



Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA



EPA Office of Compliance

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Notice

The statements in this document are intended solely as guidance to aid regulated entities in complying with the regulations. The guidance is not a substitute for reading the regulations and understanding all the requirements as it applies to your facility. This guidance does not constitute rulemaking by the U.S. 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. U.S. EPA may decide to update this guide without public notice to reflect changes in U.S. EPA's approach to implementing the regulations or to clarify and update text. To determine whether U.S. EPA has revised this document and/or to obtain copies, contact U.S. EPA's Center for Environmental Publications at 1(800) 490-9198. Additional information regarding U.S. EPA Hotlines and further assistance pertaining to the specific rules discussed in this document can be found at the end of the *Key Compliance Requirements* located in Section II. **The contents of this document reflect regulations issued as of March 13, 2000.**

Acknowledgments

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Table of Contents

Notice.....inside cover
Acknowledgmentinside cover

Section 1: Introduction

Backgroundii
Who Should Use These Protocols?ii
U.S. EPA’s Public Policies that Support Environmental Auditingiii
How To Use the Protocolsiv
The Relationship of Auditing to Environmental Management Systemsvi

Section II: Audit Protocol

Applicability.....1
Review of Federal Legislation1
State and Local Regulations2
Key Compliance Requirements2
Key Terms and Definitions for Asbestos5
Key Terms and Definitions for Lead-based Paint 12
Key Terms and Definitions for PCBs..... 18
Typical Records to Review 33
Typical Physical Features to Inspect 33
List of Acronyms and Abbreviations..... 33
Index for Checklist Users..... 37
Checklist 39

Appendices

Appendix A: Polychlorinated Biphenyl (PCB) Label Format..... A1
Appendix B: Dielectric Fluid Trend Names and Manufacturers B1
Appendix C: Self-implementing On-site Cleanup and Disposal of Polychlorinated Biphenyl (PCB) Remediation Waste: Cleanup Levels and Site Cleanup..... C1
Appendix D: Polychlorinated Biphenyl (PCB) Wastes Disposal Guidance..... D1
Appendix E: Respiratory Protection for Asbestos Fibers..... E1
Appendix F: User Satisfaction Questionnaire and Comment Form..... F

Section I Introduction

Background

The Environmental Protection Agency (U.S. EPA) is responsible for ensuring that businesses and organizations comply with federal laws that protect the public health and the environment. U.S. EPA's Office of Enforcement and Compliance Assurance (OECA) has begun combining traditional enforcement activities with more innovative compliance approaches including the provision of compliance assistance to the general public. U.S. EPA's Office of Compliance Assistance was established in 1994 to focus on compliance assistance-related activities. U.S. EPA is also 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. Environmental audits can also serve as an important diagnostic tool in evaluating a facility's overall environmental management system or EMS.

U.S. EPA is developing 13 multi-media Environmental Audit Protocols to assist and encourage businesses and organizations to perform environmental audits and disclose violations in accordance with OECA's Audit and Small Business Policies. The audit protocols are also intended to promote consistency among regulated entities when conducting environmental audits and to ensure that audits are conducted in a thorough and comprehensive manner. The protocols provide detailed regulatory checklists that can be customized to meet specific needs under the following primary environmental management areas:

- Generation of RCRA Hazardous Waste
- CERCLA
- Safe Drinking Water Act
- Managing Nonhazardous Solid Waste
- Treatment Storage and Disposal of RCRA Hazardous Waste
- Clean Air Act
- TSCA
- Pesticides Management (FIFRA)
- RCRA Regulated Storage Tanks
- EPCRA
- Clean Water Act
- Universal Waste and Used Oil
- Management of Toxic Substances (e.g., PCBs, lead-based paint, and asbestos)

Who Should Use These Protocols?

U.S. EPA has developed these audit protocols to provide regulated entities with specific guidance in periodically evaluating their compliance with federal environmental requirements. The specific application of this particular protocol, in terms of which media or functional area it applies to, is described in Section II under "Applicability".

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

The Audit Protocols are designed for use by individuals who are already familiar with the federal regulations but require an updated comprehensive regulatory checklist to conduct environmental *compliance* audits at regulated facilities. Typically, compliance audits are performed by persons who are not necessarily media or legal experts but instead possess a working knowledge of the regulations and a familiarity with the operations and practices of the facility to be audited. These two basic skills are a prerequisite for adequately identifying areas at the facility subject to environmental regulations and potential regulatory violations that subtract from the organizations environmental performance. With these basic skills, audits can be successfully conducted by persons with various educational backgrounds (e.g., engineers, scientists, lawyers, business owners or operators). These protocols are not intended to be a substitute for the regulations nor are they intended to be instructional to an audience seeking a primer on the requirements under Title 40, however, they are designed to be sufficiently detailed to support the auditor's efforts.

The term "Protocol" has evolved over the years as a term of art among the professional practices of auditing and refers to the actual working document used by auditors to evaluate facility conditions against a given set of criteria (in this case the federal regulations). Therefore these documents describe "what" to audit a facility for rather than "how" to conduct an audit. To optimize the effective use of these documents, you should become familiar with basic environmental auditing practices. For more guidance on how to conduct environmental audits, U.S. EPA refers interested parties to two well known organizations: The Environmental Auditing Roundtable (EAR) and the Institute for Environmental Auditing (IEA).

Environmental Health and Safety Auditing Roundtable
35888 Mildred Avenue
North Ridgeville, Ohio 44039
(216) 327-6605

The Institute for Environmental Auditing
Box 23686
L'Enfant Plaza Station
Washington, DC 20026-3686

U.S. EPA's Public Policies that Support Environmental Auditing

In 1986, in an effort to encourage the use of environmental auditing, U.S. EPA published its "Environmental Auditing Policy Statement" (see 51 FR 25004). The 1986 audit policy states that "it is U.S. 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, U.S. 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.

In 1995, U.S. 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, U.S. 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. 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.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

In 1996, U.S. EPA issued its “Final Policy on Compliance Incentives for Small Businesses”. The policy is intended to promote environmental compliance among small businesses by providing them with special incentives to participate in U.S. EPA compliance assistance programs. Similar to the U.S. EPA Audit Policies, the Small Business Policy also encourages small businesses to conduct environmental audits, and then to promptly disclose and correct violations.

More information on U.S. EPA’s Small Business and Audit/Self-Disclosure Policies are available by contacting U.S. EPA’s Enforcement and Compliance Docket and Information Center at (202) 564-2614 or visiting the U.S. EPA web site at: http://es.EPA.gov/oeca/polguid/polguid_1.html

How to Use The Protocols

Each protocol provides guidance on key requirements, defines regulatory terms, and gives an overview of the federal laws affecting a particular environmental management area. They also include a checklist containing detailed procedures for conducting a review of facility conditions. The audit protocols are 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. To provide greater flexibility, each audit protocol can be obtained electronically from the U.S. EPA Website (www.EPA.gov/oeca/ccsmd/profile.html). The U.S. EPA Website offers the protocols in a word processing format which allows the user to custom-tailor the checklists to more specific environmental aspects associated with the facility to be audited.

The protocols are not intended to be an exhaustive set of procedures; rather they are meant to inform the auditor, about the degree and quality of evaluation essential to a thorough environmental audit. U.S. EPA is aware that other audit approaches may also provide an effective means of identifying and assessing facility environmental status and in developing corrective actions.

It is important to understand that there can be significant overlap within the realm of the federal regulations. For example, the Department of Transportation (DOT) has established regulations governing the transportation of hazardous materials. Similarly, the Occupational Safety and Health Administration (OSHA) under the U.S. Department of Labor has promulgated regulations governing the protection of workers who are exposed to hazardous chemicals. There can also be significant overlap between federal and state environmental regulations. In fact, state programs that implement federally mandated programs may contain more stringent requirements that are not included in these protocols. There can also be multiple state agencies regulating the areas covered in these protocols. The auditor also should determine which regulatory agency has authority for implementing an environmental program so that the proper set of regulations is consulted. Prior to conducting the audit, the auditor should review federal, state and local environmental requirements and expand the protocol, as required, to include other applicable requirements not included in these documents.

Review of Federal Legislation and Key Compliance Requirements:

These sections are intended to provide only supplementary information or a “thumbnail sketch” of the regulations and statutes. These sections are not intended to function as the main tool of the protocol (this is the purpose of the checklist). Instead, they serve to remind the auditor of the general thrust of the regulation and to scope out facility requirements covered by that particular regulation. For example, a brief paragraph describing record keeping and reporting requirements and the associated subpart citations will identify and remind the auditor of a specific area of focus at the facility. This allows the auditor to plan the audit properly and to identify key areas and documents requiring review and analysis.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

State and Local Regulations:

Each U.S. EPA Audit Protocol contains a section alerting the auditor to typical issues addressed in state and local regulations concerning a given topic area (e.g., RCRA and used oil). From a practical standpoint, U.S. EPA cannot present individual state and local requirements in the protocols. However, this section does provide general guidance to the auditor regarding the division of statutory authority between U.S. EPA and the states over a specific media. This section also describes circumstances where states and local governments may enact more stringent requirements that go beyond the federal requirements.

U.S. EPA cannot overemphasize how important it is for the auditor to take under consideration the impact of state and local regulations on facility compliance. U.S. EPA has delegated various levels of authority to a majority of the states for most of the federal regulatory programs including enforcement. For example, most facilities regulated under RCRA, and/or CWA have been issued permits written by the states to ensure compliance with federal and state regulations. In turn, many states may have delegated various levels of authority to local jurisdictions. Similarly, local governments (e.g., counties, townships) may issue permits for air emissions from the facility. Therefore, auditors are advised to review local and state regulations in addition to the federal regulations in order to perform a comprehensive audit.

Key Terms and Definitions:

This section of the protocol identifies terms of art used in the regulations and the checklists that are listed in the “Definitions” sections of the Code of Federal Regulations (CFR). It is important to note that not all definitions from the CFR may be contained in this section, however; those definitions which are commonly repeated in the checklists or are otherwise critical to an audit process are included. Wherever possible, we have attempted to list these definitions as they are written in the CFR and not to interpret their meaning outside of the regulations.

The Checklists:

The checklists delineate 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. 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. The checklists contained in these protocols are (and must be) sufficiently detailed to identify any area of the company or organization that would potentially receive a notice of violation if compliance is not achieved. For this reason, the checklists often get to a level of detail such that a specific paragraph of the subpart (e.g., 40 CFR 262.34(a)(1)(i)) contained in the CFR is identified for verification by the auditor. The checklists contain the following components:

- **“Regulatory Requirement or Management Practice Column”**
The “Regulatory Requirement or Management Practice Column” states either a requirement mandated by regulation or a good management practice that exceeds the requirements of the federal regulations. The regulatory citation is given in parentheses after the stated requirement. Good management practices are distinguished from regulatory requirements in the checklist by the acronym (MP) and are printed in italics.
- **“Reviewer Checks” Column:**
The items under the “Reviewer Checks:” column identify requirements that must be verified to accomplish the auditor’s performance objectives. (*The key to successful compliance auditing is to verify and document site observations and other data.*) The checklists follow very closely with the text in the CFR in order to provide the service they are intended to fulfill (i.e., *to be used for compliance auditing*). However, they are not a direct recitation of the CFR. Instead they are organized into more of a functional arrangement (e.g., recordkeeping and reporting requirements vs. technical controls) to accommodate an auditor’s likely sequence of review during the site visit. Wherever possible, the statements or items under the “Reviewer

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Checks” column, will follow the same sequence or order of the citations listed at the end of the statement in the “Regulatory Requirement” column.

- **“NOTE:” Statements**
“Note:” statements contained in the checklists serve several purposes. They usually are distinguished from “Verify” statements to alert the auditor to *exceptions or conditions* that may affect requirements or to referenced standards that are not part of Title 40 (e.g., American Society for Testing and Materials (ASTM) standards). They also may be used to identify options that the regulatory agency may choose in interacting with the facility (e.g., permit reviews) or options the facility may employ to comply with a given requirement.
- **Checklist Numbering System:**
The checklists also have a unique numbering system that allows the protocols to be more easily updated by topic area (e.g., RCRA Small Quantity Generator). Each topic area in turn is divided into control breaks to allow the protocol to be divided and assigned to different teams during the audit. This is why blank pages may appear in the middle of the checklists. Because of these control breaks, there is intentional repetition of text (particularly “Note” Statements) under the “Reviewer Checks” column to prevent oversight of key items by the audit team members who may be using only a portion of the checklist for their assigned area.

Updates:

Environmental regulations are continually changing both at the federal and state level. For this reason, it is important for environmental auditors to determine if any new regulations have been issued since the publication of each protocol document and, if so, amend the checklists to reflect the new regulations. Auditors may become aware of new federal regulations through periodic review of Federal Register notices as well as public information bulletins from trade associations and other compliance assistance providers. In addition, U.S. EPA offers information on new regulations, policies and compliance incentives through several Agency Websites. Each protocol provides specific information regarding U.S. EPA program office websites and hotlines that can be accessed for regulatory and policy updates.

U.S. EPA will periodically update these audit protocols to ensure their accuracy and quality. Future updates of the protocols will reflect not only the changes in federal regulations but also public opinion regarding the usefulness of these documents. Accordingly, the Agency would like to obtain feedback from the public regarding the format, style and general approach used for the audit protocols. The last appendix in each protocol document contains a user satisfaction survey and comment form. This form is to be used by U.S. EPA to measure the success of this tool and future needs for regulatory checklists and auditing materials.

The Relationship of Auditing to Environmental Management Systems

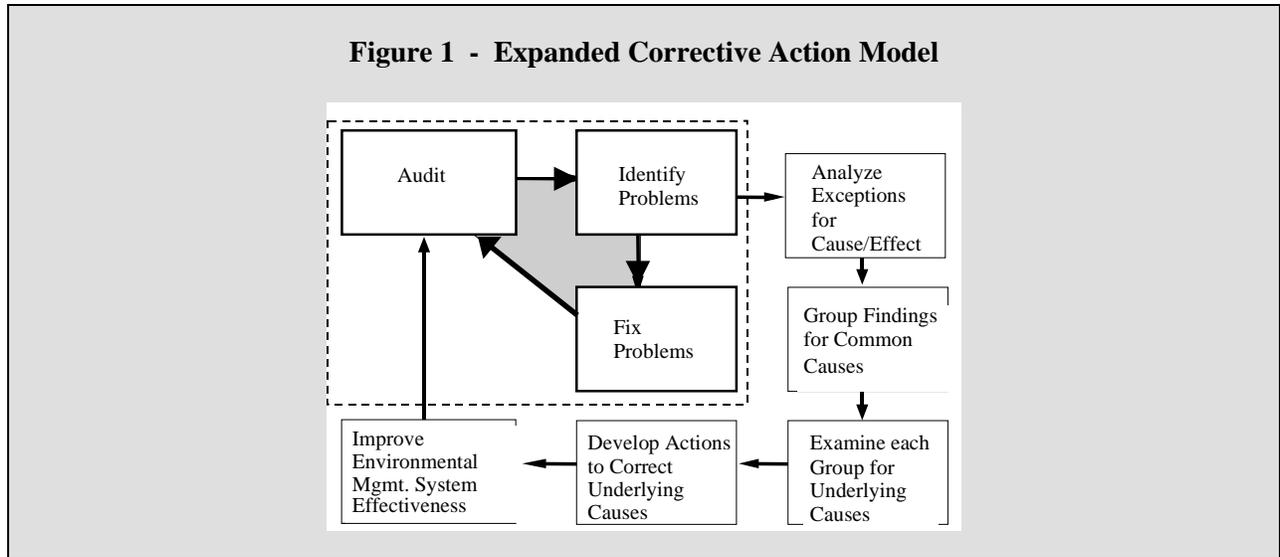
An environmental auditing program is an integral part of any organization’s environmental management system (EMS). Audit findings generated from the use of these protocols can be used as a basis to implement, upgrade, or benchmark environmental management systems. Regular environmental auditing can be 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 the primary factors that lead to noncompliance events. For example a violation of a facility’s wastewater discharge permit may be traced back to breakdowns in management oversight, information exchange, or inadequate evaluations by untrained facility personnel.

As shown in Figure 1, a typical approach to auditing involves three basic steps: conducting the audit, identifying problems (audit findings), and fixing identified deficiencies. When the audit process is expanded, to identify and correct root causes to noncompliance, the organization’s corrective action part of its EMS becomes more effective. In the expanded model, audit findings (exceptions) undergo a root cause analysis to identify underlying causes to noncompliance events. Management actions are then taken to correct the underlying causes behind the audit findings and improvements are made to the organizations overall EMS before another audit is conducted on the facility. Expanding the audit process allows the organization to successfully correct problems, sustain compliance, and

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

prevent discovery of the same findings again during subsequent audits. Furthermore, identifying the root cause of an audit finding can mean identifying not only the failures that require correction but also successful practices that promote compliance and prevent violations. 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.

Figure 1 - Expanded Corrective Action Model



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Section II Audit Protocols

Applicability

This audit protocol applies to facilities that are subject to the federal regulations governing the following types of activities:

1. the use, disposal, cleanup and storage of polychlorinated biphenyls (PCBs);
2. the removal of asbestos from buildings and its ultimate disposal, and/or;
3. notifications, training and work practice standards for lead-based paint

Not all checklist items will be applicable to a particular facility. Guidance is provided on the checklists to direct the auditor to the regulations typically applicable to the types of activities identified above. In addition to the regulations contained in this document, auditors should also be aware of other related requirements under the federal Clean Air Act; 40 CFR 60, Subpart M: National Emission Standards for Asbestos. Audit guidance and technical information regarding the federal Clean Air Act is provided in a separate series of documents titled *Protocol for Conducting Environmental Audits under the Clean Air Act (Volumes I and II)* and is expected to be available in the year 2000.

There are numerous environmental regulatory requirements administered by federal, state and local government. 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.

Review of Federal Legislation

The Toxic Substance Control Act (TSCA)

TSCA enacted in 1976 by Congress (Public Law 94-469), granted U.S. EPA authority to create a regulatory framework to collect data on chemicals in order to evaluate, assess, mitigate, and control risks which may be posed by their manufacture, processing, and use. TSCA provides a variety of control methods to prevent chemicals from posing unreasonable risk. The term “chemical substance” is broadly defined under TSCA to include organic and inorganic chemicals, with several exclusions. Namely, pesticides, tobacco and tobacco products, nuclear material and byproducts, food, food additives, drugs, cosmetics, or devices (as defined in Section 201 of the Federal Food, Drug, and Cosmetic Act) are not subject to TSCA requirements.

Under TSCA Section 6, U.S. EPA can ban the manufacture or distribution in commerce, limit the use, require labeling, or place other restrictions on chemicals that pose unreasonable risks. Among the chemicals U.S. EPA regulates under Section 6 authority are asbestos, chlorofluorocarbons (CFCs), lead, and polychlorinated biphenyls (PCBs).

Facilities that manufacture, process, distribute, use, dispose, or store PCBs must comply with regulations established in 40 CFR 761. These regulations identify storage, disposal, spill cleanup, labeling, recordkeeping, and reporting requirements.

Title IV of TSCA governs lead exposure reduction. Regulations regarding the control of lead-based paint in residential housing are established under 40 CFR 745. Regulated activities under 40 CFR 745 which are included in this protocol include: notification of lead-based paint hazards, training requirements, and work practice standards.

In 1986, the Asbestos Hazard Emergency Response Act (AHERA) was signed into law and added as Title II to TSCA. This act last amended in October 1994, 15 USC 2641-2656, and 20 USC 4014, et. al., is the federal legislation governing the control and abatement of asbestos hazards in school buildings, and the training of asbestos abatement professionals. The purpose of this act (15 USC 2641(b)) is:

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

1. to provide for the establishment of federal regulations which require inspection for asbestos-containing material and implementation of appropriate response actions with respect to asbestos-containing material in the nation's schools in a safe and complete manner;
2. to mandate safe and complete periodic reinspection of school buildings following response actions, where appropriate;
3. to require the U.S. Environmental Protection Agency to conduct a study to determine the extent of the danger to human health posed by asbestos in public and commercial buildings and the means to respond to any such danger.

The federal regulations regarding the control and abatement of asbestos hazards in school buildings including requirements for asbestos removal contractors when conducting abatement removal projects are established under 40 CFR 763.

State/Local Regulations

Section 18 of TSCA (15 USC 2617), under most circumstances (the only notable exception being paragraph (2) of Section 18), allows states and smaller governmental entities to establish or continue to enforce their own regulations governing chemical substances, mixtures or articles containing a chemical substance or mixture. However, TSCA is different from other federal statutes and programs (e.g., RCRA) where states are authorized by EPA to operate a regulatory program in lieu of the federal program after the state demonstrates equivalence. The TSCA PCB program is *not* delegated to the states. In accordance with Section 18 of TSCA, states may develop their own PCB regulations providing they are consistent with the Section 18 preemption provisions.

In some cases, states regulations have been developed which regulate PCBs more stringently than the federal program. State PCB regulations may provide additional regulatory requirements beyond the federal program to address a specific concern or activity sensitive in that state.

Many state and local governments have enacted standards more stringent than the federal requirements concerning certification of asbestos workers, and disposal of asbestos waste. Similarly, states and local jurisdictions may also impose more stringent requirements for the use and removal of lead-based paint. Prior to conducting the audit, auditors should consult the appropriate state and local agencies and determine in what ways the applicable state and local programs and requirements differ from the requirements under TSCA.

Key Compliance Requirements

General Management of Polychlorinated Biphenyls (PCBs)

No one can manufacture PCBs for use in the U.S. or manufacture for export from the U.S without an exemption. Additionally, no one can process or distribute in commerce in the U.S. or for export without an exemption. Personnel disposing of PCB-Articles have to be protected from dermal exposure or inhalation of PCBs. Generators, commercial storers, transporters, and disposers of PCB are required to have a U.S. EPA identification number (40 CFR 761.20, 761.60(b), 761.202 through 761.205).

PCB Equipment Marking

The following equipment is required to be marked indicating that they contain PCBs (40 CFR 761.40 and 761.45):

- a) PCB Containers
- b) PCB Transformers (500 ppm or >)
- c) PCB Large High-Voltage Capacitors
- d) equipment containing a PCB Transformer (500 ppm or >) or a PCB Large High-Voltage Capacitor
- e) PCB Large Low-Voltage Capacitors at the time of removal from service
- f) electric motors using PCB coolants
- g) hydraulic systems using PCB hydraulic fluid
- h) heat transfer systems (other than PCB Transformers) using PCBs
- i) PCB Article Containers containing any of the above

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

- j) each storage area used to store PCBs and PCB Items for disposal
- k) transport vehicles loaded with PCB Containers that contain more than 45 kg (99.4 lb) of liquid PCBs with PCBs at concentrations \geq 50 ppm or with one or more PCB Transformers
- l) vault doors, machinery room doors, fences, hallways, or means of access, other than a manhole or grate cover, to a PCB Transformer (500 ppm or $>$).
- m) voltage regulators with a PCB concentration of \geq 500 ppm (individually)
- n) vault doors, machinery room doors, fences, hallways, or means of access to voltage regulators with a PCB concentration \geq 500 ppm.

Records for PCBs

Each owner or operator of a facility, other than a commercial storer or a disposer of PCB waste, that uses or stores at any time at least 45 kg (99.4 lb) of PCBs contained in PCB containers, or one or more PCB Transformers, or 50 or more PCB Large, High-, or Low-Voltage Capacitors must develop and maintain at the facility all annual records and a written annual document log of the disposition of PCBs and PCB items. The written annual document log must be prepared by July 1 of each calendar year, covering the previous year. PCB chemical waste landfills, disposers, commercial storers, incinerators, high efficiency boilers, storage and disposal facilities, importers, and manufacturers are all required to maintain records specific to their operations. Generators are required to maintain manifests and certificates of disposal (COD) for three years. (40 CFR 761.180)

PCB Transformers

PCB Transformers with PCBs of 500 ppm or $>$, that are in use or in storage for reuse, must not pose an exposure risk to food and feed and are subject to registration requirements. Railroad transformers must not contain dielectric fluid with $>$ 1000 ppm PCB and must be serviced according to specific requirements. Combustible materials, including, but not limited to, paints, solvents, plastics, paper, and sawn wood, must not be stored by a PCB Transformer. PCB transformers of concentrations of 500 ppm or $>$ in use in or near commercial buildings are subject to certain requirements. PCB transformers are required to be properly serviced, and inspections must be performed once every 3 mo for all in-service transformers. If the transformer is found to be leaking, it must be repaired or replaced to eliminate the source of the leak. When a PCB transformer is involved in a fire, the incident must be reported immediately to the National Response Center (NRC). Mineral oil transformers which are tested and found to be contaminated with 500 ppm PCBs or $>$ must meet more stringent requirements. (40 CFR 761.30(a), 761.30(b), 761.120(a) through 761.120(c), 761.120(d)(2), and 761.125).

PCB Spills

Spills of 10 lb or more of PCBs of concentrations of 50 ppm must be reported to the U.S. EPA regional office. Spills of 1 lb or more by weight of PCBs must be cleaned up and reported to the NRC. The criteria for cleanup is based on whether the spill is of high or low concentration of PCBs (40 CFR 761.120 and 761.125).

PCB Items

The use of PCBs in electromagnetic switches, voltage regulators, capacitors, heat transfer and hydraulic systems, circuit breakers, reclosers, and cable is allowed if applicable restrictions are met and precautions taken (40 CFR 761.30).

PCB Storage

PCBs and PCB Items at concentrations $>$ 50 ppm that are to be stored before disposal must be stored in a facility that meets structural and operational requirements. Storage prior to disposal is not to exceed 1 yr. Nonleaking and structurally undamaged PCB Large, High-Voltage Capacitors and PCB-Contaminated Electric Equipment that have not been drained of freeflowing dielectric fluid may be stored on pallets next to a storage area that complies with the storage area requirements if they are checked weekly. Containers used for the storage of PCBs must comply with the shipping container specification of the Department of Transportation (DOT). Specific requirements must be met for the following: storage of PCB articles for re-use, storage of PCB household waste, storage of PCBs and PCB items in areas not in compliance with the storage area requirements, and storage of bulk PCB remediation waste or PCB bulk product (40 CFR 761.35 and 761.65).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

PCB Transportation

A generator who offers a PCB Waste for transport to commercial offsite storage or offsite disposal must prepare a manifest. If the generator does not receive a signed copy of the manifest within 35 days from the date the waste was accepted by the initial transporter, the generator must immediately contact the transporter and/or owner or operator of the designated facility to determine the status of the PCB Waste (40 CFR 761.207 through 761.210 and 761.215).

PCB Disposal

PCB Liquids containing concentrations > 500 ppm must be disposed of in a U.S. EPA-approved PCB incinerator. Transformers containing PCBs in concentrations \geq 500 ppm must be disposed of either in an U.S. EPA-approved incinerator or a chemical waste landfill after free liquids are removed and other required procedures are followed. PCB Capacitors must be disposed of in either a solid waste landfill (nonleaking PCB Small Capacitor only) or an approved incinerator. For each shipment of manifested PCB Waste that a disposal facility accepts, the owner or operator of the disposal facility must prepare a certificate of disposal (COD). PCB-contaminated fluids of concentrations \geq 50 ppm, but less than 500 ppm, are required to be disposed of in a U.S. EPA-approved incinerator, or chemical waste landfill, or a high efficiency boiler. PCB hydraulic machines containing PCBs at concentrations \geq 50 ppm may be disposed of as municipal solid waste when drained. PCB-Contaminated Electrical Equipment, except capacitors, shall be disposed of by draining off the free-flowing liquid and then disposing of the drained equipment in: 1) a municipal solid waste unit (except thermal treatment units), 2) an industrial furnace, or 3) any other approved disposal facility. PCB Articles and Containers shall be disposed of in a U.S. EPA-approved incinerator or chemical waste landfill if all free-flowing liquids have been removed. Scrap metal associated with PCB-contaminated articles may be burned in a scrap metal recovery oven or smelter under 40 CFR 761.72. The following disposal methods are prohibited for PCB disposal: 1) open burning, 2) processing of PCBs into non-liquid forms to circumvent high temperature incineration requirements, and 3) discharging of PCBs into a water treatment works or navigable waters (unless PCB concentration is equal to or less than 3 ppb, or is in accordance with a PCB discharge limit set in a permit). Land disposal of PCBs must be in accordance with specific parameters. When disposing of PCB bulk product using performance-based disposal, PCB bulk product may be disposed of in an approved incinerator or chemical waste landfill, a permitted hazardous waste landfill, or through any other approved alternative method. Otherwise, PCB bulk product must be disposed of in a permitted municipal or non-municipal, non-hazardous waste landfill. PCB household waste must be disposed of in a facility permitted to manage municipal or industrial solid waste, or in any other facility given approval to dispose of PCB bulk product waste (40 CFR 761.50, 761.60, 761.62, 761.63 and 761.218).

Asbestos in Schools

School buildings are required to be inspected a minimum of every 3 yr for asbestos. An asbestos management plan is required and response action must be done in a timely manner. If there is friable asbestos in the school, there must be an O&M and repair program that limits the asbestos from becoming airborne and risking exposure to building personnel. Warning labels will be attached immediately adjacent to any friable and nonfriable asbestos-containing building material (ACBM) and suspected ACBM assumed to be asbestos-containing material (ACM). Staff at the school must receive training on the hazards involved (40 CFR 763, Subpart E).

Asbestos Abatement Projects

These standards apply to asbestos abatement projects done by employers of state and local government employees not covered by the Asbestos Standard of the Occupational Safety and Health Administration (OSHA), 29 CFR 1926.1101 (NOTE: The OSHA construction standard was moved in 1994 from 29 CFR 1926.58 to 29 CFR 1926.1101), an Asbestos Standard adopted by a state as part of a state plan approved by OSHA under section 18 of the Occupational Safety and Health Act, or a state asbestos regulation which U.S. EPA has determined to be comparable to or more stringent than 40 CFR 763. The standards address worker protection, removal practices, monitoring, and training (40 CFR 763.120 and 763.121).

Asbestos Prohibitions

Manufacturers, processors, importers, and distributors are no longer allowed to deal with the following asbestos containing materials: flooring felt, new uses of asbestos, commercial paper, corrugated paper, rollboard, and specialty paper (40 CFR 763.160 through 763.179).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Disclosure of Lead-Based Paint (LBP) and/or LBP Hazards

When leasing or selling target housing, the facility is required to disclose any knowledge it has of the presence of known LBP and/or LBP hazards (40 CFR 745.100). Work done related to LBP activities must be done by certified individuals and firms according to approved work practices. In addition, a pamphlet with lead hazard information must be provided (40 CFR 745.100 through 745.119).

Notification of LBP Hazards Prior to Renovation

Renovators are required to notify the owners and occupants of target housing prior to renovation of any LBP hazards (40 CFR 745.81 through 745.86).

LBP Training Requirements

All LBP activities are required to be performed by certified individuals. Certification is available for inspectors, risk assessors, supervisors, project designers, and abatement workers. Training programs must be accredited (40 CFR 745.220 through 40 CFR 745.226).

LBP Work Practice Standards

Inspections, lead hazard screening, risk assessments, and LBP abatement is required to be done according to specified methodologies. These methodologies address reporting requirements, sampling methods, plans, and cleanup methodologies (40 CFR 745.227).

For further information regarding the TSCA regulations, contact U.S. EPA's TSCA Assistance Information Service (TAIS)/TSCA Hotline at (202) 554-1404 from 8:30 a.m. (EST), Monday through Friday. In addition, clarifications and updates of the PCB rules may be found at the U.S. EPA website <http://www.epa.gov/pcb>. The PCB website contains a question and answer section on the latest PCB regulations as well as other information that may be useful to members of the regulated community.

This TSCA Hotline, operating under contract to U.S. EPA is staffed by professionals trained to provide technical assistance and information about programs under TSCA, including the Asbestos School Hazard Abatement Act (ASHAA), the Asbestos Hazard Emergency Response Act (AHERA), the Lead Exposure Reduction Act, and some pollution prevention activities including the 33/50 Program. The Hotline stocks TSCA related documents, including *Federal Register* notices, reports, and information brochures and booklets. These are available free of charge. Anyone with questions about these activities may contact the Hotline for information and assistance.

Key Terms and Definitions for Asbestos

Accessible

When referring to ACM means that the material is subject to disturbance by school building occupants or custodial or maintenance personnel in the course of their normal activities (40 CFR 763.83).

Accredited or Accreditation

When referring to a person or laboratory means that such person or laboratory is accredited in accordance with section 206 of Title II of the Act (40 CFR 763.83).

Act

The Toxic Substance Control Act (15 U.S.C. 2601, et. seq.) (40 CFR 763.163).

Air Erosion

The passage of air over friable ACBM which may result in the release of asbestos fibers (40 CFR 763.83).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Asbestos

The asbestiform varieties of chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite--grunerite); tremolite; anthophyllite, and actinolite (40 CFR 763.121(b) and 763.163).

Asbestos Abatement Project

Any activity involving the removal, enclosure, or encapsulation of friable asbestos material (40 CFR 763.121(b)).

Asbestos-Containing Material (ACM)

When referring to school buildings means any material or product which contains more than 1 percent asbestos (40 CFR 763.83).

Asbestos-Containing Building Material (ACBM)

Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a school building (40 CFR 763.83).

Asbestos-Containing Product

Any product to which asbestos is deliberately added in any concentration or which contains more than 1.0 percent asbestos by weight or area (40 CFR 763.163).

Asbestos Debris

Pieces of ACBM that can be identified by color, texture, or composition, or means dust, if the dust is determined by an accredited inspector to be ACM (40 CFR 763.83).

Authorized Person

Any person authorized by the employer and required by work duties to be present in regulated areas (40 CFR 763.121(b)).

Clean Room

An uncontaminated room having facilities for the storage of employees' street clothing and uncontaminated materials and equipment (40 CFR 763.121(b)).

Commercial Paper

An asbestos-containing product which is made of paper intended for use as general insulation paper or muffler paper. Major applications of commercial papers are insulation against fire, heat transfer, and corrosion in circumstances that require a thin, but durable, barrier (40 CFR 763.163).

Competent Person

One who is capable of identifying existing asbestos hazards in the workplace and who has the authority to take prompt corrective measures to eliminate them. The duties of the competent person include at least the following: Establishing the negative-pressure enclosure, ensuring its integrity, and controlling entry to and exit from the enclosure; supervising any employee exposure monitoring required by this subpart, ensuring that all employees working within such an enclosure wear the appropriate personal protective equipment, are trained in the use of appropriate methods of exposure control, and use the hygiene facilities and decontamination procedures specified in Subpart G of 40 CFR 763; and ensuring that engineering controls in use are in proper operating condition and are functioning properly (40 CFR 763.121(b)).

Corrugated Paper

An asbestos-containing product made of corrugated paper, which is often cemented to a flat backing, may be laminated with foils or other materials, and has a corrugated surface. Major applications of asbestos corrugated paper include: thermal insulation for pipe coverings; block insulation; panel insulation in elevators; insulation in appliances; and insulation in low-pressure steam, hot water, and process lines (40 CFR 763.163).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Customs Territory of the United States

The 50 states, Puerto Rico, and the District of Columbia (40 CFR 763.163).

Damaged Friable Miscellaneous ACM

Friable miscellaneous ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or, if applicable, which has delaminated such that its bond to the substrate (adhesion) is inadequate or which for any other reason lacks fiber cohesion or adhesion qualities. Such damage or deterioration may be illustrated by the separation of ACM into layers; separation of ACM from the substrate; flaking, blistering, or crumbling of the ACM surface; water damage; significant or repeated water stains, scrapes, gouges, mars or other signs of physical injury on the ACM. Asbestos debris originating from the ACM in question may also indicate damage (40 CFR 763.83).

