



# Protocol for Conducting Environmental Compliance Audits under the Comprehensive Environmental Response, Compensation, and Liability Act



**EPA Office of Compliance**

## **Protocol for Conducting Environmental Compliance Audits under CERCLA**

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### **Notice**

This document has been developed to assist in conducting environmental audits. The use of this document should be restricted to environmental audits only. For example, areas such as safety, transportation, occupational health, and fire protection are mentioned solely for clarification purposes. It is a summary of environmental regulations under CERCLA, but it is not a substitute for a comprehensive knowledge of the regulations themselves. Any variation between applicable regulations and the summaries contained in this guidance document are unintentional, and, in the case of such variations, the requirements of the regulations govern.

This document is intended solely as guidance to explain performance objectives for environmental auditors. Following the steps set forth in this guidance generally should result in compliance with those aspects of the regulations that it covers. The U.S. Environmental Protection Agency (EPA) does not make any guarantee or assume any liability with respect to the use of any information or recommendations contained in this document. Regulated entities requiring additional information or advice should consult a qualified professional.

This guidance does not constitute rulemaking by the EPA and may not be relied on to create a substantive or procedural right or benefit enforceable, at law or in equity, by any person. EPA may take action at variance with this guidance and its internal procedures.

### **Acknowledgments**

EPA would like to gratefully acknowledge the support of the U.S. Army Corps of Engineers Construction Engineering Research Laboratories (CERL) for their assistance in providing suggestions for the overall format of this document.

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## **Section I: Introduction**

### **Background**

The Environmental Protection Agency (EPA) is responsible for ensuring that businesses and organizations comply with federal laws that protect the public health and the environment. Recently, EPA has begun combining traditional enforcement activities with more innovative compliance approaches. In its Strategic Plan, the Agency recognizes the need to assist the regulated community by providing compliance assistance and guidance that will promote improved compliance and overall environmental performance (see Exhibit 1). EPA encourages regulated entities to recognize compliance as the floor, rather than the ceiling, of environmental performance by internalizing and implementing sound environmental practices. As part of that effort, EPA is encouraging the development of self-assessment programs at individual facilities. Voluntary audit programs play an important role in helping companies meet their obligation to comply with environmental requirements. Such assessments can be a critical link, not only to improved compliance, but also to improvements in other aspects of an organization's performance. For example, environmental audits may identify pollution prevention opportunities that can substantially reduce an organization's operating costs.

Over the years, EPA has encouraged regulated entities to initiate environmental audit programs that support and document compliance with environmental regulations. EPA has developed this audit protocol to provide regulated entities with specific guidance in periodically evaluating their compliance with federal environmental requirements.

#### **Exhibit 1 - EPA's Credible Deterrent Goal**

Within its Strategic Plan, EPA has established a goal to ensure full compliance with the laws intended to protect human health and the environment. Within the framework of this goal, EPA's objectives are as follows:

- Identify and reduce significant non-compliance in high priority program areas, while maintaining a strong enforcement presence in all regulatory program areas,
- Promote the regulated communities' voluntary compliance with environmental requirements through compliance incentives and assistance programs.

### **EPA's Policy on Environmental Audits**

In 1986, in an effort to encourage the use of environmental auditing, EPA published its "Environmental Auditing Policy Statement" (see 51 FR 25004). The 1986 audit policy states that "it is EPA policy to encourage the use of environmental auditing by regulated industries to help achieve and maintain compliance with environmental laws and regulation, as well as to help identify and correct unregulated environmental hazards." In addition, EPA defined environmental auditing as "a systematic, documented, periodic, and objective review of facility operations and practices related to meeting environmental requirements." The policy also identified several objectives for environmental audits:

- ▶ verifying compliance with environmental requirements,
- ▶ evaluating the effectiveness of in-place environmental management systems, and
- ▶ assessing risks from regulated and unregulated materials and practices.

### Exhibit 2 - EPA's 1995 Audit Policy

Under the final Audit/Self Policing Policy, EPA will not seek gravity-based penalties and will not recommend criminal prosecutions for companies that meet the requirements of the Policy. Gravity-based penalties represent the "seriousness" or punitive portion of penalties over and above the portion representing the economic gain from non-compliance. The policy requires companies:

- to promptly disclose and correct violations,
- to prevent recurrence of the violation, and
- to remedy environmental harm

The policy excludes:

- repeated violations,
- violations that result in serious actual harm, and
- violations that may present an imminent and substantial endangerment

Corporations remain criminally liable for violations resulting from conscious disregard of their legal duties, and individuals remain liable for criminal wrongdoing. EPA retains discretion to recover the economic benefit gained as a result of noncompliance, so that companies will not be able to obtain an economic advantage over their competitors by delaying investment in compliance. Where violations are discovered by means other than environmental audits or due diligence efforts, but are promptly disclosed and expeditiously corrected, EPA will reduce gravity-based penalties by 75% provided that all of the other conditions of the policy are met.

As a result of EPA's new audit policy, through March 1998, 247 companies have disclosed environmental violations at more than 760 facilities and EPA has reduced or waived penalties for 89 companies and 433 facilities.

The final Audit/Self-Policing Policy was published in the Federal Register on December 22, 1995 (60 FR 66706). It took effect on January 22, 1996. For further information, contact the Audit Policy Docket at (202) 260-7548 or call (202) 564-4187.

In 1995, EPA published "Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations" which both reaffirmed and expanded its 1986 audit policy. The 1995 audit policy offers major incentives for entities to discover, disclose and correct environmental violations. Under the 1995 policy, EPA will not seek gravity-based penalties or recommend criminal charges be brought for violations that are discovered through an "environmental audit" (as defined in the 1986 audit policy) or a management system reflecting "due diligence" and that are promptly disclosed and corrected, provided that other important safeguards are met (see Exhibit 2). These safeguards protect health and the environment by precluding policy relief for violations that cause serious environmental harm or may have presented an imminent and substantial endangerment, for example.

### Purpose of the *Protocols for Conducting Environmental Compliance Audits*

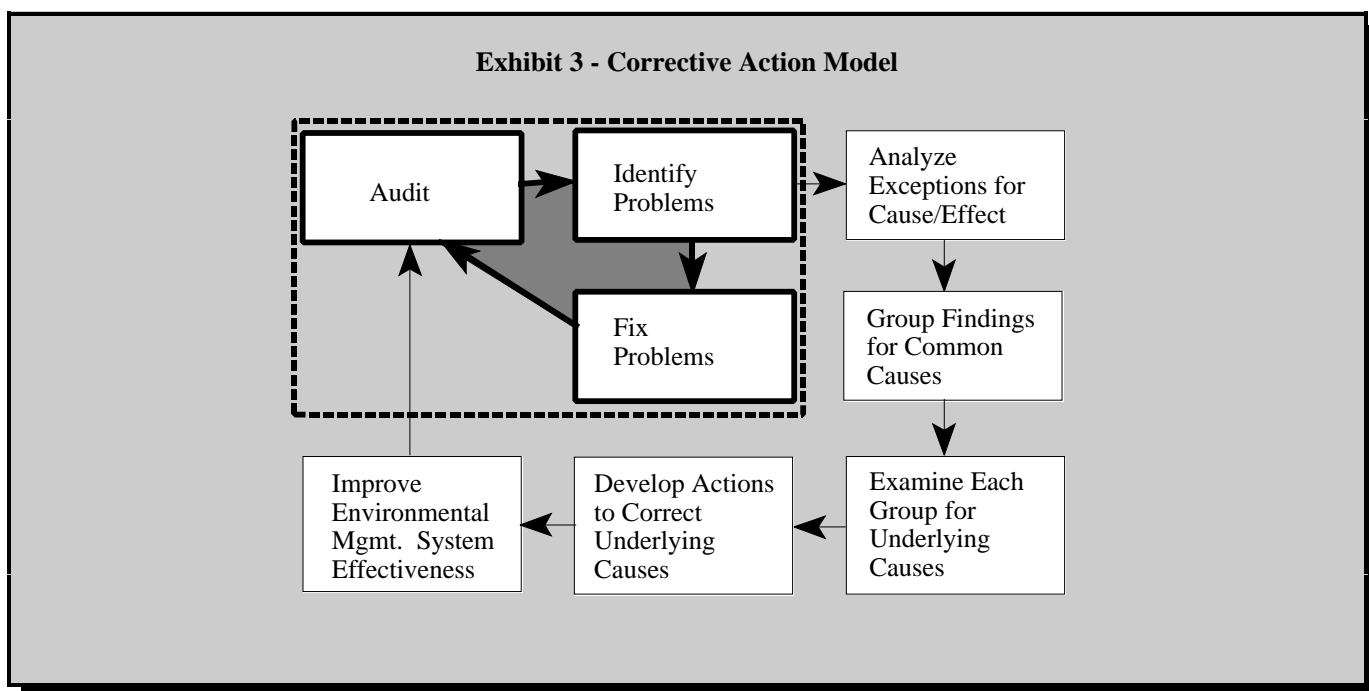
This protocol, which is part of a set containing other area or statutory specific audit protocols, is a tool to assist you in conducting environmental audits, which should inform you whether your facility is in compliance with federal regulations. EPA has developed these audit protocols to assist and encourage businesses and organizations to perform environmental audits and disclose violations in accordance with EPA's audit policy. The audit protocols are intended to promote consistency among regulated entities when conducting environmental audits and to ensure that audits are conducted in a thorough and comprehensive manner.

Each protocol provides guidance on key requirements, defines regulatory terms, and gives an overview of the federal laws affecting a particular environmental management area. It also includes a checklist containing detailed procedures for conducting a review of facility conditions. In order to use these documents effectively, you should be familiar with

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basic environmental auditing practices and the relevant environmental regulations under Title 40 of the Code of Federal Regulations (CFR). The audit protocols are not intended to be exclusive or limiting with respect to procedures that may be followed. EPA recognizes that other audit approaches and techniques may be effective in identifying and evaluating a facility's environmental status and in formulating recommendations to correct observed deficiencies.

These protocols can be used as a basis to implement, upgrade, or benchmark environmental management activities. The protocols are a management tool for measuring and improving environmental performance by correcting deficiencies uncovered by the audit (see Exhibit 3). This process is perhaps the key element to a high quality environmental management program and will function best when an organization identifies the "root causes" of each audit finding. Root causes are those breakdowns in management oversight, information exchange, and evaluation that allow environmental problems to recur. Thus, while an organization may have developed an excellent record of dealing with a symptom, such as spill response, the underlying problem or "root cause" has not been addressed. Furthermore, identifying the root cause of an audit finding can mean identifying not only the failures that require correction but also the successes. In each case a root cause analysis should uncover the failures while promoting the successes so that an organization can make continual progress toward environmental excellence.



### How to Use This Protocol

To conduct effective compliance audits, the auditor or audit team needs to possess sound working knowledge of the operations and processes to be reviewed, the relevant regulations that apply to a given facility, and of acceptable auditing practices. The audit protocol should be used as a planning tool to assist the auditor in understanding the requirements for conducting a comprehensive audit. This document will provide the user with a generic audit approach to identify regulatory issues that may require closer examination. Once the general issues are identified through the use of this protocol, the auditor should perform a more detailed investigation to determine the specific area of noncompliance to be corrected. The auditor should review federal, state and local environmental requirements and annotate the protocol, as required, to include other applicable requirements not included in the protocol.

The auditor also should determine which regulatory agency has authority for implementing an environmental program so that the proper set of regulations is consulted. State programs that implement federally mandated programs may contain more stringent requirements. This protocol should not be used as a substitute for the applicable regulations.

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The collective set of the audit protocols developed by EPA is designed to support a wide range of environmental auditing needs; therefore several of the protocols in this set or sections of an individual protocol may not be applicable to a particular facility. Each protocol is not intended to be an exhaustive set of procedures; rather it is meant to inform the auditor, about the degree and quality of evaluation essential to a thorough environmental audit. EPA is aware that other audit approaches may provide an effective means of identifying and assessing facility environmental status and in developing corrective actions.

Each protocol contains the following information:

- List of acronyms and abbreviations used in the document,
- Applicability - provides guidance on the major activities and operations included in the protocol and a brief description of how the protocol is applied,
- Review of federal legislation - identifies key issues associated with the subject protocol area,
- State and local regulations - identifies typical issues normally addressed in state and local regulations but does not present individual state/local requirements,
- Key compliance requirements - summarizes the overall thrust of the regulations for that particular protocol,
- Key compliance definitions - defines important terms,
- Typical records to review - highlights documents, permits and other pertinent paperwork that should be reviewed by an auditor and reconciled against regulatory requirements,
- Typical physical features to inspect - highlights pollution control equipment, manufacturing and process equipment and other areas that should be visited and evaluated during an audit,
- Index for checklist users - outlines different areas of the checklist that may pertain to the facility being audited,
- Checklist - matches the regulatory requirements with the tasks that should be accomplished by the auditor,
- Appendices - supporting information for the checklist (e.g., regulatory deadlines, lists of contaminants, wastes, and required testing procedures). Note: information contained in the appendices is dated and should be verified with a current version of the applicable federal regulations.

The checklist delineates what should be evaluated during an audit. The left column states either a requirement mandated by regulation or a good management practice that exceeds the requirements of the federal regulations. Good management practices are distinguished from regulatory requirements in the checklist by the acronym (MP) and are printed in italics. The regulatory citation is given in parentheses after the requirement. The right column gives instructions to help conduct the evaluation. These instructions are performance objectives that should be accomplished by the auditor. Some of the performance objectives may be simple documentation checks that take only a few minutes; others may require a time-intensive physical inspection of a facility.

EPA is presently in the process of developing a series of audit protocol application guides to serve as companion documents to the set of protocols. The application guides will provide the auditor with a matrix which identifies and cross references certain site-specific activities or unit operations with particular environmental aspects of that activity. For example, managing hazardous waste containers is a site-specific activity with environmental concerns, such as possible releases to air, and water, that may require additional review through auditing. By using the application guide the user can identify facility specific practices that require more in-depth review. In addition, the application guides will also direct the user to specific protocols and sections (e.g., checklist items) of the protocol to determine areas that are regulated and require auditing.

