Enclosure: Information Request Definitions
Information Request Instructions
Information Request

DEFINITIONS

For the purpose of the Instructions and the Information Request set forth herein, the following definitions shall apply:

1. The term "you" or "Respondent" shall mean the addressee of the Information Request, the addressee's officers, managers, employees, contractors, trustees, and agents.
2. The term "person" as used herein, in the plural as well as the singular, shall mean any natural person, firm, contractor, corporation, partnership, trust or governmental entity, unless the context indicates otherwise.
3. The term "hazardous substance" shall have the same definition as that contained in Section 101(14) of CERCLA, including mixtures of hazardous substances with other substances including petroleum products.
4. The term "furnish", "describe", or "indicate" shall mean turning over to U.S. EPA either original or duplicate copies of the requested information in the possession, custody, or control of the Respondent. Where specific information has not been memorialized in any document but is nonetheless responsive to a request, you must respond to the request with a written response. If such requested information is not in your possession, custody, or control, then indicate where such information or documents may be obtained.
5. "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of any hazardous substance.
6. "And" as well as "or" shall be construed either conjunctively or disjunctively as necessary to bring within the scope of this Information Request any information which might otherwise be construed to be outside their scope.
7. The terms "transport" or "transportation" mean the movement of a hazardous substance by any mode, including pipeline, and in the case of a hazardous substance which has been accepted for transportation by a common or contract carrier, the terms "transport" or "transportation" shall include any stoppage in transit which is temporary, incidental to the transportation movement, and at the ordinary operating convenience of a common or contract carrier, and any such stoppage shall be considered as a continuity of movement and not as the storage of a hazardous substance.
8. The term "pollutant or contaminant" shall have the same definition as that contained in Section 101(33) of CERCLA, and includes any mixtures of such pollutants and contaminants with any other substances.
9. The term "Facility" means (1) any building structure, installation, equipment, pipe or pipeline (including any pipe

into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (2) any site or area where a hazardous substance has been disposed of, or placed, or otherwise come to be located; but does not include any consumer products in consumer use or vessel.

10. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in CERCLA, the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 et seq., as amended, 40 CFR Part 300 or 40 CFR Parts 260-280, in which case the statutory or regulatory definitions shall apply.

APPENDIX 9 - SITE SAFETY PLAN FOR ON-SITE ACTIVITIES

On-site activities may expose government personnel to processes involving extremely hazardous substances. The OSHA Hazardous Waste Operations and Emergency Response Standard (29 C.F.R. §1910.129) and EPA policies articulate certain safety planning efforts prior to field activities. The following format is consistent with these requirements. Extensive training and certifications and further planning in the form of a more extensive Site Safety Plan, may be necessary in addition to the following plan.

| | | |
|--|---|---------------------------------------|
| Stationary source: _____ | | |
| Lead Auditor: _____ | Date: _____ | |
| Description of Activities: | | |
| Location and approximate _____ size of stationary source: _____ _____ | | |
| Description of tasks and _____ activities to be performed _____ by each of the auditors _____ _____ | | |
| Proposed date of on-site activities beginning: _____ | Duration of the planned activities: _____ | |
| Site _____ topography: _____ _____ | | |
| Site accessibility _____ by roads and air: _____ _____ | | |
| Hazardous Substances and Health Hazards involved or suspected at the site Fill in any information that is known or suspected | | |
| AREAS OF CONCERN | CHEMICAL AND PHYSICAL PROPERTIES | IDENTITY OF SUBSTANCE AND PRECAUTIONS |
| Explosivity | _____ _____ _____ | _____ _____ _____ |

| | | |
|---|-------|-------|
| Radioactivity | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |
| Oxygen deficiency (e.g., confined spaces) | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |
| Toxic gases | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |
| Skin / eye contact hazards | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |
| Heat stress | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |
| Pathways from site for hazardous substances dispersion: | _____ | _____ |
| | _____ | _____ |

Work Plan Instructions:

Recommended level of protection: (A) _____ (B) _____ © _____

Cartridge type if level C:

Monitoring equipment _____
to be used: _____

Accompanying / _____
helping persons _____
(stationary source / contractors): _____

Safety clothing / _____
equipment required _____
for those persons: _____

OSHA required training and _____
certification (29 CFR § 1910.120) _____
received by those persons _____

Field investigation and decontamination procedures:

Decontamination procedures _____
(contaminated protective _____
clothing, instruments, _____
equipment, etc.) _____

Disposal procedures _____
(contaminated equipment, _____
supplies, disposable items, _____
washwater, etc.) _____

Emergency Contacts

Hospital Phone No.:

Fax:

Emergency Medical Treatment Phone No.:

Fax:

Ambulance Phone No.:

Fax:

Hospital Location: _____

Police Phone No.:

Fire Assistance Phone No.:

Regional Health and Safety Officer (or position with similar duties):

Phon
e:

Appendix 10 - SAMPLE INSPECTION INFORMATION MATERIAL

The following is a list of documents and information that may be reviewed before and/or during an inspection of a stationary source. This list contains general sources of information that may or may not be present at the source. Inspectors should consider additional sources of information beyond this list, specific to the process being inspected.

1. Facility plot plan(s) showing overall layout, spacing of buildings, storage areas, process areas, traffic lanes and parking lots, and surrounding areas off site for a distance of one mile from the facility's boundaries. Indicate the location of any sensitive receptors such as hospitals, nursing homes.
2. Process description and process chemistry using block type process flow diagrams.
3. Fire control systems
4. Manufacturing area standard operating procedures (SOPs).
5. Inventory and location of on site emergency response equipment, such as vehicles, protective clothing, emergency lighting (indoors and outdoors), respiratory protection equipment, decontamination materials, emergency medical equipment, and medical training/first aid expertise, emergency or stand by power capacity. These items can merely be marked on the facility plot plan requested in #1 above.
6. Location of nearest public fire department, rescue/ambulance squad.
7. If railroad chemical tank cars and/or box cars are utilized at the facility, indicate type of cars, contents, loading/ unloading procedures, and car chemical/fire emergence response SOP.
8. Public Alert Notification system, facility Emergency Hot Line.
9. Brief description of operator training programs and refresher courses.
10. Listing of above ground and below ground chemical storage facilities, capacities, type of storage container, storage temperatures and pressures, special handling requirements, placarding and labeling, pumping procedures and SOP, corrosion control, non employee safety training.
11. Spill prevention countermeasure control plan (SPCC or DPCC Plan)
12. Brief description of monitoring equipment used to monitor operational parameters of chemical processing equipment, early warning upset/emergency alarm systems, emergency shut down devices, fail safe and interlock process controls.