Damaged Friable Surfacing ACM

Friable surfacing ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has delaminated such that its bond to the substrate (adhesion) is inadequate, or which, for any other reason, lacks fiber cohesion or adhesion qualities. Such damage or deterioration may be illustrated by the separation of ACM into layers; separation of ACM from the substrate; flaking, blistering, or crumbling of the ACM surface; water damage; significant or repeated water stains, scrapes, gouges, mars or other signs of physical injury on the ACM. Asbestos debris originating from the ACM in question may also indicate damage (40 CFR 763.83).

Damaged or Significantly Damaged Thermal System Insulation ACM

Thermal system insulation ACM on pipes, boilers, tanks, ducts, and other thermal system insulation equipment where the insulation has lost its structural integrity, or its covering, in whole or in part, is crushed, water-stained, gouged, punctured, missing, or not intact such that it is not able to contain fibers. Damage may be further illustrated by occasional punctures, gouges or other signs of physical injury to ACM; occasional water damage on the protective coverings/jackets; or exposed ACM ends or joints. Asbestos debris originating from the ACM in question may also indicate damage (40 CFR 763.83).

Decontamination Area

An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment contaminated with asbestos (40 CFR 763.121(b)).

Demolition

The wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products (40 CFR 763.121(b)).

Distribute in Commerce

Has the same meaning as in section 3 of TSCA, but the term does not include actions taken with respect to an asbestos-containing product (to sell, resale, deliver, or hold) in connection with the end use of the product by persons who are users (persons who use the product for its intended purpose after it is manufactured or processed). The term also does not include distribution by manufacturers, importers, and processors, and other persons solely for purposes of disposal of an asbestos-containing product (40 CFR 763.163).

Emergency Project

A project involving the removal, enclosure, or encapsulation of friable asbestos-containing material that was not planned but results from a sudden unexpected event (40 CFR 763.121(b)).

Employee Exposure

That exposure to airborne asbestos would occur if the employee were not using respiratory protective equipment (40 CFR 763.121(b)).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Employer

The public department, agency, or entity which hires an employee. The term includes, but is not limited to, any state, county, city, or other local governmental entity which operates or administers schools, a department of health or human services, a library, a police department, a fire department, or similar public service agencies or offices (40 CFR 763.121(b)).

Encapsulation When Referring to Asbestos

The treatment of ACM with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant) (40 CFR 763.83).

Enclosure When Referring to Asbestos

An airtight, impermeable, permanent barrier around ACM to prevent the release of asbestos fibers into the air (40 CFR 763.83).

Equipment Room (change room)

A contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment (40 CFR 763.121(b)).

Fiber

A particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1 (40 CFR 763.121(b)).

Fiber Release Episode

Any uncontrolled or unintentional disturbance of ACM resulting in visible emission (40 CFR 763.83).

Flooring Felt

An asbestos-containing product which is made of paper felt intended for use as an underlayer for floor coverings, or to be bonded to the underside of vinyl sheet flooring (40 CFR 763.163).

Friable

When referring to material in a school building means that the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure, and includes previously nonfriable material after such previously nonfriable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure (40 CFR 763.83).

Friable Asbestos Material

Any material containing more than 1 percent asbestos by weight which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure (40 CFR 763.121(b)).

Functional Space

A room, group of rooms, or homogeneous area (including crawl spaces or the space between a dropped ceiling and the floor or roof deck above), such as classroom(s), a cafeteria, gymnasium, hallway(s), designated by a person accredited to prepare management plans, design abatement projects, or conduct response actions (40 CFR 763.83).

High-Efficiency Particulate Air (HEPA) Filter

A filtering system capable of trapping and retaining at least 99.97 percent of all monodispersed particles 0.3µm in diameter or larger (40 CFR 763.83 and 763.121(b)).

Homogeneous Area

An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture (40 CFR 763.83).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Import

To bring into the customs territory of the United States, except for: (1) Shipment through the customs territory of the United States for export without any use, processing, or disposal within the customs territory of the United States; or (2) entering the customs territory of the United States as a component of a product during normal personal or business activities involving use of the product (40 CFR 763.163).

Importer

Anyone who imports a chemical substance, including a chemical substance as part of a mixture or article, into the customs territory of the United States. Importer includes the person primarily liable for the payment of any duties on the merchandise or an authorized agent acting on his or her behalf. The term includes as appropriate (40 CFR 763.163):

1. The consignee.
2. The importer of record.
3. The actual owner if an actual owner's declaration and superseding bond has been filed in accordance with 19 CFR 141.20.
4. The transferee, if the right to withdraw merchandise in a bonded warehouse has been transferred in accordance with Subpart C of 19 CFR 144.

Local Education Agency (TSCA Section 202(7)):

1. Any local educational agency as defined in section 8801 of Title 20.
 2. The owner of any nonpublic, nonprofit elementary, or secondary school building.
- The governing authority of any school operated under the defense dependent's education system provided for under the Defense Dependents' Education Act of 1978 (20 U.S.C. 921, et seq.).

Manufacture

To produce or manufacture in the United States (40 CFR 763.163).

Miscellaneous ACM

Miscellaneous material that is ACM in a school building (40 CFR 763.83).

Miscellaneous Material

Interior building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include surfacing material or thermal system insulation (40 CFR 763.83).

New Uses of Asbestos

Commercial uses of asbestos not identified in 40 CFR 763.165 the manufacture, importation or processing of which would be initiated for the first time after August 25, 1989 (40 CFR 763.163).

Nonfriable

Material in a school building which when dry may not be crumbled, pulverized, or reduced to powder by hand pressure (40 CFR 763.83).

Operations and Maintenance Program

A program of work practices to maintain friable ACM in good condition, ensure clean up of asbestos fibers previously released, and prevent further release by minimizing and controlling friable ACM disturbance or damage (40 CFR 763.83).

Person

Any natural person, firm, company, corporation, joint-venture, partnership, sole proprietorship, association, or any other business entity; any state or political subdivision thereof, or any municipality; any interstate body and any department, agency, or instrumentality of the federal government (40 CFR 763.163).

Potential Damage

Circumstances in which (40 CFR 763.83):

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

1. Friable ACBM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.
2. There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

Potential Significant Damage

Circumstances in which (40 CFR 763.83):

1. Friable ACBM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.
2. There are indications that there is a reasonable likelihood that the material or its covering will become significantly damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.
3. The material is subject to major or continuing disturbance, due to factors including, but not limited to, accessibility or, under certain circumstances, vibration or air erosion.

Preventive Measures

Actions taken to reduce disturbance of ACBM or otherwise eliminate the reasonable likelihood of the material's becoming damaged or significantly damaged (40 CFR 763.83).

Regulated Area

an area established by the employer to demarcate areas where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the permissible exposure limit. The regulated area may take the form of: (1) A temporary enclosure, or (2) an area demarcated in any manner that minimizes the number of employees exposed to asbestos (40 CFR 763.121(b)).

Removal

The taking out or the stripping of substantially all ACBM from a damaged area, a functional space, or a homogeneous area in a school building (40 CFR 763.83).

Removal

The taking out or stripping of asbestos or materials containing asbestos (40 CFR 763.121(b)).

Renovation

The modifying of any existing structure, or portion thereof, where exposure to airborne asbestos may result (40 CFR 763.121(b)).

Repair

Returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release (40 CFR 763.83).

Repair

Overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates where asbestos is present (40 CFR 763.121(b)).

Response Action

A method, including removal, encapsulation, enclosure, repair, operations and maintenance, that protects human health and the environment from friable ACBM (40 CFR 763.83).

Rollboard

An asbestos-containing product made of paper that is produced in a continuous sheet, is flexible, and is rolled to achieve a desired thickness. Asbestos rollboard consists of two sheets of asbestos paper laminated together. Major applications of this product include: office partitioning; garage paneling; linings for stoves and electric switch boxes; and fire-proofing agent for security boxes, safes, and files (40 CFR 763.163).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Routine Maintenance Area

An area, such as a boiler room or mechanical room, that is not normally frequented by students and in which maintenance employees or contract workers regularly conduct maintenance activities (40 CFR 763.83).

School

Any elementary or secondary school as defined in section 8801 of Title 20 (TSCA Section 202(12)).

School Building (40 CFR 763.83):

1. Any structure suitable for use as a classroom, including a school facility such as a laboratory, library, school eating facility, or facility used for the preparation of food.
2. Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education.
3. Any other facility used for the instruction or housing of students or for the administration of educational or research programs.
4. Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described in this definition of "school building" under paragraphs (a), (b), or (c).
5. Any portico or covered exterior hallway or walkway.
6. Any exterior portion of a mechanical system used to condition interior space.

Significantly Damaged Friable Miscellaneous ACM

Damaged friable miscellaneous ACM where the damage is extensive and severe (40 CFR 763.83).

Significantly Damaged Friable Surfacing ACM

Damaged friable surfacing ACM in a functional space where the damage is extensive and severe (40 CFR 763.83).

Specialty Paper

An asbestos-containing product that is made of paper intended for use as filters for beverages or other fluids or as paper fill for cooling towers. Cooling tower fill consists of asbestos paper that is used as a cooling agent for liquids from industrial processes and air conditioning systems (40 CFR 763.163).

State

A state, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Northern Marianas, the Trust Territory of the Pacific Islands, and the Virgin Islands (40 CFR 763.83).

Stock-on-Hand

The products which are in the possession, direction, or control of a person and are intended for distribution in commerce (40 CFR 763.163).

Surfacing ACM

Surfacing material that is ACM (40 CFR 763.83).

Surfacing Material

Material in a school building that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes (40 CFR 763.83).

Thermal System Insulation

Material in a school building applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes (40 CFR 763.83).

Thermal System Insulation ACM

Thermal system insulation that is ACM (40 CFR 763.83).

Vibration

The periodic motion of friable ACBM which may result in the release of asbestos fibers (40 CFR 763.83).

Key Terms and Definitions for Lead-Based Paint (LBP)

Abatement

Any measure or set of measures designed to permanently eliminate LBP hazards. Abatement includes, but is not limited to (40 CFR 745.223):

1. the removal of LBP and lead-contaminated dust, the permanent enclosure or encapsulation of LBP, the replacement of lead painted surface or fixtures, and the removal or covering of lead contaminated soil;
2. all preparation, cleanup, disposal, and post-abatement clearance testing activities associated with such measures;
3. specifically, abatement includes, but is not limited to:
 - a) projects for which there is a written contract or other documentation, which provides that an individual or firm will be conducting activities in or to a residential dwelling or child-occupied facilities that:
 - i) shall result in the permanent elimination of LBP hazards; or
 - ii) are designed to permanently eliminate LBP hazards;
 - b) projects resulting in the permanent elimination of LBP hazards, conducted by firms or individuals who are certified, unless such projects are covered by paragraph 4 of this definition;
 - c) projects resulting in the permanent elimination of LBP hazards, conducted by firms or individuals who, through their company name or promotional literature, represent, advertising, or hold themselves out to be in the business of performing LBP activities as identified and defined in this regulation, unless such projects are covered by paragraph 4 of this definition;
 - d) projects resulting in the permanent elimination of LBP hazards that are conducted in response to state or local abatement orders;
4. abatement does not include renovation, remodeling, landscaping or other activities, when such activities are not designed to permanently eliminate LBP hazards, but, instead, are designed to repair, restore, or remodel a given structure or dwelling even though these activities may incidentally result in a reduction or elimination of LBP hazards. Furthermore, abatement does not include interim controls, operations, and maintenance activities, or other measures and activities designed to temporarily, but not permanently, reduce LBP hazards.

Accredited Training Program

A training program that has been accredited by U.S. EPA pursuant to 40 CFR 745.225 to provide training for individuals engaged in lead-based paint activities (40 CFR 745.223).

Adequate Quality Control

A plan or design which ensures the authenticity, integrity, and accuracy of samples, including dust, soil, and paint chip or paint film samples. Adequate quality control also includes provisions for representative sampling (40 CFR 745.223).

Agent

Any party who enters into a contract with a seller or lessor, including any party who enters into a contract with a representative of the seller or lessor, for the purpose of selling or leasing target housing. This term does not apply to purchasers or any purchaser's representative who receives all compensation from the purchaser (40 CFR 745.103).

Available

In the possession of or reasonably obtainable by the seller or lessor at the time of the disclosure (40 CFR 745.103).

Certified Abatement Worker

An individual who has been trained by an accredited training program, as defined by this section, and certified by U.S. EPA pursuant to 40 CFR 745.226 to perform abatements (40 CFR 745.223).

Certified Firm

A company, partnership, corporation, sole proprietorship, association, or other business entity that performs lead-based paint activities to which U.S. EPA has issued a certificate of approval pursuant to 40 CFR 745.226(f) (40 CFR 745.223).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Certified Inspector

An individual who has been trained by an accredited training program, as defined by this section, and certified by U.S. EPA pursuant to 40 CFR 745.226 to conduct inspections. A certified inspector also samples for the presence of lead in dust and soil for the purposes of abatement clearance testing (40 CFR 745.223).

Certified Project Designer

An individual who has been trained by an accredited training program, as defined by this section, and certified by U.S. EPA pursuant to 40 CFR 745.226 to prepare abatement project designs, occupant protection plans, and abatement reports (40 CFR 745.223).

Certified Risk Assessor

An individual who has been trained by an accredited training program, as defined by this section, and certified by U.S. EPA pursuant to 40 CFR 745.226 to conduct risk assessments. A risk assessor also samples for the presence of lead in dust and soil for the purposes of abatement clearance testing (40 CFR 745.223).

Certified Supervisor

An individual who has been trained by an accredited training program, as defined by this section, and certified by U.S. EPA pursuant to 40 CFR 745.226 to supervise and conduct abatements, and to prepare occupant protection plans and abatement reports (40 CFR 745.223).

Child-Occupied Facility

A building or a portion of a building constructed prior to 1978, visited regularly by the same child, 6 yr of age or under, on at least 2 different days within any week (Sunday through Saturday period), provided that each day's visit lasts at least 3 h and the combined weekly visit lasts at least 6 h, and the combined annual visits last at least 60 h. Child-occupied facilities may include, but are not limited to, daycare centers, preschools, and kindergarten classrooms (40 CFR 745.223).

Clearance Levels

Values that indicate the maximum amount of lead permitted in dust on a surface following completion of an abatement activity (40 CFR 745.223).

Common Area

A portion of a building generally accessible to all residents/users including, but not limited to, hallways, stairways, laundry and recreational rooms, playgrounds, community centers, and boundary fences (40 CFR 745.103).

Component or Building Component

Specific design or structural elements or fixtures of a building, residential dwelling, or child-occupied facility that are distinguished from each other by form, function, and location. These include, but are not limited to, interior components such as: ceilings, crown molding, walls, chair rails, doors, door trim, floors, fireplaces, radiators and other heating units, shelves, shelf supports, stair treads, stair risers, stair stringers, newel posts, railing caps, balustrades, windows and trim (including sashes, window heads, jambs, sills or stools and troughs), built in cabinets, columns, beams, bathroom vanities, counter tops, and air conditioners; and exterior components such as: painted roofing, chimneys, flashing, gutters and downspouts, ceilings, soffits, fascias, rake boards, cornerboards, bulkheads, doors and door trim, fences, floors, joists, lattice work, railings and railing caps, siding, handrails, stair risers and treads, stair stringers, columns, balustrades, window sills or stools and troughs, casings, sashes and wells, and air conditioners (40 CFR 745.223).

Containment

A process to protect workers and the environment by controlling exposures to the lead-contaminated dust and debris created during an abatement (40 CFR 745.223).

Contract for the Purchase and Sale of Residential Real Property

Any contract or agreement in which one party agrees to purchase an interest in real property on which there is situated one or more residential dwellings used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons (40 CFR 745.103).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Course Agenda

An outline of the key topics to be covered during a training course, including the time allotted to teach each topic. (40 CFR 745.223).

Course Test

An evaluation of the overall effectiveness of the training which shall test the trainees' knowledge and retention of the topics covered during the course (40 CFR 745.223).

Course Test Blue Print

Written documentation identifying the proportion of course test questions devoted to each major topic in the course curriculum (40 CFR 745.223).

Deteriorated Paint

Paint that is cracking, flaking, chipping, peeling, or otherwise separating from the substrate of a building component (40 CFR 745.223).

Discipline

One of the specific types or categories of lead-based paint activities identified in this subpart for which individuals may receive training from accredited programs and become certified by U.S. EPA. For example, "abatement worker" is a discipline (40 CFR 745.223).

Distinct Painting History

The application history, as indicated by its visual appearance or a record of application, over time, of paint or other surface coatings to a component or room (40 CFR 745.223).

Documented Methodologies

Methods or protocols used to sample for the presence of lead in paint, dust, and soil (40 CFR 745.223).

Elevated Blood Lead Level (EBL)

An excessive absorption of lead that is a confirmed concentration of lead in whole blood of 20 micrograms/deciliter (dl) for a single venous test or of 15 - 19 micrograms/dl in two consecutive tests taken 3 to 4 mo apart (40 CFR 745.223).

Emergency Renovation Operations

Renovation activities, such as operations necessitated by non-routine failures of equipment, that were not planned but result from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, or threatens equipment and/or property with significant damage (40 CFR 745.83).

Encapsulant

A substance that forms a barrier between lead-based paint and the environment using a liquid-applied coating (with or without reinforcement materials) or an adhesively bonded covering material (40 CFR 745.223).

Encapsulation

The application of an encapsulant (40 CFR 745.223).

Enclosure

The use of rigid, durable construction materials that are mechanically fastened to the substrate in order to act as a barrier between lead-based paint and the environment (40 CFR 745.223).

Evaluation

A risk assessment and/or inspection (40 CFR 745.103).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Foreclosure

Any of the various methods, statutory or otherwise, known in different jurisdictions, of enforcing payment of a debt, by the taking and selling of real property (40 CFR 745.103).

Guest Instructor

An individual designated by the training program manager or principal instructor to provide instruction specific to the lecture, hands-on activities, or work practice components of a course (40 CFR 745.223).

Hands-On Skills Assessment

An evaluation which tests the trainees' ability to satisfactorily perform the work practices and procedures identified in 40 CFR 745.225(d), as well as any other skill taught in a training course (40 CFR 745.223).

Hazardous Waste

Any waste as defined in 40 CFR 261.3 (40 CFR 745.223).

Housing for the Elderly

Retirement communities or similar types of housing reserved for households composed of one or more persons 62 years of age or more at the time of initial occupancy (40 CFR 745.103).

HUD

The U.S. Department of Housing and Urban Development (40 CFR 745.103).

Inspection

For LBP this means (40 CFR 745.103):

1. a surface by surface investigation to determine the presence of LBP as provided in section 302(c) of the *Lead Based Paint Poisoning and Prevention Act* (42 USC 4822)
2. the provision of a report explaining the results of the investigation.

Interim Certification

The status of an individual who has successfully completed the appropriate training course in a discipline from an accredited training program, as defined by this section, but has not yet received formal certification in that discipline from U.S. EPA pursuant to 40 CFR 745.226. Interim certifications expire 6 months after the completion of the training course, and is equivalent to a certificate for the 6-month period (40 CFR 745.223).

Interim Controls

A set of measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards, including specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring of lead-based paint hazards or potential hazards, and the establishment and operation of management and resident education programs (40 CFR 745.223).

Lead-Based Paint (LBP)

Paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5 percent by weight (40 CFR 745.103 and 40 CFR 745.223).

Lead-Based Paint Activities

In the case of target housing and child-occupied facilities, inspection, risk assessment, and abatement (40 CFR 745.223).

Lead-Based Paint Free Housing

Target housing that has been found to be free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5 percent by weight (40 CFR 745.103).

Lead-Based Paint Hazard

Any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, or lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

would result in adverse human health effects as identified by the U.S. EPA or authorized regulatory agency pursuant to TSCA section 403 (40 CFR 745.223).

Lead Contaminated Dust

Surface dust in residential dwellings, or child-occupied facilities that contains an area or mass concentration of lead at or in excess of levels identified by the U.S. EPA or authorized regulatory agency pursuant to TSCA section 403 (40 CFR 745.223).

Lead Contaminated Soil

Bare soil on residential real property and on the property of a child-occupied facility that contains lead at or in excess of levels identified by the U.S. EPA or authorized regulatory agency pursuant to TSCA section 403 (40 CFR 745.223).

Lead-Hazard Screen

A limited risk assessment activity that involves limited paint and dust sampling as described in 40 CFR 745.227(c) (40 CFR 745.223).

Lessee

Any entity that enters into agreement to lease, rent, or sublease target housing, including but not limited to individuals, partnerships, corporations, trusts, government agencies, housing agencies, Indian tribes, and nonprofit organizations (40 CFR 745.103).

Lessor

Any entity that offers target housing for lease, rent, or sublease, including but not limited to individuals, partnerships, corporations, trusts, government agencies, housing agencies, Indian tribes, and nonprofit organizations (40 CFR 745.103).

Living Area

Any area of a residential dwelling used by one or more children age 6 and under, including, but not limited to, living rooms, kitchen areas, dens, play rooms, and children's bedrooms (40 CFR 745.223).

Multi-Family Dwelling

A structure that contains more than one separate residential dwelling unit, which is used or occupied, or intended to be used or occupied, in whole or in part as the home or residence of one or more persons (40 CFR 745.223).

Multi-family Housing

A housing property consisting of more than four dwelling units (40 CFR 745.83).

Owner

Any entity that has legal title to target housing, including but not limited to individuals, partnerships, corporations, trusts, government agencies, housing agencies, Indian tribes, and nonprofit organizations except where a mortgage holds legal title to property serving as collateral for a mortgage loan, in which case the owner would be the mortgagor (40 CFR 745.103).

Paint in Poor Condition

More than 10 ft² of deteriorated paint or exterior components with large surface areas; or more than 2 ft² of deteriorated paint on interior components with large surface areas (e.g., walls, ceilings, floors, doors); or more than 10 percent of the total surface area of the component is deteriorated on interior or exterior components with small surface areas (window sills, baseboards, soffits, trim) (40 CFR 745.223).

Pamphlet

The U.S. EPA pamphlet developed under section 406(a) of TSCA for use in complying with this and other rulemakings under Title IV of TSCA and the Residential Lead-Based Paint Hazard Reduction Act, or any state or tribal pamphlet approved by U.S. EPA pursuant to 40 CFR 745.326 that is developed for the same purpose. This

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

includes reproductions of the pamphlet when copied in full and without revision or deletion of material from the pamphlet (except for the addition or revision of state or local sources of information) (40 CFR 745.83).

Permanently Covered Soil

Soil which has been separated from human contact by the placement of a barrier consisting of solid, relatively impermeable materials, such as pavement or concrete. Grass, mulch, and other landscaping materials are not considered permanent covering (40 CFR 745.223).

Person

Any natural or judicial person including any individual, corporation, partnership, or association; any Indian tribe, state, or political subdivision thereof; any interstate body; and any department, agency, or instrumentality of the federal government (40 CFR 745.83).

Principal Instructor

The individual who has the primary responsibility for organizing and teaching a particular course (40 CFR 745.223).

Purchaser

An entity that enters into an agreement to purchase an interest in target housing, including but not limited to individuals, partnerships, corporations, trusts, government agencies, housing agencies, Indian tribes, and nonprofit organizations (40 CFR 745.103).

Recognized Laboratory

An environmental laboratory recognized by U.S. EPA pursuant to TSCA section 405(b) as being capable of performing an analysis for lead compounds in paint, soil, and dust (40 CFR 745.223).

Reduction

Measures designed to reduce or eliminate human exposure to lead-based paint hazards through methods including interim controls and abatement (40 CFR 745.103).

Renovation

The modification of any existing structure, or portion thereof, that results in the disturbance of painted surfaces, unless that activity is performed as part of an abatement as defined by 40 CFR 745.223. The term renovation includes (but is not limited to): the removal or modification of painted surfaces or painted components (e.g., modification of painted doors, surface preparation activity (such as sanding, scraping, or other such activities that may generate paint dust)); the removal of large structures (e.g., walls, ceiling, large surface replastering, major re-plumbing); and window replacement (40 CFR 745.83).

Renovator

Any person who performs for compensation a renovation. (40 CFR 745.83).

Residential Dwelling

For LBP this means (40 CFR 745.103):

1. a single family dwelling, including attached structures such as porches and stoops, or
2. a single family dwelling unit in a structure that contains more than one separate residential dwelling unit, and in which such unit is used or occupied, in whole or in part, as the residence of one or more persons.

Risk Assessment

An onsite investigation to determine and report the existence, nature, severity, and location of LBP hazards in residential dwellings, including (40 CFR 745.103):

1. information gathering regarding the age and history of the housing and occupancy by children under the age of 6
2. visual inspections
3. limited wipe sampling or other environmental sampling techniques
4. other activity as may be appropriate
5. provision of a report explaining the results of the investigation.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Secretary

The Secretary of Housing and Urban Development (40 CFR 745.103).

Seller

Any entity that transfers legal title to target housing, in whole or in part, in return for consideration, including but not limited to individuals, partnerships, corporations, trusts, government agencies, housing agencies, Indian Tribes, and nonprofit organizations. The term seller also includes (40 CFR 745.103):

1. an entity that transfers shares in a cooperatively owned project, in return for consideration
2. an entity that transfers its interest in a leasehold, in jurisdictions or circumstances where it is legally permissible to separate the fee title from the title to the improvement, in return for consideration.

Target Housing

Any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is < 6 yr of age resides or is expected to reside in such housing) or any zero-bedroom dwelling (40 CFR 745.103 and 745.223).

Training Curriculum

An established set of course topics for instruction in an accredited training program for a particular discipline designed to provide specialized knowledge and skills (40 CFR 745.223).

Training Hour

At least 50 minutes of actual learning, including, but not limited to, time devoted to lecture, learning activities, small group activities, demonstrations, evaluations, and/or hands-on experience (40 CFR 745.223).

Training Manager

The individual responsible for administering a training program and monitoring the performance of principal instructors and guest instructors (40 CFR 745.223).

U.S. EPA

The Environmental Protection Agency (40 CFR 745.103).

Visual Inspection for Clearance Testing

The visual examination of a residential dwelling or a child-occupied facility following an abatement to determine whether or not the abatement has been successfully completed (40 CFR 745.223).

Visual Inspection for Risk Assessment

The visual examination of a residential dwelling or a child-occupied facility to determine the existence of deteriorated lead-based paint or other potential sources of lead-based paint hazards (40 CFR 745.223).

Zero-Bedroom Dwelling

Any residential dwelling in which the living area is not separated from the sleeping area. The term includes efficiencies, studio apartments, dormitory housing, military barracks, and rentals of individual rooms in residential dwellings (40 CFR 745.103).

Key Terms and Definitions for Polychlorinated Biphenyls (PCBs)

Administrator

The Administrator of the Environmental Protection Agency, or any employee of the Agency to whom the Administrator may either herein or by order delegate his authority to carry out his functions, or any person who shall by operation of law be authorized to carry out such functions (40 CFR 761.3).

Agency

The United States Environmental Protection Agency (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Air Compressor System

Air compressors, piping, receiver tanks, volume tanks and bottles, dryers, airlines, and related appurtenances (40 CFR 761.3).

Annual Document Log

The detailed information maintained at the facility on the PCB waste handling at the facility (40 CFR 761.3).

Annual Report

The written document submitted each year by each disposer and commercial storer of PCB waste to the appropriate U.S. EPA Regional Administrator. The annual report is a brief summary of the information included in the annual document log (40 CFR 761.3).

ASTM

American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 (40 CFR 761.3).

Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal as entered into force on May 5, 1992 (40 CFR 761.3).

Byproduct

A chemical substance produced without separate commercial intent during the manufacturing or processing of another chemical substance(s) or mixture(s) (40 CFR 761.3).

Capacitor

A device for accumulating and holding a charge of electricity and consisting of conducting surfaces separated by a dielectric. Types of capacitors are as follows (40 CFR 761.3):

1. *Small capacitor*- A capacitor which contains less than 1.36 kg (3 lb) of dielectric fluid. The following assumptions may be used if the actual weight of the dielectric fluid is unknown. A capacitor whose total volume is less than 1,639 cm³ (100 in.³) may be considered to contain less than 1.36 kg (3 lb) of dielectric fluid and a capacitor whose total volume is more than 3,278 cm³ (200 in.³) must be considered to contain more than 1.36 kg (3 lbs.) of dielectric fluid. A capacitor whose volume is between 1,639 and 3,278 cm³ may be considered to contain less than 1.36 kg (3 lbs.) of dielectric fluid if the total weight of the capacitor is less than 4.08 kg (9 lb).
2. *Large high voltage capacitor*- A capacitor which contains 1.36 kg (3 lb) or more of dielectric fluid and which operates at 2,000 volts (a.c. or d.c.) or above.
3. *Large low voltage capacitor*- A capacitor which contains 1.36 kg (3 lb) or more of dielectric fluid and which operates below 2,000 volts (a.c. or d.c.).

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601-9657) (40 CFR 761.3).

Certification

A written statement regarding a specific fact or representation that contains the following language:
Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete (40 CFR 761.3).

Chemical Substance

1. Except as provided in paragraph (2) of this definition, means any organic or inorganic substance of a particular molecular identity, including: Any combination of such substances occurring in whole or part as a result of a chemical reaction or occurring in nature, and any element or uncombined radical.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

2. Such term does not include: Any mixture; any pesticide (as defined in the Federal Insecticide, Fungicide, and Rodenticide Act) when manufactured, processed, or distributed in commerce for use as a pesticide; tobacco or any tobacco product; any source material, special nuclear material, or byproduct material (as such terms are defined in the Atomic Energy Act of 1954 and regulations issued under such Act); any article the sale of which is subject to the tax imposed by section 4181 of the Internal Revenue Code of 1954 (determined without regard to any exemptions from such tax provided by section 4182 or section 4221 or any provisions of such Code); and any food, food additive, drug, cosmetic, or device (as such terms are defined in section 201 of the Federal Food, Drug, and Cosmetic Act) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device (40 CFR 761.3).

Chemical Waste Landfill

Landfill at which protection against risk of injury to health or the environment from mitigation of PCBs to land, water, or the atmosphere is provided from PCBs and PCB Items deposited therein by locating, engineering, and operating the landfill as required (40 CFR 761.3).

Cleanup Site

The real extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a cleanup of PCB remediation waste, regardless of whether the site was intended for management of waste (40 CFR 761.3).

Commerce

Trade, traffic, transportation, or other commerce (40 CFR 761.3):

1. Between a place in a state and any place outside of such state, or
2. Which affects trade, traffic, transportation, or commerce described in paragraph (1) of this definition.

Commercial Storer of PCB Waste

The owner or operator of each facility that is subject to the PCB storage unit standards of 40 CFR 761.65(b)(1) or (c)(7) or meets the alternate storage criteria of 40 CFR 761.65(b)(2), and who engages in storage activities involving either PCB waste generated by others or that was removed while servicing the equipment owned by others and brokered for disposal. The receipt of a fee or any other form of compensation for storage services is not necessary to qualify as a commercial storer of PCB waste. A generator who only stores its own waste is subject to the storage requirements of 40 CFR 761.65, but is not required to obtain approval as a commercial storer. If a facility's storage of PCB waste generated by others at no time exceeds a total of 500 gallons of liquid and/or non-liquid material containing PCBs at regulated levels, the owner or operator is a commercial storer but is not required to seek U.S. EPA approval as a commercial storer of PCB waste. Storage of one company's PCB waste by a related company is not considered commercial storage. A "related company" includes, but is not limited to: a parent company and its subsidiaries; sibling companies owned by the same parent company; companies owned by a common holding company; members of electric cooperatives; entities within the same Executive Agency as defined at 5 U.S.C. 105; and a company having a joint ownership interest in a facility from which PCB waste is generated (such as a jointly owned electric power generating station) where the PCB waste is stored by one of the co-owners of the facility. A "related company" does not include another voluntary member of the same trade association. Change in ownership or title of a generator's facility, where the generator is storing PCB waste, does not make the new owner of the facility a commercial storer of PCB waste (40 CFR 761.3).

Designated Facility

The offsite disposer or commercial storer of PCB waste designated on the manifest as the facility that will receive a manifested shipment of PCB waste (40 CFR 761.3).

Disposal

Intentionally or accidentally to discard, throw away, or otherwise complete or terminate the useful life of PCBs and PCB Items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs as well as actions related to containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB Items (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Disposer of PCB Waste

Any person who owns or operates a facility approved by U.S. EPA for the disposal of PCB waste which is regulated for disposal under the requirements of Subpart D of 40 CFR 761 (40 CFR 761.3).

Distribute in Commerce and Distribution in Commerce

When used to describe an action taken with respect to a chemical substance, mixture, or article containing a substance or mixture means to sell, or the sale of, the substance, mixture, or article in commerce; to introduce or deliver for introduction into commerce, or the introduction or delivery for introduction into commerce of the substance, mixture, or article; or to hold or the holding of, the substance, mixture, or article after its introduction into commerce (40 CFR 761.3).

DOT

The United States Department of Transportation (40 CFR 761.3).

Double Wash/Rinse

A minimum requirement to cleanse solid surfaces (both impervious and nonimpervious) two times with an appropriate solvent or other material in which PCBs are at least 5 percent soluble (by weight). A volume of PCB-free fluid sufficient to cover the contaminated surface completely must be used in each wash/rinse. The wash/rinse requirement does not mean the mere spreading of solvent or other fluid over the surface, nor does the requirement mean a once-over wipe with a soaked cloth. Precautions must be taken to contain any runoff resulting from the cleansing and to dispose properly of wastes generated during the cleansing (40 CFR 761.123).

Dry Weight

The weight of the sample, excluding the weight of the water in the sample. Prior to chemical analysis, the water may be removed by any reproducible method that is applicable to measuring PCBs in the sample matrix at the concentration of concern, such as air drying at ambient temperature, filtration, decantation, heating at low temperature followed by cooling in the presence of a desiccant, or other processes or combinations of processes which would remove water but not remove PCBs from the sample. Analytical procedures which calculate the dry weight concentration by adjusting for moisture content may also be used (40 CFR 761.3).

EPA Identification Number

The 12-digit number assigned to a facility by U.S. EPA upon notification of PCB waste activity under 40 CFR 761.205 (40 CFR 761.3).

Excluded Manufacturing Process

A manufacturing process in which quantities of PCBs, as determined in accordance with the definition of inadvertently generated PCBs, calculated as defined, and from which releases to products, air, and water meet the requirements of paragraphs (a) through (e) of this definition, or the importation of products containing PCBs as unintentional impurities, which products meet the requirements of paragraphs (a) and (b) of this definition (40 CFR 761.3):

1. The concentration of inadvertently generated PCBs in products leaving any manufacturing site or imported into the United States must have an annual average of less than 25 ppm, with a 50 ppm maximum.
2. The concentration of inadvertently generated PCBs in the components of detergent bars leaving the manufacturing site or imported into the United States must be less than 5 ppm.
3. The release of inadvertently generated PCBs at the point at which emissions are vented to ambient air must be less than 10 ppm.
4. The amount of inadvertently generated PCBs added to water discharged from a manufacturing site must be less than 100 micrograms per resolvable gas chromatographic peak per liter of water discharged.
5. Disposal of any other process wastes above concentrations of 50 ppm PCB must be in accordance with Subpart D of 40 CFR 761.