### List of Acronyms

ACL	Alternative concentration limit
ARAR	Applicable or relevant and appropriate requirement
CAA	Clean Air Act
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CFR	Code of Federal Regulations

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CMS	Corrective measures study
CRP	Community relations plan
CWA	Clean Water Act
EE/CA	Engineering evaluation/cost analysis
EPA	Environmental Protection Agency
FS	Feasibility study
HRS	Hazard ranking system
MCL	Maximum contaminant level
MCLG	Maximum contaminant level goal
MP	Management practice
NCP	National Contingency Plan
NFRAP	No further response action planned
NOV	Notice of Violation
NPL	National Priorities List
NRC	National Response Center
O&M	Operations and maintenance
OSC	On-scene coordination
PA	Preliminary assessment
PL	Public law
PRP	Potentially responsible party
QAPP	Quality assurance project plan
RA	Remedial action
RCRA	Resource Conservation and Recovery Act
RD	Remedial design
RD/RA	Remedial design/remedial action
RFA	RCRA facility assessment
RI	Remedial investigation
RI/FS	Remedial investigation/feasibility study
ROD	Record of decision
RPM	Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SI	Site inspection
SWMU	Solid waste management units
TRI	Toxic Release Inventory
U.S.	United States
USC	United States Code



## **Section II: Audit Protocol**

### **Applicability**

This protocol addresses facilities where hazardous substances were released or pose a substantial threat of release. This document does not include protocols for determining compliance with the Emergency Planning and Community Right-to-Know Act (EPCRA). These requirements are contained in a separate EPA document, *Protocol for Conducting Compliance Audits under the Emergency Planning and Community Right-to-Know Act* (EPA-305-B-98-007). Specific state regulations are not included in this protocol.

There are numerous environmental regulatory requirements administered by federal, state, and local governments. Each level of government may have a major impact on areas at the facility that are subject to the audit. Therefore, auditors are advised to review federal, state, and local regulations in order to perform a comprehensive audit.

### **Federal Legislation**

#### **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980**

This act, Public Law (PL) 96-510 (42 U.S. Code (USC) 9601 et seq), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 (PL 99-499) provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and cleanup of inactive hazardous waste disposal sites. CERCLA, commonly known as "Superfund," established a fund which was financed by hazardous substance generators to financially support cleanup and response actions of abandoned hazardous waste sites when no financially responsible party(ies) can be found. The taxing authority for replenishing the "Superfund" tax fund expired in December 1995. Parties responsible for the contamination of hazardous waste sites are liable for all costs incurred in the cleanup and remediation process. The EPA has generated and periodically updates a list of sites requiring cleanup under CERCLA, known as the National Priorities List (NPL).

### **State and Local Regulations**

In addition to the federal requirements mentioned in this document, many states have (or are in the process of establishing) release reporting requirements and clean-up requirements that place additional responsibilities on facility owners and operators and other potentially responsible parties. States and localities or states and municipalities may establish release reporting requirements and other related legal obligations that are more stringent than those under CERCLA. Therefore, regulated entities that are not subject to the requirements of CERCLA may be subject to state or local regulations regarding release reporting and site evaluation and clean-up.

### **Key Compliance Requirements**

#### **Hazardous Substance Release Reporting**

Under CERCLA Section 103, facilities are required to notify the National Response Center (NRC) immediately if they release hazardous substances in excess of or equal to reportable quantities. Facilities with continuous and stable releases have limited notification requirements (40 CFR 302.1 through 302.6, and 302.8).

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### **National Contingency Plan**

Section 104(a) of CERCLA requires that whenever there is a release or the substantial threat of a release of any pollutant or contaminant to the environment or which may present an imminent and substantial danger to the public health or welfare, the President is authorized to respond in a manner consistent with the National Contingency Plan (NCP). The NCP outlines procedures and standards for the cleanup of releases and hazardous waste sites and establishes the framework for site evaluations, remedial investigations/feasibility studies, remedy selection and design, removal actions, community involvement, and administrative records. The NCP requires that the cleanup is to be conducted by the "lead agency" (the definition of which is found in 40 CFR 300.5). Under the NCP, the lead agency is responsible for conducting the following activities as they apply to the hazardous waste site's situation.

### **Site Evaluation**

If a release has, may have occurred, or could potentially occur, the first requirement is a site evaluation, the goal of which is to collect data and evaluate releases of hazardous substances, pollutants, or contaminants to determine the extent of the release and the release's impact to public health and the environment. The regulations which outline the requirements for a site evaluation are found in 40 CFR 300.420. A site evaluation consists of the following three components:

- A preliminary assessment (PA), which is a review of existing site information and an off-site reconnaissance, if appropriate, to determine if further investigations or response actions may be necessary;
- A site inspection (SI), which is an on-site investigation to determine whether a release has occurred, to identify the preliminary public health and environmental threats associated with the release or potential release, and it includes, as appropriate, both on- and off-site field sampling and analysis; and
- A review to determine if the site should be included on the NPL.

If it is determined that the site will need remediation actions, then the lead agency is required to conduct a remedial investigation/feasibility study (or equivalent investigation, e.g., engineering evaluation/cost analysis (EE/CA)), unless the release "may present an imminent and substantial danger to public health, welfare or the environment," in which case the lead agency must mitigate the threat through a removal action, or oversee implementation of the removal action by the potentially responsible party (PRP).

### **Remedial Investigation/Feasibility Study (RI/FS)**

A remedial investigation/feasibility study (RI/FS) is intended to assess site conditions and evaluate remedial alternatives to the extent necessary to select a site remedy. The regulations promulgated under CERCLA that apply to RI/FSs are in 40 CFR 300.430(a)-(e) and require that an RI/FS consist of the following four steps:

- Project scoping, which is a plan developed by the lead agency or PRP for conducting an RI/FS such that the detail of analysis is appropriate to the complexity of the release site problems being addressed;
- A remedial investigation, which is the collection of the necessary field data to adequately characterize the release site in order to assist in developing and evaluating remedial alternatives;
- A risk assessment which, as a component of the RI, characterizes potential threats to human health and the environment that may be posed by site contaminants in the absence of site remediation; and
- A feasibility study, which is a study of potential remedial alternatives to address site risks.

Following the completion of the RI/FS, a report is prepared by the lead agency or PRP and a public comment period is held on the proposed remedy (discussed further in 'Community Relations'). Then the lead agency selects a remedy and the design process commences.

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### **Remedial Selection and Design**

The regulations related to the selection and design of a remedy are promulgated at 40 CFR 300.430(f) and describe the required process. The lead agency must select, in conjunction with the lead regulatory agency, a preferred proposed alternative for remediation which can be presented to the public (and state) for their review and comment. The public comments must be considered and a response to comments prepared before the lead agency can issue a Record of Decision (ROD). Upon receiving new information from the public or regulatory agencies, the lead agency should reassess its initial remedial alternative determination. The public comments may prompt the lead agency to modify aspects of their preferred alternative or cause the lead agency to select a different alternative. The lead agency and the lead regulatory agency will make the final remedy selection decision and they will document that decision in the ROD before remedial design/remedial action (RD/RA) commences.

### **Removal Actions**

If at any point during the remediation process, a determination has been made that there is an imminent threat to public health welfare, or the environment, the lead agency is required by CERCLA to take an appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release. When the determination has been made that a removal action is appropriate, 40 CFR 300.410 requires that the following steps be undertaken as promptly as possible:

- A removal preliminary assessment which includes the collection or review of readily available information such as site management practices, information from waste generator, document review, and facility interviews;
- A removal site inspection, if necessary, to gather information that was not obtained during the removal preliminary assessment; and
- A removal action which is performed in response to a specific release.

The lead agency will have the latitude to respond as necessary to ensure the minimization of harm to public health, welfare, or the environment.

### **Community Involvement**

Section 117 of CERCLA requires (through 40 CFR 300.430 and 300.435) that the lead agency conduct various community involvement activities throughout the inactive waste site evaluation process. The intention is to promote active communication between communities affected by the release site and the PRP's response for implementing remedial actions. Community involvement activities must be undertaken in the RI/FS, RD/RA, and removal actions processes and may include interviewing community interest groups and developing a Community Relations Plan (CRP). The CRP is designed to ensure that the public has been provided the appropriate opportunity to become involved in site-related decision making, to identify the appropriate activities for ensuring such public involvement, and to provide the appropriate opportunity for the community to learn about the release site.

### **Administrative Record**

Section 133(k) of CERCLA requires the establishment and maintenance of an administrative record which contains all documents pertaining to information used or potentially relied upon to select response actions, information on the RI/FS and RD/RA processes, the ROD and all public comments received. There are specific requirements in CERCLA that are promulgated at 40 CFR 300.800-300.805 which require the administrative record to be maintained at a central location near the release site and that it must be easily accessible to community interest groups.

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For further information regarding the CERCLA regulations, contact U.S. EPA's Superfund, RCRA/UST, and EPCRA Hotline at 800-424-9346 (or 703-412-9810 in the D.C. area) from 9 a.m. to 6 p.m., Monday through Friday.

This EPA hotline provides up-to-date information on regulations developed under CERCLA (Superfund), RCRA and the Oil Pollution Act. The hotline can assist with Section 112(r) of the Clean Air Act (CAA) and Spill Prevention, Control and Countermeasures (SPCC) regulations. The hotline also responds to requests for relevant documents and can direct the caller to additional tools that provide a more detailed discussion of specific regulatory requirements.

### **Key Terms and Definitions**

#### **Applicable or Relevant and Appropriate Requirements (ARARs)**

Those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility citing laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate (40 CFR 300.5).

#### **CERCLA Information System (CERCLIS)**

EPA's comprehensive database and management system that inventories and tracks releases addressed or needing to be addressed by the Superfund program. CERCLIS contains the official inventory of CERCLA sites and supports EPA's site planning and tracking functions. Sites that EPA decides do not warrant moving further in the site evaluation process are given a "No Further Response Action Planned" (NFRAP) designation in CERCLIS. This means that no additional federal steps under CERCLA will be taken at the site unless future information so warrants. NFRAP designated sites are removed from the main CERCLIS database after completion of evaluations; however, information pertaining to these sites are archived at the lead agency in order to document that these evaluations took place and to preclude the possibility that evaluations be needlessly repeated. Inclusion of a specific site or area in the CERCLIS database does not represent a determination of any party's liability, nor does it represent a finding that any response action is necessary. Sites that are deleted from the NPL are not designated NFRAP sites. Deleted sites are listed in a separate category in the CERCLIS database (40 CFR 300.5).

#### **Community Involvement Coordinator**

Lead agency staff who work with the On-Scene Coordinator/Remedial Project Manager (OSC/RPM) to involve and inform the public about the Superfund process and response actions in accordance with the interactive community involvement requirements set forth in the NCP (40 CFR 300.5).

#### **Environment**

As defined by section 101(8) of CERCLA, environment means the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act; and any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States (40 CFR 300.5).

#### **Facility**

As defined by section 101(9) of CERCLA, facility means 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, aircraft, or any site or area, where a hazardous substance

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has been deposited, stored, disposed of, placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel (40 CFR 300.5).

### **Feasibility Study (FS)**

A study undertaken by the lead agency or PRP to develop and evaluate options for remedial action. The FS emphasizes data analysis and is generally performed concurrently and in an interactive fashion with the RI, using data gathered during the RI. The RI data are used to define the objectives of the response action, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study (40 CFR 300.5).

### **Hazard Ranking System (HRS)**

The method used by EPA to evaluate the relative potential of hazardous substance releases to cause health or safety problems, or ecological or environmental damage (40 CFR 300.5).

### **Hazardous Substance**

As defined by section 101(4) of CERCLA, any substance designated pursuant to section 311(b)(2)(A) of the Clean Water Act (CWA); any element, compound mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas (40 CFR 300.5).

### **Lead Agency**

The federal or state agency that provides the On-Scene Coordinator (OSC) or the responsible official for a CERCLA response action.

### **Management Practice (MP)**

Practices that, although not mandated by law, are encouraged to promote safe operating procedures.

### **National Priorities List (NPL)**

The list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response (40 CFR 300.5).

### **Person**

An individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States government, state, municipality, commission, political subdivision of a state, or any interstate body (40 CFR 300.5 and 302.3).

### **Pollutant or Contaminant**

As defined by section 101(33) of CERCLA, pollutant or contaminant includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section

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101(4)(A) through (F) of CERCLA, nor does it include natural gas of pipeline quality (or mixtures of natural gas and such synthetic gas). For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare (40 CFR 300.5).

### **Preliminary Assessment (PA)**

Review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on-site reconnaissance, if appropriate (40 CFR 300.5).

### **Release**

As defined by section 101(22) of CERCLA, release means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant). It excludes any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons; emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; release of source byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act, or, for the purposes of section 104 of CERCLA or any other response action, any release of source, byproduct, or special nuclear materials from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release (40 CFR 300.5 and 302.3).

### **Remedial Design (RD)**

The technical analysis and procedures which follow the selection of remedy for a site and result in a detailed set of plans and specifications for implementation of the remedial actions (40 CFR 300.5).

### **Remedial Investigation (RI)**

A process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The RI emphasizes data collection and site characterization and is generally performed concurrently and in an interactive fashion with the feasibility study. The RI includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives (40 CFR 300.5).

### **Remedy or Remedial Action (RA)**

Those actions consistent with permanent remedy taken instead of, or in addition to, removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage; confinement; perimeter protection using dikes, trenches, or ditches; clay cover; neutralization; cleanup of released hazardous substances and associated contaminated materials; recycling or reuse diversion, destruction, or segregation of reactive wastes; dredging or excavations; repair or replacement of leaking containers; collection of leachate and run-off; on-site treatment or incineration; provision of alternative water supplies; any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment; and, where appropriate, post-removal site control activities. The term includes the costs of permanent relocation of residents and businesses and community facilities (including the cost of providing "alternative land of equivalent value" to an Indian tribe pursuant to CERCLA section 126(b)) where EPA determines that, alone or in combination with other measures, such relocation is more cost-effective than, and environmentally preferable to, the transportation, storage, treatment, destruction, or secure disposition off-site of such hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes off-site transport and off-site storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials. For the purpose of the NCP, the term also includes enforcement activities related thereto (40 CFR 300.5).

## **Protocol for Conducting Environmental Compliance Audits under CERCLA**

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### **Remove or Removal**

As defined by section 311(a)(8) of the CWA, refers to removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare or to the environment. As defined by section 101(23) of CERCLA, removal of released hazardous substances from the environment; such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, post-removal site control, where appropriate, and any emergency assistance which may be provided under the Disaster Relief Act of 1974. For the purpose of the NCP, the term also includes enforcement activities related thereto (40 CFR 300.5).

### **Reportable Quantity**

That quantity, as set forth in 40 CFR 302, the release of which requires notification pursuant to 40 CFR 302 (40 CFR 302.3).

### **Site Inspection (SI)**

An on-site investigation to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate (40 CFR 300.5).