Excluded PCB Products

PCB materials which appear at concentrations less than 50 ppm, including but not limited to (40 CFR 761.3):

1. Non-Aroclor inadvertently generated PCBs as a byproduct or impurity resulting from a chemical manufacturing process.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

2. Products contaminated with Aroclor or other PCB materials from historic PCB uses (investment casting waxes are one example).
3. Recycled fluids and/or equipment contaminated during use involving the products described in paragraphs (a) and (b) of this definition (heat transfer and hydraulic fluids and equipment and other electrical equipment components and fluids are examples).
4. Used oils, provided that in the cases of paragraphs (1) through (4) of this definition:
 - a) The products or source of the products containing < 50 ppm concentration PCBs were legally manufactured, processed, distributed in commerce, or used before October 1, 1984.
 - b) The products or source of the products containing < 50 ppm concentrations PCBs were legally manufactured, processed, distributed in commerce, or used, i.e., pursuant to authority granted by U.S. EPA regulation, by exemption petition, by settlement agreement, or pursuant to other Agency-approved programs;
 - c) The resulting PCB concentration (i.e. below 50 ppm) is not a result of dilution, or leaks and spills of PCBs in concentrations over 50 ppm.

Facility

All contiguous land, and structures, other appurtenances, and improvements on the land, used for the treatment, storage, or disposal of PCB waste. A facility may consist of one or more treatment, storage, or disposal units (40 CFR 761.3).

Fluorescent Light Ballast

A device that electrically controls fluorescent light fixtures and that includes a capacitor containing 0.1 kg or less of dielectric (40 CFR 761.3).

Generator of PCB Waste

Any person whose act or process produces PCBs that are regulated for disposal under Subpart D of 40 CFR 761, or whose act first causes PCBs or PCB Items to become subject to the disposal requirements of Subpart D of 40 CFR 761, or who has physical control over the PCBs when a decision is made that the use of the PCBs has been terminated and therefore is subject to the disposal requirements of Subpart D of 40 CFR 761. Unless another provision of 40 CFR 761 specifically requires a site-specific meaning, "generator of PCB waste" includes all of the sites of PCB waste generation owned or operated by the person who generates PCB waste (40 CFR 761.3).

High Concentration PCBs

PCBs that contain 500 ppm or greater PCBs, or those materials which the U.S. EPA requires to be assumed to contain 500 ppm or greater PCBs in the absence of testing (40 CFR 761.123).

High-Contact Industrial Surface

A surface in an industrial setting which is repeatedly touched, often for relatively long periods of time. Manned machinery and control panels are examples of high-contact industrial surfaces. High-contact industrial surfaces are generally of impervious solid material. Examples of low-contact industrial surfaces include ceilings, walls, floors, roofs, roadways and sidewalks in the industrial area, utility poles, unmanned machinery, concrete pads beneath electrical equipment, curbing, exterior structural building components, indoor vaults, and pipes (40 CFR 761.123).

High-Contact Residential/Commercial Surface

A surface in a residential/commercial area which is repeatedly touched, often for relatively long periods of time. Doors, wall areas below 6 feet in height, uncovered flooring, windowsills, fencing, banisters, stairs, automobiles, and children's play areas such as outdoor patios and sidewalks are examples of high-contact residential/commercial surfaces. Examples of low-contact residential/commercial surfaces include interior ceilings, interior wall areas above 6 feet in height, roofs, asphalt roadways, concrete roadways, wooden utility poles, unmanned machinery, concrete pads beneath electrical equipment, curbing, exterior structural building components (e.g., aluminum/vinyl siding, cinder block, asphalt tiles), and pipes (40 CFR 761.123).

High Occupancy Area

Any area where PCB remediation waste has been disposed of onsite and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 h or more

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste. Examples could include a residence, school, day care center, sleeping quarters, a single or multiple occupancy 40 hours per week work station, a school class room, a cafeteria in an industrial facility, a control room, and a work station at an assembly line (40 CFR 761.3).

Impervious Solid Surfaces

Solid surfaces which are nonporous and thus unlikely to absorb spilled PCBs within the short period of time required for cleanup of spills under this policy. Impervious solid surfaces include, but are not limited to, metals, glass, aluminum siding, and enameled or laminated surfaces (40 CFR 761.123).

Importer

Any person defined as an “importer” at 40 CFR 720.3(1) of this chapter who imports PCBs or PCB Items and is under the jurisdiction of the United States (40 CFR 761.3).

Impurity

A chemical substance which is unintentionally present with another chemical substance (40 CFR 761.3).

In or Near Commercial Buildings

Within the interior of, on the roof of, attached to the exterior wall of, in the parking area serving, or within 30 meters of a non-industrial non-substation building. Commercial buildings are typically accessible to both members of the general public and employees, and include (40 CFR 761.3):

1. public assembly properties;
2. educational properties;
3. institutional properties;
4. residential properties;
5. stores;
6. office buildings; and
7. transportation centers (e.g., airport terminal buildings, subway stations, bus stations, or train stations).

In-service

The transformer is used electrically under loaded conditions that raise the temperature of the dielectric fluid to at least 50°. Centigrade (40 CFR 761.30(a)(2)(v)).

Incinerator

An engineered device using controlled flame combustion to thermally degrade PCBs and PCB Items. Examples of devices used for incineration include rotary kilns, liquid injection incinerators, cement kilns, and high temperature boilers (40 CFR 761.3).

Industrial Building

A building directly used in manufacturing or technically productive enterprises. Industrial buildings are not generally or typically accessible to other than workers. Industrial buildings include buildings used directly in the production of power, the manufacture of products, the mining of raw materials, and the storage of textiles, petroleum products, wood and paper products, chemicals, plastics, and metals (40 CFR 761.3).

Laboratory

A facility that analyzes samples for PCBs and is unaffiliated with any entity whose activities involve PCBs (40 CFR 761.3).

Leak or Leaking

Any instance in which a PCB article, PCB container, or PCB equipment has any PCBs on any portion of its external surface (40 CFR 761.3).

Liquid PCBs

A homogenous flowable material containing PCBs and no more than 0.5 percent by weight non-dissolved material (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Low Concentration PCBs

PCBs that are tested and found to contain less than 500 ppm PCBs or those PCB-containing materials which U.S. EPA requires to be assumed to be at concentrations below 500 ppm (i.e., untested mineral oil dielectric fluid) (40 CFR 761.123).

Low Occupancy Area

Any area where PCB remediation waste has been disposed of onsite and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: less than 840 h (an average of 16.8 h/week) for non-porous surfaces and less than 335 h (an average of 6.7 h/week) for bulk PCB remediation waste. Examples could include an electrical substation or a location in an industrial facility where a worker spends small amounts of time per week (such as an unoccupied area outside a building, an electrical equipment vault, or in the non-office space in a warehouse where occupancy is transitory) (40 CFR 761.3).

Manifest

The shipping document U.S. EPA form 8700-22 and any continuation sheet attached to U.S. EPA form 8700-22, originated and signed by the generator of PCB waste in accordance with the instructions included with the form and Subpart K of 40 CFR 761 (40 CFR 761.3).

Manned Control Center

An electrical power distribution control room where the operating conditions of a PCB Transformer are continuously monitored during the normal hours of operation (of the facility), and, where the duty engineers, electricians, or other trained personnel have the capability to deenergize a PCB Transformer completely within 1 minute of the receipt of a signal indicating abnormal operating conditions such as an overtemperature condition or overpressure condition in a PCB Transformer (40 CFR 761.3).

Manufacture

To produce, manufacture, or import into the customs territory of the United States (40 CFR 761.3).

Manufacturing Process

All of a series of unit operations operating at a site, resulting in the production of a product (40 CFR 761.3).

Mark

The descriptive name, instructions, cautions, or other information applied to PCBs and PCB items, or other objects subject to the regulations under 40 CFR 761 (40 CFR 761.3).

Marked

The marking of PCB Items and PCB storage areas and transport vehicles by means of applying a legible mark by painting, fixation of an adhesive label, or by any other method that meets the requirements of these regulations (40 CFR 761.3).

Market/Marketers

The processing or distributing in commerce, or the person who processes or distributes in commerce, used oil fuels to burners or other marketers, and may include the generator of the fuel if it markets the fuel directly to the burner (40 CFR 761.3).

Marking

The marking of PCB items and PCB storage areas and transport vehicles by means of applying a legible mark by painting, fixation of an adhesive label, or by any other method that meets the requirements of the regulations under 40 CFR 761 (40 CFR 761.3).

Mineral Oil PCB Transformers

Any transformer originally designed to contain mineral oil as the dielectric fluid and which has been tested and found to contain 500 ppm or greater PCBs (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Mixture

Any combination of two or more chemical substances if the combination does not occur in nature and is not, in whole or in part, the result of a chemical reaction; except that such term does include any combination which occurs, in whole or in part, as a result of a chemical reaction if none of the chemical substances comprising the combination is a new chemical substance and if the combination could have been manufactured for commercial purposes without a chemical reaction at the time the chemical substances comprising the combination were combined (40 CFR 761.3).

Municipal Solid Wastes

Garbage, refuse, sludges, wastes, and other discarded materials resulting from residential and non-industrial operations and activities, such as household activities, office functions, and commercial housekeeping wastes (40 CFR 761.3).

Natural Gas Pipeline System

Natural gas gathering facilities, natural gas pipe, natural gas compressors, natural gas storage facilities, and natural gas pipeline appurtenances (including instrumentation and vessels directly in contact with transported natural gas such as valves, regulators, drips, filter separators, etc., but not including air compressors) (40 CFR 761.3).

Non-Imperious Solid Surfaces

Solid surfaces which are porous and are more likely to absorb spilled PCBs prior to completion of the cleanup requirements prescribed in this policy. Non-imperious solid surfaces include, but are not limited to, wood, concrete, asphalt, and plasterboard (40 CFR 761.123).

Non-Liquid PCBs

Materials containing PCBs that by visual inspection do not flow at room temperature (25 °C or 77 °F) or from which no liquid passes when a 100 g or 100 mL representative sample is placed in a mesh number 60 +/- 5 percent paint filter and allowed to drain at room temperature for 5 min (40 CFR 761.3).

Non-PCB Transformers

Any transformer that contains less than 50 ppm PCB except any transformer that has been converted from a PCB Transformer or a PCB-Contaminated Transformer cannot be classified as a non-PCB Transformer until reclassification has occurred in accordance with the requirements of 40 CFR 761.30(a)(2)(v) (40 CFR 761.3).

Non-Porous Surface

A smooth, unpainted solid surface that limits penetration of liquid containing PCBs beyond the immediate surface. Examples are: smooth uncorroded metal; natural gas pipe with a thin porous coating originally applied to inhibit corrosion; smooth glass; smooth glazed ceramics; impermeable polished building stone such as marble or granite; and high density plastics, such as polycarbonates and melamines, that do not absorb organic solvents (40 CFR 761.3).

Nonrestricted Access Areas

Any area other than restricted access, outdoor electrical substations, and other restricted access locations, as defined in this section. In addition to residential/commercial areas, these areas include unrestricted access rural areas (areas of low density development and population where access is uncontrolled by either man-made barriers or naturally occurring barriers, such as rough terrain, mountains, or cliffs) (40 CFR 761.123).

NTIS

The National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161 (40 CFR 761.3).

On-Site

Within the boundaries of a contiguous property unit (40 CFR 761.3).

Open Burning

The combustion of any PCB regulated for disposal, in a manner not approved or otherwise allowed under Subpart D of 40 CFR 761, and without any of the following (40 CFR 761.3):

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

1. control of combustion air to maintain adequate temperature for efficient combustion
2. containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion
3. control of emission of the gaseous combustion products.

Other Restricted Access (Nonsubstation) Locations

Areas other than electrical substations that are at least 0.1 kilometer (km) from a residential/commercial area and limited by man-made barriers (e.g., fences and walls) to substantially limited by naturally occurring barriers such as mountains, cliffs, or rough terrain. These areas generally include industrial facilities and extremely remote rural locations. (Areas where access is restricted but are less than 0.1 km from a residential/commercial area are considered to be residential/commercial areas.) (40 CFR 761.123).

Outdoor Electrical Substations

Outdoor, fenced-off, and restricted access areas used in the transmission and/or distribution of electrical power. Outdoor electrical substations restrict public access by being fenced or walled off as defined under 40 CFR 761.30(l)(1)(ii). For purposes of this TSCA policy, outdoor electrical substations are defined as being located at least 0.1 km from a residential/commercial area. Outdoor fenced-off and restricted access areas used in the transmission and/or distribution of electrical power which are located less than 0.1 km from a residential/commercial area are considered to be residential/commercial areas. (40 CFR 761.123).

PCB and PCBs

Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance. Refer to 40 CFR 761.1(b) for applicable concentrations of PCBs. PCB and PCBs as contained in PCB items are defined in 40 CFR 761.3. For any purposes under 40 CFR 761, inadvertently generated non-Aroclor PCBs are defined as the total PCBs calculated following division of the quantity of monochlorinated biphenyls by 50 and dichlorinated biphenyls by 5 (40 CFR 761.3).

PCB Article

Any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. "PCB Article" includes capacitors, transformers, electric motors, pumps, pipes and any other manufactured item (a) which is formed to a specific shape or design during manufacture, (b) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and (c) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the PCB Article (40 CFR 761.3).

PCB Article Container

Any package, can, bottle, bag, barrel, drum, tank, or other device used to contain PCB articles or PCB equipment, and whose surface(s) has not been in direct contact with PCBs (40 CFR 761.3).

PCB Bulk Product Waste

Waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was \geq 50 ppm PCBs. PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under 40 CFR 761.60(a) through (c), 761.61, 761.63, or 761.64. PCB bulk product waste includes, but is not limited to:

1. non-liquid bulk wastes or debris from the demolition of buildings and other man-made structures manufactured, coated, or serviced with PCBs. PCB bulk product waste does not include debris from the demolition of buildings or other man-made structures that is contaminated by spills from regulated PCBs which have not been disposed of, decontaminated, or otherwise cleaned up in accordance with Subpart D of 40 CFR 761.
2. PCB-containing wastes from the shredding of automobiles, household appliances, or industrial appliances.
3. plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts; or furniture laminates); preformed or molded rubber parts and components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; adhesives; paper; Galbestos; sound deadening or other types of insulation; and felt or fabric products such as gaskets.
4. fluorescent light ballasts containing PCBs in the potting material (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

PCB Capacitor

Any capacitor that contains ≥ 500 ppm PCB. Concentration assumptions applicable to capacitors appear under 40 CFR 761.2 (40 CFR 761.3).

PCB Concentration Assumptions

The following assumption may be made in relation to PCB concentrations (40 CFR 761.2(a), 761.1(b)(3) and 761.1(b)(2)):

1. transformers with < 3 lb (1.36 kg) of fluid, circuit breakers, reclosers, oil-filled cable, and rectifiers whose PCB concentration is not established contain PCBs at < 50 ppm;
2. mineral oil-filled electrical equipment that was manufactured before July 2, 1979, and whose PCB concentration is not established is PCB-Contaminated Electrical Equipment (i.e., contains ≥ 50 PCB, but < 500 ppm PCB);
3. all pole-top and pad-mounted distribution transformers manufactured before July 2, 1979, are assumed to be mineral-oil filled;
4. electrical equipment manufactured after July 2, 1979, is non-PCB (i.e., < 50 ppm PCBs). If the date of manufacture of mineral oil-filled electrical equipment is unknown, assume it to be PCB-Contaminated;
5. transformers manufactured prior to July 2, 1979, that contain 1.36 kg (3 lb) or more of fluid other than mineral oil and whose PCB concentration is not established, are PCB Transformers (i.e., ≥ 500 ppm). If the date of manufacture and the type of dielectric fluid are unknown, assume the transformer to be a PCB Transformer;
6. a capacitor manufactured prior to July 2, 1979, whose PCB concentration is not established contains ≥ 500 ppm PCBs;
7. a capacitor manufactured after July 2, 1979, is non-PCB (i.e., < 50 ppm PCBs). If the date of manufacture is unknown, assume the capacitor contains ≥ 500 ppm PCBs;
8. a capacitor marked at the time of manufacture with the statement "No PCBs" in accordance with 40 CFR 761.40(g) is non-PCB;
9. provisions that apply to PCBs at concentrations of < 50 ppm apply also to contaminated surfaces at PCB concentrations of $\leq 10 \mu\text{g}/100 \text{ cm}^2$;
10. provisions that apply to PCBs at concentrations of ≥ 50 to < 500 ppm apply also to contaminated surfaces at PCB concentrations of $> 10 \mu\text{g}/100 \text{ cm}^2$ to $< 100 \mu\text{g}/100 \text{ cm}^2$;
11. provisions that apply to PCBs at concentrations of ≥ 500 ppm apply also to contaminated surfaces at PCB concentrations of $\geq 100 \mu\text{g}/100 \text{ cm}^2$.

Unless otherwise noted, PCB concentrations shall be determined on a weight-per-weight basis, or for liquids on a weight-per-volume basis if the density of the liquid is also reported. Unless otherwise provided, PCBs are quantified based on the formulation of PCBs present in the material analyzed.

PCB Container

Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB Articles and whose surface(s) has been in direct contact with PCBs (40 CFR 761.3).

PCB-Contaminated

A non-liquid material containing PCBs at concentrations ≥ 50 ppm but < 500 ppm; a liquid material containing PCBs at concentrations ≥ 50 ppm but < 500 ppm or where insufficient liquid material is available for analysis, a non-porous surface having a surface concentration $> 10 \mu\text{g}/100 \text{ cm}^2$ but $< 100 \mu\text{g}/100 \text{ cm}^2$, measured by a standard wipe test as defined in 40 CFR 761.123 (40 CFR 761.3).

PCB-Contaminated Electrical Equipment

Any electrical equipment including, but not limited to, transformers (including those used in railway locomotives and self-propelled cars), capacitors, circuit breakers, reclosers, voltage regulators, switches (including sectionalizers and motor starters), electromagnets, and cable, that contains PCBs at concentrations of ≥ 50 ppm and < 500 ppm in the contaminating fluid. In the absence of liquids, electrical equipment is PCB-Contaminated if it has PCBs at $> 10 \mu\text{g}/100 \text{ cm}^2$ and $< 100 \mu\text{g}/100 \text{ cm}^2$ as measured by a standard wipe test (as defined in 40 CFR 761.123) of a non-porous surface (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

PCB Equipment

Any manufactured item, other than a PCB container or a PCB article container, which contains a PCB article or other PCB equipment, and includes microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures (40 CFR 761.3).

PCB Field Screening Test

A portable analytical device or kit which measures PCBs. PCB field screening tests usually report less than or greater than a specific numerical PCB concentration. These tests normally build in a safety factor which increases the probability of a false positive report and decreases the probability of a false negative report. PCB field screening tests do not usually provide: an identity record generated by an instrument; a quantitative comparison record from calibration standards; any identification of PCBs; and/or any indication or identification of interferences with the measurement of the PCBs. PCB field screening test technologies include, but are not limited to, total chlorine colorimetric tests, total chlorine x-ray fluorescence tests, total chlorine microcoulometric tests, and rapid immunoassay tests (40 CFR 761.3).

PCB Household Waste

PCB waste that is generated by residents on the premises of a temporary or permanent residence for individuals (including individually owned or rented units of a multi-unit construction), and that is composed primarily of materials found in wastes generated by consumers in their homes. PCB household waste includes unwanted or discarded non-commercial vehicles (prior to shredding), household items, and appliances or appliance parts and wastes generated on the premises of a residence for individuals as a result of routine household maintenance by or on behalf of the resident. Bulk or commingled liquid PCB wastes at concentrations of ≥ 50 ppm, demolition and renovation wastes, and industrial or heavy duty equipment with PCBs are not household wastes (40 CFR 761.3).

PCB Item

Any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs (40 CFR 761.3).

PCB/Radioactive Waste

PCBs regulated for disposal under Subpart D of 40 CFR 761 that also contain source, special nuclear, or byproduct material subject to regulation under the *Atomic Energy Act of 1954*, as amended, or naturally-occurring or accelerator-produced radioactive material (40 CFR 761.3).

PCB Remediation Waste

Waste containing PCBs as a result of a spill, release, or other unauthorized disposal, at the following concentrations: Materials disposed of prior to April 18, 1978, that are currently at concentrations ≥ 50 ppm PCBs, regardless of the concentration of the original spill; materials which are currently at any volume or concentration where the original source was ≥ 500 ppm PCB beginning on April 18, 1978, or ≥ 50 ppm PCB beginning on July 2, 1979; and materials which are currently at any concentration if the PCBs are spilled or released from a source not authorized for use under 40 CFR 761. PCB remediation waste means soil, rags, and other debris generated as a result of any PCB spill cleanup, including, but not limited to (40 CFR 761.3):

1. environmental media containing PCBs, such as soil and gravel; dredged materials, such as sediments, settled sediment fines, and aqueous decantate from sediment.
2. sewage sludge containing < 50 ppm PCBs and not in use according to 40 CFR 761.20(a)(4); PCB sewage sludge; commercial or industrial sludge contaminated as the result of a spill of PCBs including sludges located in or removed from any pollution control device; aqueous decantate from an industrial sludge.
3. buildings and other manmade structures (such as concrete floors, wood floors, or walls contaminated from a leaking PCB or PCB-contaminated transformer), porous surfaces and non-porous surfaces.

PCB Sewage Sludge

Sewage sludge as defined in 40 CFR 503.9(w) which contains ≥ 50 ppm PCBs, as measured on a dry weight basis (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

PCB Transformer

Any transformer that contains ≥ 500 ppm PCBs. For PCB concentration assumptions applicable to transformers containing 1.36 kg (3 lb) or more of fluid other than mineral oil, see 40 CFR 761.2. For provisions permitting reclassification of electrical equipment, including PCB Transformers, containing ≥ 500 ppm PCBs to PCB-Contaminated Electrical Equipment, see 40 CFR 761.30(a) and (h) (40 CFR 761.3).

PCB Waste

Those PCBs and PCB Items that are subject to the disposal requirements of Subpart D of 40 CFR 761 (40 CFR 761.3).

Performance-Based Organic Decontamination Fluid (PODF)

Kerosene, diesel fuel, terpene hydrocarbons, and terpene hydrocarbon/alcohol mixtures (40 CFR 761.3).

Porous Surface

Any surface that allows PCBs to penetrate or pass into itself including, but not limited to, paint or coating on metal; corroded metal; fibrous glass or glass wool; unglazed ceramics; ceramics with a porous glaze; porous building stone such as sandstone, travertine, limestone, or coral rock; low-density plastics such as styrofoam and low-density polyethylene; coated (varnished or painted) or uncoated wood; concrete or cement; plaster; plasterboard; wallboard; rubber; fiberboard; chipboard; asphalt; or tar paper. For purposes of cleaning and disposing of PCB remediation waste, porous surfaces have different requirements than non-porous surfaces (40 CFR 761.3).

Posing an Exposure Risk to Food or Feed

An exposure risk to food or feed being in any location where human food or animal feed products could be exposed to PCBs released from a PCB Item. A PCB Item poses an exposure risk to food or feed if PCBs released in any way from the PCB Item have a potential pathway to human food or animal feed. U.S. EPA considers human food or animal feed to include items regulated by the U.S. Department of Agriculture or the Food and Drug Administration as human food or animal feed; this includes direct additives. Food or feed is excluded from this definition if it is used or stored in private homes (40 CFR 761.3).

Process

The preparation of a chemical substance or mixture, after its manufacture, for distribution in commerce (40 CFR 761.3):

1. In the same form or physical state as, or in a different form or physical state from, that in which it was received by the person so preparing such substance or mixture, or
2. As part of an article containing the chemical substance or mixture.

Qualified Incinerator

1. An incinerator approved under the provisions of 40 CFR 761.70. Any level of PCB concentration can be destroyed in an incinerator approved under 40 CFR 761.70., OR
2. A high efficiency boiler which complies with the criteria of 40 CFR 761.71(a)(1), and for which the operator has given written notice to the appropriate U.S. EPA Regional Administrator in accordance with the notification requirements for the burning of mineral oil dielectric fluid under 40 CFR 761.71(a)(2), OR
3. An incinerator approved under section 3005(c) of the Resource Conservation and Recovery Act (42 U.S.C. 6925(c)) (RCRA), OR
4. Industrial furnaces and boilers which are identified in 40 CFR 260.10 and 40 CFR 279.61 (a)(1) and (2) when operating at their normal operating temperatures (this prohibits feeding fluids, above the level of detection, during either startup or shutdown operations) (40 CFR 761.3).

Quantifiable Level/Level of Detection

2 micrograms per gram from any resolvable gas chromatographic peak, i.e. 2 ppm (40 CFR 761.3).

RCRA

The Resource Conservation and Recovery Act (40 U.S.C. 6901 et seq.) (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Recycled PCBs

Those PCBs which appear in the processing of paper products or asphalt roofing materials from PCB-contaminated raw materials. Processes which recycle PCBs must meet the following requirements (40 CFR 761.3):

1. There are no detectable concentrations of PCBs in asphalt roofing material products leaving the processing site.
2. The concentration of PCBs in paper products leaving any manufacturing site processing paper products, or in paper products imported into the United States, must have an annual average of less than 25 ppm with a 50 ppm maximum.
3. The release of PCBs at the point at which emissions are vented to ambient air must be less than 10 ppm.
4. The amount of Aroclor PCBs added to water discharged from an asphalt roofing processing site must at all times be less than 3 µg/L for total Aroclors (roughly 3 ppb). Water discharges from the processing of paper products must at all times be less than 3 µg/L for total Aroclors (roughly 3 ppb), or comply with the equivalent mass-based limitation.
5. Disposal of any other process wastes at concentrations of 50 ppm or greater must be in accordance with Subpart D of 40 CFR 761.

Requirements and Standards (40 CFR 761.123):

1. "Requirements" as used in this policy refers to both the procedural responses and numerical decontamination levels set forth in this policy as constituting adequate cleanup of PCBs.
2. "Standards" refers to the numerical decontamination levels set forth in this policy.

Research and Development (R&D) for PCB Disposal

Demonstrations for commercial PCB disposal approvals, pre-demonstration tests, tests of major modifications to previously approved PCB disposal technologies, treatability studies for PCB disposal technologies which have not been approved, development of new disposal technologies, and research on chemical transformation processes including, but not limited to, biodegradation (40 CFR 761.3).

Residential/Commercial Areas

Those areas where people live or reside, or where people work in other than manufacturing or farming industries. Residential areas include housing and the property on which housing is located, as well as playgrounds, roadways, sidewalks, parks, and other similar areas within a residential community. Commercial areas are typically accessible to both members of the general public and employees and include public assembly properties, institutional properties, stores, office buildings, and transportation centers (40 CFR 761.123).

Responsible Party

The owner of the PCB equipment, facility, or other source of PCBs or his/her designated agent (e.g., a facility manager or foreman). (40 CFR 761.123).

Retrofill

To remove PCB or PCB contaminated dielectric fluid and replace it with either PCB, PCB-contaminated, or non-PCB dielectric fluid (40 CFR 761.3).

Rupture of a PCB Transformer

A violent or nonviolent break in the integrity of a PCB Transformer caused by an overtemperature and/or overpressure condition that results in the release of PCBs (40 CFR 761.3).

Sale

For purposes other than resale, sale of PCBs for purposes of disposal and for purposes of use, except where use involves sale for distribution in commerce. PCB Equipment which is first leased for purposes of use any time before July 1, 1979, will be considered sold for purposes other than resale (40 CFR 761.3).

Sewage Sludge

Sewage sludge as defined in 40 CFR 503.9(w) of this chapter that contains < 50 ppm (on a dry weight basis) PCBs (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Small Quantities

For research and development, any quantity of PCBs (a) that is originally packaged in one or more hermetically sealed containers of a volume of no more than five (5.0) milliliters, and (b) that is used only for purposes of scientific experimentation or analysis, or chemical research on, or analysis of, PCBs, but not for research or analysis for the development of a PCB product (40 CFR 761.3).

Soil

All vegetation, soils and other ground media, including but not limited to, sand, grass, gravel, and oyster shells. It does not include concrete and asphalt (40 CFR 761.123).

Soil Washing

The extraction of PCBs from soil using a solvent, recovering the solvent from the soil, separating the PCBs from the recovered solvent for disposal, and then disposal or reuse of the solvent (40 CFR 761.3).

Spill

Both intentional and unintentional spills, leaks, and other uncontrolled discharges where the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases. This policy applies to spills of 50 ppm or greater PCBs. The concentration of PCBs spilled is determined by the PCB concentration in the material spilled as opposed to the concentration of PCBs in the material onto which the PCBs were spilled. Where a spill of untested mineral oil occurs, the oil is presumed to contain greater than 50 ppm, but less than 500 ppm PCBs and is subject to the relevant requirements of this policy (40 CFR 761.123).

Spill Area

The area of soil on which visible traces of the spill can be observed plus a buffer zone of 1 foot beyond the visible traces. Any surface or object (e.g., concrete sidewalk or automobile) within the visible traces area or on which visible traces of the spilled material are observed is included in the spill area. This area represents the minimum area assumed to be contaminated by PCBs in the absence of precleanup sampling data and is thus the minimum area which must be cleaned (40 CFR 761.123).

Spill Boundaries

The actual area of contamination as determined by postcleanup verification sampling or by precleanup sampling to determine actual spill boundaries. U.S. EPA can require additional cleanup when necessary to decontaminate all areas within the spill boundaries to the levels required in this policy (e.g., additional cleanup will be required if postcleanup sampling indicates that the area decontaminated by the responsible party, such as the spill area as defined in this section, did not encompass the actual boundaries of PCB contamination) (40 CFR 761.123).

Standard Wipe Sample

A sample collected for chemical extraction and analysis using the standard wipe test as defined in 40 CFR 761.123. Except as designated elsewhere in 40 CFR 761, the minimum surface area to be sampled shall be 100 cm² (40 CFR 761.3).

Standard Wipe Test

For spills of high-concentration PCBs on solid surfaces, a cleanup to numerical surface standards and sampling by a standard wipe test to verify that the numerical standards have been met. This definition constitutes the minimum requirements for an appropriate wipe testing protocol. A standard-size template (10 centimeters (cm) x 10 cm) will be used to delineate the area of cleanup; the wiping medium will be a gauze pad or glass wool of known size which has been saturated with hexane. It is important that the wipe be performed very quickly after the hexane is exposed to air. U.S. EPA strongly recommends that the gauze (or glass wool) be prepared with hexane in the laboratory and that the wiping medium be stored in sealed glass vials until it is used for the wipe test. Further, U.S. EPA requires the collection and testing of field blanks and replicates (40 CFR 761.123).

Storage for Disposal

Temporary storage of PCBs that have been designated for disposal (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

SW-846

The document having the title “SW-846, Test Methods for Evaluating Solid Waste,” which is available from either the National Technical Information Service (NTIS, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161, telephone: (703) 487-4650 or the U.S. Government Printing Office (U.S. GPO, 710 North Capitol St., NW., Washington, DC 20401, telephone: (202) 783-3238 (40 CFR 761.3).

Totally Enclosed Manner

Any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs (40 CFR 761.3).

Transfer Facility

Any transportation-related facility including loading docks, parking areas, and other similar areas where shipments of PCB waste are held during the normal course of transportation. Transport vehicles are not transfer facilities under this definition, unless they are used for the storage of PCB waste, rather than for actual transport activities. Storage areas for PCB waste at transfer facilities are subject to the storage facility standards of 40 CFR 761.65, but such storage areas are exempt from the approval requirements of 40 CFR 761.65(d) and the recordkeeping requirements of 40 CFR 761.180, unless the same PCB waste is stored there for a period of more than 10 consecutive days between destinations (40 CFR 761.3).

Transporter of PCB Waste

For the purposes of Subpart K of 40 CFR 761.3, any person engaged in the transportation of regulated PCB waste by air, rail, highway, or water for purposes other than consolidation by a generator (40 CFR 761.3).

Transport Vehicle

A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle (40 CFR 761.3).

Treatability Study

A study in which PCB waste is subjected to a treatment process to determine (40 CFR 761.3):

1. Whether the waste is amenable to the treatment process;
2. What pretreatment (if any) is required;
3. The optimal process conditions needed to achieve the desired treatment;
4. The efficiency of a treatment process for the specific type of waste (i.e., soil, sludge, liquid, etc.); or,
5. The characteristics and volumes of residuals from a particular treatment process. A “treatability study” is not a mechanism to commercially treat or dispose of PCB waste. Treatment is a form of disposal under 40 CFR 761.

TSCA

The Toxic Substances Control Act (15 U.S.C. 2601 et seq.) (40 CFR 761.3).

TSCA PCB Coordinated Approval

The process used to recognize other federal or state waste management documents governing the storage, cleanup, treatment, and disposal of PCB wastes. It is the mechanism under TSCA for accomplishing review, coordination, and approval of PCB waste management activities which are conducted outside of the TSCA PCB approval process, but require approval under the TSCA PCB regulations at 40 CFR 761 (40 CFR 761.3).

Unit

A particular building, structure, or cell used to manage PCB waste (including, but not limited to, a building used for PCB waste storage, a landfill, an industrial boiler, or an incinerator) (40 CFR 761.3).

U.S. GPO

The U.S. Government Printing Office, 710 North Capitol St., NW., Washington, DC 20401 (40 CFR 761.3).

Waste Oil

Used products primarily derived from petroleum, which include, but are not limited to, fuel oils, motor oils, gear oils, cutting oils, transmission fluids, hydraulic fluids, and dielectric fluids (40 CFR 761.3).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Wet Weight

Reporting chemical analysis results by including either the weight, or the volume and density, of all liquids (40 CFR 761.3).