## Protocol for Conducting Environmental Compliance Audits under CERCLA

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### Typical Records to Review

- Spill/release records
- Hazardous substance inventory records
- National Response Center Notification Document
- Preliminary Assessment (CERCLA)
- Remedial Investigation documentation
- Soil sample and groundwater monitoring data related to areas targeted for removal and cleanup
- Engineering and cost evaluations
- Sampling and analysis plans.

### Typical Physical Features to Inspect

- Cleanup sites
- Disposal sites
- Groundwater monitoring wells
- Contaminated areas
- Treatment technologies employed for site cleanup.

### Index for Checklist Users

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**Protocol for Conducting Environmental Compliance Audits under CERCLA**

**Checklist**

<b>Regulatory Requirement or Management Practice:</b>	
<b>All Facilities</b>	
C.1 The current status of any ongoing or unresolved Consent Orders, Compliance Agreements, Notices of Violation (NOVs), or equivalent state enforcement actions should be examined.	<p>Determine if noncompliance issues have been resolved by reviewing a copy of the previous report, Consent Orders, Compliance Agreements, NOVs, or equivalent state enforcement actions.</p> <p>For those open items, indicate what corrective action is planned and milestones established to correct problems.</p> <p>Determine how many dockets, if any, your facility has.</p>
C.2 Facilities are required to comply with all applicable federal regulatory requirements not contained in this checklist.	<p>Determine if any new regulations have been issued since the finalization of the guide. If so, annotate checklist to include new standards.</p> <p>Determine if the facility has activities or facilities which are federally regulated, but not addressed in this checklist.</p> <p>Verify that the facility is in compliance with all applicable and newly issued regulations.</p>
C.3 Facilities are required to abide by state and local regulations concerning hazardous materials.	<p>Verify that the facility is abiding by state and local requirements.</p> <p>Verify that the facility is operating according to permits issued by the state or local agencies.</p> <p>(NOTE: Issues typically regulated by state and local agencies include:</p> <ul style="list-style-type: none"> <li>- Transportation of hazardous materials</li> <li>- Notification requirements</li> <li>- Response plan requirements</li> <li>- Spill response requirements.)</li> </ul>
<b>Release Discovery and Notification</b>	
C.4. Facilities that are determined: 1) to own or operate, or 2) who at the time owned or operated, or 3) who accepted hazardous substances for transport and selected a facility at which hazardous substances are or have been stored, treated, or disposed of, are required to notify the EPA unless such facility has been properly permitted under RCRA (40 CFR 302).	<p>Verify that the facility has procedures in place to identify areas where hazardous substances are or may have been stored, treated, or released at the facility.</p> <p>Confirm that the facility maintains an inventory of potential inactive waste sites and determine whether the inventory contains the following information for each site:</p> <ul style="list-style-type: none"> <li>- The site location.</li> <li>- The site history (i.e., types of waste or hazardous substance that may have been released).</li> <li>- Facility responses to environmental problems.</li> </ul>

## Protocol for Conducting Environmental Compliance Audits under CERCLA

Regulatory Requirement or Management Practice:	
<p>C.5. Facilities are required to notify EPA of the existence of hazardous waste sites (CERCLA s.103, 40 CFR 300.405(b), 300.135(j), 300.120(b)).</p>	<p>Confirm through interviewing facility personnel and reviewing facility release reporting procedures that the facility has performed the following:</p> <ul style="list-style-type: none"> <li>- If any hazardous substances are found to have been stored, treated, or disposed of at the facility, the EPA is notified of the existence of the site(s) unless the site(s) has been issued a valid RCRA permit.</li> <li>- Notified the EPA if the facility accepted hazardous substances for transport and selected a facility where hazardous substances are or have been stored, treated, or disposed of without a valid RCRA permit.</li> <li>- Notified the National Response Center (NRC) when a hazardous substance release exceeded a CERCLA Reportable Quantity.</li> <li>- Promptly notified trustees for natural resources of hazardous substance releases that are injuring or may injure natural resources under their jurisdiction.</li> </ul>
<p>C.6. Releases in excess of or equal to reportable quantities of hazardous substances shall be reported to the NRC immediately (40 CFR 302.1 through 302.6).</p>	<p>Verify that spills in excess of the reportable quantities listed in Appendix A have been reported. (Also, refer to 40 CFR 302, Table 302.4.)</p> <p>Verify that a procedure is in place for the notification of the NRC immediately after becoming aware of the release.</p> <p>Verify that if mixtures or solutions of hazardous substances are released, except for radionuclides, it is reported when either of the following occur:</p> <ul style="list-style-type: none"> <li>- The quantity of all hazardous constituents of the mixture or solution is known and a reportable quantity or more of any hazardous constituent is released.</li> <li>- The quantity of one or more of the hazardous constituents of the mixture or solution is unknown and the total amount of the mixture or solution released equals or exceeds the reportable quantity for the hazardous constituent with the lowest reportable quantity.</li> </ul> <p>(NOTE: Notification requirements for radionuclide releases are not included in this guide.)</p>
<p>C.7. Facilities with releases that are continuous and stable in quantity and rate are required to meet limited notification requirements (40 CFR 302.8).</p>	<p>Determine if the facility has any releases that are continuous and stable in quantity and rate.</p> <p>Verify that the following notifications have been given:</p> <ul style="list-style-type: none"> <li>- Initial telephone notification</li> <li>- Initial written notification within 30 days of the initial telephone notification</li> <li>- Follow-up notification within 30 days of the first anniversary date of the initial written notification</li> <li>- Notification of changes in:             <ul style="list-style-type: none"> <li>-- the composition or source of the release</li> <li>-- information submitted in the initial written notification</li> <li>-- the follow-up notification required on the first anniversary date of the initial written notification</li> </ul> </li> <li>- Notification of when there is an increase in the quantity of the hazardous substances in any 24-hour period that represents a statistically significant increase.</li> </ul> <p>(NOTE: Instead of the initial written report or follow-up report, the facility may submit a copy of the Toxic Release Inventory (TRI) form submitted under SARA Title III section 313 for the previous July 1, provided that conditions are met as described in 40 CFR 302.8(j).)</p>

**Protocol for Conducting Environmental Compliance Audits under CERCLA**

Regulatory Requirement or Management Practice:	
Site Evaluation	
<p>C.8. When a facility experiences a hazardous substance release to the environment, an evaluation of the release site must be performed to determine the extent of the release and the release's impact to public health and the environment. A site evaluation typically contains the following three components (40 CFR 300.420):</p> <p>a. A preliminary assessment (PA) which is a review of existing site information and an off-site reconnaissance, if appropriate, to determine if a release may require further investigations or removal actions. Typically, when performing a PA, facility documents are reviewed and field sampling is not conducted.</p> <p>b. A site inspection (SI) which is an on-site investigation to determine whether a release has occurred and to identify the preliminary public health and environmental threats associated with the release. The SI typically builds upon the information collected during the PA. Furthermore, the SI involves, as appropriate, both on- and off-site field sampling and analysis.</p> <p>c. A review to determine if the site should be included on the National Priorities List (NPL).</p>	<p>Verify that for all potential inactive waste sites, a preliminary assessment (PA) is conducted that contains at least the following:</p> <ul style="list-style-type: none"> <li>- A review of existing information about the release such as:               <ul style="list-style-type: none"> <li>-- information on the pathways of exposure;</li> <li>-- exposure targets; and</li> <li>-- source and nature of release.</li> </ul> </li> <li>- On-site reconnaissance.</li> <li>- Off-site reconnaissance.</li> </ul> <p>When the facility performs a remedial PA, confirm that the facility completes the EPA Preliminary Assessment form or its equivalent and that it includes the following information:</p> <ul style="list-style-type: none"> <li>- A description of the release</li> <li>- A description of the probable nature of the release</li> <li>- A recommendation on whether further action is warranted, which lead agency should conduct further action, and whether a site investigation (SI) or removal action, or both, should be undertaken.</li> </ul> <p>Where the facility has received an interim or final RCRA facility permit, determine whether the facility has completed a RCRA Facility Assessment (RFA).</p> <p>For facility SIs verify that, prior to conducting any field sampling, the facility has developed sampling and analysis plans which consist of the following:</p> <ul style="list-style-type: none"> <li>- A field sampling plan.</li> <li>- A Quality Assurance Project Plan (QAPP).</li> </ul> <p>Determine whether the facility has included the following information when preparing an SI:</p> <ul style="list-style-type: none"> <li>- A description/history/nature of waste handling</li> <li>- A description of known contaminants</li> <li>- A description of pathways of migration of contaminants</li> <li>- An identification and description of human and environmental targets</li> <li>- A recommendation on whether further action is warranted.</li> </ul> <p>Determine if the facility determined whether a removal action is appropriate based upon the information collected during the PA/SI. If so, confirm that the facility initiated a removal PA pursuant to C.12.</p>

## Protocol for Conducting Environmental Compliance Audits under CERCLA

Regulatory Requirement or Management Practice:	
<p>C.9. Sites that meet a certain criteria may be eligible for placement on the National Priorities List (NPL) (40 CFR 300.425(c), (d)).</p>	<p>Confirm that the facility has assisted federal and state agencies in evaluating whether release sites have met one of the following criteria:</p> <ul style="list-style-type: none"><li>- The release scores sufficiently high pursuant to the Hazard Ranking System. (NOTE: The Hazard Ranking System is the method used by EPA to evaluate the relative potential of hazardous substance releases to cause health or safety problems, ecological damage, or environmental damage.)</li><li>- The state has designated a release as its highest priority (a state may have only one highest priority).</li><li>- The release satisfies all of the following criteria:<ul style="list-style-type: none"><li>-- the Agency for Toxic Substances and Disease Registry has issued a health advisory that recommends dissociation of individuals from the release;</li><li>-- the EPA determines that the release poses a significant threat to public health;</li><li>-- the EPA anticipates that it will be more cost-effective to use its remedial authority than to use removal authority to respond to the release.</li></ul></li></ul> <p>If the facility determines that a release is eligible for placement on the NPL, verify that the facility has submitted the release score (using HRS model) and has provided the appropriate backup documentation.</p>

**Protocol for Conducting Environmental Compliance Audits under CERCLA**

Regulatory Requirement or Management Practice:	
Remedial Investigation and Feasibility Study	
<p>C.10. The purpose of the RI/FS is to assess site conditions and evaluate remedial alternatives to the extent necessary to select a site remedy. Developing and implementing an RI/FS generally includes the following (40 CFR 300.430):</p> <p>a. Project Scoping - The facility should have developed a plan for conducting an RI/FS such that the detail of analysis is appropriate to the complexity of the release site problems being addressed.</p> <p>b. Remedial Investigation - The purpose of an RI is to collect the necessary field data to adequately characterize the release site in order to assist in developing and evaluating remedial alternatives. Site characterization may be conducted in one or more phases to focus sampling efforts and to better define the potential threat to human health or the environment.</p>	<p>Determine whether the facility has initiated coordination with regulatory agencies to ensure that both parties have discussed and identified the appropriate sequence actions necessary to address the release site problems.</p> <p>Verify that the facility has conducted project scoping to identify the optimal set and sequence of actions necessary to address the release site problems. Specifically, the following should be incorporated into the project scope:</p> <ul style="list-style-type: none"> <li>- The assembly and evaluation of existing data for the release site, including the results of any removal actions and PA/SI data.</li> <li>- The identification of likely response scenarios, potentially applicable technologies, and operable units that may address site problems.</li> <li>- The identification of the type, quality, and quantity of the data that will be collected during the RI/FS.</li> <li>- The preparation of site-specific health and safety plans that specify, at a minimum, employee training and protective equipment, medical surveillance requirements, standard operating procedures, and contingency plan that conforms with 29 CFR 1910.120(l)(1) and (l)(2).</li> <li>- The development of a sampling and analysis plan that meets the requirements outlined in C.8.</li> <li>- The identification of potential federal and state Applicable or Relevant and Appropriate Requirements (ARARs).</li> </ul> <p>Determine whether the facility has assessed the following factors when conducting an RI:</p> <ul style="list-style-type: none"> <li>- The physical characteristics of the site (i.e., soils, sediments, geology, hydrogeology, meteorology, and ecology).</li> <li>- Characteristics of air, surface water, and ground water.</li> <li>- The general characteristics of the waste, including quantities, physical state, concentration, toxicity, ability to bioaccumulate, and mobility.</li> <li>- The extent to which the source can be adequately identified and characterized (i.e., evaluation of the vertical and horizontal extent of contamination).</li> <li>- Actual and potential exposure routes (i.e., inhalation through air transport and ingestion through groundwater or bioaccumulation).</li> <li>- Actual and potential exposure pathways through environmental media.</li> </ul> <p>Verify that the facility, in conjunction with regulatory agencies, has identified the potential ARARs for the release site.</p> <p>For each release site undergoing an RI, confirm that the facility has conducted a baseline risk assessment which contains the following:</p> <ul style="list-style-type: none"> <li>- A characterization of the current and potential threats to human health and the environment that may be posed by site contaminants migrating through environmental media.</li> <li>- The establishment of acceptable exposure levels for use in developing remedial alternatives.</li> </ul>

**Protocol for Conducting Environmental Compliance Audits under CERCLA**

Regulatory Requirement or Management Practice:	
<p>C.10. (continued)</p> <p>c. Risk Assessment - As a component of the RI, the risk assessment should characterize the current and potential threats to human health and the environment that may be posed by contact to environmental media in the absence of site remediation. Typically, the risk assessment results will assist in establishing acceptable exposure levels for use in developing remedial alternatives in the FS.</p> <p>d. Feasibility Study - The purpose of the FS is to ensure that appropriate remedial alternatives are developed and evaluated. The development and evaluation of alternatives should reflect the scope and complexity of the remedial action under consideration and the release site problems being addressed.</p>	<p>Where the facility has received an interim or final RCRA facility permit, determine whether the facility has completed the following:</p> <ul style="list-style-type: none"> <li>- A RCRA Facility Investigation (RFI) to evaluate whether releases of hazardous substances may have occurred from Solid Waste Management Units (SWMUs).</li> </ul> <p>Verify that as a part of the FS, the facility has established remedial action objectives (i.e., acceptable exposure levels that are protective of human health and the environment) which have been developed by using the following:</p> <ul style="list-style-type: none"> <li>- ARARs under federal or state environmental laws.</li> <li>- Maximum contaminant level goals (MCLGs), established under the Safe Drinking Water Act, or if the MCLG is determined not to be relevant, the corresponding maximum contaminant level (MCL).</li> <li>- Water quality criteria established under sections 303 or 304 of the CWA.</li> <li>- An alternative concentration limit (ACL) established according to CERCLA section 121(d)(2)(B)(ii).</li> </ul> <p>For source control actions, confirm that the facility has developed alternatives tailored to the release site conditions that employ the following, as appropriate:</p> <ul style="list-style-type: none"> <li>- Treatment techniques that reduce toxicity, mobility, or volume of the release site to the maximum extent feasible, eliminating or minimizing the need for long-term management.</li> <li>- One or more alternatives that involve little or no treatment, but provide protection of human health and the environment primarily by preventing or controlling exposure to the release site.</li> <li>- For groundwater response actions, remedial alternatives which attain site-specific remediation levels within different time periods and using one or more different technologies.</li> </ul> <p>Confirm that, as a part of an FS, the facility has developed the following:</p> <ul style="list-style-type: none"> <li>- One or more innovative treatment technologies for further consideration.</li> <li>- A no-action alternative or a no further action alternative, if some removal or remedial action has already occurred at the release site.</li> </ul> <p>Verify that, to the extent possible, the facility has considered the short- and long-term aspects of the following criteria to guide the development and screening of remedial alternatives:</p> <ul style="list-style-type: none"> <li>- Effectiveness (i.e., minimization of residual risks and short-term impacts, long-term protection, quickness of protection).</li> <li>- Implementability (i.e., technical feasibility and availability).</li> <li>- Cost (i.e., construction, operation, and maintenance).</li> </ul>