Typical Records To Review

- Inspection, storage, maintenance, and disposal records for PCBs/PCB Items
- PCB Equipment inventory and sampling results
- Manifests and CODs
- Correspondence with regulatory agencies concerning noncompliance situations
- Annual reports
- Asbestos management plan and operating plan
- Notification to regulators concerning asbestos disposal
- Records of onsite disposal and transportation and offsite disposal of asbestos
- Regulatory inspection reports
- Documentation of asbestos sampling and analytical results
- Documentation of preventive measures or action
- Results of air sampling at the conclusion of response action
- Records of asbestos training program
- List of buildings insulated with asbestos or housing ACM
- Record of demolition or renovation projects in the past 5 yr that involved friable asbestos
- Decision documents/records of decision
- Administrative record
- Facility Master Plan Document
- Spill Prevention Control and Countermeasure (SPCC) Plan

Typical Physical Features To Inspect

- PCB storage areas
- Equipment, fluids, and other items used or stored at the facility containing PCBs
- Pipe, spray-on, duct, and troweled cementitious insulation and boiler lagging
- Ceiling and floor tiles

List of Acronyms and Abbreviations

ACBM	Asbestos-Containing Building Material
a.c./d.c.	Alternating Current/Direct Current
ACM	Asbestos-Containing Material
AHERA	The Asbestos Hazard Emergency Response Act of 1986
ASTM	American Society for Testing and Materials
Btu	British Thermal Unit
C	Celsius
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act
CERL	U.S. Army Corps of Engineers Construction Engineering Research Laboratory
CFR	Code of Federal Regulations
cm	Centimeter
cm ²	Square Centimeter
CM	Chemical Manufacturers Association
COD	Certificate of Disposal

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

CWA	Clean Water Act
DOD	Department of Defense
DOT	Department of Transportation
dscf	dry standard cubic foot
EBL	Elevated Blood Lead Level
EO	Executive Order
EPA	Environmental Protection Agency
F	Fahrenheit
FR	Federal Register
ft	Foot/Feet
ft ²	Square Feet
ft ³	Cubic Feet
gal	Gallon
h	Hour
HEPA	High-Efficiency Particulate Air
HMR	DOT Hazardous Materials Regulations at 49 CFR 171 through 180.
HUD	The U.S. Department of Housing and Urban Development
in.	Inch
kg	Kilogram
km	Kilometer
L	Liter
lb	Pound
LBP	Lead-Based Paint
m	Meter
m ²	Square Meter
m ³	Cubic Meter
µg	Microgram
mg	Milligram
min	Minute
mL	Milliliter
µm	Micrometer
mo	Month
MODEF	Mineral Oil Dielectric Fluid
MP	Management Practice
MRI	Midwest Research Institute
MSHA	Mine Safety and Health Administration
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NIOSH	National Institute of Occupational Safety and Health
NIST	National Institute of Standards and Technology
NOV	Notice of Violation
NRC	National Response Center
NTIS	The National Technical Information Service
NVLAP	National Voluntary Laboratory Accreditation Program
O & M	Operations & Maintenance
ORM	OSHA Reference Method
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PCB	Polychlorinated Biphenyl
PLM	Polarized Light Microscopy
PODF	Performance-Based Organic Decontamination Fluid
ppb	Parts Per Billion
ppm	Part Per Million

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

ppmv	Part Per Million by Volume
RACM	Regulated Asbestos-Containing Material
RCRA	Resource Conservation and Recovery Act
R&D	Research and Development
s	Second
SPCC	Spill Prevention Control and Countermeasure Plan
TEAM	The Environmental Assessment and Management Guide
TSCA	The Toxic Substances Control Act
TWA	Time-Weighted Average
µg	Microgram
µg/g	Microgram/gram
µg/L	Microgram Per Liter
USC	U.S. Code
U.S. EPA	U.S. Environmental Protection Agency
U.S. GPO	U.S. Government Printing Office
USPS	U.S. Postal Service
XRF	X-Ray Fluorescence
yd ²	Square Yard
yr	Year
>	greater than
<	less than
>/=	greater than or equal to
</=	less than or equal to

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Index for Checklist Users

Categories	Refer To:	
	Checklist Items:	Page Number
General	TT.1.1 through TT.1.3	39
Polychlorinated Biphenyls (PCBs)		
General Management	TT.10.1 through TT.10.6	41
General Usage	TT.20.1 through TT.20.7	47
Documentation	TT.30.1 through TT.30.13	53
Transformers	TT.40.1 through TT.40.10	71
PCB Items	TT.50.1 through TT.50.4	79
Incinerators	TT.60.1 through TT.60.5	83
High Efficiency Boilers	TT.70.1 and TT.70.2	89
Scrap Metal Recovery Ovens and Smelters	TT.80.1	93
Chemical Waste Landfills	TT.90.1	95
Used in Research	TT.100.1 and TT.100.2	99
Storage	TT.110.1 through TT.110.10	103
Spills and Cleanup	TT.120.1 through TT.120.7	111
Remediation Waste	TT.130.1 through TT.130.3	119
Transportation	TT.140.1 through TT.140.5	125
Disposal	TT.150.1 through TT.150.20	133
Decontamination	TT.160.1 through TT.160.6	145
Import/Export	TT.170.1 and TT.170.2	151
Asbestos		
In Schools	TT.200.1 through TT.200.13	153
Abatement Projects	TT.230.1 through TT.230.10	169
Prohibition on Manufacturing, Importing, Processing, and Distributing in Commerce of Certain Asbestos Containing Products	TT.260.1 through TT.260.5	181
Lead-Based Paint (LBP)		
Notifications	TT.300.1 through TT.300.4	185
Training Requirements	TT.320.1 and TT.320.2	191
Work Practice Standards	TT.350.1 through TT.350.4	193

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Checklist

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
GENERAL TT.1	
TT.1.1. The current status of any ongoing or unresolved consent orders, compliance agreements, notice of violations (NOVs), inter-agency agreements, or equivalent state enforcement actions should be examined.	Determine if noncompliance issues have been resolved by reviewing a copy of the previous report, consent orders, compliance agreements, NOVs, interagency agreements, or equivalent state enforcement actions. (NOTE: For those open items, indicate what corrective action is planned and milestones established to correct problems.)
TT.1.2. Facilities are required to comply with all applicable federal regulatory requirements not contained in this checklist.	Determine if any new regulations have been issued since the finalization of this document. If so, annotate checklist to include new standards. Determine if the facility has activities or facilities which are regulated, but not addressed in this checklist. Verify that the facility is in compliance with all applicable and newly issued regulations.
TT.1.3. Facilities are required to comply with state and local regulations concerning PCBs, Asbestos, and LBP.	Verify that the facility is complying with state and local requirements. Verify that the facility is operating according to permits issued by the state or local agencies. (NOTE: Issues typically regulated by state and local agencies include: – definitions of PCB-contaminated – PCB storage, labeling, and disposal requirements – certification of individuals sampling and/or working with asbestos – asbestos handling and disposal procedures – renovation and demolition procedures – certification of individuals sampling and/or working with LBP)

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.10</p> <p>General Management</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.10.1. PCB Concentrations are required to be established by certain methods (40 CFR 761.1(b)(4) and 761.2(b)).</p>	<p>Verify that PCB concentrations have been established one of the following ways:</p> <ul style="list-style-type: none"> – testing the equipment – permanent label, mark, or other documentation from the manufacturer of the equipment indicating its PCB concentration at the time of manufacture – service records or other documentation indicating the PCB concentration of all fluids used in servicing the equipment since it was first manufactured. <p>(NOTE: See the definition of PCB Concentration Assumptions for further clarification.)</p> <p>Verify that any person determining PCB concentrations for non-liquid PCBs does so on a dry weight basis.</p> <p>Verify that any person determining PCB concentrations for liquid PCBs does so on a wet weight basis and liquid PCBs containing more than 0.5 percent by weight non-dissolved material are analyzed as multi-phasic non-liquid/liquid mixtures.</p> <p>Verify that any person determining the PCB concentration of samples containing PCBs and non-dissolved non-liquid materials ≥ 0.5 percent, separates the non-dissolved materials into non-liquid PCBs and liquid PCBs.</p> <p>Verify that, for multi-phasic non-liquid/liquid or liquid/liquid mixtures, the phases are separated before chemical analysis.</p> <p>Verify that, following phase separation, the PCB concentration in each non-liquid phase is determined on a dry weight basis and the PCB concentration in each liquid phase are determined separately on a wet weight basis.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that any person disposing of multi-phasic non-liquid/liquid or liquid/liquid mixtures use the PCB disposal requirements that apply to the individual phase with the highest PCB concentration except where otherwise noted.</p> <p>(NOTE: Phases may be separated and disposed of using the PCB disposal requirements that apply to each separated, single-phase material.)</p>
<p>TT.10.2. No person may manufacture PCBs for use within the United States or manufacture PCBs for export from the United States without an exemption (40 CFR 761.1(f)(1) and 761.20(b)).</p>	<p>Verify that manufacturers of PCBs for use within the United States or manufactures of PCBs for export from the United States have an exemption.</p> <p>(NOTE: An exemption is not required for persons who inadvertently manufacture or import PCBs generated as unintentional impurities in an excluded manufacturing process (see definitions), provided they meet the requirements in 40 CFR 761.180 through 761.193 on records and reports (see checklist items TT.30.1, TT.30.3 through TT.30.9, and TT.140.3).)</p>
<p>TT.10.3. No persons may process or distribute in commerce any PCB, or any PCB Item regardless of concentration, for use within the United States or for export from the United States without an exemption unless specific requirements are met (40 CFR 761.1(f)(2), 761.1(f)(3), 761.20(c)).</p>	<p>Verify that no PCB, or any PCB Item regardless of concentration, is processed or distributed in commerce for use within the United States or for export from the United States without an exemption.</p> <p>(NOTE: An exemption is not required to process, distribute in commerce or use, PCBs or PCB Items resulting from an excluded manufacturing process, or to process or distribute in commerce recycled PCBs, or to process or distribute in commerce excluded PCB products, provided they meet the requirements in 40 CFR 761.180 through 761.193 on records and reports (see checklist items TT.30.1, TT.30.3 through TT.30.9, and TT.140.3). PCBs and PCB items may be exported for disposal <u>only</u> if they contain concentrations less than 50 ppm of PCBs. Otherwise, a rulemaking exemption is required to allow exports of PCBs and PCB items with concentrations greater than or equal to 50 ppm.)</p> <p>Verify that, if the following activities are being conducted without an exemption, the specified conditions are being met:</p> <ul style="list-style-type: none"> – sale of PCBs at concentrations of 50 ppm or greater, or PCB Items with PCB concentrations of 50 ppm or greater, for purposes other than resale may be distributed in commerce only in a totally enclosed manner (NOTE: In addition, there must be a record of transfer of ownership.) – processing and distribution in commerce for disposal of PCBs at concentrations of \geq 50 ppm, or PCB Items with PCB concentrations of \geq 50 ppm, if they comply with the following: <ul style="list-style-type: none"> – processing activities which are primarily associated with and facilitate storage or transportation for disposal do not require a Toxic Substances Control Act (TSCA) PCB storage or disposal approval. – processing activities which are primarily associated with and facilitate

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>treatment, or disposal have a TSCA PCB disposal approval unless they are part of an existing approval, are part of a self-implementing activity under, or are otherwise specifically allowed</p> <ul style="list-style-type: none"> - processing, diluting, or otherwise blending of waste prior to being introduced into a disposal unit for purposes of meeting a PCB concentration limit is done in accordance with a TSCA PCB disposal approval or complies with the requirements of 40 CFR 761.79 (see checklist items TT.160.1 through TT.160.6) - where the rate of delivering liquids or non-liquids into a PCB disposal unit is an operating parameter, this rate is a condition of the TSCA PCB disposal approval for the unit when an approval is required. - PCBs and PCB Items are exported for disposal in accordance 40 CFR 761.91 through 761.99 (see checklist items TT.170.1 and TT.170.2) - PCBs, at concentrations of < 50 ppm, or PCB Items, with concentrations of < 50 ppm, are processed and distributed in commerce for purposes of disposal. <p>(NOTE: Any person may distribute in commerce equipment, structures, or other liquid or non-liquid materials that were contaminated with PCBs \geq 50 ppm, including those not otherwise authorized for distribution in commerce if one of the following applies:</p> <ul style="list-style-type: none"> - the materials were appropriately decontaminated - if not previously decontaminated, the materials now meet an applicable decontamination standard.)
<p>TT.10.4. Any person with access to, or in direct contact with, PCB-Contaminated surfaces must be protected from dermal exposure to those surfaces (40 CFR 761.60(b)(6)(iv)).</p>	<p>Verify that persons disposing of PCB Articles wear or use protective clothing or equipment to protect against dermal contact with or inhalation of PCBs, or materials containing PCBs.</p>
<p>TT.10.5. Storage rooms and certain equipment that contains PCBs must be marked with an M_L marking (40 CFR 761.40 and 761.45).</p>	<p>(NOTE: Marking Format Large PCB Mark (M_L) letters and striping, on a white or yellow background, sufficiently durable to equal or exceed the life of the PCB Article. The size shall be 15.25 cm (6 in.) on each side. If the article is too small to accommodate this size, a smaller label (M_s) may be used.)</p> <p>Verify that the following equipment is marked with an M_L marking that can be easily read by any person inspecting or servicing the equipment (see Appendix A of this document for a sample of the marking):</p> <ul style="list-style-type: none"> - PCB Containers with PCBs in concentrations of 50 ppm to 500 ppm at the time of manufacture, at the time of distribution in commerce if not already

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>marked, and at the time of removal from use if not already marked</p> <ul style="list-style-type: none"> - PCB Transformers (500 ppm or greater) - PCB Large High-Voltage Capacitors at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked - equipment containing a PCB Transformer (500 ppm or greater) or a PCB Large High-Voltage Capacitor at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked - PCB Large Low-Voltage Capacitors at the time of removal from service - electric motors using PCB coolants with a concentration 50 ppm to 500 ppm - hydraulic systems using PCB hydraulic fluid with concentrations 50 ppm to 500 ppm - heat transfer systems (other than PCB Transformers) using PCB concentrations 50 ppm to 500 ppm - PCB Article Containers containing any of the above - each storage area used to store PCBs and PCB Items for disposal - transport vehicles loaded with PCB Containers that contain > 45 kg (99.4 lb) of liquid PCBs with PCBs at concentrations >= 50 ppm or with one or more PCB Transformers with PCB concentrations of > 500 ppm are marked on each end and side - vault doors, machinery room doors, fences, hallways, or means of access, other than a manhole or grate cover, to a PCB Transformer (500 ppm or greater) - voltage regulators which contain 1.36 kg (3 lb) or more of dielectric fluid with a PCB concentration of >= 500 ppm (individually) - vault doors, machinery room doors, fences, hallways, or means of access, other than grates or manhole covers, to voltage regulators which contain 1.36 kg (3 lb) or more of dielectric fluid with a PCB concentration of >= 500 ppm. <p>Verify that, if one or more PCB Large High-Voltage Capacitors is installed in a protected location such as a pole, structure, or behind a fence, the pole, structure, or fence is marked and a record or procedure identifying the PCB Capacitor is maintained.</p> <p>Verify that all PCB Equipment containing a PCB Small Capacitor is marked at the time of manufacture with the statement "This equipment contains PCB Capacitor(s)." Marking requirements for small capacitors apply to equipment manufactured as of January 1, 1979.</p> <p>Verify that each Large Low voltage Capacitor, each Small Voltage Capacitor normally used in alternating current circuit, and each fluorescent light ballast built between July 1, 1978, and July 1, 1998, that do not contain PCBs were marked at the time of manufacture with the statement "No PCBs"</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that all marks are placed in a position on the exterior of the PCB Items, storage units, or transport vehicles so that the marks can be easily read by any person inspecting or servicing the marked PCB Items, storage units, or transport vehicles.</p> <p>(NOTE: Marking of PCB-Contaminated Electrical Equipment (50 to 500 ppm) is not required.)</p> <p>Verify that, after April 26, 1999, PCB Large Low Voltage Capacitors not previously marked, are marked individually.</p> <p>(NOTE: Inaccessible capacitors may be marked on the outside of the equipment instead of on each individual capacitor if one or more such Capacitors in a protected location such as on a power pole, or in a structure, or behind a fence, the pole, fence, or structure is marked.)</p> <p>Verify that any containers of chemical substances or mixtures that is manufactured and that contains < 500 ppm PCB (0.05% on a dry weight basis), including PCB that is a byproduct or impurity, is marked according to any permit requirements contained in the U.S. EPA exemption to manufacture.</p> <p>Verify that a record is maintained after April 26, 1999, of those PCB Large Low Voltage Capacitors in a protected location.</p> <p>Verify that after April 26, 1999, all equipment containing a PCB Transformer or a PCB Large, High, or Low Voltage Capacitor are marked.</p> <p>(NOTE: Appendix B of this document contains a list of manufacturers that produced PCB-Contaminated dielectric fluid.)</p> <p>Verify that the vault door, machinery room door, fence, hallway, or means of access, other than grates and manhole covers, to a PCB Transformer are marked with the M_L mark.</p> <p>(NOTE: A mark other than the M_L mark may be used if:</p> <ul style="list-style-type: none"> - the program using an alternative mark was started prior to August 15, 1985, and can be substantiated with documentation - prior to August 15, 1985, coordination between the transformer owner and primary fire department occurred, and the primary fire department knows, accepts, and recognizes what the alternative marks mean and this can be substantiated with documentation - the U.S. EPA Regional Administrator was informed in writing of the use of the alternative mark by October 3, 1988 - the U.S. EPA Regional Administrator approved the use of an alternative mark.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	(NOTE: The annual document log/inventory should contain a list of all PCB equipment at the site.)
TT.10.6. Generators, commercial storers, transporters, and disposers of PCB waste are required to have a U.S. EPA identification number (40 CFR 761.202 through 761.205).	<p>(NOTE: Some facilities are exempt from the notification requirement if they do not have a specified PCB storage area as regulated by 40 CFR 761.65 (see checklist items TT.30.10 through TT.30.13, TT.110.1 through TT.110.6 and TT.110.9) and just temporarily store before they transport for disposal.)</p> <p>Determine if the facility is a generator, commercial storer, transporter, or disposer of PCB waste.</p> <p>Verify that generators of PCB waste have a U.S. EPA identification number before processing, storing, disposing of, transporting, or offering for transport PCB waste.</p> <p>Verify that transporters, disposers, or commercial storers of PCB waste have a U.S. EPA identification number.</p> <p>(NOTE: A generator of PCB waste who is exempted from notification, or who notified the U.S. EPA in a timely manner, but has not yet received a unique identification number shall be regarded as having received the identification number "40 CFR 761".)</p> <p>(NOTE: a disposer of PCB waste who owns more than one disposal facility or mobile treatment unit shall accept waste unless the disposer has received an U.S. EPA identification number for each facility or mobile unit.)</p> <p>Verify that, if required, Form 7710-53, Notification of PCB Waste Activity, was filed with U.S. EPA by April 4, 1990, or prior to engaging in PCB waste handling activities and a U.S. EPA identification number was obtained.</p> <p>(NOTE: When a facility has previously notified U.S. EPA of its PCB waste handling activities using U.S. EPA Form 7710-53 and those activities change, the facility must resubmit U.S. EPA Form 7710-53 to reflect those changes no later than 30 days from when a change is made. Examples of when a PCB waste handler must renotify U.S. EPA include, but are not limited to, the following: the company changes location of the facility; or the company had notified solely as engaging in a certain type of PCB waste handling activity and now wishes to engage in another PCB waste activity (e.g., previously only commercially stored PCB waste and now wishes to transport PCB waste).</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.20</p> <p>General Usage</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.20.1. PCBs or PCB Items, regardless of concentration, are required to be used in a totally enclosed manner (40 CFR 761.20(a) and 761.30(f), 761.30(k), and 761.30(r)).</p>	<p>Verify that no PCB, or PCB Item, regardless of concentration, is used in any manner other than in a totally enclosed manner within the United States except that:</p> <ul style="list-style-type: none"> – an authorization is not required to use those PCBs or PCB Items which consist of excluded PCB products – an authorization is not required to use those PCBs or PCB Items resulting from an excluded manufacturing process or recycled PCBs – an authorization is not required to use those PCB Items which contain or whose surfaces have been in contact with excluded PCB products – an authorization is not required to use sewage sludge where the uses are regulated at 40 CFR 257, 258, and 503. <p>(NOTE: The following are exemptions to this requirement:</p> <ul style="list-style-type: none"> – carbonless copy paper containing PCBs may be used in a manner other than a totally enclosed manner indefinitely. – PCBs may be used indefinitely in scientific instruments, for example, in oscillatory flow birefringence and viscoelasticity instruments for the study of the physical properties of polymers, as microscopy mounting fluids, as microscopy immersion oil, and as optical liquids in a manner other than a totally enclosed manner – PCBs may be used as an immersion oil in fluorescence microscopy, in a manner other than a totally enclosed manner indefinitely. – PCBs may be used as optical liquids in a manner other than a totally enclosed manner indefinitely – PCBs may be used at any concentration in rectifiers for the remainder of the PCBs' useful life, and may use PCBs <50 ppm in servicing (including rebuilding) rectifiers <p>For additional activities which are authorized pursuant to section 6(e)(2)(B) of</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>TSCA under 40 CFR 761.30 (see checklist items TT.20.1 through TT.20.5, TT.40.1 through TT.40.10, TT.50.1 through TT.50.4, and TT.100.1).)</p> <p>Verify that no person blends or otherwise dilutes PCBs regulated for disposal, including PCB sewage sludge and sewage sludge not used pursuant to 40 CFR 257, 258, and 503, for purposes of use or to avoid disposal requirements.</p> <p>Verify that, except as explicitly provided in 40 CFR 761.50 through 761.79, no person disposes of regulated PCB wastes including, but not limited to, PCB remediation waste, PCB bulk product waste, PCBs, and PCB industrial sludges, into treatment works.</p>
<p>TT.20.2. When using equipment, structures, other non-liquid or liquid materials that were contaminated with PCBs during manufacture, use, servicing, or because of spills from, or proximity to, PCBs ≥ 50 ppm, specific requirements must be met (40 CFR 761.30(u)).</p>	<p>Verify that the following are met when using equipment, structures, other non-liquid or liquid materials that were contaminated with PCBs during manufacture, use, servicing, or because of spills from, or proximity to, PCBs ≥ 50 ppm, including those not otherwise authorized for use under 40 CFR 761:</p> <ul style="list-style-type: none"> – the materials were decontaminated in accordance with a Toxic Substances Control Act (TSCA) PCB disposal approval issued under 40 CFR 761, Subpart D, 40 CFR 761.79, or applicable U.S. EPA PCB spill cleanup policies in effect at the time of the decontamination – if not previously decontaminated, the materials now meet an applicable decontamination standard. <p>Verify that materials decontaminated or meeting an applicable decontamination standard are not used or reused in direct contact with food, feed, or drinking water unless otherwise allowed under these regulations.</p> <p>(NOTE: Any person may use water containing PCBs at concentrations ≤ 0.5 $\mu\text{g/L}$ PCBs without restriction. Any person may use water containing PCBs at concentrations < 200 $\mu\text{g/L}$ (i.e., 200 ppb PCBs) for non-contact use in a closed system where there are no releases (e.g., as a non-contact cooling water.)</p>
<p>TT.20.3. The continued use of porous surfaces contaminated with PCBs regulated for disposal by spills of liquid PCBs must meet specific parameters (40 CFR 761.30(p)).</p>	<p>Verify that the following conditions are met when using porous surfaces contaminated by spills of liquid PCBs at concentrations ≥ 50 ppm:</p> <ul style="list-style-type: none"> – the source of PCB contamination is removed or contained to prevent further release to porous surfaces – if the porous surface is accessible to superficial surface cleaning, a double wash rinse procedure (as specified in 40 CFR 761.360 through 761.378) is conducted on the surface to remove surface PCBs and the treated surface is allowed to dry for 24 h.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that after accessible surfaces have been cleaned, and for all surfaces inaccessible to cleanup:</p> <ul style="list-style-type: none"> - the surface is completely covered with one of the following to prevent the release of PCBs: <ul style="list-style-type: none"> - two solvent resistant and water repellent coatings of contrasting colors to allow for a visual indication of wear through or loss of outer coating integrity - a solid barrier fastened to the surface and covering the contaminated area or all accessible parts of the contaminated area. - the surface is marked with the M_L Mark in a location easily visible to individuals present in the area; the M_L Mark is placed over the encapsulated area or the barrier to the encapsulated area - M_L Marks are replaced when worn or illegible. <p>Verify that the removal of a porous surface contaminated with PCBs from its location or current use is not done except for removal for disposal (as specified in 40 CFR 761.61 or 761.79 for surfaces contaminated by spills, or 40 CFR 761.62 for manufactured porous surfaces).</p>
<p>TT.20.4. When PCBs are used in air compressor system, specific parameters must be met (40 CFR 761.30(s)).</p>	<p>Verify that the concentration of PCBs in air compressor systems is < 50 ppm.</p> <p>Verify that, if concentrations are ≥ 50 ppm, the following are met:</p> <ul style="list-style-type: none"> - all free-flowing liquids containing PCBs ≥ 50 ppm are removed from the air compressor crankcase and the crankcase is refilled with non-PCB liquid - other air compressor system components contaminated with PCBs ≥ 50 ppm, are decontaminated or disposed of - air compressor piping with a nominal inside diameter of < 2 in. is decontaminated by continuous flushing for 4 h, at no < 300 gal/h. <p>(NOTE: The requirements if PCBs are ≥ 50 ppm must be completed by August 30, 1999, or within 1 yr of the date of discovery of PCBs at ≥ 50 ppm in the air compressor system, whichever is later. The U.S. EPA Regional Administrator for the U.S. EPA Region in which an air compressor system is located may, at his/her discretion and in writing, extend this timeframe.)</p>
<p>TT.20.5. The use of PCBs in gas or liquid transmission systems must meet specific requirements (40 CFR 761.30(t)).</p>	<p>Verify that PCBs used in intact and non-leaking gas or liquid transmission systems are at concentrations < 50 ppm PCBs.</p> <p>(NOTE: PCBs are authorized for use at concentrations ≥ 50 ppm in intact and non-leaking gas or liquid transmission systems not owned or operated by a seller or distributor of the gas or liquid transmitted in the system.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	(NOTE: Any person may use PCBs at concentrations ≥ 50 ppm in intact and non-leaking gas or liquid transmission systems, with the written approval of the Director, National Program Chemicals Division.)
TT.20.6. The use of waste oil that contains any detectable concentration of PCB as a sealant, coating, or dust control agent is prohibited (40 CFR 761.20(d)).	<p>Verify that waste oil that contains any detectable concentration of PCB is not used as a sealant, coating, or dust control agent.</p> <p>(NOTE: Prohibited uses include, but are not limited to, road oiling, general dust control, use as a pesticide or herbicide carrier, and use as a rust preventative on pipes.)</p>
TT.20.7. Marketers and burners of used oil who market (process or distribute in commerce) for energy recovery, used oil containing any quantifiable level of PCBs must meet specific requirements (40 CFR 761.20(e)).	<p>(NOTE: these are in addition to the requirements found in 40 CFR 279.)</p> <p>Verify that used oil containing any quantifiable level of PCBs (2 ppm) is marketed only to:</p> <ul style="list-style-type: none"> – qualified incinerators as defined in 40 CFR 761.3 – marketers who market off-specification used oil for energy recovery only to other marketers who have notified U.S. EPA of their used oil management activities, and who have an U.S. EPA identification number where an identification number is required by 40 CFR 279.73 – burners identified in 40 CFR 279.61(a)(1) and (2). <p>(NOTE: Only burners in the automotive industry may burn used oil generated from automotive sources in used oil-fired space heaters provided the provisions of 40 CFR 279.23 are met. The U.S. EPA Regional Administrator may grant a variance for a boiler that does not meet the 40 CFR 279.61(a)(1) and (2) criteria after considering the criteria listed in 40 CFR 260.32 (a) through (f).)</p> <p>(NOTE: Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.)</p> <p>Verify that the person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCBs obtains analyses or other information to support that claim.</p> <p>(NOTE: Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in 40 CFR 761.60(g)(2). However, for purposes of 40 CFR 761, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>concentration of 50 ppm or greater for purposes of complying with the disposal requirements of 40 CFR 761.)</p> <p>(NOTE: Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.)</p> <p>Verify that used oil containing any quantifiable levels of PCB is burned at an approved facility for energy recovery only when such facilities are operating at normal operating temperatures (this prohibits feeding these fuels during either startup or shutdown operations).</p> <p>Verify that before a burner accepts from a marketer the first shipment of used oil fuel containing detectable PCBs (2 ppm), the burner provides the marketer a one-time written and signed notice certifying that:</p> <ul style="list-style-type: none"> – the burner has complied with any notification requirements applicable to “qualified incinerators” (40 CFR 761.3) or to “burners” regulated under 40 CFR 279, Subpart G – the burner will burn the used oil only in an approved combustion facility and identify the class of burner he qualifies. <p>Verify that marketers who first claim that the used oil fuel contains no detectable PCBs retains copies of the analysis or other information documenting his claim, and a copy of each certification notice received or prepared relating to transactions involving PCB-containing used oil.</p> <p>Verify that burners maintain a copy of each certification notice that he sends to a marketer.</p>

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.30</p> <p>Documentation</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.30.1. A written annual document log must be prepared by July 1 of each calendar year, covering the previous year when at least 45 kg (99.4 lb) of PCBs contained in PCB Containers or one or more PCB Transformers (500 ppm or greater), or 50 or more PCB Large, High-, or Low-Voltage Capacitors is used or stored at any time (40 CFR 761.180(a)).</p>	<p>(NOTE: This requirement does not apply to a commercial storer or disposer of PCB waste.)</p> <p>Verify that the annual document log and annual records (manifests, records of inspections and cleanups, certificates of disposal) are kept for at least 3 yr after PCBs and PCB items are no longer used or stored in the listed quantities.</p> <p>Verify that the log is completed by July 1 for the previous year.</p> <p>Verify the written annual document log includes the following:</p> <ul style="list-style-type: none"> - the name, address, and U.S. EPA identification number of the facility covered by the annual document log and the calendar year covered by the annual document log - the unique manifest number of every manifest generated by the facility during the calendar year - from each manifest and for unmanifested waste that may be stored at the facility, the following information <ul style="list-style-type: none"> - for bulk PCB waste (e.g., in a tanker or truck), its weight in kilograms, the first date it was removed from service for disposal, the date it was placed into transport for offsite storage or disposal, and the date of disposal, if known - the serial number (if available) or other means of identifying each PCB Article (e.g., transformer or capacitor), the weight in kilograms of the PCB waste in each transformer or capacitor, the date it was removed from service for disposal, the date it was placed in transport for offsite storage or disposal, and the date of disposal, if known - a unique number identifying each PCB Container, a description of the contents of each PCB Container, such as liquid, soil, cleanup debris,