## Protocol for Conducting Environmental Compliance Audits under CERCLA

Regulatory Requirement or Management Practice:	
C.10. (continued)	<p>Determine whether the facility has performed an analysis of a limited number of remedial alternatives, which have been considered a viable approach to remedial action, based on the following:</p> <ul style="list-style-type: none"><li>- Overall protection of human health and the environment.</li><li>- Compliance with ARARs.</li><li>- Long-term effectiveness and permanence.</li><li>- Reduction of toxicity, mobility, or volume.</li><li>- Short-term effectiveness.</li><li>- Implementability.</li><li>- Cost.</li><li>- State acceptance.</li><li>- Community acceptance.</li></ul> <p>(NOTE: For facilities with an interim or final RCRA facility permit, federal and state authorities will request that a Corrective Measures Study (CMS) be performed as part of a Corrective Action Order (CERCLA Sect. 3008(h)) or corrective action requirement outlined in a permit application and/or permit (CERCLA Sect. 3004(u) and (v)).)</p>

**Protocol for Conducting Environmental Compliance Audits under CERCLA**

Regulatory Requirement or Management Practice:	
Remedial Selection and Design	
<p>C.11. Upon the completion of the RI/FS, the lead agency selects a preferred proposed alternative for remediation which can be presented to the public (and state) for their review and comment. The public comments must be considered before the facility can issue a final remedial design/remedial action (RD/RA). Upon receiving new information from the public or regulatory agencies, the lead agency should reassess its initial remedial alternative determination. The public comments may prompt the lead agency to modify aspects of their preferred alternative or cause the lead agency to select a different alternative. The lead agency and the lead regulatory agency will make the final remedy selection decision and they will document that decision in the Record of Decision (ROD) (40 CFR 300.430(f), 300.435(b), (c), (f)).</p>	<p>When the facility has, in conjunction with the regulatory agency, identified a preferred proposed remedial action alternative, verify that the proposed plan has been presented to the public for comment.</p> <p>Determine whether the proposed plan presented to the public contains the following:</p> <ul style="list-style-type: none"> <li>- A brief summary of the alternatives.</li> <li>- The rationale used to develop the preferred alternative.</li> <li>- A summary of comments received from regulatory agencies.</li> <li>- A summary of any proposed waiver from an ARAR.</li> </ul> <p>Verify that the facility conducts the following community relations activities to support the selection of the remedy:</p> <ul style="list-style-type: none"> <li>- Publishes a notice of availability and a brief analysis of the proposed plan in a major local newspaper.</li> <li>- Makes the proposed plan and supporting information available in the Administrative Record.</li> <li>- Provides for a public comment period of not less than 30 days.</li> <li>- Provides for a public meeting at or near the facility during the public comment period.</li> <li>- Keeps a transcript of the meeting and makes the transcript available to the public.</li> <li>- Prepares a written summary of significant comments and new information received during the public comment period.</li> </ul> <p>Verify that the facility has developed an RD/RA that is consistent with the selected and implemented remedy as set forth in the ROD.</p> <p>Confirm that Operations and Maintenance (O&amp;M) measures have been initiated after the remedial action objectives/goals outlined in the ROD have been achieved.</p>



**Protocol for Conducting Environmental Compliance Audits under CERCLA**

Regulatory Requirement or Management Practice:	
Removal Action	
<p>C.12. At any release site, regardless of whether the site has been included on the NPL, where the facility has made the determination that there is a threat to public health, welfare, or the environment, the facility may take an appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release. When the facility has determined that a removal action is appropriate, the facility should undertake the action as promptly as possible. The action typically consists of the following three stages (40 CFR 300.410, 300.415):</p> <p>a. A removal preliminary assessment which includes the collection or review of readily available information such as site management practices, information from waste generator, document review, and facility interviews.</p> <p>b. A removal site inspection, if necessary, to gather information that was not obtained during the removal preliminary assessment.</p> <p>c. A removal action which is performed in response to a specific release.</p>	<p>Confirm that the following information has been considered by the facility when performing a removal preliminary assessment:</p> <ul style="list-style-type: none"> <li>- Identification of the source and nature of the release or threat of release.</li> <li>- Evaluation by the Agency for Toxic Substances and Disease Registry or by other sources (e.g., state public health agencies) of the threat to public health.</li> <li>- Evaluation of the magnitude of the threat.</li> <li>- Evaluation of factors necessary to make the determination of whether a removal is necessary.</li> </ul> <p>Determine whether a removal site inspection has been performed.</p> <p>Verify that the facility has documented the results obtained from a removal site evaluation.</p> <p>Verify that the facility evaluated the following factors prior to initiating a removal action to determine whether or not the action was appropriate:</p> <ul style="list-style-type: none"> <li>- Actual or potential exposure of contaminants to nearby human populations, animals, or the food chain.</li> <li>- Actual or potential contamination of drinking water supplies or sensitive ecosystems.</li> <li>- Hazardous substances or contaminants stored at the facility that may pose a threat of release.</li> <li>- High levels of hazardous substances or contaminants in surface soils that may migrate.</li> <li>- Weather conditions that may cause hazardous substances or contaminants to be released.</li> <li>- Threat of fire or explosion.</li> <li>- The availability of appropriate release response mechanisms.</li> </ul> <p>If the removal action requires a planning period of greater than six months, verify that the facility has developed the following:</p> <ul style="list-style-type: none"> <li>- An Engineering Evaluation/Cost Analysis (EE/CA) on the removal alternatives for the site.</li> <li>- A sampling and analysis plan that has been reviewed and approved by the EPA.</li> </ul> <p>If removal actions have been implemented, determine whether the selected action, to the extent practicable, has contributed to the anticipated long-term remedial action for the release site.</p> <p>(NOTE: 40 CFR 300.415(d) provides several removal action examples.)</p>

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**Protocol for Conducting Environmental Compliance  
Audits under the Comprehensive Environmental Response,  
Compensation, and Liability Act**

**Appendix A:  
Consolidated List of Hazardous Substances and Reportable  
Quantities Under CERCLA and EPCRA**

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## Protocol for Conducting Environmental Compliance Audits under CERCLA

### Appendix A: Consolidated List of Hazardous Substances and Reportable Quantities Under CERCLA and EPCRA

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(NOTE: This list is constantly changing; consult the Federal Register for the most up-to-date information.)

#### Consolidated List of Chemicals Covered Under CERCLA and EPCRA

This consolidated list includes hazardous substances and other chemicals subject to reporting requirements under 40 CFR 302 of CERCLA and EPCRA. This list does not contain all chemicals that are subject to reporting requirements in Sections 311 and 312 of EPCRA. Those hazardous chemicals for which Material Safety Data Sheets (MSDSs) must be developed under the Occupational Safety and Health Act Hazard Communication Standards are identified by broad criteria, rather than enumeration. There are over 500,000 such substances that meet the criteria. The consolidated list has been prepared to help determine whether there is a need to report releases under CERCLA (40 CFR 302) or submit reports under Section 304 or 313 of EPCRA and, for a specific chemical, what reports need to be submitted.

The list includes chemicals under the four following federal statutory provisions:

1. *EPCRA Section 302 Extremely Hazardous Substances* - The presence of extremely hazardous substances (EHSs) in sufficient quantities requires certain emergency planning activities to be conducted. Releases of these substances are also subject to reporting under Section 304 of EPCRA. The final rule listing the extremely hazardous substances and their threshold planning quantities (TPQs), is found in 40 CFR 355.
2. *CERCLA Hazardous Substances* - Releases of CERCLA hazardous substances are subject to reporting under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) of 1980. Such releases are also subject to reporting under Section 304 of EPCRA. CERCLA hazardous substances and their reportable quantities (RQs) are listed in 40 CFR 302, Table 302.4.
3. *EPCRA Section 313 Toxic Chemicals* - Emissions or releases of EPCRA Section 313 toxic chemicals must be reported annually as part of EPCRA's community right-to-know provisions. A list of these toxic chemicals is found in 40 CFR 372.65.
4. *RCRA Hazardous Wastes* - The consolidated list includes specific chemicals from the RCRA P and U lists only (40 CFR 261.33). RCRA hazardous wastes from the "F" and "K" lists are not included here; such waste streams are also CERCLA hazardous substances. This listing is provided as an indicator that you may already have data on a specific chemical that can be used for EPCRA reporting.

There are four columns in the consolidated list corresponding to these four statutory provisions. If a chemical is listed as an extremely hazardous substance under Section 302, its TPQ is given in the extremely hazardous substance column. Similarly, the RQ is given for those chemicals that are listed as CERCLA hazardous substances. A key to the symbols used in the Section 302 and CERCLA columns precedes the list. An "X" in the column for Section 313 indicates that the chemical is subject to reporting under Section 313.

The letter-and-digit code in the column for 40 CFR 261.33 is the chemical's RCRA hazardous waste code. A blank in any of these columns indicates that the chemical is not subject to the corresponding statutory authorities.

The Chemical Abstract Service (CAS) registry number is provided for each chemical on the list.

**Protocol for Conducting Environmental Compliance Audits under CERCLA**  
**Appendix A: Consolidated List of Hazardous Substances and Reportable Quantities Under CERCLA and EPCRA**

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(NOTE: This list is constantly changing; consult the Federal Register for the most up-to-date information.)

**Keys to Symbols in the Consolidated Chemical List**

- + Indicates polyaromatic compounds (PACs).
- \* Indicates carbamate wastes under RCRA; statutory one pound RQ applies until RQs are adjusted.
- # Indicates diisocyanates.

**Protocol for Conducting Environmental Compliance Audits under CERCLA**  
**Appendix A: Consolidated List of Hazardous Substances and Reportable Quantities Under CERCLA and EPCRA**

(NOTE: This list is constantly changing; consult the Federal Register for the most up-to-date information.)

This is an alphabetical listing of the consolidated list of chemicals. Numbered chemicals are listed first.

Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
1-Amino-2-methylantraquinone			x		82-28-0
1-Chloro-1,1-difluoroethane (HCFC-142b)			x		75-68-3
1-Chloro-1,1,2,2-tetrafluoroethane (HCFC-124a)			x		354-25-6
1-Methylbutadiene		100		U186	504-60-9
1-Naphthalamine		100	x	U167	134-32-7
1-Propanamine		5,000		U194	107-10-8
1-Propanol ,2,3-dibromo-phosphate (3:1)		10	x	U235	126-72-7
(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-		100	x	U091	119-90-4
(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-		10	x	U095	119-93-7
1,1-Dichloro-1-fluoroethane (HCFC-141b)			x		1717-80-6
1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b)			x		812-04-4
1,1-Dichloroethane		1,000		U076	75-34-3
1,1-Dichloroethylene		100	x	U078	75-35-4
1,1-Dichloropropane		1,000			78-99-9
1,1,2-Trichloroethane		100	x	U227	79-00-5
1,1,1,2-Tetrachloroethane		100	x	U208	630-20-6
1,1,2,2-Tetrachloroethane		100	x	U209	79-34-5
1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)]ester		100	x	U028	117-81-7
1,2-Benzenedicarboxylic acid, diethyl ester (diethyl phthlate)		1,000		U088	84-66-2
1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-		1,000		P042	51-43-4
1,2-Benzisothiazolin-3(2H)one, 1,1-dioxide		100	x	U202	81-07-2
1,2-Benzphenanthrene		100	x <sup>+</sup>	U050	218-01-9
1,2-Butylene oxide		100	x		106-88-7

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
1,2-Dibromo-3-chloropropane		1	x	U066	96-12-8
1,2-Dibromoethane		1	x	U067	106-93-4
1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)			x		354-23-4
1,2-Dichlorobenzene		100	x	U070	95-50-1
1,2-Dichloroethane		100	x	U077	107-06-2
1,2-Dichloroethylene			x		540-59-0
1,2-Dichloropropane		1,000	x	U083	78-87-5
1,2-Dimethylhydrazine		1		U099	540-73-8
1,2-Diphenylhydrazine		10	x	U109	122-66-7
1,2-Oxathiolane, 2,2-dioxide		10	x	U193	1120-71-4
1,2-trans-Dichloroethylene		1,000		U079	156-60-5
1,2,4-Trichlorobenzene		100	x		120-82-1
1,2,4,5-Tetrachlorobenzene		5,000		U207	95-94-3
1,3-Benzenediol		5,000		U201	108-46-3
1,3-Benzodioxole, 5-propyl		10	x	U090	94-58-6
1,3-Benzodioxole, 5-)1-1 propenyl		100	x	U141	120-58-1
1,3-Benzodioxole, 5-) 2,propenyl		100	x	U203	94-59-7
1,3-Butadiene		10	x		106-99-0
1,3-Dichlorobenzene		100	x	U071	541-73-1
1,3-Dichloropropane		5,000			142-28-9
1,3-Dichloropropylene		100	x	U084	542-75-6
1,3-Isobenzofurandione		5,000	x	U190	85-44-9
1,3,5-Trinitrobenzene		10		U234	99-35-4
1,4-Dichloro-2-butene		1	x	U074	764-41-0
1,4-Dichlorobenzene		100	x	U072	106-46-7