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>etc., including the total weight of the material in kilograms in each PCB Container, the first date material placed in each PCB Container was removed from service for disposal, and the date each PCB Container was placed in transport for offsite storage or disposal, and the date of disposal (if known)</p> <ul style="list-style-type: none"> - a unique number identifying each PCB Article Container, a description of the contents of each PCB Article Container, such as pipes, capacitors, electric motors, pumps, etc., including the total weight in kilograms of the content of each PCB Article Container, the first date a PCB Article placed in each PCB Article Container was removed from service for disposal, and the date the PCB Article Container was placed in transport for offsite storage or disposal, and the date of disposal (if known) - the total number by specific type of PCB Articles and the total weight in kilograms of PCBs in PCB Articles, the total number of PCB Article Containers and total weight in kilograms of the contents of PCB Article Containers, the total number of PCB Containers and the total weight in kilograms of the contents of PCB Containers, and the total weight in kilograms of bulk PCB waste that was placed into storage for disposal or disposed during the calendar year - the total number of PCB Transformers and total weight in kilograms of PCBs contained in the transformers remaining in service at the end of the calendar year - the total number of Large High or Low Voltage PCB Capacitors remaining in service at the end of the calendar year - the total weight in kilograms of any PCBs and PCB Items in PCB Containers, including the identification of container contents, remaining in service at the facility at the end of the calendar year - for any PCBs or PCB item received from or shipped to another facility owned or operated by the same generator, the following information: <ul style="list-style-type: none"> - for bulk PCB waste (e.g., in a tanker or truck), its weight in kilograms, the first date it was removed from service for disposal, the date it was placed into transport for offsite storage or disposal, and the date of disposal, if known - the serial number (if available) or other means of identifying each PCB Article (e.g., transformer or capacitor), the weight in kilograms of the PCB waste in each transformer or capacitor, the date it was removed from service for disposal, the date it was placed in transport for offsite storage or disposal, and the date of disposal, if known - a unique number identifying each PCB Container, a description of the contents of each PCB Container, such as liquid, soil, cleanup debris, etc., including the total weight of the material in kilograms in each PCB Container, the first date material placed in each PCB Container was removed from service for disposal, and the date each PCB Container was placed in transport for offsite storage or disposal, and the date of disposal (if known)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - a unique number identifying each PCB Article Container, a description of the contents of each PCB Article Container, such as pipes, capacitors, electric motors, pumps, etc., including the total weight in kilograms of the content of each PCB Article Container, the first date a PCB Article placed in each PCB Article Container was removed from service for disposal, and the date the PCB Article Container was placed in transport for offsite storage or disposal, and the date of disposal (if known.) - a record of each telephone call, or other means of verification agreed upon by both parties, made to each designated commercial storer or designated disposer to confirm receipt of PCB waste transported by an independent transporter - the name, address, and telephone number of the person to whom an item was transferred, date of transfer, and the serial number of the item or the internal identification number, if a serial number is not available, whenever a PCB Item, excluding small capacitors, with a concentration of ≥ 50 ppm is distributed in commerce for reuse. <p>NOTE: In this context, PCB Voltage Regulators will be recorded as PCB Transformers.)</p> <p>Determine if the following information is provided by reviewing the annual document log:</p> <ul style="list-style-type: none"> - all signed manifests generated or received during the calendar year - all CODs that have been generated or received during the calendar year.
<p>TT.30.2. Certain records must be kept in relation to PCB cleanup (40 CFR 761.125(b)(3) and 761.125(c)(5)).</p>	<p>Verify that after completing the cleanup of low concentration spills of < 1 lb of PCBs (< 270 gal of untested mineral oil), the cleanup is documented with records and certification containing the following:</p> <ul style="list-style-type: none"> - identification of the source of the spill - estimated or actual date and time of the spill occurrence - the date and time cleanup was completed or terminated - a brief description of the spill location - precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces, and a brief description of the sampling methodology used - a brief description of the solid surfaces cleaned and of the double wash/rinse method used - approximate depth of the solid surface cleaned and the amount of soil removed - a certification statement signed by the responsible party stating the cleanup requirements have been met and that the information contained in the record is true to the best of his/her knowledge.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that after completing cleanup of high-concentration spills and low concentration spills involving 1 lb or more of PCBs by weight (270 gal or more of untested mineral oil), the cleanup is documented with records and certification containing the following:</p> <ul style="list-style-type: none"> - identification of the source of the spill - estimated or actual date and time of the spill occurrence - the date and time cleanup was completed or terminated - a brief description of the spill location and the nature of the materials contaminated - precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces, and a brief description of the sampling methodology used - a brief description of the solid surfaces cleaned - approximate depth of soil excavation and the amount of soil removed - postcleanup verification sampling data, and, if not otherwise apparent from the documentation, a brief description of the sampling methodology and analytical techniques used. <p>Verify that all records are maintained for 5 yr.</p>
<p>TT.30.3. Disposers and commercial storers of PCB waste are required to keep certain records (40 CFR 761.180(b)(1) through 761.180(b)(3), and 761.180(b)(5)).</p>	<p>(NOTE: These requirements apply beginning February 5, 1990, to each owner or operator of a facility (including high efficiency boiler operations) used for the commercial storage or disposal of PCBs and PCB Items.)</p> <p>Verify that the written annual document log is prepared by July 1 for the previous calendar year (January through December).</p> <p>Verify that the written annual document log is maintained at each facility for at least 3 yr after the facility is no longer used for the storage or disposal of PCBs and PCB Items except that, in the case of chemical waste landfills, the annual document log is maintained at least 20 yr after the chemical waste landfill is no longer used for the disposal of PCBs and PCB Items.</p> <p>Verify that the annual records are maintained for the same period as the annual document log.</p> <p>Verify that the annual records and written annual document log are available at the facility for inspection by authorized representatives of the U.S. EPA.</p> <p>(NOTE: All records and annual documents required to be prepared and maintained prior to February 5, 1990 shall continue to be maintained at the facility for the same time as the annual records and the annual document log. The</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>annual document for 1989 shall cover the period from January 1, 1989 to February 5, 1990.)</p> <p>Verify that the annual report is submitted by July 15 of each year for the preceding calendar year.</p> <p>Verify that, if a facility stops commercial PCB storage or disposal operations, the owner or operator of the facility provides at least 60 days advance written notice to the Regional Administrator for the region in which the facility is located of the date the facility intends to begin closure.</p> <p>Verify that the annual records include:</p> <ul style="list-style-type: none"> - all signed manifests generated or received at the facility during the calendar year - all COD that have been generated or received by the facility during the calendar year - records of inspections and cleanups performed. <p>Verify that the written annual document log includes the following:</p> <ul style="list-style-type: none"> - the name, address, and U.S. EPA identification number of the storage or disposal facility covered by the annual document log and the calendar year covered by the annual document log - for each manifest generated or received by the facility during the calendar year, the unique manifest number and the name and address of the facility that generated the manifest and the following information <ul style="list-style-type: none"> - for bulk PCB waste (e.g., in a tanker or truck), its weight in kilograms, the first date PCB waste placed in the tanker or truck was removed from service for disposal, the date it was received at the facility, the date it was placed in transport for offsite disposal (if applicable), and the date of disposal, (if known) - the serial number or other means of identifying each PCB Article, not in a PCB Container or PCB Article Container, the weight in kilograms of the PCB waste in the PCB Article, the date it was removed from service for disposal, the date it was received at the facility, the date it was placed in transport for offsite disposal (if applicable), and the date of disposal (if known) - the unique number assigned by the generator identifying each PCB Container, a description of the contents of each PCB Container, such as liquid, soil, cleanup debris, etc., including the total weight of the PCB waste in kilograms in each PCB Container, the first date PCB waste placed in each PCB Container was removed from service for disposal, the date it was received at the facility, the date each PCB Container was placed in transport for offsite storage or disposal (as applicable), and the date the PCB Container was disposed of (if known)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - the unique number assigned by the generator identifying each PCB Article Container, a description of the contents of each PCB Article Container, such as pipes, capacitors, electric motors, pumps, etc., including the total weight in kilograms of the PCB waste in each PCB Article Container, the first date a PCB Article placed in each PCB Article Container was removed from service for disposal, the date it was received at the facility, the date each PCB Article Container was placed in transport for offsite storage or disposal (as applicable), and the date the PCB Article Container was disposed of (if known) - disposers of PCB waste include the confirmed date of disposal for items - for any PCB waste disposed at a facility that generated the PCB waste or any PCB waste that was not manifested to the facility, the following: <ul style="list-style-type: none"> - for bulk PCB waste (e.g., in a tanker or truck), its weight in kilograms, the first date PCB waste placed in the tanker or truck was removed from service for disposal, the date it was received at the facility, the date it was placed in transport for offsite disposal (if applicable), and the date of disposal, (if known) - the serial number or other means of identifying each PCB Article, not in a PCB Container or PCB Article Container, the weight in kilograms of the PCB waste in the PCB Article, the date it was removed from service for disposal, the date it was received at the facility, the date it was placed in transport for offsite disposal (if applicable), and the date of disposal (if known) - the unique number assigned by the generator identifying each PCB Container, a description of the contents of each PCB Container, such as liquid, soil, cleanup debris, etc., including the total weight of the PCB waste in kilograms in each PCB Container, the first date PCB waste placed in each PCB Container was removed from service for disposal, the date it was received at the facility, the date each PCB Container was placed in transport for offsite storage or disposal (as applicable), and the date the PCB Container was disposed of (if known) - the unique number assigned by the generator identifying each PCB Article Container, a description of the contents of each PCB Article Container, such as pipes, capacitors, electric motors, pumps, etc., including the total weight in kilograms of the PCB waste in each PCB Article Container, the first date a PCB Article placed in each PCB Article Container was removed from service for disposal, the date it was received at the facility, the date each PCB Article Container was placed in transport for offsite storage or disposal (as applicable), and the date the PCB Article Container was disposed of (if known) - disposers of PCB waste include the confirmed date of disposal for items <p>Verify that the owner or operator of a PCB disposal facility (including one who disposes of his/her own waste and does not receive or generate manifests) or a commercial storage facility submits an annual report, which briefly summarizes the records and annual document log to the U.S. EPA Regional Administrator of</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>the U.S. EPA Region in which the facility is located by July 15 of each year, beginning with July 15, 1991.</p> <p>(NOTE: The first annual report submitted on July 15, 1991, is for the period starting February 5, 1990, and ending December 31, 1990.)</p> <p>Verify that the annual report contains the following:</p> <ul style="list-style-type: none"> - the name, address, and U.S. EPA identification number of the facility covered by the annual report for the calendar year - a list of the numbers of all signed manifests of PCB waste initiated or received by the facility during that year - the total weight in kilograms of bulk PCB waste, PCB waste in PCB Transformers, PCB waste in PCB Large High or Low Voltage Capacitors, PCB waste in PCB Article Containers, and PCB waste in PCB Containers in storage at the facility at the beginning of the calendar year, received or generated at the facility, transferred to another facility, or disposed of at the facility during the calendar year - the total number of PCB Transformers, the total number of PCB Large High or Low Voltage Capacitors, the total number of PCB Article Containers, and the total number of PCB Containers in storage at the facility at the beginning of the calendar year, received or generated at the facility, transferred to another facility, or disposed of at the facility during the calendar year - the total weight in kilograms of each of the following PCB categories: bulk PCB waste, PCB waste in PCB Transformers, PCB waste in PCB Large High or Low Voltage Capacitors, PCB waste in PCB Article Containers, and PCB waste in PCB Containers remaining in storage for disposal at the facility at the end of the calendar year - the total number of PCB Transformers, the total number of PCB Large High or Low Voltage Capacitors, the total number of PCB Article Containers, and the total number of PCB Containers remaining in storage for disposal at the facility at the end of the calendar year - the requirement to submit annual reports to the U.S. EPA Regional Administrator continues until the submission of the annual report for the calendar year during which the facility ceases PCB storage or disposal operations. Storage operations have not ceased until all PCB waste, including any PCB waste generated during closure, has been removed from the facility. <p>(NOTE: PCB Voltage Regulators shall be recorded and reported as PCB Transformers.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.30.4. Incineration facilities are required to maintain specific records (40 CFR 761.180(c)).</p>	<p>Verify that each owner or operator of a PCB incinerator facility collects the following information, in addition to the information required for disposers in 40 CFR 761.180(b) (see checklist items TT.30.3 and TT.140.3):</p> <ul style="list-style-type: none"> - when PCBs are being incinerated, the following continuous and short-interval data: <ul style="list-style-type: none"> - rate and quantity of PCBs fed to the combustion system - temperature of the combustion process - stack emission product to include O₂, CO, and CO₂ - when PCBs are being incinerated, data and records on the monitoring of stack emissions - total weight in kilograms of any solid residues generated by the incineration of PCBs and PCB Items during the calendar year, the total weight in kilograms of any solid residues disposed of by the facility in chemical waste landfills, and the total weight in kilograms of any solid residues remaining on the facility site. <p>when PCBs and PCB Items are being incinerated, additional periodic data collected and maintained as specified by the U.S. EPA Regional Administrator.</p> <p>Verify that upon any suspension of the operation of any incinerator, the owner or operator prepares a document which, at a minimum, includes the date and time of the suspension and an explanation of the circumstances causing the suspension of operation.</p> <p>Verify that the suspension document is sent to the appropriate Regional Administrator within 30 days of any such suspension.</p> <p>Verify that records are maintained for 5 yr after collection.</p>
<p>TT.30.5. Owners and operators of PCB chemical waste landfills shall keep records on water analysis and operational records, including burial coordinates, for 20 yr after disposal has ceased (40 CFR 761.180(d)).</p>	<p>Verify that records on water analysis and operations are being kept for the required 20 yr in addition to the information required for disposers in 40 CFR 761.180(b) (see checklist items TT.30.3 and TT.140.3):</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.30.6. Owners and operators of high efficiency boilers used for the disposal of liquids between 50 and 500 ppm PCB are required to keep specific records (40 CFR 761.180(e)).</p>	<p>Verify that each owner or operator of a high efficiency boiler used for the disposal of liquids between 50 and 500 ppm PCB collects the following information, in addition to the information required for disposers in 40 CFR 761.180(b) (see checklist items TT.30.3 and TT.140.3):</p> <ul style="list-style-type: none"> – for each month PCBs are burned in the boiler the carbon monoxide and excess oxygen data – the quantity of PCBs burned each month – for each month PCBs (other than mineral oil dielectric fluid) are burned, chemical analysis data of the waste. <p>Verify that records are maintained for 5 yr after collection.</p>
<p>TT.30.7. Storage and disposal facilities for PCBs shall maintain specific records (40 CFR 761.180(f)).</p>	<p>Verify that facilities which store or dispose of PCBs collect and maintain the following records in addition to those required in 40 CFR 761.180(b) through 761.180(e) (see checklist items TT.30.3 through TT.30.6 and TT.140.3):</p> <ul style="list-style-type: none"> – all documents, correspondence, and data that have been provided to the owner or operator of the facility by any state or local government agency and that pertain to the storage or disposal of PCBs and PCB Items at the facility – all documents, correspondence, and data that have been provided by the owner or operator of the facility to any state or local government agency and that pertain to the storage or disposal of PCBs and PCB Items at the facility – any applications and related correspondence sent by the owner or operator of the facility to any local, state, or federal authorities in regard to wastewater discharge permits, solid waste permits, building permits, or other permits or authorizations. <p>Verify that the written annual document log is maintained at each facility for at least 3 yr after the facility is no longer used for the storage or disposal of PCBs and PCB Items except that, in the case of chemical waste landfills, the annual document log is maintained at least 20 yr after the chemical waste landfill is no longer used for the disposal of PCBs and PCB Items.</p>
<p>TT.30.8. Importers and persons generating PCBs in excluded manufacturing processes must meet specific reporting and recordkeeping requirements (40 CFR 761.185)</p>	<p>Verify that manufacturers with processes inadvertently generating PCBs and importers of products containing inadvertently generated PCBs report to U.S. EPA any excluded manufacturing process or imports for which the concentration of PCBs in products leaving the manufacturing site or imported is > 2 µg/g, roughly 2 ppm) for any resolvable gas chromatographic peak.</p> <p>Verify that reports are filed within 90 days of having processes or imports for which the reports are required.</p> <p>Verify that manufacturers who are required to report transmit a letter notifying</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>U.S. EPA of the number, the type, and the location of excluded manufacturing processes in which PCBs are generated when the PCB level in products leaving any manufacturing site is > 2 µg/g for any resolvable gas chromatographic peak.</p> <p>Verify that importers which are required to report transmit a letter notifying U.S. EPA of the concentration of PCBs in imported products when the PCB concentration of products being imported is > 2 µg/g for any resolvable gas chromatographic peak.</p> <p>Verify that the following are also certified:</p> <ul style="list-style-type: none"> – compliance with all applicable requirements of 40 CFR 761.1(f), including any applicable requirements for air and water releases and process waste disposal – whether determinations of compliance are based on actual monitoring of PCB levels or on theoretical assessments – that determinations of compliance are being maintained – if the determination of compliance is based on a theoretical assessment, the letter notifies U.S. EPA of the estimated PCB concentration levels generated and released. <p>Verify that, if the facility is reporting to U.S. EPA any excluded manufacturing process or imports for which the concentration of PCBs in products leaving the manufacturing site or imported is > 2 µg/g, roughly 2 ppm) for any resolvable gas chromatographic peak, it:</p> <ul style="list-style-type: none"> – performed either a theoretical analysis or actual monitoring of PCB concentrations – maintains for a period of 3 yr after ceasing process operations or importation, or for 7 yr, whichever is shorter, records containing the following information: <ul style="list-style-type: none"> – for theoretical analysis: the reaction or reactions believed to be generating PCBs; the levels of PCBs generated; and the levels of PCBs released. Importers records must include: the reaction or reactions believed to be generating PCBs and the levels of PCBs generated; the basis for all estimations of PCB concentrations; and the name and qualifications of the person or persons performing the theoretical analysis – for actual monitoring: <ul style="list-style-type: none"> – the method of analysis – the results of the analysis, including data from the Quality Assurance Plan – description of the sample matrix – the name of the analyst or analysts – the date and time of the analysis – numbers for the lots from which the samples are taken.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that the certification is signed by a responsible corporate officer.</p> <p>Verify that the certification is maintained by each facility or importer for a period of 3 yr after ceasing process operation or importation, or for 7 yr, whichever is shorter, and is made available to U.S. EPA upon request.</p> <p>(NOTE: A responsible corporate officer means:</p> <ul style="list-style-type: none"> - a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation - the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.) <p>Verify that any person signing a document makes the following certification:</p> <p style="padding-left: 40px;">I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information. Based on my inquiry of the person or persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for falsifying information, including the possibility of fines and imprisonment for knowing violations.</p> <p style="padding-left: 40px;">Dated: Signature:</p> <p>(NOTE: This certification process must be repeated whenever process conditions are significantly modified to make the previous certification no longer valid.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.30.9. Persons who import, manufacture, process, distribute in commerce, or use chemicals containing PCBs present as a result of inadvertent generation or recycling who perform any actual monitoring of PCB concentrations must maintain certain records (40 CFR 761.193).</p>	<p>Verify that persons who import, manufacture, process, distribute in commerce, or use chemicals containing PCBs present as a result of inadvertent generation or recycling who perform any actual monitoring of PCB concentrations maintain the following information:</p> <ul style="list-style-type: none"> – the method of analysis – the results of the analysis, including data from the Quality Assurance Plan – description of the sample matrix – the name of the analyst or analysts – the date and time of the analysis – numbers for the lots from which the samples are taken. <p>Verify that records are maintained for a period of 3 yr after a process ceases operation or importing ceases, or for 7 yr, whichever is shorter.</p>
<p>TT.30.10. Commercial storers of PCB waste are required to have a closure plan (40 CFR 761.65(e)(1) through 761.65(e)(5) and 761.65(h)).</p>	<p>Verify that the commercial storer of PCB waste has a written closure plan identifying the steps that the owner or operator will take to close the PCB waste storage facility in a manner that eliminates the potential for post-closure releases of PCBs which may present an unreasonable risk to human health or the environment.</p> <p>Verify that the closure plan includes, at a minimum, all of the following:</p> <ul style="list-style-type: none"> – a description of how the PCB storage areas of the facility will be closed in a manner that eliminates the potential for post-closure releases of PCBs into the environment – an identification of the maximum extent of storage operations that will be open during the active life of the facility, including an identification of the extent of PCB storage operations at the facility relative to other wastes that will be handled at the facility – an estimate of the maximum inventory of PCB wastes that could be handled at one time at the facility over its active life, and a detailed description of the methods or arrangements to be used during closure for removing, transporting, storing, or disposing of the facility's inventory of PCB waste, including an identification of any offsite facilities that will be used – a detailed description of the steps needed to remove or decontaminate PCB waste residues and contaminated containment system components, equipment, structures, and soils during closure, including a description of the methods for sampling and testing of surrounding soils, and the criteria for determining the extent of removal or decontamination – a detailed description of other activities necessary during the closure period to ensure that any post-closure releases of PCBs will not present unreasonable risks to human health or the environment. This includes activities such as ground-water monitoring, runoff and runoff control, and facility security.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - a schedule for closure of each area of the facility where PCB waste is stored or handled, including the total time required to close each area of PCB waste storage or handling, and the time required for any intervening closure activities - an estimate of the expected year of closure of the PCB waste storage areas, if a trust fund is opted for as the financial mechanism. <p>(NOTE: A written closure plan determined to be acceptable by the Regional Administrator (or the Director, National Program Chemicals Division, if the commercial storage area is ancillary to a disposal facility approved by the Director, National Program Chemicals Division) shall become a condition of any approval granted.)</p> <p>(NOTE: A separate and new closure plan need not be submitted in cases where a facility is currently covered by a TSCA approval or a RCRA permit, upon a showing to the satisfaction of the U.S. EPA Regional Administrator (or the Director, National Program Chemicals Division, if the commercial storage area is ancillary to a disposal facility approved by the Director, National Program Chemicals Division) that the existing closure plan is substantially equivalent to current requirements for closure plans, and that the plan adequately accounts for PCB waste inventories.)</p> <p>Verify that the commercial storer of PCB waste submits a written request to the U.S. EPA Regional Administrator (or the Director, National Program Chemicals Division, if he approved the closure plan) for a modification to its storage approval to amend its closure plan, whenever:</p> <ul style="list-style-type: none"> - changes in ownership, operating plans, or facility design affect the existing closure plan - there is a change in the expected date of closure, if applicable - in conducting closure activities, unexpected events require a modification of the approved closure plan.
<p>TT.30.11. Commercial storers of PCB waste are required to comply with a specific closure schedule and closure practices (40 CFR 761.65(e)(6) through 761.65(e)(8))</p>	<p>Verify that the commercial storer notifies, in writing, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division if he approved the closure plan, at least 60 days prior to the date on which final closure of its PCB storage facility is expected to begin.</p> <p>(NOTE: The date when a commercial storer of PCB waste “expects to begin closure” shall be no later than 30 days after the date on which the storage facility received its final quantities of PCB waste. For good cause shown, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division if he approved the closure plan, may extend the date for commencement of closure for an additional 30-day period.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that, within 90 days after receiving the final quantity of PCB waste for storage, a commercial storer of PCB waste removes all PCB waste in storage at the facility from the facility in accordance with the approved closure plan.</p> <p>(NOTE: For good cause shown, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division if he approved the closure plan, may approve a reasonable extension to the period for removal of the PCB waste.</p> <p>Verify that the commercial storer of PCB waste completes closure activities in accordance with the approved closure plan and within 180 days after receiving the final quantity of PCB waste for storage at the facility.</p> <p>(NOTE: For good cause shown, the U.S. EPA Regional Administrator or Director, National Program Chemicals Division if he approved the closure plan, may approve a reasonable extension to the closure period.)</p> <p>Verify that during the closure period, all contaminated system component equipment, structures, and soils are disposed of in accordance with the disposal requirements, or, if applicable, decontaminated in accordance with the levels specified in the PCB Spills Cleanup Policy.</p> <p>(NOTE: When PCB waste is removed from the storage facility during closure, the owner or operator becomes a generator of PCB waste subject to the generator requirements of 40 CFR 761.180 through 761.193 (see checklist items TT.30.1, TT.30.3 through TT.30.9, and TT.140.3).</p> <p>Verify that within 60 days of completion of closure of each facility for the storage of PCB waste, the commercial storer of PCB waste submits to the U.S. EPA Regional Administrator (or Director, National Program Chemicals Division if he approved the closure plan), by registered mail, a certification that the PCB storage facility has been closed in accordance with the approved closure plan.</p> <p>Verify that the certification is signed by the owner or operator and by an independent registered professional engineer.</p> <p>(NOTE: Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division, if he approved the closure plan, will notify the owner or operator in writing that the owner or operator is no longer required by this section to maintain financial assurance for final closure of the facility, unless the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division, if he approved the closure plan, has reason to believe that final closure has not been completed in accordance with the approved closure plan. The U.S. EPA Regional Administrator or the Director, National Program Chemicals Division, if he approved the closure plan, shall provide the owner or operator with a detailed</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	written statement stating the reasons why he believed closure was not conducted in accordance with the approved closure plan.
TT.30.12. Commercial storers of PCB waste are required to have a written cost estimate for and financial assurance for closure (40 CFR 761.65(f) and 761.65(g)).	<p>Verify that the commercial storer of PCB wastes has a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with its approved closure plan.</p> <p>Verify that the closure cost estimate is certified by the person preparing it and meets the following criteria:</p> <ul style="list-style-type: none"> – the closure cost estimate equals the cost of final closure at the point in the PCB storage facility's active life when the extent and manner of PCB storage operations would make closure the most expensive, as indicated by the facility's closure plan – the closure cost estimate is based on the costs to the owner or operator of hiring a third party to close the facility, and the third party is not be either a corporate parent or subsidiary of the owner or operator, or member in joint ownership of the facility – the owner or operator includes in the estimate the current market costs for offsite commercial disposal of the facility's maximum estimated inventory of PCB wastes, except that onsite disposal costs may be used if onsite disposal capacity will exist at the facility at all times over the life of the PCB storage facility – the closure cost estimate does not incorporate any salvage value that may be realized with the sale of wastes, facility structures or equipment, land, or other assets associated with the facility at the time of closure. <p>Verify that, during the active life of the PCB storage facility, the commercial storer of PCB waste adjusts the closure cost estimate annually for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to demonstrate financial responsibility for closure, except that owners or operators who use the financial test or corporate guarantee adjust their closure cost estimates for inflation within 30 days after the close of the storer's fiscal year.</p> <p>Verify that, when the U.S. EPA Regional Administrator (or the Director, National Program Chemicals Division, if he approved the closure plan) approves a modification to the facility's closure plan, and that modification increases the cost of closure, the owner or operator revises the closure cost estimate no later than 30 days after the modification is approved.</p> <p>Verify that the most recent cost estimate is kept at the facility during its operating life.</p> <p>Verify that a commercial storer of PCB waste establishes financial assurance for</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	closure of each PCB storage facility that he owns or operates.
TT.30.13. Unless specific conditions are met, laboratories have to comply with specific reporting and documentation requirements (40 CFR 761.65(i))	<p>Verify that, if the laboratory is not storing samples held for disposal in a facility that complies with the standards in 40 CFR 761.65(b)(1)(i) through (b)(1)(iv) (see checklist item TT.110.1), it meets the notification and approval requirements for a commercial storer</p> <p>Verify that laboratory samples are manifested unless:</p> <ul style="list-style-type: none"> - the sample is being transported to a laboratory for the purpose of testing - the sample is being transported back to the sample collector after testing - the sample is being stored by the sample collector before transport to a laboratory for testing - the sample is being stored in a laboratory before testing - the sample is being stored in a laboratory after testing but before it is returned to the sample collector - the sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary). <p>Verify that laboratories and sample collectors which do not comply with the following when transporting samples meet the notification and approval requirements for commercial storers in 40 CFR 761.65(d) through (h):</p> <ul style="list-style-type: none"> - comply with applicable U.S. DOT or U.S. Postal Service (USPS) shipping requirements, found respectively in 49 CFR 173.345 and U.S. Postal Regulations 652.2 and 652.3 - assure that the following information accompanies the sample: <ul style="list-style-type: none"> - the sample collector's name, mailing address, and telephone number - the laboratory's name, mailing address, and telephone number. - the quantity of the sample - the date of shipment - a description of the sample. - package the sample so that it does not leak, spill, or vaporize from its packaging. <p>(NOTE: When the concentration of the PCB sample has been determined, and its use is terminated, the sample must be properly disposed. A laboratory must either manifest the PCB waste to a disposer or commercial storer, retain a copy of each manifest, and follow up on exception reporting, or return the sample to the sample collector who must then properly dispose of the sample. If the laboratory returns the sample to the sample collector, the laboratory must:</p> <ul style="list-style-type: none"> - comply with applicable U.S. DOT or U.S. Postal Service (USPS) shipping requirements, found respectively in 49 CFR 173.345 and U.S. Postal Regulations 652.2 and 652.3 - assure that the following information accompanies the sample:

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - the sample collector's name, mailing address, and telephone number - the laboratory's name, mailing address, and telephone number. - the quantity of the sample - the date of shipment - a description of the sample. - package the sample so that it does not leak, spill, or vaporize from its packaging.)

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.40</p> <p>Transformers</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.40.1. PCB Transformers with PCBs of 500 ppm or greater that are in use or in storage for reuse shall not pose an exposure risk to food and feed (40 CFR 761.30(a)(1)(i)).</p>	<p>Determine if there are any PCB Transformers in use or in storage for reuse, that pose an exposure risk to food and feed, by reviewing the inventory. More use restrictions are presented below.</p>
<p>TT.40.2. PCB Transformers with concentrations of PCBs of 500 ppm or greater are subject to certain registration requirements (40 CFR 761.30(a)(1)(vi)).</p>	<p>Verify that all PCB Transformers, including those in storage for reuse, are registered with the U.S. EPA, National Program Chemicals Division, Office of Pollution Prevention and Toxics with the following information:</p> <ul style="list-style-type: none"> – name and address – contact name and telephone number – address where transformers are located, for mobile sources such as a ship provide the name of the ship – number of PCB Transformers and total weight in kilograms of PCBs contained in the transformers – whether any transformers at the location contain flammable dielectric fluid (optional) – signature of the owner, operator, or other authorized representative certifying the accuracy of the information submitted. <p>(NOTE: A transformer owner who assumes a transformer is a PCB-Contaminated transformer, and discovers after December 28, 1998, that it is a PCB-Transformer, must register the newly-identified PCB Transformer, in writing, with the U.S. EPA no later than 30 days after it is identified as such. This requirement does not apply to transformer owners who have previously registered with the U.S. EPA</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>PCB Transformers located at the same address as the transformer that they assumed to be PCB-Contaminated and later determined to be a PCB Transformer.</p> <p>(NOTE: A person who takes possession of a PCB Transformer after December 28, 1998 is not required to register or re-register the transformer with the U.S. EPA.)</p> <p>Verify that records of each registration (e.g., a copy of the registration and the return receipt signed by U.S. EPA) are retained with the required inspection records.</p>
<p>TT.40.3. PCB Transformers of concentrations of 500 ppm or greater in use in or near commercial buildings are subject to certain requirements (40 CFR 761.30(a)(1)(ii) through 761.30(a)(1)(v) and 761.30(a)(1)(vii)).</p>	<p>Determine if any transformers are located in or near commercial buildings by reviewing the inventory.</p> <p>Verify that no network PCB Transformers with higher secondary voltages (\geq than 480 V, including 480/277 V systems) are in or near commercial buildings.</p> <p>Verify that network PCB Transformers with higher secondary voltages which are removed from service are either reclassified to PCB Contaminated or non-PCB status, placed into storage for disposal, or disposed.</p> <p>Verify that procedure/policy exists prohibiting installation of PCB Transformers that have been placed into storage for reuse or that have been removed from another location.</p> <p>(NOTE: Retrofilled mineral oil PCB Transformers may be installed for reclassification purposes. But, it must be tested 3 mo after installation and appropriately classified based on the results of testing the fluid within. If the PCB concentration remains at 500 ppm or $>$, the transformer must be retrofilled again until the transformer can be classed a non-PCB or PCB-Contaminated or removed from service.)</p> <p>Verify that all higher secondary voltage radial PCB transformers in use in or near commercial buildings, and lower secondary voltage network PCB Transformers are equipped with electrical protection to avoid transformer ruptures caused by high current faults (i.e., current limiting fuses).</p> <p>Verify that all lower secondary voltage network PCB Transformers not located in sidewalk vaults (network transformers with secondary voltages below 480 volts), in use in or near commercial buildings which have not been protected from transformer rupture, have been removed from service.</p> <p>Verify that all lower secondary voltage radial PCB Transformers are equipped with electrical protection to detect sustained high current faults and provide for the complete deenergization of the transformer of the complete deenergization of the</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>faulted phase of the transformer within several hundredths of a second.</p> <p>Verify that all radial PCB Transformers with higher secondary voltages (480 volts and above, including 480/277 volt systems) in use in or near commercial buildings are equipped with protection, including the following, to avoid transformer ruptures caused by sustained low current faults:</p> <ul style="list-style-type: none"> – pressure and temperature sensors (or other equivalent technology which has been demonstrated to be effective in early detection of sustained low current faults) – disconnect equipment, which meets the following, to insure complete deenergization of the transformer in the event of a sensed abnormal condition (e.g., an overpressure or overtemperature condition in the transformer), caused by a sustained low current fault: <ul style="list-style-type: none"> – operates automatically within 30 s to 1 min of the receipt of a signal indicating an abnormal condition from a sustained low current fault, or can be configured to allow for manual deenergization from a manned onsite control center upon the receipt of an audio or visual signal indicating an abnormal condition caused by a sustained low current fault – manual deenergization from a manned onsite control center occurs within 1 min of the receipt of the audio or visual signal indicating an abnormal condition caused by a sustained low current fault – when automatic operation is selected and a circuit breaker is utilized for disconnection, it has the capability to be manually opened if necessary – the required enhanced electrical protective system for the detection of sustained low current faults and the complete and rapid deenergization of transformers is be properly installed, maintained, and set sensitive enough (in accordance with good engineering practices) to detect sustained low current faults and allow for rapid and total deenergization prior to PCB Transformer rupture (either violent or non violent rupture) and release of PCBs. <p>Verify that PCB Transformers in use in or near commercial buildings are registered with the building’s owner and includes the following information:</p> <ul style="list-style-type: none"> – specific location – principal constituent of the dielectric fluid – the type of transformer installation (e.g., 208/120 volt network, 208/120 volt radial).

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.40.4. Combustible materials, including but not limited to paints, solvents, plastics, paper, and sawn wood, must not be stored by a PCB Transformer (40 CFR 761.30(a)(1)(viii)).</p>	<p>Verify that all combustible materials have been removed from the area within a PCB transformer enclosure (i.e., vault or partitioned area) and the area within 5 m of a PCB transformer or PCB transformer enclosure.</p>
<p>TT.40.5. Railroad transformers must not contain dielectric fluid with > 1000 ppm PCB and must be serviced according to specific requirements (40 CFR 761.30(b)(1), and 761.30(b)(2)).</p>	<p>Verify that railroad transformers do not exceed 1000 ppm PCB.</p> <p>Verify that servicing of a railroad transformer is only done with dielectric fluid containing < 1000 ppm PCB.</p> <p>Verify that, if the coil is removed from the casing of a railroad transformer, it is refilled with dielectric fluid containing 50 ppm or less PCB.</p> <p>(NOTE: Dielectric fluid may be filtered through activated carbon or otherwise industrially processed for the purpose of reducing the PCB concentration in the fluid.)</p> <p>Verify that any PCB dielectric fluid used to service PCB railroad transformers is stored in accordance with the storage for disposal requirements of 40 CFR 761.65 (see checklist items TT.30.10 through TT.30.13, TT.110.1 through TT.110.6, and TT.110.9).</p> <p>Verify that after July 1, 1979, processing and distribution in commerce of PCBs for purposes of servicing railroad transformers is done only for persons who are granted an exemption under TSCA section 6(e)(3)(B).</p> <p>(NOTE: A PCB Transformer may be converted to a PCB-Contaminated Transformer or to a non-PCB Transformer by draining, refilling, and/or otherwise servicing the railroad transformer. In order to reclassify, the railroad transformer's dielectric fluid must contain < 500 ppm (for conversion to PCB-Contaminated Transformer) or < 50 ppm PCB (for conversion to a non-PCB Transformer) after a minimum of 3 mo of in-service use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the transformer.)</p>
<p>TT.40.6. PCB transformers are required to be properly serviced (40 CFR 761.30(a)(2)).</p>	<p>Verify that servicing activities are properly conducted as follows by reviewing servicing records:</p> <ul style="list-style-type: none"> - transformers classified as PCB-Contaminated Electrical Equipment (50 to 500 ppm PCBs) are only serviced with dielectric fluid containing < 500 ppm PCB. - the transformer coil is not removed from the casing during servicing

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(including rebuilding) of PCB Transformers with PCB concentrations of 500 ppm or greater</p> <ul style="list-style-type: none"> - PCBs removed during servicing are captured and are either reused as dielectric fluid or disposed of properly - the PCBs from a PCB Transformer with PCB concentrations of 500 ppm or greater are not mixed with or added to dielectric fluid from PCB-Contaminated Electrical Equipment (50 to 500 ppm PCBs) - dielectric fluids containing < 500 ppm PCBs that are mixed with fluids containing 500 ppm or greater are not used as dielectric fluid in any transformers classified as PCB-Contaminated Electrical Equipment (50 to 500 ppm PCBs). <p>(NOTE: PCB Transformers may be serviced with dielectric fluid at any concentration.)</p> <p>(NOTE: A PCB Transformer may be converted to PCB-Contaminated Electrical Equipment or to a non-PCB Transformer and a transformer that is classified as PCB-Contaminated Electrical Equipment may be reclassified to a non-PCB Transformer by draining, refilling and/or otherwise servicing the transformer. In order to reclassify, the transformer's dielectric fluid must contain < 500 ppm PCB (for conversion to PCB-Contaminated Electrical Equipment) or < 50 ppm PCB (for conversion to a non-PCB Transformer) after a minimum of 3 mo of in-service use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the transformer.</p> <p>Verify that all PCBs removed from transformers for purposes of reducing PCB concentrations are disposed of according to the disposal requirements of 40 CFR 761.60 (see checklist items TT.100.2, TT.120.7, TT.130.2, TT.150.2 through TT.150.9, TT.150.14 through TT.150.16, TT.150.20, and TT.150.21).</p> <p>Verify that any dielectric fluid containing 50 ppm or greater PCB used for servicing transformers is stored in accordance with the storage for disposal requirements of 40 CFR 761.65 (see checklist items TT.30.10 through TT.30.13, TT.110.1 through TT.110.6, and TT.110.9)</p> <p>(NOTE: Processing and distribution in commerce of PCBs for purposes of servicing transformers is permitted only for persons who are granted an exemption under TSCA 6(e)(3)(B).)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.40.7. Inspections must be performed once every 3 mo for all in use or stored for reuse PCB Transformers with > 500 ppm PCB (40 CFR 761.30(a)(1)(ix) and 761.30(a)(1)(xii) through 761.30(a)(1)(xiv)).</p>	<p>Verify that applicable transformers in use or stored for reuse are inspected at least once every 3 mo by reviewing inspection records.</p> <p>Verify that there are 30 days between inspections.</p> <p>(NOTE: These inspections may take place any time during the 3-month periods: January-March, April-June, July-September, and October-December as long as there is a minimum of 30 days between inspections. The visual inspection must include investigation for any leak of dielectric fluid on or around the transformer. The extent of the visual inspections will depend on the physical constraints of each transformer installation and should not require an electrical shutdown of the transformer being inspected.)</p> <p>Verify that the following information is recorded for each PCB Transformer inspection:</p> <ul style="list-style-type: none"> – location of transformer – dates of each visual inspection – date when any leak was discovered – name of person conducting inspection – location and estimate of the dielectric fluid quantity for any leaks – date and description of any cleanup, containment, or repair performed – results of any containment daily inspections for transformers with uncorrected active leaks – registration of the PCB Transformer – records of transfer of ownership in compliance with 40 CFR 761.180(a)(2)(ix) (see checklist item TT.30.1). <p>(NOTE: Reduced visual inspections of at least once every 12 mo is allowed for PCB Transformers with either of the following:</p> <ul style="list-style-type: none"> – impervious, undrained, secondary containment capacity of at least 100 percent of the total dielectric fluid volume of all transformers so contained – a PCB Transformer which has been tested and found to contain < 60,000 ppm PCBs (after 3 mo of in service use if the transformer has been serviced for purposes of reducing the PCB concentration). <p>These inspections may take place any time during the calendar year as long as there is a minimum of 180 days between inspections.)</p> <p>(NOTE: Increased visual inspections of once a week are required for any PCB Transformer in use or stored for reuse that poses an exposure risk to food or feed.)</p> <p>Verify that records of inspection and maintenance are kept for 3 yr after disposal.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
TT.40.8. PCB Transformers with PCB concentrations of 500 ppm or greater found to be leaking during an inspection must be repaired or replaced to eliminate the source of the leak (40 CFR 761.30(a)(1)(x)).	<p>Determine whether any PCB Transformers have been leaking.</p> <p>Verify that, if a PCB Transformer is found to have a leak which results in any quantity of PCBs running off or about to run off the external surface of the transformer, then the transformer is repaired or replaced to eliminate the source of the leak.</p> <p>Verify that cleanup and/or containment of released PCBs has been initiated within 48 h of its detection or as soon as possible.</p> <p>Verify that leaking PCB Transformers are inspected daily.</p> <p>Verify that cleaned up material is disposed of according to appropriate requirements.</p> <p>(NOTE: Until appropriate action is completed, any active leak of PCBs must be contained to prevent exposure of humans or the environment. Trenches, dikes, buckets, and pans are examples of proper containment measures.)</p>
TT.40.9. When a PCB Transformer with concentrations of PCBs 500 ppm or greater is involved in a fire, the incident must be immediately reported to the NRC (40 CFR 761.30(a)(1)(xi)).	<p>Determine if any PCB Transformers have been involved in any incident where sufficient heat and/or pressure was generated to result in the violent or nonviolent rupture of a PCB Transformer and the release of PCBs.</p> <p>Verify that the NRC was notified and the following measures were taken:</p> <ul style="list-style-type: none"> – floor drains were blocked – water runoff was contained – control and treatment (prior to release) of any water used in subsequent cleanup operations.
TT.40.10. Mineral oil transformers which are tested and found to be contaminated with 500 ppm or greater must meet specific requirements (40 CFR 761.30(a)(1)(xv)).	<p>Verify that mineral oil transformers that are tested and found to be contaminated with 500 ppm PCB or greater meet all the storage and handling requirements of 40 CFR 761.</p> <p>Verify that the following additional steps are taken:</p> <ul style="list-style-type: none"> – fire-related incidents are reported immediately after discovery – mark the transformer within 7 days after discovery – mark the vault door, machinery room door, fence, hallway, or other means of access to the PCB Transformer within 7 days after discovery – register the transformer in writing with the building owner within 30 days of the discovery – install electrical protective equipment on a radial PCB Transformer and a non-sidewalk vault, lower secondary voltage network PCB Transformer in or