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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
1,4-Diethylene dioxide (1,4-Dioxane)		100	x	U108	123-91-1
1,4-Naphthalenedione		5,000		U166	130-15-4
2-Acetylaminofluorene		1	x	U005	53-96-3
2-Aminoanthraquinone			x		117-79-3
2-Butanone peroxide		10		U160	1338-23-4
2-Butanone (Methyl ethyl ketone)		5,000	x	U159	78-93-3
2-Butene, 1,4-dichloro-		1	x	U074	764-41-0
2-Chloro-1,1,2,2-tetrafluoroethane (HCFC 124)			x		2837-89-0
2-Chloroacetophenone		100	x		532-27-4
2-Chloroethyl vinyl ether		1,000		U042	110-75-8
2-Chlorophenol		100		U048	95-57-8
2-Cyclohexyl-4,6-dinitrophenol		100		P034	131-89-5
2-Ethoxyethanol		1,000	x	U359	110-80-5
2-Furancarboxaldehyde		5,000		U125	98-01-1
2-Methoxyethanol			x		109-86-4
2-Methylpyridine		5,000	x	U191	109-06-8
2-Naphthylamine		10	x	U168	91-59-8
2-Nitrophenol		100	x		88-75-5
2-Nitropropane		10	x	U171	79-46-9
2-Phenylphenol			x		90-43-7
2-Picoline		5,000		U191	109-06-8
2,2-Dichloro-1,1,1-trifluoroethane (HCFC-123)			x		306-83-2
2,2-Dichloropropionic acid		5,000			75-99-0
2,2,4-Trimethylpentane		1,000			540-84-1
2,3-Dichloropropene		100	x		78-88-6

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
2,3,4-Trichlorophenol		10			15950-66-0
2,3,4,6-Tetrachlorophenol		10			58-90-2
2,3,5-Trichlorophenol		10			933-78-8
2,3,6-Trichlorophenol		10			933-75-5
2,3,7,8-Tetrachlorodibenzo p-dioxin (TCDD)		1			1746-01-6
2,4-D acid		100	x	U240	94-75-7
2,4-D esters		100	x		94-11-1
2,4-D esters		100			94-79-1
2,4-D esters		100	x		94-80-4
2,4-D esters		100	x		1320-18-9
2,4-D esters		100			1928-38-7
2,4-D esters		100	x		2971-38-2
2,4-D esters		100			53467-11-1
2,4-D esters		100			1928-61-6
2,4-D esters		100	x		1929-73-3
2,4-D esters		100			25168-26-7
2,4-Diaminoanisole sulfate			x		39156-41-7
2,4-Diaminotoluene		10	x		95-80-7
2,4-Dichlorophenol		100	x	U081	120-83-2
2,4-Dimethylphenol		100	x	U101	105-67-9
2,4-Dinitrophenol		10	x	P048	51-28-5
2,4-Dinitrotoluene		10	x	U105	121-14-2
2,4,5-T esters		1,000			25168-15-4
2,4,5-T salts		1,000			13560-99-1
2,4,5-T amines		5,000			1319-72-8

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
2,4,5-T amines		5,000			3813-14-7
2,4,5-T amines		5,000			6369-96-6
2,4,5-T amines		5,000			6369-97-7
2,4,5-T amines		5,000			2008-46-0
2,4,5-T esters		1,000			93-79-8
2,4,5-T esters		1,000			1928-47-8
2,4,5-T esters		1,000			2545-59-7
2,4,5-T esters		1,000			61792-07-2
2,4,5-T acid		1,000			93-76-5
2,4,5-TP acid esters		100			32534-95-5
2,4,5-Trichlorophenol		10	x		95-95-4
2,4,6-Tribromophenol		100		U408	118-79-6
2,4,6-Trichlorophenol		10	x		88-06-2
2,5-Dinitrophenol		10			329-71-5
2,5-Furandione		5,000	x	U147	108-31-6
2,6-Diaminotoluene		10		U221	823-40-5
2,6-Dichlorophenol		100		U082	87-65-0
2,6-Dinitrophenol		10			573-56-8
2,6-Dinitrotoluene		100	x	U106	606-20-2
2,6-Xylidine			x		87-62-7
3,3-Dichlorobenzidine		1	x	U073	91-94-1
3,3'-Dimethylbenzidine dihydrochloride			x		612-82-8
3,4-Dinitrotoluene		10			610-39-9
3,4,5-Trichlorophenol		10			609-19-8
3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide		5,000	x	U192	23950-58-5

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
4-Aminoazobenzene			x		60-09-3
4-Aminobiphenyl		1	x		92-67-1
4-Chloro-m-cresol		5,000		U039	59-50-7
4-Chlorophenyl phenyl ether		5,000			7005-72-3
4-Nitrobiphenyl		10	x		92-93-3
4,4'-Diaminodiphenyl ether			x		101-80-4
4,4'-Isopropylidenediphenol			x		80-05-7
4,4'-Methylene bis(N,N-dimethyl) benzenamine			x		101-61-1
4,4'-Methylenedianiline		10	x		101-77-9
4,4'-Thiodianiline 6-dinitrophenol			x		139-65-1
4,6-Dinitro-o-cresol	10/10,000	10	x	P047	534-52-1
5-Nitro-o-anisidine			x		99-59-2
5-Nitro-o-toluidine		100	x	U181	99-55-8
Acenaphthene		100			83-32-9
Acenaphthylene		5,000			208-96-8
Acetaldehyde		1,000	x	U001	75-07-0
Acetaldehyde, trichloro-		5,000		U034	75-87-6
Acetamide		100	x		60-35-5
Acetamide, N-(4-ethoxyphenyl)-		100		U187	62-44-2
Acetamide, N-(aminothi-oxomethyl)-		1,000		P002	591-08-2
Acetic acid		5,000			64-19-7
Acetic acid, ethyl ester		5,000		U112	141-78-6
Acetic acid, fluoro, sodium salt	10/10,000	10	x	P058	62-74-8
Acetic acid, lead (2+) salt		10		U144	301-04-2
Acetic acid, thallium (1+) salt		100		U214	563-68-8

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Acetic anhydride		5,000			108-24-7
Acetone		5,000		U002	67-64-1
Acetone cyanohydrin	1,000	10	x	P069	75-86-5
Acetone thiosemicarbazide	1,000/10,000				1752-30-3
Acetonitrile		5,000	x	U003	75-05-8
Acetophenone		5,000	x	U004	98-86-2
Acetyl bromide		5,000			506-96-7
Acetyl chloride		5,000		U006	75-36-5
Acrolein	500	1	x	P003	107-02-8
Acrylamide	1,000/10,000	5,000	x	U007	79-06-1
Acrylic acid		5,000	x	U008	79-10-7
Acrylonitrile	10,000	100	x	U009	107-13-1
Acrylyl chloride	100				814-68-6
Aldicarb	100/10,000	1	x	P070	116-06-3
Aldicarb sulfone		1*		P203	1646-88-4
Adipic acid		5,000			45,390
Adiponitrile	1,000				111-69-3
Aldrin	500/10,000	1	x	P004	309-00-2
Allyl alcohol	1,000	100	x	P005	107-18-6
Allyl chloride		1,000	x		107-05-1
Allylamine	500		x		107-11-9
alpha,alpha-Dimethyl phenethylamine		5,000		P046	122-09-8
alpha-Endosulfan		1			959-98-8
alpha-BHC		10	x		319-84-6
Aluminum (fume or dust)			x		7429-90-5

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Aluminum oxide (fibrous forms)			x		1344-28-1
Aluminum phosphide	500	100	x	P006	20859-73-8
Aluminum sulfate		5,000			10043-01-3
Aminopterin	500/10,000				54-62-6
Amiton	500				78-53-5
Amiton oxalate	100/10,000				3734-97-2
Amitrole		10	x	U011	61-82-5
Ammonia	500	100	x		7664-41-7
Ammonium acetate		5,000			631-61-8
Ammonium benzoate		5,000			1863-63-4
Ammonium bicarbonate		5,000			1066-33-7
Ammonium bichromate		10			7789-09-5
Ammonium bifluoride		100			1341-49-7
Ammonium bisulfite		5,000			10192-30-0
Ammonium carbamate		5,000			1111-78-0
Ammonium carbonate		5,000			506-87-6
Ammonium chloride		5,000			12125-02-9
Ammonium chromate		10			7788-98-9
Ammonium citrate, dibasic		5,000			3012-65-5
Ammonium fluoborate		5,000			13826-83-0
Ammonium fluoride		100			12125-01-8
Ammonium hydroxide		1,000			1336-21-6
Ammonium oxalate		5,000			5972-73-6
Ammonium oxalate		5,000			6009-70-7
Ammonium oxalate		5,000			14258-49-2

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Ammonium picrate		10		P009	131-74-8
Ammonium silicofluoride		1,000			16919-19-0
Ammonium sulfamate		5,000			7773-06-0
Ammonium sulfide		100			12135-76-1
Ammonium sulfite		5,000			10196-04-0
Ammonium tartrate		5,000			14307-43-8
Ammonium tartrate		5,000			3164-29-2
Ammonium thiocyanate		5,000			1762-95-4
Ammonium vanadate		1,000		P119	7803-55-6
Amphetamine	1,000				300-62-9
Amyl acetate		5,000			628-63-7
Analine, 2,4,6-trimethyl-	500	500			88-05-1
Aniline	1,000	5,000	x	U012	62-53-3
Anthracene		5,000	x		120-12-7
Antimony		5,000	x		7440-36-0
Antimony pentachloride		1,000			7647-18-9
Antimony pentafluoride	500				7783-70-2
Antimony potassium tartrate		100			28300-74-5
Antimony tribromide		1,000			7789-61-9
Antimony trichloride		1,000			10025-91-9
Antimony trifluoride		1,000			7783-56-4
Antimony trioxide		1,000			1309-64-4
Antimycin A	1,000/10,000				1397-94-0
ANTU (Thiourea, 1-naphthalenyl-)	500/10,000	100		P072	86-88-4
Aroclor 1016		1			12674-11-2

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Aroclor 1221		1			11104-28-2
Aroclor 1232		1			11141-16-5
Aroclor 1242		1			53469-21-9
Aroclor 1248		1			12672-29-6
Aroclor 1254		1			11097-69-1
Aroclor 1260		1			11096-82-5
Arsenic		1	x		7440-38-2
Arsenic acid		1			1327-52-2
Arsenic acid		1		P010	7778-39-4
Arsenic disulfide		1			1303-32-8
Arsenic pentoxide	100/10,000	1		P011	1303-28-2
Arsenic trioxide	100/10,000	1		P012	1327-53-3
Arsenic trisulfide		1			1303-33-9
Arsenous trichloride	500	1			7784-34-1
Arsine	100				7784-42-1
Arsine, diethyl-		1		P038	692-42-2
Asbestos		1	x		1332-21-4
Azaserine		1		U015	115-02-6
Azinophos-ethyl	100/10,000				2642-71-9
Azinophos-methyl	10/10,000	1			86-50-0
Barban		1*		U280	101-27-9
Barium and compounds			x		7440-39-3
Barium cyanide		10		P013	542-62-1
Bendiocarb		1*	x	U278	22781-23-3
Bendiocarb phenol		1*		U364	22961-82-6



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Benomyl		1*	x	U271	17804-35-2
Benzal chloride	500	5,000	x	U017	98-87-3
Benzamide			x		55-21-0
Benz[a]anthracene		10	x <sup>+</sup>	U018	56-55-3
Benz[a]anthracene, 7,12-dimethyl-		1	x <sup>+</sup>	U094	57-97-6
Benz[c]acridine		100		U016	225-51-4
Benzenamine, 2-methyl-5-nitro-		100	x	U181	99-55-8
Benzenamine, 2-methyl-, hydrochloride		100	x	U222	636-21-5
Benzenamine, 3-(trifluoro-methyl)-	500				98-16-8
Benzenamine, 4-chloro		1,000	x	P024	106-47-8
Benzenamine, 4-chloro-2-methyl-hydrochloride		100		U049	3165-93-3
Benzenenamine, 4-methyl		100		U353	106-49-0
Benzenamine, 4-nitro-		5,000	x	P077	100-01-6
Benzenamine 4,4'-methylenebis-2-chloro-		10	x	U158	101-14-4
Benzenamine, N,N-dimethyl-4-phenylazo-		10	x	U093	60-11-7
Benzene		10	x	U019	71-43-2
Benzene, 1-bromo-4-phenoxy-		100		U030	101-55-3
Benzene, 1-(chloromethyl)-4-nitro-	500/10,000				100-14-1
Benzene, 1-methylethyl- (cumene)		5,000	x	U055	98-82-8
Benzene, 1,3-diisocyanatomethyl-		100	x	U223	26471-62-5
Benzene, chloro-		100	x	U037	108-90-7
Benzene, dimethyl-		100	x	U239	1330-20-7
Benzene, hexachloro-		10	x	U127	118-74-1
Benzene, hexahydro- (cyclohexane)		1,000	x	U056	110-82-7
Benzene, m-dimethyl-		1,000	x	U239	108-38-3

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Benzene, methyl- (toluene)		1,000	x	U220	108-88-3
Benzene, o-dimethyl-		1,000	x	U239	95-47-6
Benzene, p-dimethyl-		100	x	U239	106-42-3
Benzeneearsonic acid	10/10,000				98-05-5
Benzenesulfonyl chloride		100		U020	98-09-9
Benzidine		1	x	U021	92-87-5
Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)	500/10,000				3615-21-2
Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-		10		U157	56-49-5
Benzo[a]pyrene		1	x <sup>+</sup>	U022	50-32-8
Benzo[b]fluoranthene		1	x <sup>+</sup>		205-99-2
Benzo[ghi]perylene		5,000			191-24-2
Benzoic acid		5,000			65-85-0
Benzo[jk]fluorene		100		U120	206-44-0
Benzo[k]fluoranthene		5,000	x <sup>+</sup>		207-08-9
Benzonitrile		5,000			100-47-0
Benzotrichloride	100	10	x	U023	98-07-7
Benzoyl chloride		1,000	x		98-88-4
Benzoyl peroxide			x		94-36-0
Benzyl chloride	500	100	x	P028	100-44-7
Benzyl cyanide		500			140-29-4
Beryllium		10	x	P015	7440-41-7
Beryllium chloride		1			7787-47-5
Beryllium fluoride		1			7787-49-7
Beryllium nitrate		1			13597-99-4
Beryllium nitrate		1			7787-55-5

**Protocol for Conducting Environmental Compliance Audits under CERCLA**  
**Appendix A: Consolidated List of Hazardous Substances and Reportable Quantities Under CERCLA and EPCRA**

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
beta-Endosulfan		1			33213-65-9
beta-BHC		1			319-85-7
beta-Chloronaphthalene		5,000		U047	91-58-7
Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6-(methylamino)carbonyloxy imino-	500/10,000				15271-41-7
Biphenyl		100	x		92-52-4
Bis(2-chloroethoxy) methane		1,000	x	U024	111-91-1
Bis(2-chloroisopropyl) ether		1,000	x	U027	108-60-1
Bis(chloromethyl)ketone	10/10,000				534-07-6
Bitoscanate	500/10,000				4044-65-9
Boron trichloride	500		x		10294-34-5
Boron trifluoride	500		x		7637-07-2
Boron trifluoride compound with methyl ether (1:1)	1,000				353-42-4
Bromadiolone	100/10,000				18772-56-7
Bromine	500		x		7726-95-6
Bromoacetone		1,000		P017	598-31-2
Bromochlorodifluoromethane (Halon 1211)			x		353-59-3
Bromoform		100	x	U225	75-25-2
Bromotrifluoromethane (Halon 1311)			x		75-63-8
Brucine		100	x	P018	357-57-3
Butanoic acid, 4-[bis(2-chloroethyl)amino] benzene-		10		U035	147,985
Butyl acetate		5,000			123-86-4
Butyl acrylate			x		141-32-2
Butyl benzyl phthalate		100			85-68-7
Butylamine		1,000			109-73-9

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Butyraldehyde			x		123-72-8
Butyric acid		5,000			107-92-6
CI Acid Green 3			x		4680-78-8
CI Basic Green 4			x		569-64-2
CI Basic Red 1			x		989-38-8
CI Direct Black 38			x		1937-37-7
CI Direct Blue 6			x		2602-46-2
CI Direct Brown 95			x		16071-86-6
CI Disperse Yellow 3			x		2832-40-8
CI Food Red 5			x		3761-53-3
CI Food Red 15			x		81-88-9
CI Solvent Orange 7			x		3118-97-6
CI Solvent Yellow 3			x		97-56-3
CI Solvent Yellow 14			x		824-07-0
CI Solvent Yellow 34 (Auramine)		100	x	U014	492-80-8
CI Vat Yellow 4			x		128-66-5
Cacodylic acid		1		U136	75-60-5
Cadmium		10	x		7440-43-9
Cadmium acetate		10			543-90-8
Cadmium bromide		10			7789-42-6
Cadmium chloride		10			10108-64-2
Cadmium oxide	100/10,000				1306-19-0
Cadmium stearate	1,000/10,000				2223-93-0
Calcium arsenate	500/10,000	1			7778-44-1
Calcium arsenite		1			52740-16-6

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Calcium carbide		10			75-20-7
Calcium chromate		10		U032	13765-19-0
Calcium cyanamide		1,000	x		156-62-7
Calcium cyanide		10		P021	592-01-8
Calcium dodecylbenzene sulfonate		1,000			26264-06-2
Calcium hypochlorite		10			7778-54-3
Cantharidin	100/10,000				56-25-7
Caprolactam		5,000			105-60-2
Captan		10	x		133-06-2
Carbachol chloride	500/10,000				51-83-2
Carbamic acid, ethyl ester		100	x	U238	51-79-6
Carbamic acid, methyl- nitroso-, ethyl ester		1		U178	615-53-2
Carbamic acid, methyl-o-(((2,4-dimethyl-1,3 dithiolan-2-yl)methylene) amino)-	100/10,000	1*		P185	26419-73-8
Carbamic chloride, dimethyl-		1	x	U097	79-44-7
Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester		1*		U387	52888-80-9
Carbaryl		100	x	U279	63-25-2
Carbendazim		1*		U372	10605-21-7
Carbofuran	10/10,000	10	x	P127	1563-66-2
Carbofuran phenol		1*		U367	1563-38-8
Carbon disulfide	10,000	100	x	P022	75-15-0
Carbon oxyfluoride		1,000		U033	353-50-4
Carbon tetrachloride		10	x	U211	56-23-5
Carbonyl sulfide		100	x		463-58-1
Carbophenothion	500				786-19-6

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Carbosulfan		1*		P189	55285-14-8
Catechol		100	x		120-80-9
Chloramben		100	x		133-90-4
Chlordane	1,000	1	x	U036	57-74-9
Chlorfenvinfos	500				470-90-6
Chlorinated fluorocarbon (Freon 113)			x		76-13-1
Chlorine	100	10	x		7782-50-5
Chlorine cyanide		10		P033	506-77-4
Chlorine dioxide			x		10049-04-4
Chlormephos	500				24934-91-6
Chlormequat chloride	100/10,000				999-81-5
Chlornaphazine		100		U026	494-03-1
Chloroacetaldehyde		1,000		P023	107-20-0
Chloroacetic acid	100/10,000	100	x		79-11-8
Chlorobenzilate		10	x	U038	510-15-6
Chlorodibromomethane		100			124-48-1
Chlorodifluoromethane (HCFC-22)			x		75-45-6
Chloroethane		100	x		75-00-3
Chloroethanol	500				107-07-3
Chloroethyl chloroformate	1,000				627-11-2
Chloroform	10,000	10	x	U044	67-66-3
Chloromethyl methyl ether	100	10	x	U046	107-30-2
Chlorophacinone	100/10,000				3691-35-8
Chloroprene		100	x		126-99-8
Chlorosulfonic acid		1,000			7790-94-5

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Chlorotetrafluoroethane			x		63938-10-3
Chlorothalonil			x		1897-45-6
Chloroxuron	500/10,000				1982-47-4
Chlorpyrifos		1			2921-88-2
Chlorthiophos	500				21923-23-9
Chromic acetate		1,000			1066-30-4
Chromic acid		10			11115-74-5
Chromic acid		10			7738-94-5
Chromic chloride	1/10,000				10025-73-7
Chromic sulfate		1,000			10101-53-8
Chromium		5,000	x		7440-47-3
Chromous chloride		1,000			10049-05-5
Cobalt			x		7440-48-4
Cobalt,((2,2'-1,2- ethanediylbis (ni- trilomethylidyne))bis(6-fluorophenylato))(2-)- N,N',O,O')-	100/10,000				62207-76-5
Cobalt carbonyl	10/10,000				10210-68-1
Cobaltous bromide		1,000			7789-43-7
Cobaltous formate		1,000			544-18-3
Cobaltous sulfamate		1,000			14017-41-5
Colchicine	10/10,000				64-86-8
Copper		5,000	x		7440-50-8
Copper cyanide		10		P029	544-92-3
Coumaphos	100/10,000	10			56-72-4
Coumatetralyl	500/10,000				5836-29-3
Creosote		1	x	U051	8001-58-9

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Cresol(s) (mixed isomers)		100	x	U052	1319-77-3
Crimidine	100/10,000				535-89-7
Crotonaldehyde	1,000	100	x	U053	4170-30-3
Crotonaldehyde, (E)-	1,000	100		U053	123-73-9
Cumene hydroperoxide		10	x	U096	80-15-9
Cupferron			x		135-20-6
Cupric acetate		100			142-71-2
Cupric chloride		10			7447-39-4
Cupric nitrate		100			3251-23-8
Cupric oxalate		100			5893-66-3
Cupric sulfate		10			7758-98-7
Cupric sulfate, ammoniated		100			10380-29-7
Cupric tartrate		100			815-82-7
Cyanides (soluble cyanide salts and complexes)		10		P030	57-12-5
Cyanogen		100		P031	460-19-5
Cyanogen bromide	500/10,000	1,000		U246	506-68-3
Cyanogen iodide	1,000/10,000				506-78-5
Cyanophos		1,000			2636-26-2
Cyanuric fluoride		100			675-14-9
Cyclohexanone		5,000		U057	108-94-1
Cycloheximide	100/10,000				66-81-9
Cyclohexylamine	10,000				108-91-8
Cyclophosphamide		10		U058	50-18-0
D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-		1		U206	18883-66-4
Daunomycin		10		U059	20830-81-3



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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
DDD		1		U060	72-54-8
DDE		1			72-55-9
DDE		5,000			3547-04-4
DDT		1		U061	50-29-3
Decaborane(14)	500/10,000				17702-41-9
Decabromodiphenyl oxide			x		1163-19-5
Delta-BHC		1			319-86-8
Demeton	500				8065-48-3
Demeton-S-methyl	500				919-86-8
Di-(2-ethylhexyl)phthalate (DEHP)		100	x	U028	117-81-7
Di-n-octyl phthalate		5,000		U107	117-84-0
Di-n-propylNitrosamine (N-Nitrosodi-n-propylamine)		10	x	U111	621-64-7
Dialifor	100/10,000				10311-84-9
Diallate		100	x	U062	2303-16-4
Diaminotoluene (mixed isomers)		10	x	U221	25376-45-8
Diaminotoluene		10		U221	496-72-0
Diazinon		1	x		333-41-5
Diazomethane		100	x		334-88-3
Dibenz[a,i]pyrene		10	x	U064	189-55-9
Dibenz[a,h] anthracene		1	x <sup>+</sup>	U063	53-70-3
Dibenzofuran		100	x		132-64-9
Diborane		100			19287-45-7
Dibromotetrafluoroethane (Halon 2402)			x		124-73-2
Dibutyl phthalate		10	x	U069	84-74-2
Dicamba		1,000	x		1918-00-9

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Dichlone		1			117-80-6
Dichloro-1,1,2-trifluoroethane			x		90454-18-5
Dichlorobenil		100			1194-65-6
Dichlorobenzene (mixed isomers)		100	x		25321-22-6
Dichlorobromomethane		5,000	x		75-27-4
Dichlorodifluoromethane (CFC-12)		5,000	x	U075	75-71-8
Dichloroethyl ether	10,000	10	x	U025	111-44-4
Dichloromethyl ether	100	10	x	P016	542-88-1
Dichloromethylphenylsilane	1,000				149-74-6
Dichloropropane		1,000			26638-19-7
Dichloropropane-dichloropropene (mixture)		100			8003-19-8
Dichloropropene		100			26952-23-8
Dichlorotetrafluoroethane (CFC-114)			x		76-14-2
Dichlorotrifluoroethane			x		34077-87-7
Dichlorvos	1,000	10	x		62-73-7
Dicofol		10	x		115-32-2
Dicrotophos	100				141-66-2
Dieldrin		1		P037	60-57-1
Diepoxybutane	500	10	x	U085	1464-53-5
Diethanolamine		100	x		111-42-2
Diethyl chlorophosphate	500				814-49-3
Diethyl-p-nitrophenylphosphate		100		P041	311-45-5
Diethyl sulfate		10	x		64-67-5
Diethylamine		100			109-89-7
Diethylstilbestrol		1		U089	56-53-1

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Digitoxin	100/10,000				71-63-6
Diglycidyl ether	1,000				2238-07-5
Digoxin	10/10,000				20830-75-5
Dihydrosafrole		10	x	U090	94-58-6
Diisopropylfluorophosphate	100	100		P043	55-91-4
Dimefox	500				115-26-4
Dimethoate	500/10,000	10	x	P044	60-51-5
Dimethylformamide		100	x		25,173
Dimethyl-p-phenylenediamine	10/10,000				99-98-9
Dimethyl phosphorochloridothioate	500		x		2524-03-0
Dimethyl phthalate		5,000	x	U102	131-11-3
Dimethyl sulfate	500	100	x	U103	77-78-1
Dimethylamine		1,000	x	U092	124-40-3
Dimethyldichlorosilane	500		x		75-78-5
Dimethylhydrazine	1,000	10	x	U098	57-14-7
Dimetilan	500/10,000	1*		P191	644-64-4
Dinitrobenzene (mixed isomers)		100			25154-54-5
Dinitrophenol		10			25550-58-7
Dinitrotoluene (mixed isomers)		10	x		25321-14-6
Dinoseb	100/10,000	1,000	x	P020	88-85-7
Dinoterb	500/10,000				1420-07-1
Dioxathion	500				78-34-2
Diphacinone	10/10,000				82-66-6
Diphenylamine			x		122-39-4
Diphosphoramidate, octamethyl-	100	100		P085	152-16-9

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Dipropylamine		5,000		U110	142-84-7
Diquat		1,000			85-00-7
Diquat		1,000			2764-72-9
Disulfoton	500	1		P039	298-04-4
Dithiazinine iodide	500/10,000				514-73-8
Dithiobiuret	100/10,000	100	x	P049	541-53-7
Diuron		100	x		330-54-1
Dodecylbenzenesulfonic acid		1,000			27176-87-0
Emetine, dihydrochloride	1/10,000				316-42-7
Endosulfan	10/10,000	1		P050	115-29-7
Endosulfan sulfate		1			1031-07-8
Endothall		1,000		P088	145-73-3
Endothion	500/10,000				2778-04-3
Endrin	500/10,000	1		P051	72-20-8
Endrin aldehyde		1			7421-93-4
Epichlorohydrin	1,000	100	x	U041	106-89-8
EPN	100/10,000				2104-64-5
Ergocalciferol	1,000/10,000				50-14-6
Ergotamine tartrate	500/10,000				379-79-3
Ethanamine, N-ethyl-N-nitroso-		1	x	U174	55-18-5
Ethane, 1,1'-oxybis-		100		U117	60-29-7
Ethanesulfonyl chloride, 2-chloro-	500				1622-32-8
Ethanedithioamide		10	x	U218	62-55-5
Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-		1*		U394	30558-43-1
Ethanol, 1,2-dichloro-acetate	1,000				10140-87-1

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Ethanol, 2,2'-(nitroso imino) bis-		1		U173	1116-54-7
Ethanol, 2,2'-oxybis-, dicarbamate		1*		U395	5952-26-1
Ethene, chloro-		1	x	U043	75-01-4
Ethion	1,000	10			563-12-2
Ethoprophos	1,000		x		13194-48-4
Ethyl acrylate		1,000	x	U113	140-88-5
Ethyl chloroformate			x		541-41-3
Ethyl methacrylate		1,000		U118	97-63-2
Ethyl methanesulfonate		1		U119	62-50-0
Ethylbenzene		1,000	x		100-41-4
Ethylbis(2-chloroethyl)amine	500				538-07-8
Ethylene			x		74-85-1
Ethylene glycol		5,000	x		107-21-1
Ethylene oxide	1,000	10	x	U115	75-21-8
Ethylene thiourea		10	x	U116	96-45-7
Ethylenebisdithiocarbamic acid, salts & esters		5,000	x	U114	111-54-6
Ethylenediamine	10,000	5,000			107-15-3
Ethylenediamine tetra-acetic acid (EDTA)		5,000			60-00-4
Ethyleneimine	500	1	x	P054	151-56-4
Ethylenethiocyanate	10,000				542-90-5
Ethylidene dichloride		1,000	x	U076	75-34-3
Famphur		1,000	x	P097	52-85-7
Fenamiphos	10/10,000				22224-92-6
Fensulfothion	500				115-90-2
Ferric ammonium citrate		1,000			1185-57-5