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>near a commercial building within 18 mo of discovery or by October 1, 1990, whichever is later</p> <ul style="list-style-type: none"> - remove a non-sidewalk vault, lower secondary voltage network PCB Transformer in or near a commercial building, if electrical protective equipment is not installed, within 18 mo of discovery or by October 1, 1993, whichever is later - remove a lower secondary voltage network PCB Transformer located in a sidewalk vault in or near a commercial building, within 18 mo of discovery or by October 1, 1993, whichever is later - retrofit and reclassify a radial PCB Transformer or a lower or higher secondary voltage network PCB Transformer, located in other than a sidewalk vault in or near a commercial building, within 18 mo or by October 1, 1990, whichever is later - retrofit and reclassify a lower secondary voltage network PCB Transformer, located in a sidewalk vault, in or near a commercial building within 18 mo or by October 1, 1993, whichever is later - retrofit and reclassify a higher secondary voltage network PCB Transformer, located in a sidewalk vault, in or near a commercial building within 18 mo or by October 1, 1990, whichever is later.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.50</p> <p>PCB Items</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations <= 10µg/100 cm². Requirements applicable to PCBs at concentrations >= 50 ppm to < 500 ppm also apply to contaminated surfaces at PCB concentrations > 10µg/100 cm² to < 100 µg/100 cm². Requirements applicable to PCBs at concentrations >= 500 ppm also apply to contaminated surfaces at PCB concentrations >= 100µg/100 cm². See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.50.1. PCBs may be used in heat transfer and hydraulic systems in a manner other than a totally enclosed manner at concentrations < 50 ppm if specific requirements are met (40 CFR 761.30(d) through 761.30(e)).</p>	<p>Determine if testing has been conducted to demonstrate that heat transfer or hydraulic systems that formerly contained PCBs at a concentration > 50 ppm now contain < 50 ppm PCB.</p> <p>Verify that no fluid containing > 50 ppm PCB is added to heat transfer or hydraulic systems and that they are only serviced with fluids containing < 50 ppm PCBs.</p>
<p>TT.50.2. Electromagnets, switches, and voltage regulators may contain PCBs at any concentration if certain requirements are met (40 CFR 761.30(h)).</p>	<p>Verify that no electromagnets are used or stored that contain > 500 ppm PCB and pose an exposure risk to food or feed.</p> <p>Verify that the use and storage for reuse of voltage regulators that contain 1.36 kg (3 lb) or more of dielectric fluid with a PCB concentration of >= 500 ppm meet the following:</p> <ul style="list-style-type: none"> - mark the regulator as required in 40 CFR 761.40 (see checklist item TT.10.5) - report any fire-related incidents immediately to the NRC - conduct inspections as applicable to PCB Transformers - comply with the recordkeeping and reporting requirements of 40 CFR 761.180. <p>(NOTE: The owner of a voltage regulator that assumes it contains <500 ppm PCBs and discovers by testing that it is contaminated at >=500 ppm PCBs, must mark the regulator within 7 days after the discovery, and institute reporting, recordkeeping, and inspection requirements immediately upon discovery.)</p> <p>Verify that no servicing (including rebuilding) of any electromagnet, switch, or</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>voltage regulator with a PCB concentration of 500 ppm or > which requires the removal and rework of the internal components is done.</p> <p>Verify that electromagnets, switches, and voltage regulators classified as PCB-Contaminated Electrical Equipment are serviced (including rebuilding) only with dielectric fluid containing < 500 ppm PCB.</p> <p>Verify that PCBs removed during any servicing activity are captured and either reused as dielectric fluid or disposed of in accordance with the requirements of 40 CFR 761.60.</p> <p>Verify that PCBs from electromagnets switches, and voltage regulators with a PCB concentration of at least 500 ppm, are not mixed with or added to dielectric fluid from PCB-Contaminated Electrical Equipment.</p> <p>(NOTE: Regardless of its PCB concentration, dielectric fluids containing < 500 ppm PCB that are mixed with fluids that contain 500 ppm or > PCB must not be used as dielectric fluid in any electrical equipment. The entire mixture of dielectric fluid must be considered to be > than 500 ppm PCB and must be disposed of in an incinerator that meets the requirements of 40 CFR 761.70.)</p> <p>(NOTE: An electromagnet, switch or voltage regulator with a PCB concentration of at least 500 ppm may be converted to PCB-Contaminated Electrical Equipment or to a non-PCB classification and PCB-Contaminated Electrical Equipment may be reclassified to a non-PCB classification by draining, refilling and/or otherwise servicing the equipment. In order to be reclassified, the equipment's dielectric fluid must contain < 500 ppm PCB (for conversion to PCB-Contaminated Electrical Equipment) or < 50 ppm PCB (for conversion to a non-PCB classification) after a minimum of 3 mo of in-service use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the equipment. In-service use means the equipment is used electrically under loaded conditions. The U.S. EPA Assistant Administrator may grant, without further rulemaking, approval for the use of alternative methods that simulate the loaded conditions of in-service use. All PCBs removed from this equipment for purposes of reducing PCB concentrations are subject to the disposal requirements of 40 CFR 761.60 (see checklist items TT.100.2, TT.120.7, TT.130.2, TT.150.2 through TT.150.9, TT.150.14 through TT.150.16, TT.150.20, and TT.150.21).)</p> <p>Verify that any dielectric fluid containing 50 ppm or > PCB used for servicing electromagnets, switches, or voltage regulators is stored in accordance with the storage for disposal requirements of 40 CFR 761.65 (see checklist items TT.30.10 through TT.30.13, TT.110.1 through TT.110.6, and TT.110.9).</p> <p>(NOTE: Processing and distribution in commerce of PCBs for purposes of servicing electromagnets, switches or voltage regulators is permitted only for persons who are granted an exemption under TSCA 6(e)(3)(B).)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.50.3. Capacitors may contain PCBs at any concentration subject to certain requirements (40 CFR 761.30(l)).</p>	<p>Verify that all PCB Large, High- and Low-Voltage Capacitors that pose an exposure risk to food and feed have been removed.</p> <p>Verify that all PCB Large, High- and Low-Voltage Capacitors are in use only in restricted-access electrical substations, or in a contained and restricted-access indoor area.</p> <p>Verify that capacitors are free from leaks of dielectric PCBs.</p>
<p>TT.50.4. Circuit breakers, reclosers, and cable may contain PCBs at any concentration for remainder of their useful lives subject to certain conditions (40 CFR 761.30(m)).</p>	<p>Verify that any circuit breakers, reclosers, and cables used are serviced using only dielectric fluid which contains < 50 ppm PCB and have been free from leaks.</p> <p>Verify that any circuit breaker, recloser or cable found to contain at least 50 ppm PCBs is serviced according to the requirements for electromagnets, switches, and voltage regulators in 40 CFR 761.30(h)(2) (see checklist item TT.50.2).</p>

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.60</p> <p>Incinerators</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.60.1. Prior to the incineration of PCBs and PCB Items the owner or operator of an incinerator is required to receive written approval (40 CFR 761.70(d)(1)).</p>	<p>Verify that prior to the incineration of PCBs and PCB Items the owner or operator of an incinerator received the written approval of the U.S. EPA Regional Administrator for the region in which the incinerator is located, or the Director, National Program Chemicals Division.</p> <p>Verify that an application for approval has been submitted which contains: the location of the incineration</p> <ul style="list-style-type: none"> – a detailed description of the incinerator including general site plans and design drawings of the incinerator – engineering reports or other information on the anticipated performance of the incinerator – sampling and monitoring equipment and facilities available – waste volumes expected to be incinerated – any local, state, or federal permits or approvals – schedules and plans for complying with the approval requirements of this regulation.
<p>TT.60.2. When required, trials burns of the incinerators are required to be conducted according to certain parameters (40 CFR 761.70(d)(2))</p>	<p>(NOTE: Following receipt of the application to operate, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division shall determine if a trial burn is required and notify the person who submitted the report whether a trial burn of PCBs and PCB Items must be conducted.)</p> <p>Verify that, if a trial burn is to be held, the individual who submitted the application to operate submits to the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division a detailed plan for conducting and monitoring the trial burn.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that, at a minimum, the trial burn plan includes:</p> <ul style="list-style-type: none"> – date trial burn is to be conducted – quantity and type of PCBs and PCB Items to be incinerated – parameters to be monitored and location of sampling points – sampling frequency and methods and schedules for sample analyses – name, address, and qualifications of persons who will review analytical results and other pertinent data, and who will perform a technical evaluation of the effectiveness of the trial burn. <p>(NOTE: Following receipt of the trial burn plan, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division will approve the plan, require additions or modifications to the plan, or disapprove the plan. If the plan is disapproved, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division will notify the person who submitted the plan of such disapproval, together with the reasons why it is disapproved. That person may submit a new plan. If the plan is approved (with any additions or modifications which the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division may prescribe), the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division will notify the person who submitted the plan of the approval.)</p> <p>Verify that, once the plan is approved, the trial burn takes place at a date and time agreed upon between the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division and the person who submitted the plan.</p>
<p>TT.60.3. Incinerators used to incinerate liquid PCBs must meet specific requirements (40 CFR 761.70(a))</p>	<p>Verify that incinerators used for incinerating PCBs are approved by an U.S. EPA Regional Administrator or the Director, National Program Chemicals Division.</p> <p>(NOTE: Requests for approval of incinerators to be used in more than one region must be submitted to the Director, National Program Chemicals Division, except for research and development involving < 500 lb of PCB material. Requests for approval of incinerators to be used in only one region must be submitted to the appropriate U.S. EPA Regional Administrator. Requests for waivers from any of the incinerator requirements at 40 CFR 761.60(a) are addressed under 40 CFR 761.60(a)(5).)</p> <p>Verify that combustion criteria meets one of the following:</p> <ul style="list-style-type: none"> – maintenance of the introduced liquids for a 2-s dwell time at 1200 °C +/- 100 °C) and 3 percent excess oxygen in the stack gas – maintenance of the introduced liquids for a 1 1/2 second dwell time at 1600 °C +/-100 °C) and 2 percent excess oxygen in the stack gas.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that combustion efficiency is at least 99.9 percent.</p> <p>Verify that the rate and quantity of PCBs which are fed to the combustion system are measured and recorded at regular intervals of no longer than 15 min.</p> <p>Verify that the temperatures of the incineration process are continuously measured and recorded.</p> <p>(NOTE: The combustion temperature of the incineration process is based on either direct (pyrometer) or indirect (wall thermocouple-pyrometer correlation) temperature readings.)</p> <p>Verify that the flow of PCBs to the incinerator stops automatically whenever the combustion temperature drops below the required temperatures.</p> <p>Verify that monitoring of stack emission products is conducted:</p> <ul style="list-style-type: none"> – when an incinerator is first used for the disposal of PCBs – when an incinerator is first used for the disposal of PCBs after the incinerator has been modified in a manner which may affect the characteristics of the stack emission products – at a minimum, for O₂, CO, CO₂, NO_x, HCl, Total Chlorinated Organic Content (RCI), PCBs, and Total Particulate Matter. <p>Verify that, at a minimum, monitoring and recording of combustion products and incineration operations for the following parameters whenever the incinerator is incinerating PCBs:</p> <ul style="list-style-type: none"> – O₂, continuous monitoring – CO, continuous monitoring – CO₂, periodic monitoring, at a frequency specified by the U.S. EPA Regional Administrator or Director, National Program Chemicals Division. <p>Verify that the flow of PCBs to the incinerator stops automatically when any one or more of the following conditions occur, unless a contingency plan is submitted by the incinerator owner or operator and approved by the U.S. EPA Regional Administrator or Director, National Program Chemicals Division:</p> <ul style="list-style-type: none"> – failure of monitoring operations – failure of the PCB rate and quantity measuring and recording equipment – excess oxygen falls below the specified percentage. <p>Verify that water scrubbers are used for HCl control during PCB incineration and they meet any performance requirements specified by the appropriate U.S. EPA Regional Administrator or the Director, National Program Chemicals Division.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that scrubber effluent is monitored and complies with applicable effluent or pretreatment standards, and any other state and federal laws and regulations.</p> <p>(NOTE: An alternate method of HCl control may be used if the alternate method has been approved by the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division. (The HCl neutralizing capability of cement kilns is considered to be an alternate method.)</p> <p>(NOTE: Recordkeeping requirements for PCB incinerators are listed under checklist item TT.30.4 of this document.)</p>
<p>TT.60.4. Incinerators used to incinerate non-liquid PCBs must meet specific requirements (40 CFR 761.70(b))</p>	<p>Verify that incinerators used for incinerating nonliquid PCBs, PCB Articles, PCB Equipment, or PCB Containers are approved by the appropriate U.S. EPA Regional Administrator or the Director, National Program Chemicals Division</p> <p>(NOTE: Requests for approval of incinerators to be used in more than one region must be submitted to the Director, National Program Chemicals Division except for research and development involving < 500 lb of PCB material. Requests for approval of incinerators to be used in only one U.S. EPA Region must be submitted to the appropriate U.S. EPA Regional Administrator. Requests for waivers from any of the incinerator requirements at 40 CFR 761.60(a) are addressed under 40 CFR 761.60(a)(5).)</p> <p>Verify that the mass air emissions from the incinerator are no > 0.001g PCB/kg of the PCB introduced into the incinerator.</p> <p>Verify that combustion efficiency is at least 99.9 percent.</p> <p>Verify that the rate and quantity of PCBs which are fed to the combustion system are measured and recorded at regular intervals of no longer than 15 min.</p> <p>Verify that the temperatures of the incineration process are continuously measured and recorded.</p> <p>(NOTE: The combustion temperature of the incineration process is based on either direct (pyrometer) or indirect (wall thermocouple-pyrometer correlation) temperature readings.)</p> <p>Verify that monitoring of stack emission products is conducted:</p> <ul style="list-style-type: none"> – when an incinerator is first used for the disposal of PCBs – when an incinerator is first used for the disposal of PCBs after the incinerator has been modified in a manner which may affect the characteristics of the stack emission products – at a minimum, for O₂, CO, CO₂, NO_x, HCl, Total Chlorinated Organic Content (RCI), PCBs, and Total Particulate Matter.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that, at a minimum, monitoring and recording of combustion products and incineration operations for the following parameters whenever the incinerator is incinerating PCBs:</p> <ul style="list-style-type: none"> - O₂, continuous monitoring - CO, continuous monitoring - CO₂, periodic monitoring, at a frequency specified by the U.S. EPA Regional Administrator or Director, National Program Chemicals Division. <p>Verify that the flow of PCBs to the incinerator stops automatically when any one or more of the following conditions occur, unless a contingency plan is submitted by the incinerator owner or operator and approved by the U.S. EPA Regional Administrator or Director, National Program Chemicals Division:</p> <ul style="list-style-type: none"> - failure of monitoring operations - failure of the PCB rate and quantity measuring and recording equipment <p>Verify that water scrubbers are used for HCl control during PCB incineration and they meet any performance requirements specified by the appropriate U.S. EPA Regional Administrator or the Director, National Program Chemicals Division.</p> <p>Verify that scrubber effluent is monitored and complies with applicable effluent or pretreatment standards, and any other state and federal laws and regulations.</p> <p>(NOTE: An alternate method of HCl control may be used if the alternate method has been approved by the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division. (The HCl neutralizing capability of cement kilns is considered to be an alternate method.)</p>
<p>TT.60.5. Specific actions are required when transferring ownership in an incinerator or the property it stands upon, or transferring the right to operate the incinerator (40 CFR 761.70(d)(8)).</p>	<p>Verify that any person who owns or operates an approved incinerator notifies U.S. EPA at least 30 days before transferring ownership in the incinerator or the property it stands upon, or transferring the right to operate the incinerator.</p> <p>Verify that the transferor submits to U.S. EPA, at least 30 days before such transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's U.S. EPA incinerator approval.</p> <p>(NOTE: Within 30 days of receiving such notification and affidavit, U.S. EPA will issue an amended approval substituting the transferee's name for the transferor's name, or U.S. EPA may require the transferee to apply for a new incinerator approval. In the latter case, the transferee must abide by the transferor's U.S. EPA approval until U.S. EPA issues the new approval to the transferee.)</p>

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.70</p> <p>High Efficiency Boilers</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.70.1. A high efficiency boiler burning mineral oil dielectric fluid containing a PCB concentration of $\geq 50\text{ ppm}$ but < 500 ppm must operate according to certain parameters (40 CFR 761.71(a)).</p>	<p>Verify that high efficiency boilers burning mineral oil dielectric fluid containing a PCB concentration of $\geq 50\text{ ppm}$, but <500 ppm meet the following criteria:</p> <ul style="list-style-type: none"> - the boiler is rated at a minimum of 50 million BTU hours - if the boiler uses natural gas or oil as the primary fuel, the CO concentration in the stack is $\leq 50\text{ ppm}$ and the excess oxygen is at least 3 percent when PCBs are being burned - if the boiler uses coal as the primary fuel, the CO concentration in the stack is $\leq 100\text{ ppm}$ and the excess oxygen is at least 3 percent when PCBs are being burned - the mineral oil dielectric fluid does not comprise more than 10 percent (on a volume basis) of the total fuel feed rate - the mineral oil dielectric fluid is not fed into the boiler unless the boiler is operating at its normal operating temperature (this prohibits feeding these fluids during either start up or shut down operations) - the owner or operator of the boiler does one of the following: <ul style="list-style-type: none"> - continuously monitors and records the carbon monoxide concentration and excess oxygen percentage in the stack gas while burning mineral oil dielectric fluid - if the boiler will burn <30,000 gal of mineral oil dielectric fluid per year, measures and records the carbon monoxide concentration and excess oxygen percentage in the stack gas at regular intervals of no longer than 60 min while burning mineral oil dielectric fluid. - the primary fuel feed rates, mineral oil dielectric fluid feed rates, and total quantities of both primary fuel and mineral oil dielectric fluid fed to the boiler are measured and recorded at regular intervals of no longer than 15 min while burning mineral oil dielectric fluid - the CO concentration and the excess oxygen percentage are checked at least once every hour that mineral oil dielectric fluid is burned. If either

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>measurement falls below the levels specified in this section, the flow of mineral oil dielectric fluid to the boiler is stopped immediately.</p> <p>Verify that 30 days before any person burns mineral oil dielectric fluid in the boiler, written notice is given to the U.S. EPA Regional Administrator for the U.S. EPA Region in which the boiler is located.</p> <p>Verify that the notice contains the following information:</p> <ul style="list-style-type: none"> - the name and address of the owner or operator of the boiler and the address of the boiler - the boiler rating in units of BTU/hour - the carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when mineral oil dielectric fluid is burned - the type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack. <p>Verify that, when burning mineral oil dielectric fluid, the boiler operates at a level of output no less than the output at which the required measurements were taken.</p> <p>Verify that any person burning mineral oil dielectric fluid in a boiler obtains the following information and retains the information for 5 yr at the boiler location</p> <ul style="list-style-type: none"> - the data which is required to be collected - the quantity of mineral oil dielectric fluid burned in the boiler each month.
<p>TT.70.2. A high efficiency boiler burning liquids other than mineral oil dielectric fluid containing a PCB concentration of ≥ 50 ppm but < 500 ppm must operate according to certain parameters (40 CFR 761.71(b)).</p>	<p>Verify that a high efficiency boiler burning liquids other than mineral oil dielectric fluid containing a PCB concentration of ≥ 50 ppm but < 500 ppm meets the following criteria:</p> <ul style="list-style-type: none"> - the boiler is rated at a minimum of 50 million BTU/hour - if the boiler uses natural gas or oil as the primary fuel, the carbon monoxide concentration in the stack is ≤ 50 ppm and the excess oxygen is at least 3 percent when PCBs are being burned - if the boiler uses coal as the primary fuel, the carbon monoxide concentration in the stack is ≤ 100 ppm and the excess oxygen is at least 3 percent when PCBs are being burned - the waste does not comprise more than 10 percent (on a volume basis) of the total fuel feed rate - the waste is not fed into the boiler unless the boiler is operating at its normal operating temperature (this prohibits feeding these fluids during either start up or shut down operations) - the owner or operator of the boiler does one of the following:

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - continuously monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack gas while burning waste fluid - if the boiler will burn <30,000 gal of waste fluid per year, measure and record the carbon monoxide concentration and excess oxygen percentage in the stack gas at regular intervals of no longer than 60 min while burning waste fluid - the primary fuel feed rate, waste fluid feed rate, and total quantities of both primary fuel and waste fluid fed to the boiler are measured and recorded at regular intervals of no longer than 15 min while burning waste fluid - the carbon monoxide concentration and the excess oxygen percentage are checked at least once every hour that the waste is burned. If either measurement falls below the specified levels, the flow of waste to the boiler is stopped immediately. <p>Verify that approval is obtained from the U.S. EPA Regional Administrator prior to burning liquids other than mineral oil dielectric fluid containing a PCB concentration of ≥ 50 ppm but < 500 ppm.</p> <p>Verify that the request for approval contains the following:</p> <ul style="list-style-type: none"> - the name and address of the owner or operator of the boiler and the address of the boiler - the boiler rating in units of BTU/hour - the carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when low concentration PCB liquid is burned - the type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack - the type of waste to be burned (e.g., hydraulic fluid, contaminated fuel oil, heat transfer fluid, etc.) - the concentration of PCBs and of any other chlorinated hydrocarbon in the waste and the results of analyses using the American Society of Testing and Materials (ASTM) methods - the quantity of wastes estimated to be burned in a 30-day period - an explanation of the procedures to be followed to ensure that burning the waste will not adversely affect the operation of the boiler such that combustion efficiency will decrease. <p>(NOTE: On the basis of the information in the request for approval, and any other available information, the U.S. EPA Regional Administrator may, at his/her discretion, find that the alternate disposal method will not present an unreasonable risk of injury to health or the environment and approve the use of the boiler.)</p> <p>Verify that, when burning PCB wastes, the boiler operates at a level of output no less than the output when it is operated in a manner similar to the manner in which</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>it will be operated when low concentration PCB liquid is burned.</p> <p>Verify that the following information is obtained and retained for 5 yr at the boiler location:</p> <ul style="list-style-type: none"> - the data required to be collected - the quantity of low concentration PCB liquid burned in the boiler each month - the analysis of the waste required once a month for each month during which low concentration PCB liquid is burned in the boiler.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.80</p> <p>Scrap Metal Recovery Ovens and Smelters</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.80.1. Scrap metal recovery ovens or smelters being used for the disposal of PCBs must meet specific requirements (40 CFR 761.72).</p>	<p>(NOTE: Any person may dispose of residual PCBs associated with PCB-Contaminated articles regulated for disposal under 40 CFR 761.60(b), metal surfaces in PCB remediation waste regulated under 40 CFR 761.61, or metal surfaces in PCB bulk product waste regulated under 40 CFR 761.62(a)(6) and 40 CFR 761.79(c)(6), from which all free-flowing liquids have been removed: in a scrap metal recovery oven or a smelter meeting the requirements specified below.)</p> <p>Verify that the scrap metal recovery oven meets the following:</p> <ul style="list-style-type: none"> - it has at least two enclosed (i.e., negative draft, no fugitive emissions) interconnected chambers - equipment with all free-flowing liquid removed is first placed in the primary chamber at room temperature - the primary chamber operates at a temperature between 537 °C and 650 °C for a minimum of 2 1/2 hours and reaches a minimum temperature of 650 °C (1,202 ° F) once during each heating cycle or batch treatment of unheated, liquid-free equipment - heated gases from the primary chamber feed directly into the secondary chamber (i.e., afterburner) which operates at a minimum temperature of 1,200 °C (2,192 °F) with at least a 3 percent excess oxygen and a retention time of 2.0 s with a minimum combustion efficiency of 99.9 percent - heating of the primary chamber does not commence until the secondary chamber has reached a temperature of 1,200 +/- 100 °C (2,192 +/- 180 °F) - continuous emissions monitors and recorders for carbon dioxide, carbon monoxide, and excess oxygen in the secondary chamber and continuous temperature recorders in the primary and secondary chambers are installed and operated while the primary and secondary chambers are in operation to assure that the two chambers are within the specified operating parameters - emissions from the secondary chamber are vented through an exhaust gas

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>stack in accordance with either of the following:</p> <ul style="list-style-type: none"> - valid state and local air regulations and permits - particulates < 0.015 grains/dscf, sulfur dioxide < 35 ppmv, nitrogen oxide < 150 ppmv, carbon monoxide < 35 ppmv, and hydrogen chloride < 35 ppmv - exhaust gas stack emissions are: particulates < 0.015 grains/dscf, sulfur dioxide < 35 ppmv, nitrogen oxide < 150 ppmv, carbon monoxide < 35 ppmv, and hydrogen chloride < 35 ppmv - a measurement of the temperature in the secondary chamber at the time the primary chamber starts heating is taken, recorded and retained at the facility for 3 yr from the date each charge is introduced into the primary chamber. <p>Verify that the smelter meets the following:</p> <ul style="list-style-type: none"> - the operating temperature of the hearth is at least 1,000 °C at the time it is charged with any PCB-Contaminated non-porous surface - each charge containing a PCB-Contaminated item is added into molten metal or a hearth at $\geq 1,000$ °C - successive charges are not introduced into the hearth in less than 15-min intervals. - the smelter operates in compliance with any applicable emissions standards in 40 CFR 60 - the smelter has an operational device which accurately measures directly or indirectly, the temperature in the hearth - takes, records and retains at the disposal facility for 3 yr from the date each charge is introduced, a reading of the temperature in the hearth at the time it is charged with a non-porous surface item. <p>Verify that scrap metal recovery ovens and smelters either have a final permit under RCRA or be operating under a valid state air emissions permit which includes a standard for PCBs.</p> <p>Verify that scrap metal recovery ovens and smelters disposing of PCBs provide notification as disposers of PCBs and otherwise comply with all applicable provisions of 40 CFR 761, Subparts J and K, as well as other applicable federal, state, and local laws and regulations.</p> <p>(NOTE: Scrap metal recovery ovens and smelters are not required to submit annual reports)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.90</p> <p>Chemical Waste Landfills</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.90.1. A chemical waste landfill used for the disposal of PCBs and PCB Items is required to receive approval and meet specific technical requirements (40 CFR 761.75(a) and 761.75(b)).</p>	<p>Verify that a chemical waste landfill used for the disposal of PCBs and PCB Items is approved by the U.S. EPA Regional Administrator.</p> <p>(NOTE: The U.S. EPA Regional Administrator may add or waive requirements different from those listed below. (See 40 CFR 761.75(c)(4).)</p> <p>Verify that chemical waste landfills used for the disposal of PCBs and PCB Items meet the following technical requirements:</p> <ul style="list-style-type: none"> - the landfill site is located in thick, relatively impermeable formations such as large-area clay pans. Where this is not possible, the soil shall have a high clay and silt content with the following parameters <ul style="list-style-type: none"> - in-place soil thickness, 4 ft or compacted soil liner thickness, 3 ft - permeability (cm/sec), equal to or less than 1×10^{-7} - percent soil passing No. 200 Sieve, >30 - liquid Limit, >30 - plasticity Index >15 - synthetic membrane liners when, in the judgment of the U.S. EPA Regional Administrator, the hydrologic or geologic conditions at the landfill require such a liner in order to provide an appropriate permeability equivalent - whenever a synthetic liner is used at a landfill site, special precautions are taken to insure that its integrity is maintained and that it is chemically compatible with PCBs - adequate soil underlining and soil cover is provided to prevent excessive stress on the liner and to prevent rupture of the liner - a liner has a minimum thickness of 30 mils - the bottom of the landfill is above the historical high groundwater table as provided below - floodplains, shorelands, and groundwater recharge areas are avoided

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - there is no hydraulic connection between the site and standing or flowing surface water - the site has monitoring wells and leachate collection - the bottom of the landfill liner system or natural in-place soil barrier is at least 50 ft from the historical high water table - if the landfill site is below the 100-year floodwater elevation, the operator provides surface water diversion dikes around the perimeter of the landfill site with a minimum height equal to 2 ft above the 100-year floodwater elevation - if the landfill site is above the 100-year floodwater elevation, the operators provide diversion structures capable of diverting all of the surface water runoff from a 24-h, 25-yr storm - the landfill site is located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping. <p>Verify that monitoring systems meet the following technical requirements:</p> <ul style="list-style-type: none"> - water sampling: <ul style="list-style-type: none"> - for all sites receiving PCBs, the ground and surface water from the disposal site area is sampled prior to commencing operations under an approval for use as baseline data - any surface watercourse designated by the U.S. EPA Regional Administrator is sampled at least monthly when the landfill is being used for disposal operations - any surface watercourse designated by the U.S. EPA Regional Administrator is sampled for a time period specified by the Regional Administrator on a frequency of no less than once every 6 mo after final closure of the disposal area - groundwater monitor wells: <ul style="list-style-type: none"> - if underlying earth materials are homogenous, impermeable, and uniformly sloping in one direction, only three sampling points are necessary. These three points are equally spaced on a line through the center of the disposal area and extending from the area of highest water table elevation to the area of the lowest water table elevation on the property - all monitor wells are cased and the annular space between the monitor zone (zone of saturation) and the surface is completely backfilled with Portland cement or an equivalent material and plugged with Portland cement to effectively prevent percolation of surface water into the well bore - the well opening at the surface has a removable cap to provide access and to prevent entrance of rainfall or stormwater runoff - the well is pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis - the discharge is treated to meet applicable state or federal discharge standards or recycled to the chemical waste landfill

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>– all samples are analyzed for the following parameters: PCBs, pH, specific conductance, and chlorinated organics.</p> <p>Verify that leachate collection systems meet the following:</p> <ul style="list-style-type: none"> – a leachate collection monitoring system is installed above the chemical waste landfill – the system is monitored monthly for quantity and physicochemical characteristics of leachate produced – the leachate is either treated to acceptable limits for discharge in accordance with a state or federal permit or disposed of by another state or federally approved method – leachate monitoring/collection system is one of the following designs: <ul style="list-style-type: none"> – a simple leachate collection consisting of a gravity flow drainfield installed above the waste disposal unit liner – a compound leachate collection consisting of a gravity flow drainfield installed above the waste disposal unit liner and above a secondary installed liner – suction lysimeters consisting of a network of porous ceramic cups connected by hoses/tubing to a vacuum pump. (NOTE: Cups and suction lysimeters must be installed along the sides and under the bottom of the waste disposal unit liner.) <p>Verify that PCBs and PCB Items are placed in a landfill in a manner that will prevent damage to containers or articles.</p> <p>Verify that other wastes placed in the landfill that are not chemically compatible with PCBs and PCB Items, including organic solvents, are segregated from the PCBs throughout the waste handling and disposal process.</p> <p>Verify that an operation plan is developed and submitted to the U.S. EPA Regional Administrator for approval.</p> <p>Verify that the plan includes detailed explanations of the procedures to be used for recordkeeping, surface water handling procedures, excavation and backfilling, waste segregation burial coordinates, vehicle and equipment movement, use of roadways, leachate collection systems, sampling and monitoring procedures, monitoring wells, environmental emergency contingency plans, and security measures to protect against vandalism and unauthorized waste placements.</p> <p>Verify that, if the facility is to be used to dispose of liquid wastes containing between 50 ppm and 500 ppm PCB, the operations plan includes procedures to determine that liquid PCBs to be disposed of at the landfill do not exceed 500 ppm PCB and measures to prevent the migration of PCBs from the landfill.</p> <p>(NOTE: Bulk liquids not exceeding 500 ppm PCBs may be disposed of provided</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>such waste is pretreated and/or stabilized (e.g., chemically fixed, evaporated, mixed with dry inert absorbant) to reduce its liquid content or increase its solid content so that a non-flowing consistency is achieved to eliminate the presence of free liquids prior to final disposal in a landfill. PCB Container of liquid PCBs with a concentration between 50 and 500 ppm PCB may be disposed of if each container is surrounded by an amount of inert sorbant material capable of absorbing all of the liquid contents of the container.)</p> <p>Verify that ignitable wastes are not disposed of in chemical waste landfills.</p> <p>(NOTE: Liquid ignitable wastes are wastes that have a flash point < 60 °C (140 °F).)</p> <p>Verify that records include information on the PCB concentration in liquid wastes and the three dimensional burial coordinates for PCBs and PCB Items.</p> <p>(NOTE: Recordkeeping requirements for landfills used for the disposal of PCBs and PCB items are listed under checklist item TT.30.5 of this document.)</p> <p>Verify that a 6 ft woven mesh fence, wall, or similar device is placed around the site to prevent unauthorized persons and animals from entering.</p> <p>Verify that roads are maintained to and within the site which are adequate to support the operation and maintenance of the site without causing safety or nuisance problems or hazardous conditions.</p> <p>Verify that the site is operated and maintained in a manner to prevent safety problems or hazardous conditions resulting from spilled liquids and windblown materials.</p> <p>(NOTE: Owners or operators of an approved chemical waste landfill must notify U.S. EPA at least 30 days before transferring ownership of the property or transferring the right to conduct the chemical waste landfill operation. The transferor must also submit to U.S. EPA at least 30 days before such a transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's U.S. EPA chemical waste landfill approval.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.100</p> <p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>Used in Research</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.100.1. The use of PCBs in research is subject to certain conditions (40 CFR 761.30(j)).</p>	<p>Verify that, if PCBs are used for research and development in a manner other than a totally enclosed manner, the following are met:</p> <ul style="list-style-type: none"> - the PCBs and PCBs in analytical reference samples derived from waste materials are obtained from authorized sources - storage of all PCB wastes resulting from R&D activities is in compliance with 40 CFR 761.65(b) (see checklist items TT.110.1 and TT.110.2) and disposed of in accordance with 40 CFR 761.64 - there is no manufacture, processing, or distribution for research and development without a TSCA Section 6(e)(3)(B) exemption to do so. <p>(NOTE: Authorized R&D activities include, but are not limited to: the chemical analysis of PCBs, including analyses to determine PCB concentration; determinations of physical properties of PCBs; studies of environmental transport processes; studies of biochemical transport processes; studies of effects of PCBs on the environments; and studies of health effects. Authorized R&D activities do not include research, development, or analysis for the development of any PCB product.)</p>
<p>TT.100.2. When conducting R&D for PCB disposal, specific conditions must be met (40 CFR 761.60(j)).</p>	<p>Verify that the following conditions are met if conducting R&D for PCB disposal without prior written approval from U.S. EPA:</p> <ul style="list-style-type: none"> - a notification is filed and U.S. EPA identification number obtained - the U.S. EPA Regional Administrator, the state environmental protection agency, and local environmental protection agency, having jurisdiction where the R&D for PCB disposal activity will occur is notified in writing at least 30 days prior to the commencement of any R&D for PCB disposal activity. - the amount of material containing PCBs treated annually by the facility

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>during R&D for PCB disposal activities does not exceed 500 gal or 70 ft³ of liquid or non-liquid PCBs and does not exceed a maximum concentration of 10,000 ppm PCBs</p> <ul style="list-style-type: none"> - no more than 1 kg total of pure PCBs per year is disposed of in all R&D for PCB disposal activities at a facility - each R&D for PCB disposal activity lasts no more than 1 calendar year - all PCB wastes (treated and untreated PCB materials, testing samples, spent laboratory samples, residuals, untreated samples, contaminated media or instrumentation, clothing, etc.) are stored in compliance with 40 CFR 761.65(b) (see checklist items TT.110.1 and TT.110.2) and disposed of according to the undiluted PCB concentration prior to treatment - use manifests for all R&D PCB wastes being transported from the R&D facility to an approved PCB storage or disposal facility. However, 40 CFR. 761.207 through 761.218 do not apply if the residuals or treated samples are returned either to the physical location where the samples were collected or a location where other regulated PCBs from the physical location where the samples were collected are being stored for disposal - package and ship all PCB wastes according to DOT requirements under 49 CFR 171 through 180 - comply with the recordkeeping requirements of 40 CFR 761.180 (see checklist items TT.30.3, TT.30.6, TT.30.7 and TT.30.13). <p>Verify that each written notification includes the U.S. EPA identification number of the site where the R&D for PCB disposal activities will be conducted, the quantity of PCBs to be treated, the type of R&D technology to be used, the general physical and chemical properties of material being treated, and an estimate of the duration of the PCB activity.</p> <p>(NOTE: The U.S. EPA Regional Administrator, the state environmental protection agency, and the local environmental protection agency may waive notification in writing prior to commencement of the research.)</p> <p>Verify that material limitations and time limitations are not exceeded without prior written approval from U.S. EPA.</p> <p>(NOTE: Requests for approval to exceed the material limitations or time limitations for PCBs in R&D for PCB disposal activities as specified in this section must be submitted in writing to the U.S. EPA Regional Administrator for the U.S. EPA Region in which the facility conducting R&D for PCB disposal activities is located. Each request shall specify the quantity or concentration requested or additional time needed for disposal and include a justification for each increase. For extensions to the duration of the R&D for PCB disposal activity, the request shall also include a report on the accomplishments and progress of the previously authorized R&D for PCB disposal activity for which the extension is sought. The U.S. EPA Regional Administrator may grant a waiver in writing for an increase in the volume of PCB material, the maximum concentration</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>of PCBs, the total amount of pure PCBs, or the duration of the R&D activity. Approvals will state all requirements applicable to the R&D for PCB disposal activity.)</p> <p>(NOTE: The U.S. EPA Regional Administrator for the U.S. EPA Region in which an R&D for PCB disposal activity is conducted may determine, at any time, that an R&D PCB disposal approval is required to ensure that any R&D for PCB disposal activity does not present an unreasonable risk of injury to health or the environment.)</p>

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.110</p> <p>Storage</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.110.1. PCB waste, PCBs and PCB Items at concentrations of 50 ppm or more that are to be stored before disposal must be stored in a facility meeting specific structural requirements (40 CFR 761.65(a) through 761.65(b)(1)).</p>	<p>Verify that the following provisions are present by inspecting the PCB storage area:</p> <ul style="list-style-type: none"> – the roof and walls of the building in which the PCBs are stored are constructed so as to exclude rainfall from contacting PCBs and PCB items – an adequate floor that has continuous curbing with a minimum 6 in high curb. The curbing will provide a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container or 25% of the total internal volume of all PCB Articles or PCB Containers stored there, whichever is greater – drains, valves, floor drains, expansion joints, sewer lines or other openings that would allow liquids to flow from the curbed area are not present – floors and curbing are constructed of Portland cement, concrete, or a continuous, smooth, nonporous surface that prevents or minimizes penetration of the PCBs – location is not below a 100-yr flood water elevation – the storage area is marked with the label in Appendix A of this document. <p>Verify that PCB waste is removed from storage within 9 mo and disposed of within 1 yr from the date it was determined to be PCB waste and the decision was made to dispose of it.</p> <p>(NOTE: This date is the date of removal from service for disposal and the point at which the 1-yr time frame for disposal begins.)</p> <p>(NOTE: Any person storing PCB waste that is subject to the 1-yr time limit may provide written notification to the U.S. EPA Regional Administrator for the U.S. EPA Region in which the PCB waste is stored that their continuing attempts to dispose of or secure disposal for their waste within the 1-yr time limit have been</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>unsuccessful. Upon receipt of the notice by the U.S. EPA Regional Administrator, the time for disposal is automatically extended for 1 additional year (2 years total) if the following conditions are met:</p> <ul style="list-style-type: none"> - the notification is received by the U.S. EPA Regional Administrator at least 30 days before the initial 1-yr time limit expires and the notice identifies the storer, the types, volumes, and locations of the waste and the reasons for failure to meet the initial 1-yr time limit - a written record documenting all continuing attempts to secure disposal is maintained until the waste is disposed of - the written record required is available for inspection or submission if requested by U.S. EPA - continuing attempts to secure disposal were initiated within 270 days after the time the waste was first subject to the 1-yr time limit requirement. <p>Failure to initiate and continue attempts to secure disposal throughout the total time the waste is in storage automatically disqualifies the notifier from receiving an automatic extension under this section.)</p> <p>Verify that, except as listed, any PCB Article with PCB concentration \geq 50 ppm is stored in accordance with 40 CFR 761.65 (see checklist items TT.30.10 through TT.30.13, TT.110.1 through TT.110.6, and TT.110.9) prior to disposal:</p> <ul style="list-style-type: none"> - PCB Small Capacitors - hydraulic machines that comply with municipal solid waste disposal provisions.
<p>TT.110.2. PCBs and PCB Items may also be stored in other areas that do not comply with the storage area requirements when specific parameters are met (40 CFR 761.65(b)(2) and 761.65(c)(1)).</p>	<p>Verify that, if PCBs and PCB Items designated for disposal are stored in a storage unit that is not approved and does not meet design requirements, the unit meets one of the following conditions:</p> <ul style="list-style-type: none"> - it is permitted under Section 3004 of RCRA to manage hazardous waste in containers and spills of PCBs are properly cleaned up - it qualifies for interim status under section 3005 of RCRA to manage hazardous waste in containers, meets the requirements for containment at 40 CFR. 264.175, and spills of PCBs are properly cleaned up - it is permitted by a state authorized under section 3006 of RCRA to manage hazardous waste in containers, and spills of PCBs are properly cleaned up - it is approved or otherwise regulated pursuant to a state PCB waste management program no less stringent in protection of health or the environment than the applicable TSCA requirements - it is subject to a TSCA Coordinated Approval that includes provisions for storage of PCBs - it has a TSCA PCB waste management approval that includes provisions for storage.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that only the following PCB Items are stored and a notation is attached to the PCB Item or Container indicating the date the item was removed from service for storage in noncompliant storage areas used as a temporary 30-day storage area:</p> <ul style="list-style-type: none"> – nonleaking PCB Articles and PCB Equipment – leaking PCB Articles and PCB Equipment placed in a nonleaking PCB Container that contains sufficient sorbent material to absorb liquid contained on the PCB Article or equipment – PCB Containers in which nonliquid PCBs have been placed – PCB Containers containing liquid PCBs at a concentration ≥ 50 provided a Spill, Prevention, Control, and Countermeasure (SPCC) (40 CFR 112) plan has been prepared for the temporary storage area and the liquid PCB waste is in DOT authorized packaging or stationary bulk storage tanks.
<p>TT.110.3. Nonleaking and structurally undamaged PCB Large, High-Voltage Capacitors and PCB-contaminated Electric Equipment that have not been drained of free flowing dielectric fluid may be stored on pallets next to a storage area that complies with the storage area requirements (40 CFR 761.65(c)(2)).</p>	<p>Determine if available unfilled storage space in the storage area is equal to at least 10 percent of the volume of capacitors and electrical equipment stored outside.</p> <p>Verify that capacitors and equipment stored outside the storage facility are on pallets and inspected at least weekly.</p>
<p>TT.110.4. Specific operational procedures are required at PCB storage units (40 CFR 761.65(c)(4), 761.65(c)(5), and 761.65(c)(8)).</p>	<p>Verify that the following practices are conducted at any area where PCBs or PCB Items are stored:</p> <ul style="list-style-type: none"> – movable equipment used for handling PCBs and PCB Items that directly contact PCBs is not removed from storage unit unless decontaminated – inspections for leaks of all PCB Items in storage are done at least once every 30 days – any leaking PCB Items and their contents are immediately transferred to properly marked non-leaking containers and the spilled or leaked materials are immediately cleaned up and any spill absorbent material properly disposed – PCB Items are marked with the date when they are removed from service for disposal – PCB Items are positioned so that they can be located by the marked date – stationary storage containers for liquid PCBs have a record that includes quantity and date of each batch added to the container or removed from the

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>container</p> <p>– comply with the recordkeeping requirements of 40 CFR 761.180(a) and (b) (see checklist items TT.30.10 through 30.13).</p>
<p>TT.110.5. Containers used for the storage of PCBs must comply with the shipping container specification of the DOT (40 CFR 761.65(c)(6) and 761.65(c)(7)).</p>	<p>Verify that any container used for the storage of liquid or non-liquid PCB waste is in accordance with the requirements in the DOT Hazardous Materials Regulations (HMR) at 49 CFR 171 through 180.</p> <p>Verify that PCB wastes not subject to the HMR (i.e., PCB wastes at concentrations of <20 ppm or <1 lb of PCBs regardless of concentration) are packaged in accordance with Packaging Group III, unless other hazards associated with the PCB waste cause it to require packaging in accordance with Packaging Groups I or II.</p> <p>(NOTE: For purposes of describing PCB waste not subject to DOT's HMR on a manifest, one may use the term "Non-DOT Regulated PCBs.")</p> <p>(NOTE: The following DOT-specified containers that conform to the requirements of 49 CFR, chapter I, subchapter C in effect on September 30, 1991, may be used for storage and transportation activities that are not subject to DOT regulation, and may be used on a transitional basis as permitted at 49 CFR 171.14. For liquid PCBs: Specification 5 container without removable head, Specification 5B container without removable head, Specification 6D overpack with Specification 2S or 2SL polyethylene containers, or Specification 17E container. For non-liquid PCBs: Specification 5 container, Specification 5B container, or Specification 17C container.)</p> <p>(NOTE: Stationary storage containers for liquid PCBs can be larger than those specified in DOT Specs 5, 5B, or 17C may be used for nonliquid PCBs when such containers will provide as much protection against leaking and exposure to the environment as the DOT-specified containers.)</p> <p>Verify that, if containers larger than DOT approved containers are used, an SPCC plan covering the containers storing PCBs has been prepared.</p> <p>(NOTE: See checklist item TT.110.10 and TT.150.18 for details on the storage of radioactive PCB waste.)</p>
<p>TT.110.6. Commercial storers of PCB Waste must have final storage approval (40 CFR 761.65(d)).</p>	<p>Verify that the commercial storer has final storage approval from the U.S. EPA regional administrator for PCB waste.</p> <p>(NOTE: Commercial storers were required to file for final storage approval by August 2, 1990. After filing for final approval, they will operate under interim approval until the a final decision is made on approval. Some facilities are still</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>under interim approval.)</p> <p>(NOTE: The following storage facilities may be exempt from this requirements for storage approval:</p> <ul style="list-style-type: none"> - storage areas at transfer facilities unless the PCB waste is stored at the transfer facility for more than 10 consecutive days between destinations - storage areas at RCRA-permitted facilities if the facility proves to the regional administrator that the facility's existing RCRA closure plan substantially meets the requirements for a TSCA closure plan - storage areas ancillary to a TSCA approved disposal facility if the disposal approval contain an expiration date and the current disposal approval's closure and financial responsibility conditions specifically extend to storage areas ancillary to disposal - storage areas where the storer is storing his/her own waste (i.e., not commercial storage.)
<p>TT.110.7. PCB Articles may be stored for reuse if specific parameters are met (40 CFR 761.35)</p>	<p>Verify that PCB Articles are not stored for reuse in an area that is not designed, constructed, and operated in compliance with 40 CFR 761.65(b) (see checklist items TT.110.1 and TT.110.2) for more than 5 yr after the date the Article was originally removed from use or 5 yr after August 28, 1998, whichever is later.</p> <p>Verify that, when storing PCB Articles for reuse in a noncompliant area, the following are met:</p> <ul style="list-style-type: none"> - all applicable use and marking requirements are met - records including the following are kept, starting at the time the PCB Article is removed from use or August 28, 1998: <ul style="list-style-type: none"> - the date of removal or August 28, 1998, if the removal date is not known - projected location and future use of the Article - the date the PCB Article is scheduled for repair, if applicable. <p>(NOTE: Storage for reuse may be done in a noncompliant area for more than 5 yr if written approval has been received from the U.S. EPA Regional Administrator.)</p> <p>(NOTE: A PCB Article may be stored for reuse indefinitely in:</p> <ul style="list-style-type: none"> - a unit in compliance with 40 CFR 761.65(b) (see checklist items TT.110.1 and TT.110.2) - a unit permitted to manage hazardous waste containers either under Section 3004 or 3006 of RCRA.)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
TT.110.8. PCB household waste must be stored according to specific parameters (40 CFR 761.63).	Verify that PCB household waste stored in a unit regulated for storage of PCB waste is not commingled with PCB waste.
TT.110.9. The storage of bulk PCB remediation waste or PCB bulk product waste must meet certain requirements (40 CFR 761.65(c)(9)).	<p>Verify that Bulk PCB remediation waste or PCB bulk product waste is not stored at the clean-up site or site of generation for more than 180 days.</p> <p>Verify that the following conditions are met when stored at the clean-up site or site of operation for less than 180 days.:</p> <ul style="list-style-type: none"> - the waste is placed in a pile designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting - the waste does not generate leachate through decomposition or other reactions - the storage site has a liner that meets all of the following requirements: <ul style="list-style-type: none"> - is designed, constructed, and installed to prevent any migration of wastes off or through the liner into the adjacent subsurface soil, groundwater, or surface water at any time during the active life (including the closure period) of the storage site - is constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation - is placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift - is installed to cover all surrounding earth likely to be in contact with the waste - has an appropriate cover that covers all of the stored waste likely to be contacted by precipitation, and is secured so as not to be functionally disabled by winds expected under normal seasonal meteorological conditions at the storage site - has a run-on control system designed, constructed, operated, and maintained such that: <ul style="list-style-type: none"> - it prevents flow onto the stored waste during peak discharge from at least a 25-yr storm - it collects and controls at least the water volume resulting from a 24-h, 25-yr storm. <p>Verify that collection and holding facilities (e.g., tanks or basins) are emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.110.10. The storage of PCB/Radioactive waste \geq 50 ppm must take both the PCB concentration and radioactive properties into account (40 CFR 761.50(b)(7)(i))</p>	<p>Verify that the storage of PCB/Radioactive waste \geq 50 ppm takes both the PCB concentration and radioactive properties into account.</p> <p>Verify that disposal occurs within 1-year from the date it was determined to be PCB waste and the decision was made to dispose of it.</p> <p>(NOTE: This date is the date of removal from service for disposal and the point at which the 1-year time frame for disposal begins. PCB/radioactive waste removed from service for disposal is exempt from the 1-year time limit if the following are met and the waste is managed in accordance with all other applicable federal, state, and local laws and regulations for the management of radioactive material:</p> <ul style="list-style-type: none"> - a written record documenting all continuing attempts to secure disposal is maintained until the waste is disposed of - the written record is available for inspection or submission if requested by U.S. EPA. <p>Verify that there is an adequate floor that has continuous curbing with a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container or 25% of the total internal volume of all PCB Articles or PCB Containers stored there, whichever is greater.</p> <p>Verify that, if containers other than those meeting HMR performance standards are used for storage of PCB/radioactive waste, the following requirements are met:</p> <ul style="list-style-type: none"> - containers are non-leaking - containers are designed to prevent the buildup of liquids if such containers are stored in an area meeting containment requirements as well as all other applicable state or federal regulations or requirements for control of radioactive materials - containers meet all regulations and requirements pertaining to nuclear criticality safety. <p>(NOTE: Acceptable container materials currently include polyethylene and stainless steel provided that the container material is chemically compatible with the wastes being stored. Other containers may be used to store both liquid and non-liquid PCB/radioactive wastes if the users are able to demonstrate, to the U.S. EPA Regional Administrator and other appropriate regulatory authorities (i.e., Nuclear Regulatory Commission, Department of Energy or the Department of Transportation), that the use of such containers is protective of health and the environment as well as public health and safety.)</p>

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.120</p> <p>Spills and Cleanup</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.120.1. Certain spills of PCBs are required to be reported (40 CFR 761.50(a)(4), 761.120(a)(1), and 761.125(a)(1)).</p>	<p>(NOTE: Spills and other uncontrolled discharges of PCBs at concentrations of $\geq 50\text{ ppm}$ constitute the disposal of PCBs.)</p> <p>Verify that the following reporting is done for all spills in excess of 50 ppm in addition to the reporting required under the CWA or CERCLA:</p> <ul style="list-style-type: none"> – where a spill directly contaminates surface water, sewers, or drinking water supplies, notify the appropriate U.S. EPA Regional office and obtain guidance for appropriate cleanup measures in the shortest possible time after discovery, but not later than 24 h after discovery – where a spill directly contaminates grazing lands or vegetable gardens, notify the appropriate U.S. EPA Regional office and proceed with the immediate cleanup requirements in 40 CFR 761.125(b) and 761.125(c) (see checklist items TT.30.2, TT.120.2, and TT.120.3) depending on the source of the spill, in the shortest possible time after discovery, but not later than 24 h after discovery – when a spill is > 10 lb PCBs by weight and does not directly contaminate surface water, sewers, drinking water supplies, grazing lands, or vegetable gardens, notify the appropriate U.S. EPA Regional office and proceed to decontaminate the area according to TSCA policy in the shortest possible time after discovery, but not later than 24 h after discovery. <p>(NOTE: When a spill is < 10 lb PCBs by weight and does not directly contaminate surface water, sewers, drinking water supplies, grazing lands, or vegetable gardens, U.S. EPA notification is not required. But, appropriate cleanup must occur.)</p> <p>(NOTE: Certain records must be kept in relation to PCB cleanup (see checklist item TT.30.2 in this document).)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(NOTE: Under the CWA, all spills 1 lb or more by weight of PCBs must be reported to the NRC.)</p> <p>(NOTE: The U.S. EPA has developed a Spill Cleanup Policy (see 40 CFR 761, Subpart G) which establishes criteria EPA will use to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater which occur after May 4, 1987. The Spill Cleanup Policy does not apply to spills prior to May 4, 1987 because:</p> <ul style="list-style-type: none"> - for old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill according to the requirements imposed by U.S. EPA Regional Offices. It is also not intended to interfere with ongoing litigation or enforcement action which bring into issue PCB spill cleanups. The Spill Cleanup Policy may <u>not</u> be used to clean up an old spill and may only be used if cleanup begins within 24 to 48 hours after the discovery of a fresh spill - U.S. EPA recognizes that more recently discovered old spills will require site-by-site evaluation.)
<p>TT.120.2. Cleanup of low concentration spills of < 1 lb of PCBs (< 270 gal of untested mineral oil) must be done according to specific requirements (40 CFR 761.50(a)(4), 761.120(a)(1), 761.120(a)(2), 761.120(b) through 761.120(d), 761.125(a)(2), 761.125(a)(3), 761.125(b)(1), and 761.125(b)(2)).</p>	<p>(NOTE: Spills and other uncontrolled discharges of PCBs at concentrations of \geq 50 ppm constitute the disposal of PCBs.)</p> <p>(NOTE: The U.S. EPA has developed a Spill Cleanup Policy (see 40 CFR 761, Subpart G) which establishes criteria EPA will use to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater which occur after May 4, 1987. The Spill Cleanup Policy does not apply to spills prior to May 4, 1987 because:</p> <ul style="list-style-type: none"> - for old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill according to the requirements imposed by U.S. EPA Regional Offices. It is also not intended to interfere with ongoing litigation or enforcement action which bring into issue PCB spill cleanups. The Spill Cleanup Policy may <u>not</u> be used to clean up an old spill and may only be used if cleanup begins within 24 to 48 hours after the discovery of a fresh spill - U.S. EPA recognizes that more recently discovered old spills will require site-by-site evaluation.) <p>Verify that, when there is evidence of a leak or spill, but no visible traces, the boundaries of the spill are determined by using statistically based sampling scheme.</p> <p>Verify that solid surfaces are double washed/rinsed and all indoor, residential surfaces other than vault areas are cleaned to 10 $\mu\text{g}/100 \text{ cm}^2$ by standard commercial wipe tests.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that all soil within the spill area (visible traces of soil and buffer of 1 lateral ft around the visible traces) is excavated and the ground restored to its original status by backfilling with clean soil (soil with < 1 ppm PCBs).</p> <p>Verify that all concentrated soils, solvents, rags, and other materials resulting from the cleanup of PCBs are properly stored, labeled and disposed of in accordance with 40 CFR 761.50 through 761.79 (see checklist items TT.110 and TT.150).</p> <p>(NOTE: Completion of a cleanup may be delayed beyond 48 h in cases of circumstances including, but not limited to: civil emergency, adverse weather conditions, lack of access to the site, and emergency operating conditions. The occurrence/discovery of the spill on the weekend or overtime costs are not considered acceptable reasons to delay response. Cleanup may only be delayed for the duration of the adverse condition.)</p> <p>(NOTE: The final numerical cleanup standards do not apply to spills directly into surface waters, drinking water, sewers, sewage treatment systems, grazing lands, and vegetable gardens.)</p> <p>(NOTE: The U.S. EPA may impose more stringent or less stringent cleanup requirements on a case by case basis depending on conditions such as possibility of ground water contamination.)</p>
<p>TT.120.3. Cleanup of high-concentration spills and low concentration spills involving 1 lb or more of PCBs by weight (270 gal or more of untested mineral oil) must be done according to specific requirements (40 CFR 761.50(a)(4), 761.120(a)(1), 761.120(a)(2), 761.120(b) through 761.120(d), 761.125(a)(2), 761.125(a)(3), and 761.125(c)(1) through 761.125(c)(4)).</p>	<p>(NOTE: Spills and other uncontrolled discharges of PCBs at concentrations of \geq 50 ppm constitute the disposal of PCBs.)</p> <p>(NOTE: The U.S. EPA has developed a Spill Cleanup Policy (see 40 CFR 761, Subpart G) which establishes criteria EPA will use to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater which occur after May 4, 1987. The Spill Cleanup Policy does not apply to spills prior to May 4, 1987 because:</p> <ul style="list-style-type: none"> – for old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill according to the requirements imposed by U.S. EPA Regional Offices. It is also not intended to interfere with ongoing litigation or enforcement action which bring into issue PCB spill cleanups. The Spill Cleanup Policy may <u>not</u> be used to clean up an old spill and may only be used if cleanup begins within 24 to 48 hours after the discovery of a fresh spill – U.S. EPA recognizes that more recently discovered old spills will require site-by-site evaluation.) <p>Verify that, when there is evidence of a leak or spill, but no visible traces, the boundaries of the spill are determined by using statistically based sampling scheme.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that the following actions are taken within 24 h (or within 48 h for PCB Transformer with PCB concentrations of > 500 ppm) of discovery of the spill:</p> <ul style="list-style-type: none"> – notification of the U.S. EPA regional office and the NRC – the area of the spill is cordoned off or otherwise identified to include the area with visible traces of the spill and a 3 ft buffer zone – clearly visible signs are placed advising persons to avoid the area – the area of visible contamination is recorded and documented, identifying the extent and center of the spill – cleanup of visible traces of the fluid from hard surfaces is initiated – initiate removal of all visible traces of the spill on soil and other media such as gravel, sand, etc., is started – estimate and cordon off the area of suspect contamination if there has been a delay in reaching the site and there are insufficient traces of visible PCBs remaining. <p>Verify that, if the spill occurs in an outdoor substation:</p> <ul style="list-style-type: none"> – contaminated solid surfaces, impervious and non-impervious, are cleaned to a PCB concentration of 100 µg/cm² (as measured by standard wipe tests) – soil contaminated by the spill is cleaned to either 25 ppm PCBs by weight or 50 ppm PCBs by choice of the facility if a label to notice is placed in the area indicating the level of cleanup. <p>(NOTE: At such times as outdoor electrical substations are converted to another use, the spill site will be cleaned up to the nonrestricted access requirements.)</p> <p>Verify that, if the spill occurs in a restricted access area other than an outdoor substation:</p> <ul style="list-style-type: none"> – high-contact solid surfaces are cleaned to 10 µg/100 cm² (as measured by standard wipe tests) – low-contact, indoor, impervious solid surfaces are decontaminated to 10 µg/100 cm² – low contact, indoor, nonimpervious surfaces are cleaned to either 10 µg or 100 µg/100 cm² and encapsulated at the option of the facility – low-contact, outdoor surfaces (both impervious and nonimpervious) are cleaned to 100 µg/100 cm² – soil contaminated by the spill is cleaned to 25 ppm PCBs by weight – post-cleanup sampling is done. <p>(NOTE: At such times as restricted access areas other than outdoor electrical substations are converted to another use, the spill site will be cleaned up to the nonrestricted access area requirements.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that spills in nonrestricted access locations are decontaminated as follows:</p> <ul style="list-style-type: none"> – furnishings, toys, and other easily replaceable household items are disposed of and replaced – indoor solid surfaces and high-contact outdoor solid surfaces are cleaned to 10 µg/100 cm² (as measured by standard wipe tests) – indoor vault areas and low-contact, outdoor, impervious solid surfaces are decontaminated to 10 µg/100 cm² – at the option of the facility, low-contact, outdoor, nonimpervious solid surfaces are cleaned to either 10 or 100 µg/100 cm² and encapsulated – soil is decontaminated to 10 ppm PCBs by weight provided that the soil is excavated to a minimum depth of 10 in. and replaced with clean soil – post-cleanup sampling is done. <p>Verify that all concentrated soils, solvents, rags, and other materials resulting from the cleanup of PCBs are properly stored, labeled and disposed of in accordance with 40 CFR 761.50 through 761.79 (see checklist items TT.110 and TT.150).</p> <p>(NOTE: Completion of a cleanup may be delayed beyond 48 h in cases of circumstances including, but not limited to: civil emergency, adverse weather conditions, lack of access to the site, and emergency operating conditions. The occurrence/discovery of the spill on the weekend or overtime costs are not considered acceptable reasons to delay response. Cleanup may only be delayed for the duration of the adverse condition.)</p> <p>(NOTE: The final numerical cleanup standards do not apply to spills directly into surface waters, drinking water, sewers, sewage treatment systems, grazing lands, and vegetable gardens.)</p> <p>(NOTE: The U.S. EPA may impose more stringent or less stringent cleanup requirements on a case by case basis depending on conditions such as possibility of ground water contamination.)</p>
<p>TT.120.4. Postcleanup sampling is required in specific circumstances (40 CFR 761.120(a)(1) and 761.130).</p>	<p>Verify that postcleanup sampling is done after cleanup of high-concentration spills and low concentration spills involving 1 lb or more of PCBs by weight (270 gal or more of untested mineral oil) at the following:</p> <ul style="list-style-type: none"> – outdoor electrical substations – other restricted access areas – nonrestricted access areas. <p>(NOTE: The responsible party may use any statistically valid, reproducible, sampling scheme (either random samples or grid samples) provided that the requirements outlined here are satisfied.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that the sampling area is the greater of:</p> <ul style="list-style-type: none"> – an area equal to the area cleaned plus an additional 1-ft boundary – an area 20 percent larger than the original area of contamination. <p>Verify that the sampling scheme ensures 95 percent confidence against false positives.</p> <p>Verify that the number of samples is sufficient to ensure that areas of contamination of a radius of 2 ft or more within the sampling area will be detected, except that the minimum number of samples is 3 and the maximum number of samples is 40.</p> <p>Verify that the sampling scheme includes calculation for expected variability due to analytical error.</p> <p>(NOTE: U.S. EPA recommends the use of a sampling scheme developed by the Midwest Research Institute (MRI) for use in U.S. EPA enforcement inspections: “Verification of PCB Spill Cleanup by Sampling and Analysis.” Guidance for the use of this sampling scheme is available in the MRI report “Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup.” Both the MRI sampling scheme and the guidance document are available from the Director, Environmental Assistance Division (7408), Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency, Room E-543B, 401 M St., SW., Washington, DC, 20460, Telephone: (202) 554-1404, TDD: (202) 544-0551. The major advantage of this sampling scheme is that it is designed to characterize the degree of contamination within the entire sampling area with a high degree of confidence while using fewer samples than any other grid or random sampling scheme. This sampling scheme also allows some sites to be characterized on the basis of composite samples.)</p> <p>(NOTE: U.S. EPA may, at its discretion, take samples from any spill site. If U.S. EPA’s sampling indicates that the remaining concentration level exceeds the required level, U.S. EPA will require further cleanup.)</p> <p>(NOTE: The U.S. EPA has developed a Spill Cleanup Policy (see 40 CFR 761, Subpart G) which establishes criteria EPA will use to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater which occur after May 4, 1987. The Spill Cleanup Policy does not apply to spills prior to May 4, 1987 because:</p> <ul style="list-style-type: none"> – for old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill according to the requirements imposed by U.S. EPA Regional Offices. It is also not intended to interfere with ongoing litigation or enforcement action which bring into issue PCB spill cleanups. The Spill Cleanup Policy may <u>not</u> be used to clean up an old spill and may only be used if cleanup begins within 24 to 48 hours after the discovery of a fresh spill