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Ferric ammonium oxalate		1,000			2944-67-4
Ferric ammonium oxalate		1,000			55488-87-4
Ferric chloride		1,000			7705-08-0
Ferric fluoride		100			7783-50-8
Ferric nitrate		1,000			10421-48-4
Ferric sulfate		1,000			10028-22-5
Ferrous ammonium sulfate		1,000			10045-89-3
Ferrous chloride		100			7758-94-3
Ferrous sulfate		1,000			7720-78-7
Ferrous sulfate		1,000			7782-63-0
Fluenetil	100/10,000				4301-50-2
Fluometuron			x		2164-17-2
Fluorene		5,000			86-73-7
Fluorine	500	10	x	P056	7782-41-4
Fluoroacetamide	100/10,000	100		P057	640-19-7
Fluoroacetic acid	10/10,000				144-49-0
Fluoroacetyl chloride	10				359-06-8
Fluorouracil	500/10,000		x		51-21-8
Fonofos	500				944-22-9
Formaldehyde	500	100	x	U122	50-00-0
Formaldehyde cyanohydrin	1,000				107-16-4
Formetanate hydrochloride	500/10,000	1*		P198	23422-53-9
Formic acid		5,000	x	U123	64-18-6
Formothion	100				2540-82-1
Formparanate	100/10,000	1*		P197	17702-57-7

**Protocol for Conducting Environmental Compliance Audits under CERCLA**  
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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Fosthietan	500				21548-32-3
Fuberidazole	100/10,000				3878-19-1
Fulminic acid, mercury (II) salt		10		P065	628-86-4
Fumaric acid		5,000			110-17-8
Furan	500	100		U124	110-00-9
Furan, tetrahydro-		1,000		U213	109-99-9
Gallium trichloride	500/10,000				13450-90-3
Glycidylaldehyde		10		U126	765-34-4
Guanidine, N-nitroso-N methyl-N'-nitro		10		U163	70-25-7
Heptachlor		1	x	P059	76-44-8
Heptachlor epoxide		1			1024-57-3
Hexachloro-1,3-butadiene		1	x	U128	87-68-3
Hexachlorocyclopentadiene	100	10	x	U130	77-47-4
Hexachloroethane		100	x	U131	67-72-1
Hexachloronaphthalene			x		1335-87-1
Hexachlorophene		100	x	U132	70-30-4
Hexachloropropene		1,000		U243	1888-71-7
Hexaethyl tetraphosphate		100		P062	757-58-4
Hexamethylene-1,6-diisocyanate		100	x <sup>#</sup>		300,380
Hexamethylenediamine, N,N'-dibutyl-		500			4835-11-4
Hexamethylphosphoramide		1	x		680-31-9
Hexane		5,000	x		110-54-3
Hydrazine	1,000	1	x	U133	302-01-2
Hydrazine sulfate			x		10034-93-2
Hydrochloric acid (hydrogen chloride (aerosol forms only))		5,000	x		7647-01-0

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Hydrochloric acid		5,000			7647-01-0
Hydrochloric acid (conc. 37% or greater)		5,000			7647-01-0
Hydrocyanic acid	100	10	x	P063	74-90-8
Hydrogen fluoride	100	100	x	U134	7664-39-3
Hydrogen peroxide (conc > 52%)	1,000				7722-84-1
Hydrogen selenide	10				7783-07-5
Hydrogen sulfide	500	100	x	U135	7783-06-4
Hydroquinone	500/10,000	100	x		123-31-9
Indeno(1,2,3-cd)pyrene		100	x <sup>+</sup>	U137	193-39-5
Iron, pentacarbonyl-	100		x		13463-40-06
iso-Amyl acetate		5,000			123-92-2
iso-Butyl acetate		5,000			110-19-0
iso-Butylamine		1,000			78-81-9
iso-Butyric acid		5,000			79-31-2
Isobenzan	100/10,000				297-78-9
Isobutyl alcohol		5,000		U140	78-83-1
Isobutyraldehyde			x		78-84-2
Isobutyronitrile	1,000				78-82-0
Isocyanic acid, 3,4-dichlorophenyl ester	500/10,000				102-36-3
Isodrin	100/10,000	1	x	P060	465-73-6
Isophorone		5,000			78-59-1
Isophorone diisocyanate	100		x <sup>#</sup>		4098-71-9
Isoprene		100			78-79-5
Isopropanolamine dodecylbenzene sulfonate		1,000			42504-46-1
Isopropyl alcohol (mfg- strong acid processes)			x		67-63-0



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Isopropyl chloroformate	1,000				108-23-6
Isopropylmethylpyrazolyl dimethylcarbamate	500	1*		P192	119-38-0
Kepon		1		U142	143-50-0
Lactonitrile	1,000				78-97-7
Lasiocarpine		10		U143	303-34-4
Lead		10	x		7439-92-1
Lead arsenate		1			10102-48-4
Lead arsenate		1			7645-25-2
Lead arsenate		1			7784-40-9
Lead chloride		10			7758-95-4
Lead fluoborate		10			13814-96-5
Lead fluoride		10			7783-46-2
Lead iodide		10			10101-63-0
Lead nitrate		10			10099-74-8
Lead phosphate		10		U145	7446-27-7
Lead stearate		10			1072-35-1
Lead stearate		10			52652-59-2
Lead stearate		10			7428-48-0
Lead stearate		10			56189-09-4
Lead subacetate		10		U146	1335-32-6
Lead sulfate		10			15739-80-7
Lead sulfate		10			7446-14-2
Lead sulfide		10			1314-87-0
Lead thiocyanate		10			592-87-0
Leptophos	500/10,000				21609-90-5

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Lewisite	10				541-25-3
Lindane	1,000/10,000	1	x	U129	58-89-9
Lithium chromate		10			14307-35-8
Lithium hydride	100				7580-67-8
m-Cresol		1,000	x	U052	108-39-4
m-Dinitrobenzene		100	x		99-65-0
m-Nitrophenol		100			554-84-7
m-Nitrotoluene		1,000			99-08-1
Malathion		100	x		121-75-5
Maleic acid		5,000			110-16-7
Maleic anhydride		5,000	x	U147	
Maleic hydrazide		5,000		U148	123-33-1
Malononitrile	500/10,000	1,000	x	U149	109-77-3
Maneb			x		12427-38-2
Manganese			x		7439-96-5
Manganese, bis(dimethylcarbamodithioato-S,S')		1*		P196	15339-36-3
Manganese, tricarbonyl methylcyclopentadienyl	100				12108-13-3
Mechlorethamine	10		x		51-75-2
Melphalan		1		U150	148-82-3
Mephosfolan	500				950-10-7
Mercuric acetate	500/10,000				1600-27-7
Mercuric chloride	500/10,000				7487-94-7
Mercuric cyanide		1			592-04-1
Mercuric nitrate		10			10045-94-0
Mercuric oxide	500/10,000				21908-53-2

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Mercuric sulfate		10			7783-35-9
Mercuric thiocyanate		10			592-85-8
Mercurous nitrate		10			7782-86-7
Mercurous nitrate		10			10415-75-5
Mercury		1	x	U151	7439-97-6
Methacrolein diacetate	1,000				10476-95-6
Methacrylic anhydride	500				760-93-0
Methacryloyl chloride	100				920-46-7
Methacryloyloxyethyl isocyanate	100				30674-80-7
Methacrylonitrile	500	1,000	x	U152	126-98-7
Methamidophos	100/10,000				10265-92-6
Methanesulfonyl chloride, trichloro-	500	100	x		594-42-3
Methanesulfonyl fluoride	1,000				558-25-8
Methanol		5,000	x	U154	67-56-1
Methapyrilene		5,000		U155	91-80-5
Methidathion	500/10,000				950-37-8
Methiocarb	500/10,000	10	x	P199	2032-65-7
Methomyl	500/10,000	100		P066	16752-77-5
Methoxychlor		1	x	U247	72-43-5
Methoxyethylmercuric acetate	500/10,000				151-38-2
Methyl 2-chloroacrylate		500			80-63-7
Methyl acrylate			x		96-33-3
Methyl bromide	1,000	1,000	x	U029	74-83-9
Methyl chloride		100	x	U045	74-87-3
Methyl chlorocarbonate	500	1,000	x	U156	79-22-1

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Methyl chloroform		1,000	x	U226	71-55-6
Methyl chloroformate (Methylchlorocarbonate)	500	1,000		U156	79-22-1
Methyl hydrazine	500	10	x	P068	60-34-4
Methyl iodide		100	x	U138	74-88-4
Methyl isobutyl ketone		5,000	x	U161	108-10-1
Methyl isocyanate	500	10	x	P064	624-83-9
Methyl isothiocyanate	500		x		556-61-1
Methyl mercaptan	500	100	x	U153	74-93-1
Methyl methacrylate		1,000	x	U162	80-62-6
Methyl phenkapton	500				3735-23-7
Methyl phosphonic dichloride	100				676-97-1
Methyl tert-butyl ether		1,000	x		1634-04-4
Methyl thiocyanate	10,000				556-64-9
Methyl vinyl ketone	10				78-94-4
Methylenebis(phenylisocyanate) (MBI)		5,000	x <sup>#</sup>		101-68-8
Methylene bromide		1,000	x	U068	74-95-3
Methylene chloride		1,000	x	U080	75-09-2
Methylmercuric dicyanamide	500/10,000				502-39-6
Methylthiouracil		10		U164	56-04-2
Methyltrichlorosilane	500		x		75-79-6
Metolcarb	100/10,000	1*		P190	1129-41-5
Mevinphos	500	10	x		7786-34-7
Mexacarbate	500/10,000	1,000		P128	315-18-4
Michler's ketone			x		90-94-8
Mitomycin C	500/10,000	10		U010	50-07-7

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Molybdenum trioxide			x		1313-27-5
Monocrotophos	10/10,000				6923-22-4
(Mono)chloropentafluoroethane (CFC 115)			x		76-15-3
Monoethylamine		100			75-04-7
Monomethylamine		100			74-89-5
Muscimol	500/10,000	1,000		P007	2763-96-4
Mustard gas	500		x		505-60-2
n-Butyl alcohol		5,000	x	U031	71-36-3
N,N-Diethylaniline		1,000			91-66-7
N,N'-Diethylhydrazine		10		U086	1615-80-1
N,N'-Dimethylaniline		100	x		121-69-7
N-Nitrosodi-n-butylamine		10	x	U172	924-16-3
N-Nitroso-N-ethylurea		1	x	U176	759-73-9
N-Nitroso-N-methylurea		1	x	U177	684-93-5
N-Nitrosodiphenylamine		100	x		86-30-6
N-Nitrosomethylvinylamine		10	x	P084	4549-40-0
N-Nitrosomorpholine		1	x		59-89-2
N-Nitrosornicotine			x		16543-55-8
N-Nitrosopiperidine		10	x	U179	100-75-4
N-Nitrosopyrrolidine		1		U180	930-55-2
Naled		10	x		300-76-5
Naphthalene		100	x	U165	91-20-3
Naphthenic acid		100			1338-24-5
Nickel		100	x		7440-02-0
Nickel ammonium sulfate		100			15699-18-0

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Nickel carbonyl	1	10		P073	13463-39-3
Nickel chloride		100			37211-05-5
Nickel chloride		100			7718-54-9
Nickel cyanide		10		P074	557-19-7
Nickel hydroxide		10			12054-48-7
Nickel nitrate		100			14216-75-2
Nickel sulfate		100			7786-81-4
Nicotine	100	100		P075	54-11-5
Nicotine sulfate	100/10,000	100			65-30-5
Nitric acid	1,000	1,000	x		7697-37-2
Nitric oxide	100	10		P076	10102-43-9
Nitrilotriacetic acid			x		139-13-9
Nitrobenzene	10,000	1,000	x	U169	98-95-3
Nitrocyclohexane	500				1122-60-7
Nitrofen			x		1836-75-5
Nitrogen dioxide	100	10		P078	10102-44-0
Nitrogen dioxide		10			10544-72-6
Nitroglycerine		10	x	P081	55-63-0
Nitrophenol (mixed isomers)		100			25154-55-6
Nitrosodimethylamine	1,000	10	x	P082	62-75-9
Nitrotoluene		1,000			1321-12-6
Norbormide	100/10,000	100			991-42-4
O,O-Diethyl S-methyl dithiophosphate		5,000		U087	3288-58-2
o-Anisidine		100	x		90-04-0
o-Anisidine hydrochloride			x		134-29-2

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o-Cresol	1,000/10,000	100	x	U052	95-48-7
o-Dinitrobenzene		100	x		528-29-0
o-Nitrotoluene		1,000			88-72-2
o-Toluidine		100	x	U328	95-53-4
o-Toluidine hydrochloride		100	x	U222	636-21-5
Octachloronaphthalene			x		2234-13-1
Osmium tetroxide		1,000	x	P087	20816-12-0
Ouabain	100/10,000				630-60-4
Oxamyl	100/10,000	1*		P194	23135-22-0
Oxetane, 3,3- bis(chloromethyl)-	500				78-71-7
Oxydisulfoton	500				2497-07-6
Ozone	100		x		10028-15-6
p-Anisidine			x		104-94-9
p-Benzoquinone		10	x	U197	106-51-4
p-Cresidine			x		120-71-8
p-Cresol		100	x	U052	106-44-5
p-Dinitrobenzene		100	x		100-25-4
p-Nitrophenol		100	x	U170	100-02-7
p-Nitrosodiphenylamine			x		156-10-5
p-Nitrotoluene		1,000			99-99-0
p-Phenylenediamine		5,000	x		106-50-3
Paraformaldehyde		1,000			30525-89-4
Paraldehyde		1,000	x	U182	123-63-7
Paraquat dichloride	10/10,000				1910-42-5
Paraquat methosulfate	10/10,000				2074-50-2

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Parathion	100	10	x	P089	56-38-2
Parathion, methyl	100/10,000	100	x	P071	298-00-0
Paris green (Cuprie acetoarsenite)	500/10,000	1			12002-03-8
Pentaborane	500				19624-22-7
Pentachlorobenzene		10		U183	608-93-5
Pentachloroethane		10	x	U184	76-01-7
Pentachloronitrobenzene		100	x	U185	82-68-8
Pentachlorophenol		10	x		87-86-5
Pentadecyclamine	100/10,000				2570-26-5
Peracetic acid	500		x		79-121-0
Phenanthrene		5,000	x		85-01-8
Phenol	500/10,000	1,000	x	U188	108-95-2
Phenol, 2,2'-thiobis [4-chloro-6-methyl	100/10,000				4418-66-0
Phenol, 3-(1-methylethyl), methylcarbamate	500/10,000	1*		P202	64-00-6
Phenoxarsine, 10,10'-oxydi-	500/10,000				58-36-6
Phenyl dichloroarsine	500	1		P036	696-28-6
Phenylhydrazine hydrochloride	1,000/10,000				59-88-1
Phenylmercury acetate	500/10,000	100		P092	62-38-4
Phenylsilatrane	100/10,000				2097-19-0
Phenylthiourea	100/10,000	100		P093	103-85-5
Phorate	10	10		P094	298-02-2
Phosacetim	100/10,000				4104-14-7
Phosfolan	100/10,000				947-02-4
Phosgene	10	10	x	P095	75-44-5
Phosmet	10/10,000				732-11-6



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Phosphamidon	100				13171-21-6
Phosphine	500	100	x	P096	7803-51-2
Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl ester	500				2665-30-7
Phosphonothioic acid, methyl-, O-ethyl O-(4-(methylthio)phenyl) ester	500				2703-13-1
Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl)amino)ethyl) O-ethyl ester	100				50782-69-9
Phosphoric acid		5,000	x		7664-38-2
Phosphoric acid, dimethyl 4-(methylthio)phenyl ester	500				3254-63-5
Phosphorothioic acid, O,O-diethyl, O-pyrazinyl ester	500	100		P040	297-97-2
Phosphorothioic acid, O,O-dimethyl-S-(2-methylthio)ethyl est	500				2587-90-8
Phosphorus	100	1	x		7723-14-0
Phosphorus oxychloride	500	1,000			10025-87-3
Phosphorus pentachloride	500				10026-13-8
Phosphorus pentasulfide		100		U189	1314-80-3
Phosphorus trichloride	1,000	1,000			7719-12-2
Physostigmine	100/10,000	1*		P204	57-47-6
Physostigmine, salicylate (1:1)	100/10,000	1*		P188	57-64-7
Picric acid			x		88-89-1
Picrotoxin	500/10,000				124-87-8
Piperidine	1,000				110-89-4
Pirimifos-ethyl	1,000				23505-41-1
Polychlorinated biphenyls		1	x		1336-36-3
Potassium arsenate		1			7784-41-0

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Potassium arsenite	500/10,000	1			10124-50-2
Potassium bichromate		10			7778-50-9
Potassium chromate		10			7789-00-6
Potassium cyanide	100	10		P098	151-50-8
Potassium hydroxide		1,000			1310-58-3
Potassium N-methyldithiocarbamate			x		137-41-7
Potassium permanganate		100			7722-64-7
Potassium silver cyanide	500	1		P099	506-61-6
Promecarb	500/10,000	1*		P201	2631-37-0
Pronamide		5,000	x	U192	23950-58-5
Propargite		10	x		2312-35-8
Propargyl alcohol		1,000	x	P102	107-19-7
Propargyl bromide	10				106-96-7
Propham		1*		U373	122-42-9
Propiolactone, beta-	500	10	x		57-57-8
Propionaldehyde		1,000	x		123-38-6
Propionic acid		5,000			79-09-4
Propionic acid, 2-(2,4,5-trichlorophenoxy)-		100			93-72-1
Propionic anhydride		5,000			123-62-6
Propionitrile	500	10		P101	107-12-0
Propionitrile, 3-chloro-	1,000	1,000	x	P027	542-76-7
Propiophenone, 4'-amino-	100/10,000				70-69-9
Propoxur		100	x	U411	114-26-1
Propyl chloroformate	500				109-61-5
Propylene (Propene)			x		115-07-1

**Protocol for Conducting Environmental Compliance Audits under CERCLA**  
**Appendix A: Consolidated List of Hazardous Substances and Reportable Quantities Under CERCLA and EPCRA**

(NOTE: This list is constantly changing; consult the Federal Register for the most up-to-date information.)

Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Propylene oxide	10,000	100	x		75-56-9
Propyleneimine	10,000	1	x	P067	75-55-8
Prothoate	100/10,000				2275-18-5
Pyrene	1,000/10,000	5,000			129-00-0
Pyrethrins		1			121-21-1
Pyrethrins		1			121-29-9
Pyrethrins		1			8003-34-7
Pyridine		1,000	x	U196	110-86-1
Pyridine, 2-methyl-5-vinyl-	500				140-76-1
Pyridine, 4-amino-	500/10,000	1,000		P008	504-24-5
Pyridine, 4-nitro-1-oxide	500/10,000				1124-33-0
Pyriminil	100/10,000				53558-25-1
Quinoline		5,000	x		91-22-5
Reserpine		5,000		U200	50-55-5
Salcomine	500/10,000				14167-18-1
Sarin	10				107-44-8
sec-Amyl acetate		5,000			626-38-0
sec-Butyl acetate		5,000			105-46-4
sec-Butyl alcohol			x		78-92-2
sec-Butylamine		1,000			13952-84-6
sec-Butylamine		1,000			513-49-5
Selenious acid	1,000/10,000	10		U204	7783-00-8
Selenium		100	x		7782-49-2
Selenium dioxide		10			7446-08-4
Selenium oxychloride	500				7791-23-3

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Selenium sulfide		10		U205	7488-56-4
Selenourea		1,000		P103	630-10-4
Semicarbazide hydrochloride	1,000/10,000				563-41-7
Silane, (4-aminobutyl) diethoxymethyl-	1,000				3037-72-7
Silver		1,000	x		7440-22-4
Silver cyanide		1		P104	506-64-9
Silver nitrate		1			7761-88-8
Simazine			x		122-34-9
Sodium		10			7440-23-5
Sodium arsenate	1,000/10,000	1			7631-89-2
Sodium arsenite	500/10,000	1			7784-46-5
Sodium azide (Na(N <sup>3</sup> ))	500	1,000	x	P105	26628-22-8
Sodium bichromate		10			10588-01-9
Sodium bifluoride		100			1333-83-1
Sodium bisulfite		5,000			7631-90-5
Sodium cacodylate	100/10,000				124-65-2
Sodium chromate		10			7775-11-3
Sodium cyanide (Na(CN))	100	10		P106	143-33-9
Sodium dodecylbenzene sulfonate		1,000			25155-30-0
Sodium fluoride		1,000			7681-49-4
Sodium fluoroacetate	10/10,000	10	x	P058	62-74-8
Sodium hydrosulfide		5,000			16721-80-5
Sodium hydroxide		1,000			1310-73-2
Sodium hypochlorite		100			10022-70-5
Sodium hypochlorite		100			7681-52-9

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Sodium methylate		1,000			124-41-4
Sodium nitrite		100	x		7632-00-0
Sodium pentachlorophenate			x		131-52-2
Sodium phosphate, dibasic		5,000			10039-32-4
Sodium phosphate, dibasic		5,000			10140-65-5
Sodium phosphate, dibasic		5,000			7558-79-4
Sodium phosphate, tribasic		5,000			10101-89-0
Sodium phosphate, tribasic		5,000			10124-56-8
Sodium phosphate, tribasic		5,000			10361-89-4
Sodium phosphate, tribasic		5,000			7601-54-9
Sodium phosphate, tribasic		5,000			7758-29-4
Sodium phosphate, tribasic		5,000			7785-84-4
Sodium selenate	100/10,000	100			13410-01-0
Sodium selenite	100/10,000	100			10102-18-8
Sodium selenite		100			7782-82-3
Sodium tellurite	500/10,000				10102-20-2
Strannane, acetoxy-triphenyl-	500/10,000				900-95-8
Strontium chromate		10			7789-06-2
Strychnine	100/10,000	10		P108	57-24-9
Strychnine, sulfate	100/10,000	10			60-41-3
Styrene		1,000	x		100-42-5
Styrene oxide		100	x		96-09-3
Sulfotep	500	100		P109	3689-24-5
Sulfoxide, 3-chloropropyl octyl	500				3569-57-1
Sulfur dioxide	500				7446-09-5

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(NOTE: This list is constantly changing; consult the Federal Register for the most up-to-date information.)

Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Sulfur monochloride		1,000			12771-08-3
Sulfur tetrafluoride	100				7783-60-0
Sulfur trioxide	100				7446-11-9
Sulfuric acid	1,000	1,000			7664-93-9
Sulfuric acid (aerosol forms only)	1,000	1,000	x		7664-93-9
Sulfuric acid (fuming)		1,000			8014-95-7
Tabun	10				77-81-6
Tellurium hexafluoride	100				7783-80-4
Terbufos	100				13071-79-9
tert-Amyl acetate		5,000			625-16-1
tert-Butyl acetate		5,000			540-88-5
tert-Butyl alcohol			x		75-65-0
tert-Butylamine		1,000			75-64-9
Tetrachloroethylene		100	x	U210	127-18-4
Tetrachlorvinphos			x		961-11-5
Tetraethyl lead	100	10		P110	78-00-2
Tetraethyl pyrophosphate	500	100		P111	107-49-3
Tetraethyl tin	100				597-64-8
Tetramethyl lead	100				75-74-1
Tetranitromethane	500	10		P112	509-14-8
Thallic oxide		100		P113	1314-32-5
Thallium		1,000	x		7440-28-0
Thallium (I) carbonate	100/10,000	100		U215	6533-73-9
Thallium (I) sulfate	100/10,000	100			10031-59-1
Thallium (I) nitrate		100		U217	10102-45-1

**Protocol for Conducting Environmental Compliance Audits under CERCLA**  
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**CERCLA and EPCRA**

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Thallium (I) selenide		1,000		P114	12039-52-0
Thallos chloride	100/10,000	100		U216	2,151,976
Thallos malonate	100/10,000				2757-18-8
Thallos sulfate	100/10,000	100		P115	7446-18-6
Thiocarbazide	1,000/10,000				2231-57-4
Thiodicarb		1*	x	U410	59669-26-0
Thiofanox	100/10,000	100		P045	39196-18-4
Thiophanate-methyl		1*	x	U409	23564-05-8
Thiophenol	500	100		P014	108-98-5
Thiosemicarbazide	100/10,000	100	x	P116	79-19-6
Thiourea		10	x	U219	62-56-6
Thiourea, (2-chlorophenyl)-	100/10,000	100		P026	5344-82-1
Thiourea, (2- methylphenyl)-	500/10,000				614-78-8
Thiram		10	x	U244	137-26-8
Thorium dioxide			x		1314-20-1
Titanium dioxide			x		13463-67-7
Titanium tetrachloride	100	1,000	x		7550-45-0
Toluene 2,4-diisocyanate	500	100	x		584-84-9
Toluene 2,6-diisocyanate	100	100	x		91-08-7
Toxaphene (Campheclor)	500/10,000	1	x	P123	8001-35-2
Trans-1,4-dichlorobutene	500		x		110-57-6
Triallate		1*	x	U389	2303-17-5
Triamiphos	500/10,000				1031-47-6
Triaziquone			x		68-76-8
Triazofos	500				24017-47-8

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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Trichlorfon		100	x		52-68-6
Trichloroacetyl chloride	500		x		76-02-8
Trichloro(chloromethyl) silane	100				1558-25-4
Trichloro(dichlorophenyl) silane	500				27137-85-5
Trichloroethylene		100	x	U228	79-01-6
Trichloroethylsilane	500				115-21-9
Trichlorofluoromethane (CFC-11)		5,000	x	U121	75-69-4
Trichloronate	500				327-98-0
Trichlorophenol		10			25167-82-2
Trichlorophenylsilane	500				98-13-5
Triethanolamine dodecylbenzene sulfonate		1,000			27323-41-7
Triethoxysilane	500				998-30-1
Triethylamine		5,000	x	U404	121-44-8
Trifluralin		10	x		1582-09-8
Trimethylamine		100			75-50-3
Trimethylchlorosilane	1,000		x		75-77-4
Trimethylolpropane phosphite	100/10,000				824-11-3
Trimethyltin chloride	500/10,000				1066-45-1
Triphenyltin chloride	500/10,000				639-58-7
Tris(2-chloroethyl) amine	100				555-77-1
Trypan blue		10	x	U236	72-57-1
Uracil mustard		10		U237	66-75-1
Uranyl acetate		100			541-09-3
Uranyl nitrate		100			10102-06-4
Uranyl nitrate		100			36478-76-9



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Chemical Name	Extremely Hazardous Substances 40 CFR 355 (TPQ, lbs.)	Hazardous Substances 40 CFR 302.4 (RQ, lbs.)	Toxic Chemicals 40 CFR 372.65(a)	Hazardous Materials which are RCRA wastes	CAS No.
Valinomycin	1,000/10,000				2001-95-8
Vanadium (fume or dust)			x		7440-62-2
Vanadium pentoxide	100/10,000	1,000		P120	1314-62-1
Vanadyl sulfate		1,000			27774-13-6
Vinyl acetate	1,000	5,000	x		108-05-4
Vinyl bromide		100	x		593-60-2
Warfarin	500/10,000	100	x	P001	81-81-2
Warfarin and salts, conc. > 0.3%		100	x	P001	81-81-2
Warfarin sodium	100/10,000	100			129-06-6
Xylenol		1,000			1300-71-6
Xylylene dichloride	100/10,000				28347-13-9
Zinc		1,000			7440-66-6
Zinc (fume or dust)		1,000	x		7440-66-6
Zinc acetate		1,000			557-34-6
Zinc ammonium chloride		1,000			52628-25-8
Zinc ammonium chloride		1,000			14639-97-5
Zinc ammonium chloride		1,000			14639-98-6
Zinc borate		1,000			1332-07-6
Zinc bromide		1,000			7699-45-8
Zinc carbonate		1,000			3486-35-9
Zinc chloride		1,000			7646-85-7
Zinc cyanide		10		P121	557-21-1
Zinc, dichloro(4,4-dimethyl-5(((methylamino)carbonyl)oxy)imino)pentanenitrile)-, (T-4)-	100/10,000				58270-08-9
Zinc fluoride		1,000			7783-49-5

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Zinc formate		1,000			557-41-5
Zinc hydrosulfite		1,000			7779-86-4
Zinc nitrate		1,000			7779-88-6
Zinc phenolsulfonate		5,000			127-82-2
Zinc phosphide	500	100		P122	1314-84-7
Zinc silicofluoride		5,000			16871-71-9
Zinc sulfate		1,000			7733-02-0
Zineb			x		12122-67-7
Ziram		1*		P205	137-30-4
Zirconium nitrate		5,000			13746-89-9
Zirconium potassium fluoride		1,000			16923-95-8
Zirconium sulfate		5,000			14644-61-2
Zirconium tetrachloride		5,000			10026-11-6