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>– U.S. EPA recognizes that more recently discovered old spills will require site-by-site evaluation.)</p>
<p>TT.120.5. The collection and analyzing of samples to verify the cleanup and onsite disposal of PCB waste must be done according to specific parameters (40 CFR 761.61(a)(6)).</p>	<p>Verify that any person collecting and analyzing samples to verify the cleanup and onsite disposal of bulk PCB remediation wastes and porous surfaces do so in accordance with Subpart O of 40 CFR 761.</p> <p>Verify that any person collecting and analyzing samples from non-porous surfaces does so in accordance with 40 CFR 761, Subpart P.</p> <p>Verify that any person collecting and analyzing samples from liquids does so in accordance with 40 CFR 761.269.</p> <p>(NOTE: Any person conducting interim sampling during PCB remediation waste cleanup to determine when to sample to verify that cleanup is complete, may use PCB field screening tests.)</p> <p>(NOTE: Where sample analysis results in a measurement of PCBs less than or equal to the levels specified in Appendix C of this document, self-implementing cleanup is complete.)</p>
<p>TT.120.6. Caps for PCB cleanup sites are required to meet specific requirements (40 CFR 761.61(a)(7) and 761.61(a)(8)).</p>	<p>(NOTE: A cap means, when referring to onsite cleanup and disposal of PCB remediation waste, a uniform placement of concrete, asphalt, or similar material of minimum thickness spread over the area where remediation waste was removed or left in place in order to prevent or minimize human exposure, infiltration of water, and erosion.)</p> <p>Verify that any cap is designed and constructed in accordance with 40 CFR 264.310(a), and complies with the permeability, sieve, liquid limit, and plasticity index parameters in 40 CFR 761.75(b)(1)(ii) through (b)(1)(v).</p> <p>Verify that a cap of compacted soil has a minimum thickness of 25 cm (10 in).</p> <p>Verify that a concrete or asphalt cap has a minimum thickness of 15 cm (6 in).</p> <p>Verify that the cap is of sufficient strength to maintain its effectiveness and integrity during the use of the cap surface which is exposed to the environment.</p> <p>Verify that a cap is not contaminated at a level \geq 1 ppm PCB per Aroclor™ (or equivalent) or per congener.</p> <p>Verify that repairs begin within 72 h of discovery for any breaches which would impair the integrity of the cap.</p> <p>Verify that, when there is a fence or cap, the fence or cap is maintained in</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs), ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>perpetuity.</p> <p>Verify that, whenever a cap, or the procedures and requirements for a low occupancy area, are used, the owner of the site meets the following conditions:</p> <ul style="list-style-type: none"> - within 60 days of completion of a cleanup activity, the owner of the property records, in accordance with state law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property: <ul style="list-style-type: none"> - that the land has been used for PCB remediation waste disposal and is restricted to use as a low occupancy area - of the existence of the fence or cap and the requirement to maintain the fence or cap - the applicable cleanup levels left at the site, inside the fence, and/or under the cap - within 60 days of completion of a cleanup activity, the owner of the property submits a certification to the U.S. EPA Regional Administrator, signed by the owner, that he/she has recorded the required notation. <p>(NOTE: The owner of a site being cleaned up may remove a fence or cap after conducting additional cleanup activities and achieving cleanup levels which do not require a cap or fence. The owner may remove the notice on the deed no earlier than 30 days after achieving the cleanup levels which do not require a fence or cap.)</p>
<p>TT.120.7. PCBs resulting from the cleanup and removal of spills, leaks, or other uncontrolled discharges, must meet specific storage and disposal requirements (40 CFR 761.60(d)).</p>	<p>Verify that PCBs resulting from the cleanup and removal of spills, leaks, or other uncontrolled discharges, are stored and disposed of in accordance with 40 CFR 761.60(a) (see checklist items TT.130.2, TT.150.2, TT.150.3, TT.150.14, and TT.150.15).</p> <p>(NOTE: These regulations do not exempt any person from any actions or liability under other statutory authorities, including but not limited to the CWA, RCRA, and CERCLA of 1980.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.130</p> <p>Remediation Waste</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.130.1. PCB remediation wastes cleanup and disposal must be managed according to specific provisions (40 CFR 761.50(b)(3) and 761.61(a)(1) through 761.61(a)(5)).</p>	<p>(NOTE: PCB remediation waste includes PCB sewage sludge.)</p> <p>Verify that, for the following, the waste is disposed of in accordance with 40 CFR 761.61 such that an unreasonable risk of injury no longer exists at the direction of the U.S. EPA Regional Administrator:</p> <ul style="list-style-type: none"> – PCB waste at as-found concentrations $\geq 50\text{ ppm}$ placed in a land disposal facility, spilled, or otherwise released into the environment prior to April 18, 1978, regardless of the concentration of the spill or release – a spill or release which $\geq 50\text{ ppm}$ but < 500 ppm placed in a land disposal facility, otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979. <p>(NOTE: Unless directed by the U.S. EPA Regional Administrator to dispose of PCB waste in accordance with the above, any person responsible for PCB waste at as-found concentrations $\geq 50\text{ ppm}$ that was either placed in a land disposal facility, spilled, or otherwise released into the environment prior to April 18, 1978, regardless of the concentration of the spill or release; or placed in a land disposal facility, spilled, or otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979, where the concentration of the spill or release was $\geq 50\text{ ppm}$ but < 500 ppm, who unilaterally decides to dispose of that waste (for example, to obtain insurance or to sell the property), is not required to clean up in accordance with 40 CFR 761.61.)</p> <p>(NOTE: Unless directed by the U.S. EPA Regional Administrator to dispose of PCB remediation waste, any person responsible for PCB remediation waste placed in a land disposal facility, spilled, or otherwise released into the environment prior to April 18, 1978, who unilaterally decides to dispose of that waste (for example, to obtain insurance or to sell the property), is not required to cleanup in accordance</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>with 40 CFR 761.61. Disposal of the PCB remediation waste must comply with 40 CFR 761.61. However, cleanup of those wastes that is not in complete compliance with 40 CFR 761.61 will not afford the responsible party with relief from the applicable PCB regulations for that waste.)</p> <p>Verify that any person responsible for PCB waste at as-found concentrations \geq 50 ppm that was either placed in a land disposal facility, spilled, or otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979, where the concentration of the spill or release was \geq 500 ppm; or placed in a land disposal facility, spilled, or otherwise released into the environment on or after July 2, 1979, where the concentration of the spill or release was \geq 50 ppm, disposes of it in accordance with either of the following:</p> <ul style="list-style-type: none"> – in accordance with the PCB Spill Cleanup Policy (40 CFR 761, Subpart G) for those PCB remediation wastes that meet the criteria of the Policy – in accordance with 40 CFR 761.61. <p>(NOTE: Complete compliance with 40 CFR 761.61 does not create a presumption against enforcement action for penalties for any unauthorized PCB disposal.)</p> <p>(NOTE: The owner or operator of a site containing PCB remediation waste has the burden of proving the date that the waste was placed in a land disposal facility, spilled, or otherwise released into the environment, and the concentration of the original spill.)</p> <p>Verify that self-implementing onsite cleanup and disposal of PCB remediation waste is only used for a general, moderately-sized site where there should be low residual environmental impact from remedial activities and is not used to clean up the following:</p> <ul style="list-style-type: none"> – surface or ground waters – sediments in marine and freshwater ecosystems – sewers or sewage treatment systems – any private or public drinking water sources or distribution systems – grazing lands – vegetable gardens. <p>(NOTE: The self-implementing cleanup provisions shall not be binding upon cleanups conducted under other authorities, including but not limited to, actions conducted under section 104 or section 106 of CERCLA, or section 3004(u) and (v) or section 3008(h) of RCRA.)</p> <p>Verify that, when conducting self-implementing cleanup of PCB remediation waste, the site is adequately characterized to be able to provide the required notification information.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(NOTE: Subpart N of 40 CFR 761 provides a method for collecting new site characterization data or for assessing the sufficiency of existing site characterization data.)</p> <p>Verify that at least 30 days prior to the date that the self-implementing cleanup of a site begins, the person in charge of the cleanup or the owner of the property where the PCB remediation waste is located notifies, in writing, the U.S. EPA Regional Administrator, the director of the state or tribal environmental protection agency, and the director of the county or local environmental protection agency where the cleanup will be conducted.</p> <p>Verify that the self-implementing cleanup notice includes:</p> <ul style="list-style-type: none"> – the nature of the contamination, including kinds of materials contaminated – a summary of the procedures used to sample contaminated and adjacent areas and a table or cleanup site map showing PCB concentrations measured in all pre-cleanup characterization samples – the location and extent of the identified contaminated area, including topographic maps with sample collection sites cross referenced to the sample identification numbers in the data summary – a cleanup plan for the site, including schedule, disposal technology, and approach – a written certification, signed by the owner of the property where the cleanup site is located and the party conducting the cleanup, that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the location designated in the certificate, and are available for U.S. EPA inspection – when applicable, a statement that alternate methods for chemical extraction and chemical analysis for site characterization will be used and that a comparison study which meets or exceeds the requirements of Subpart Q of 40 CFR 761, and for which records are on file, has been completed prior to verification sampling. <p>(NOTE: Within 30 calendar days of receiving the notification, the U.S. EPA Regional Administrator will respond in writing approving of the self-implementing cleanup, disapproving of the self-implementing cleanup, or requiring additional information. If the U.S. EPA Regional Administrator does not respond within 30 calendar days of receiving the notice, the person submitting the notification may assume that it is complete and proceed with the cleanup according to the information the person provided to the U.S. EPA Regional Administrator.)</p> <p>Verify that once the self-implementing cleanup is underway, the person conducting the cleanup provides any proposed changes from the notification to the U.S. EPA Regional Administrator in writing no less than 14 calendar days prior to the</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>proposed implementation of the change.</p> <p>(NOTE: The U.S. EPA Regional Administrator will determine in his or her discretion whether to accept the change, and will respond to the change notification verbally within 7 calendar days and in writing within 14 calendar days of receiving it. If the U.S. EPA Regional Administrator does not respond verbally within 7 calendar days and in writing within 14 calendar days of receiving the change notice, the person who submitted it may deem it complete and acceptable and proceed with the cleanup according to the information in the change notice provided to the U.S. EPA Regional Administrator.)</p> <p>(NOTE: Any person conducting a cleanup activity may obtain a waiver of the 30-day notification requirement, if they receive a separate waiver, in writing, from each of the agencies they are required to notify. The person must retain the original written waiver.)</p> <p>Verify that the cleanup levels and procedures outlined in Appendix C of this document are met.</p> <p>(NOTE: The U.S. EPA Regional Administrator, as part of his or her response to a notification, may require cleanup of the site, or portions of it, to more stringent cleanup levels than are otherwise required, based on the proximity to areas such as residential dwellings, hospitals, schools, nursing homes, playgrounds, parks, day care centers, endangered species habitats, estuaries, wetlands, national parks, national wildlife refuges, commercial fisheries, and sport fisheries.)</p> <p>(NOTE: Any person may decontaminate bulk PCB remediation waste and return the waste to the cleanup site for disposal as long as the cleanup standards are met.)</p>
<p>TT.130.2. Liquid PCB remediation waste must either be decontaminated or disposed of according to specific parameters (40 CFR 761.60(a)(1) through 761.60(a)(3), and 761.61(b)(1)).</p>	<p>Verify that PCB liquids removed from use are either decontaminated or disposed of.</p> <p>(NOTE: For determining compliance with decontamination standards (40 CFR 761.79), see checklist items TT.160.1 through TT.160.6.)</p> <p>Verify that, when using disposal, except as identified below, PCB liquids at concentration \geq 50 ppm are disposed of in an incinerator that meets the requirements of 40 CFR 761.70:</p> <ul style="list-style-type: none"> - if mineral oil dielectric fluid with PCB concentrations at \geq 50 ppm and $<$ 500 ppm are disposed of in a high efficiency boiler, the boiler meets the requirements in 40 CFR 761.71(a) - if liquids with PCB concentrations at \geq 50 ppm and $<$ 500 ppm other than mineral oil dielectric fluid are disposed of in a high efficiency boiler, the boiler meets the requirements in 40 CFR 761.71(b)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>– liquids from incidental sources, such as precipitation, condensation, leachate, or load separation with PCB concentrations at ≥ 50 ppm and < 500 ppm, are associated with PCB Articles or non-liquid PCB wastes are disposed of in a chemical waste landfill that complies with 40 CFR 761.75 and; information is provided to or obtained by the owner of operator of the chemical waste landfill that shows the liquids do not exceed 500 ppm and are not an ignitable waste.</p>
<p>TT.130.3. Non-liquid PCB remediation waste must be disposed of according to specific requirements (40 CFR 761.61(b)(2))</p>	<p>Verify that non-liquid PCB remediation waste is decontaminated or disposed of by one of the following methods:</p> <ul style="list-style-type: none"> – in an approved high temperature incinerator – an alternate approved disposal method – an approved chemical waste landfill – in a facility with a coordinated approval.

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.140</p> <p>Transportation</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.140.1. A generator who relinquishes control over PCB wastes by offering for transport by his own vehicle or by a vehicle owned by another person, PCB waste for commercial offsite storage or offsite disposal must prepare a manifest (40 CFR 761.207 761.208(a), and 761.209(a)).</p>	<p>(NOTE: This applies to PCB wastes as defined in 40 CFR 761.3. This includes PCB wastes with PCB concentrations below 50 ppm where the PCB concentration below 50 ppm was the result of dilution. But there is no manifest requirement for material currently below 50 ppm that derives from pre-April 18, 1978, spills of any concentration, pre-July 2, 1979, spills of < 500 ppm PCBs, or decontaminated materials.)</p> <p>Verify that a manifest has been prepared when needed and that it contains (use U.S. EPA Form 8700-22):</p> <ul style="list-style-type: none"> – the identity of PCB Waste, the earliest date of removal from service for disposal and the weight in kilograms of the waste for bulk load of PCBs – the unique identifying number of each PCB Article Container or PCB Container, the date of removal from service, type of waste, and the weight of PCB waste contained – the serial number if available or other identification for each PCB Article not in a PCB Container or PCB Article Container, the date of removal from service for disposal, and weight in kilograms of the PCB waste in each PCB Article. <p>Verify that the generator designated one offsite commercial storage or disposal facility for the commercial storage or disposal of the PCBs and PCB Items described on the manifest.</p> <p>Verify that the generator designated an alternate facility when notified by the transporter as unable to deliver the PCB waste to the facility designated on the manifest.</p> <p>Verify that sufficient copies are prepared to supply the generator, the initial</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>transporter, each subsequent transporter, and the owner or operator of the disposal facility with one legible copy each for their records, and one additional copy to be signed and returned to the generator by the owner or operator of the disposal facility.</p> <p>Verify that the generator:</p> <ul style="list-style-type: none"> – signs the manifest certification by hand – obtains the handwritten signature of the initial transporter and date of acceptance on the manifest – retains one copy among its records – gives the transporter the remaining copies of the manifest that will accompany the shipment of PCB waste. <p>Verify that, for bulk shipments of PCB waste within the United States transported solely by water, the generator sends three copies of the manifest dated and signed directly to the owner or operator of the designated commercial storage or disposal facility.</p> <p>Verify that, for rail shipments of PCB waste within the United States which originate at the site of generation, the generator sends at least three copies of the manifest dated and signed to:</p> <ul style="list-style-type: none"> – the next non-rail transporter, if any – the designated commercial storage or disposal facility if transported solely by rail. <p>Verify that, when a generator employs an independent transporter to transport the PCB waste to a commercial storer or disposer, the generator:</p> <ul style="list-style-type: none"> – confirms by telephone, or by other means of confirmation agreed to by both parties, that the commercial storer or disposer actually received the manifested waste – confirms receipt of the waste by close of business the day after he receives the manifest hand-signed by the commercial storer or disposer. <p>Verify that a copy of each manifest is kept until the generator receives a signed copy from the designated commercial storer or disposal facility which received the waste.</p> <p>Verify that, if the generator has to produce an annual document log, they maintain a copy of the signed manifest for at least 3 yr after receipt of waste by the initial transporter.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.140.2. If the generator does not receive a signed copy of the manifest within 35 days of the date the waste was accepted by the initial transporter, the generator is required to immediately contact the transporter and/or owner or operator of the designated facility to determine the status of the PCB Waste (40 CFR 761.215(a) and 761.215(b)).</p>	<p>Verify that a procedure is in place so that if the generator does not receive a copy within 35 days of the date the waste was accepted by the initial transporter, the transporter and/or designated facility is immediately contacted.</p> <p>Verify that, if the generator does not receive a copy within 45 days of the date the waste was accepted by the initial transporter, an Exception Report is filed with the U.S. EPA no later than 45 days from the date on which the generators should have received the manifest.</p> <p>Verify that the Exception Report contains the following information:</p> <ul style="list-style-type: none"> – a legible copy of the manifest for which the generator does not have confirmation of delivery – a cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the PCB Waste and the results of those efforts.
<p>TT.140.3. Commercial storers or disposers of PCB waste must meet specific manifesting requirements (40 CFR 761.180(b)(4), 761.208(c), and 761.209(c)).</p>	<p>Verify that, whenever a commercial storer of PCB waste accepts PCBs or PCB Items at his storage facility and transfers the PCB waste offsite to another facility for storage or disposal, a manifest is started for the transfer of PCBs or PCB Items to the next storage or disposal facility.</p> <p>(NOTE:: Any requirements for weights in kilograms of PCBs may be calculated values if the internal volume of PCBs in containers and transformers is known and included in the reports, together with any assumptions on the density of the PCBs contained in the containers or transformers. If the internal volume of PCBs is not known, a best estimate may be used.)</p> <p>Verify that, if a commercial storage or disposal facility receives an offsite shipment of PCB waste accompanied by a manifest, the owner or operator, or his agent:</p> <ul style="list-style-type: none"> – sign and date each copy of the manifest to certify that the PCB waste covered by the manifest was received – note any significant discrepancies in the manifest on each copy of the manifest – immediately give the transporter at least one copy of the signed manifest – within 30 days after the delivery, send a copy of the manifest to the generator – retain a copy of each manifest among the facility's records. <p>Verify that, if a commercial storage or disposal facility receives PCB waste from a rail or water (bulk shipment) transporter accompanied by a shipping paper containing all the information required on the manifest except the U.S. EPA identification numbers, generator's certification, and signatures, the owner or</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>operator, or his agent:</p> <ul style="list-style-type: none"> – signs and dates each copy of the manifest or shipping paper to certify that the PCB waste covered by the manifest or shipping paper was received – notes any significant discrepancies in the manifest or shipping paper on each copy of the manifest or shipping paper – immediately give the rail or water transporter at least one copy of the manifest or shipping paper, if applicable – within 30 days after the delivery, sends a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator sends a copy of the shipping paper signed and dated to the generator – retains at the commercial storage or disposal facility a copy of the manifest and shipping paper, if signed in lieu of the manifest. <p>Verify that, whenever an offsite shipment of PCB waste is initiated from a commercial storage or disposal facility, the owner or operator of the commercial storage or disposal facility complies with the manifest requirements that apply to generators of PCB waste.</p> <p>Verify that the owner or operator of a PCB commercial storage or disposal facility that receives offsite shipments of PCB waste retains at the facility for at least 3 yr a copy of each manifest or shipping paper that the owner or operator signs.</p>
<p>TT.140.4. Commercial storers or disposers of PCB waste which receive any shipment of PCB waste from an offsite source without an accompanying manifest or shipping paper are required to take specific actions (40 CFR 761.211)</p>	<p>Verify that, if a PCB commercial storage or disposal facility receives any shipment of PCB waste from an offsite source without an accompanying manifest or shipping paper, and any part of the shipment consists of any PCB waste regulated for disposal, then the owner or operator attempts to contact the generator, to obtain a manifest or to return the PCB waste.</p> <p>Verify that, if the owner or operator of the commercial storage or disposal facility cannot contact the generator of the PCB waste, he notifies the U.S. EPA Regional Administrator of the U.S. EPA Region in which his facility is located of the unmanifested PCB waste so that the U.S. EPA Regional Administrator can determine whether further actions are required before the owner or operator may store or dispose of the unmanifested PCB waste.</p> <p>Verify that, within 15 days after receiving the unmanifested PCB waste, the owner or operator prepares and submits a report including the following information to the U.S. EPA Regional Administrator for the U.S. EPA Region in which the commercial storage or disposal facility is located and to the U.S. EPA Regional Administrator for the U.S. EPA Region in which the PCB waste originated, if known:</p> <ul style="list-style-type: none"> – the U.S. EPA identification number, name, and address of the PCB

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>commercial storage or disposal facility</p> <ul style="list-style-type: none"> - the date the commercial storage or disposal facility received - the unmanifested PCB waste - the U.S. EPA identification number, name, and address of the generator and transporter, if available - a description of the type and quantity of the unmanifested PCB waste received at the facility - a brief explanation of why the waste was unmanifested, if known - the disposition made of the unmanifested waste by the commercial storage or disposal facility, including: <ul style="list-style-type: none"> - if the waste was stored or disposed by that facility, was the generator identified and was a manifest subsequently supplied - if the waste was sent back to the generator, why and when. <p>(NOTE: The report may be submitted on U.S. EPA Form 8700-13B, or by a written letter designated "Unmanifested Waste Report.")</p>
<p>TT.140.5. Transporters are required to meet specific operational requirements (40 CFR 761.208(b) and 761.209(b)).</p>	<p>Verify that the transporter does not accept PCB waste from a generator unless it is accompanied by a manifest signed by the generator, except that a manifest is not required if any one of the following conditions exists:</p> <ul style="list-style-type: none"> - the shipment of PCB waste consists solely of PCB wastes with PCB concentrations < 50 ppm, unless the PCB concentration < 50 ppm was the result of dilution - the PCB waste is accepted by the transporter for transport only to a storage or disposal facility owned or operated by the generator of the PCB waste. <p>Verify that, before transporting the PCB waste, the transporter signs and dates the manifest acknowledging acceptance of the PCB waste from the generator.</p> <p>Verify that the transporter returns a signed copy to the generator before leaving the generator's facility.</p> <p>Verify that the transporter ensures that the manifest accompanies the PCB waste.</p> <p>Verify that a transporter who delivers PCB waste to another transporter, or to the designated commercial storer or disposer of PCB waste:</p> <ul style="list-style-type: none"> - obtains the date of delivery and the handwritten signature of the subsequent transporter of PCB waste, or of the owner or operator of the designated commercial storage or disposal facility on the manifest - retains one copy of the manifest - gives the remaining copies of the manifest to the accepting transporter of PCB waste, or to the designated commercial storage or disposal facility.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(NOTE: The requirement to ensure the manifest accompanies the waste and the requirements for when the transporter who delivers PCB waste to another transporter, or to the designated commercial storer or disposer of PCB waste do not apply to transporters of bulk shipments by water if all of the following conditions are met:</p> <ul style="list-style-type: none"> - the PCB waste is delivered by water (bulk shipment) to the designated commercial storage or disposal facility - a shipping paper containing all the information required on the manifest (excluding U.S. EPA identification number, generator certification, and signatures) accompanies the PCB waste - the transporter delivering the PCB waste obtains the date of delivery and handwritten signature of the owner or operator of the designated commercial storage or disposal facility on either the manifest or the shipping paper - the person delivering the PCB waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility - a copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter.) <p>(NOTE: The requirement to ensure the manifest accompanies the waste and the requirements for when the transporter who delivers PCB waste to another transporter, or to the designated commercial storer or disposer of PCB waste do not apply to shipments involving rail transportation.)</p> <p>Verify that the transporter delivers the entire quantity of PCB waste accepted from a generator or transporter to either of the following destinations</p> <ul style="list-style-type: none"> - the designated commercial storage or disposal facility listed on the manifest - the next designated transporter of PCB waste. <p>Verify that, if the PCB waste cannot be delivered, the transporter contacts the generator for further directions and revises the manifest and/or returns the PCB waste according to the generator's instructions.</p> <p>Verify that the transporter of PCB waste keeps a copy of the manifest signed by the generator, transporter, and the next designated transporter, if applicable, or the owner or operator of the designated commercial storage or disposal facility for a period of at least 3 yr from the date the PCB waste was accepted by the initial transporter.</p> <p>Verify that, for shipments of PCB waste delivered to the designated commercial storage or disposal facility by water (bulk shipment), each water (bulk shipment) transporter retains a copy of the shipping paper described in for a period of 3 yr from the date the PCB waste was accepted by the initial transporter.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that, for shipments of PCB waste by rail within the United States:</p> <ul style="list-style-type: none"> – the initial rail transporter keeps a copy of the manifest and the shipping paper required to accompany the PCB waste for at least 3 yr from the date the PCB waste was accepted by the initial transporter – the final rail transporter keeps a copy of the signed manifest, or the required shipping paper if signed by the designated facility in lieu of the manifest, for at least 3 yr from the date the PCB waste was accepted by the initial transporter.

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.150</p> <p>Disposal</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p> <p>(NOTE: For information on the disposal of additional types of PCB wastes, please see Appendix D of this document.)</p>
<p>TT.150.1. For each shipment of manifested PCB waste that a disposal facility accepts, the owner or operator of the disposal facility must prepare a certificate of disposal (COD) for the PCBs and PCB Items disposed of at the facility (40 CFR 761.218).</p>	<p>Verify that a COD has been prepared containing the following information:</p> <ul style="list-style-type: none"> - the identity of the disposal facility by name, address, and U.S. EPA identification number - the identity of the PCB Waste affected by the COD including reference to the manifest number for the shipment - a statement certifying the fact of disposal of the identified PCB waste, including the date of disposal, and identifying the disposal process used - a certification as defined in 40 CFR 761.3. <p>Verify that a copy of the COD was:</p> <ul style="list-style-type: none"> - sent to the generator identified on the manifest within 30 days of the date that disposal of the PCB waste was completed unless another time frame is agreed to - retained with the annual records.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.150.2. PCB liquids removed from use must either be decontaminated or disposed of according to specific parameters (40 CFR 761.50(b)(1), and 761.60(a)(1) through 761.60(a)(3))</p>	<p>Verify that PCB liquids removed from use are either decontaminated or disposed of.</p> <p>(NOTE: For determining compliance with decontamination standards (40 CFR 761.79), see checklist items TT.160.1 through TT.160.6)</p> <p>Verify that, when using disposal, except as identified below, PCB liquids at concentration \geq 50 ppm are disposed of in an incinerator that meets the requirements of 40 CFR 761.70:</p> <ul style="list-style-type: none"> – if mineral oil dielectric fluid with PCB concentrations at \geq 50 ppm and < 500 ppm are disposed of in a high efficiency boiler, the boiler meets the requirements in 40 CFR 761.71(a) – if liquids with PCB concentrations at \geq 50 ppm and < 500 ppm other than mineral oil dielectric fluid are disposed of in a high efficiency boiler, the boiler meets the requirements in 40 CFR 761.71(b) – liquids from incidental sources, such as precipitation, condensation, leachate, or load separation with PCB concentrations at \geq 50 ppm and < 500 ppm, are associated with PCB Articles or non-liquid PCB wastes are disposed of in a chemical waste landfill that complies with 40 CFR 761.75 and: <ul style="list-style-type: none"> – disposal does not violate land disposal restriction regulations – information if provided to or obtained by the owner of operator of the chemical waste landfill that shows the liquids do not exceed 500 ppm and are not an ignitable waste.
<p>TT.150.3. PCB Transformers with PCB concentrations of 500 ppm or greater shall be decontaminated or disposed of in either a U.S. EPA approved incinerator or a chemical waste landfill (40 CFR 761.50(b)(2) and 761.60(b)(1)).</p>	<p>Determine if PCB Transformers are going for disposal or being decontaminated.</p> <p>(NOTE: For determining compliance with decontamination standards (40 CFR 761.79), see checklist items TT.160.1 through TT.160.6)</p> <p>Verify that, if PCB Transformers are going for disposal, it is to a U.S. EPA-approved incinerator or a chemical waste landfill.</p> <p>Verify that, if disposal is being done at a chemical waste landfill, the transformer is drained of all free-flowing liquids, filled with solvent, allowed to stand for at least 18 h, and then drained thoroughly.</p>
<p>TT.150.4. PCB Capacitors must be decontaminated or disposed of in accordance with certain requirements (40 CFR 761.50(b)(2), 761.60(b)(2), and 761.60(b)(4)(ii)).</p>	<p>Determine if PCB Capacitors are going for disposal or being decontaminated.</p> <p>(NOTE: For determining compliance with decontamination standards (40 CFR 761.79), see checklist items TT.160.1 through TT.160.6)</p> <p>Verify that disposal of PCB Capacitors was done as follows:</p> <ul style="list-style-type: none"> – PCB Small Capacitors (< 1.36 kg (3 lb) of PCBs) are disposed of in a solid

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>waste landfill</p> <ul style="list-style-type: none"> - PCB Large, High-, or Low-Voltage Capacitors (> 1.36 kg (3 lb) of PCBs) containing more than 500 ppm are incinerated in a U.S. EPA-approved incinerator. <p>Verify that Large Capacitors that contain ≥ 50 ppm but < 500 ppm are disposed of in a U.S. EPA approved disposal facility.</p> <p>Verify that any person who manufactures or at any time manufactured PCB Capacitors or PCB Equipment, and acquired the PCB Capacitor in the course of such manufacturing, places the PCB Small Capacitors in a container meeting the DOT packaging requirements at 49 CFR 171 through 180 and dispose of them in accordance with either of the following:</p> <ul style="list-style-type: none"> - a compliant incinerator - until March 1, 1981, a compliant chemical waste landfill. <p>(NOTE: Certain PCB capacitors may be disposed of in compliant PCB chemical waste landfills after March 1, 1981, if the Assistant Administrator for Prevention, Pesticides and Toxic Substances publishes a notice in the Federal Register declaring that those landfills are available for such disposal and explaining the reasons for the extension or reopening. An extension or reopening for disposal of PCB capacitors is subject to such terms and conditions as the Assistant Administrator may prescribe and shall be in effect for such period as the Assistant Administrator may prescribe. The Assistant Administrator may permit disposal of PCB capacitors in U.S. EPA approved chemical waste landfills after March 1, 1981, if in his opinion:</p> <ul style="list-style-type: none"> - adequate incineration capability for PCB capacitors is not available - the incineration of PCB capacitors will significantly interfere with the incineration of liquid PCBs - there is other good cause shown.) <p>Verify that prior to disposing of large PCB capacitors or small PCB capacitors in a chemical waste landfill, the capacitors are first placed in a container meeting the DOT packaging requirements at 49 CFR 171 through 180 and the interstitial space in the container is filled with sufficient absorbent material (such as soil) to absorb any liquid PCBs remaining in the capacitors.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.150.5. PCB hydraulic machines containing PCBs at concentrations \geq 50 ppm must be decontaminated or disposed of according to specific parameters (40 CFR 761.50(b)(2) and 761.60(b)(3)).</p>	<p>Determine if PCB hydraulic machines are going for disposal or being decontaminated.</p> <p>(NOTE: For determining compliance with decontamination standards (40 CFR 761.79), see checklist items TT.160.1 through TT.160.6)</p> <p>(NOTE: All heat transfer and hydraulic systems were to be serviced to below 50 ppm PCBs by July 1, 1984.)</p> <p>Verify that PCB hydraulic machines with PCB concentrations at \geq 50 ppm, such as die casting machines, are disposed of by one of the following methods:</p> <ul style="list-style-type: none"> – in accordance with decontamination standards and procedures in 40 CFR 761.79 – in a facility that is permitted, licensed, or registered to manage municipal solid waste or nonmunicipal nonhazardous waste (excluding thermal treatment units) – in a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72 – in a disposal facility approved under 40 CFR 761. <p>Verify that all free-flowing liquid is removed from each machine and disposed of appropriately.</p> <p>(NOTE: If the PCB liquid contains \geq 1000 ppm, the hydraulic machine must be decontaminated or flushed with a listed solvent that contains < 50 ppm PCB prior to disposal.)</p>
<p>TT.150.6. PCB-Contaminated Electrical Equipment, except capacitors, must meet specific disposal requirements (40 CFR 761.50(b)(2) and 761.60(b)(4)).</p>	<p>Verify that any person disposing of PCB-Contaminated Electrical Equipment, except capacitors, does so by removing all free-flowing liquid from the equipment.</p> <p>Verify that free-flowing liquid is disposed of as required under 761.60(a) (see checklist items TT.130.2, TT.150.2, TT.150.3, TT.150.14, and TT.150.15).</p> <p>Verify that the equipment is disposed of with no free-flowing liquids by one of the following methods:</p> <ul style="list-style-type: none"> – in accordance with 40 CFR 761.79 – in a facility that is permitted, licensed, or registered to manage municipal solid waste or nonmunicipal nonhazardous waste (excluding thermal treatment units) – in a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72 – in a disposal facility approved under 40 CFR 761.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	Verify that any person disposing of Large Capacitors that contain ≥ 50 ppm but < 500 ppm PCBs does so in a disposal facility approved under 40 CFR 761.
TT.150.7. PCB Articles not otherwise addressed in this section shall be decontaminated or disposed of properly (40 CFR 761.50(b)(2), 761.60(b)(6)(i), 761.60(b)(6)(ii), and 761.60(b)(8)).	<p>Determine if PCB Articles are going for disposal or being decontaminated.</p> <p>(NOTE: For determining compliance with decontamination standards 40 CFR 761.79, (see checklist items TT.160.1 through TT.160.6).)</p> <p>Verify that PCB Articles with concentrations at 500 ppm or greater are disposed of in either:</p> <ul style="list-style-type: none"> – an incinerator approved under and in compliance with 40 CFR 761.70 – a chemical waste landfill approved under and in compliance with 40 CFR 761.75 if all free-flowing liquids have been removed. <p>Verify that PCB Articles with PCB concentration between 50 and 500 ppm are drained of all free-flowing liquid.</p> <p>Verify that free-flowing liquid is disposed of as required under 761.60(a) (see checklist items TT.130.2, TT.150.2, TT.150.3, TT.150.14, and TT.150.15).</p> <p>Verify that PCB-Contaminated Articles with no free-flowing liquids are disposed of by one of the following methods:</p> <ul style="list-style-type: none"> – in accordance with 40 CFR 761.79 – in a facility that is permitted, licensed, or registered to manage municipal solid waste or nonmunicipal nonhazardous waste (excluding thermal treatment units) – in a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72 – in a disposal facility approved under 40 CFR 761. <p>(NOTE: Storage for disposal of PCB-Contaminated Articles from which all free-flowing liquids have been removed is not regulated under 40 CFR 761.50 through 761.79.)</p> <p>(NOTE: Recordkeeping and reporting requirements in 40 CFR 761.180 through 761.218 do not apply to PCB-Contaminated Articles from which all free-flowing liquids have been removed.)</p> <p>Verify that persons disposing of PCB Articles wear or use protective clothing or equipment to protect against dermal contact or inhalation of PCBs or materials containing PCBs (see checklist item TT.10.4).</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
TT.150.8. PCB Containers shall be disposed of properly (40 CFR 761.60(c)).	<p>Determine if PCB Containers are going for disposal or being decontaminated.</p> <p>(NOTE: For determining compliance with decontamination standards, 40 CFR 761.79, (see checklist items TT.160.1 through TT.160.6).)</p> <p>Verify that PCB Containers with concentrations of 500 ppm or greater are disposed of in one of the following ways:</p> <ul style="list-style-type: none"> – in a U.S. EPA-approved incinerator – in a chemical waste landfill if first the container is drained of any liquid PCBs. <p>Verify that PCB Containers used to contain only PCBs at concentrations < 500 ppm are drained of PCB liquid prior to disposal as municipal solid waste.</p> <p>Verify that prior to disposal, a PCB container with PCB concentrations at 50 ppm or > is stored in a unit in compliance with 40 CFR 761.65 (see checklist items TT.30.10 through TT.30.13, TT.110.1 through TT.110.6, and TT.110.9).</p>
TT.150.9. Certain disposal methods for PCBs are prohibited (40 CFR 761.50(a)(1) through 761.50(a)(3) and 761.50(a)(5)).	<p>Verify that no open burning of PCBs is performed.</p> <p>Verify that liquid PCBs are not processed into nonliquid forms to circumvent high temperature incineration requirements.</p> <p>Verify that water containing PCBs are not discharged to a treatment works or to a navigable waters unless the PCB concentration is 3 µg/L (approximately 3 ppb), or unless the discharge is in accordance with a PCB discharge limit included in a permit.</p> <p>(NOTE: When land disposing of nonliquid PCBs, otherwise applicable sampling requirements may be avoided by presuming that the PCBs are >= 500 ppm (or >= 100 µg cm² if no free-flowing liquids are present).)</p>
TT.150.10. Performance-based disposal of PCB bulk product waste must be in accordance with specific parameters (40 CFR 761.50(b)(4), 761.62(a) and 761.62(c)).	<p>Verify that PCB bulk product waste is disposed of as follows when using performance-based disposal:</p> <ul style="list-style-type: none"> – in an incinerator approved under 40 CFR 761.70 – in a chemical waste landfill approved under 40 CFR 761.75 – in a permitted hazardous waste landfill – under an alternate disposal method approved under 40 CFR 761.60(e) – in accordance with the decontamination provisions of 40 CFR 761.79 – for metal surfaces in contact with PCBs, in accordance with the thermal decontamination provisions of 40 CFR. 761.79(c)(6) – in accordance with a TSCA PCB Coordinated Approval issued under 40

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>CFR 761.77.</p> <p>Verify that, if bulk product waste is disposed of in a manner other than prescribed in 40 CFR 761.62(a) or 761.62(b), approval has been received from the U.S. EPA Regional Administrator in the U.S. EPA Region where the disposal site is located for disposal or storage occurring in a single U.S. EPA Region; or the Director of the National Program Chemicals Division, for disposal occurring in more than one U.S. EPA Region.</p> <p>(NOTE: This applies to PCB Items where PCB Articles are no longer intact and non-leaking.)</p>
<p>TT.150.11. Disposal of PCB bulk product waste in solid waste landfills must be in accordance with specific parameters (40 CFR 761.62(b) through 761.62(d)).</p>	<p>Verify that, when PCB bulk product waste is disposed of in a solid waste landfill, the landfill is facility permitted, licensed, or registered by a state as a municipal or nonmunicipal nonhazardous waste landfill.</p> <p>(NOTE: The following PCB bulk product waste may be disposed of in a facility permitted, licensed, or registered by a state as a municipal or nonmunicipal nonhazardous waste landfill:</p> <ul style="list-style-type: none"> – plastics (such as plastic insulation from wire or cable; radio, television, and computer casings; vehicle parts; or furniture laminates); pre-formed or molded rubber parts and components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; Galbestos; nonliquid building demolition debris; or nonliquid PCB bulk product waste from the shredding of automobiles or household appliances from which PCB small capacitors have been removed (shredder fluff) – other sampled PCB bulk product waste that leaches PCBs at <10 µg/L of water measured using a procedure used to simulate leachate generation.) <p>Verify that, if materials other than those listed in the above NOTE statement are disposed of in a facility that is permitted, licensed, or registered by a state to manage municipal solid waste or nonmunicipal nonhazardous waste, the following are met:</p> <ul style="list-style-type: none"> – the PCB bulk product waste is segregated from organic liquids disposed of in the landfill unit – leachate is collected from the landfill unit and monitored for PCBs. <p>Verify that, if materials other than those listed in the above NOTE statement are disposed at a waste management facility not having a commercial PCB storage or disposal approval, a written notice to the facility a minimum of 15 days in advance of the first shipment from the same disposal waste stream and with each shipment thereafter.</p> <p>Verify that, if disposal of offsite PCB bulk product waste is done at a waste</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>management facility not having a commercial PCB storage or disposal approval, a written notice is provided to the facility a minimum of 15 days in advance of the first shipment from the same disposal waste stream.</p> <p>Verify that the written notice states that the PCB bulk product waste may include components containing PCBs at ≥ 50 ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach ≥ 10 $\mu\text{g/L}$ PCBs.</p> <p>Verify that the notice states that the PCB bulk product waste may include components containing PCBs at ≥ 50 ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach ≥ 10 $\mu\text{g/L}$ PCBs.</p> <p>Verify that, for any disposal of PCB bulk product waste, a written record is maintained of all sampling and analysis of PCBs or notifications made for 3 yr from the date of the waste's generation.</p> <p>Verify that any release of PCBs (including but not limited to leachate) from the landfill unit is cleaned up in accordance with 40 CFR 761.61.</p> <p>(NOTE: Bulk product waste as described in the above NOTE statement may be disposed of as daily landfill cover as long as the daily cover remains in the landfill and is not released or dispersed by wind or other action or under asphalt as part of a road bed.)</p> <p>Verify that any person disposing of PCB bulk product waste maintains a written record of all sampling and analysis of PCBs or notifications for 3 yr from the date of the waste's generation.</p> <p>(NOTE: The requirements in 40 CFR 761, Subpart C: Marking of PCBs and PCB Items, Subpart J: General Record and Reports, and Subpart K: PCB Waste Disposal Records and Reports do not apply to the wastes addressed in this checklist item.)</p> <p>Verify that, if bulk product waste is disposed of in a manner other than prescribed in 40 CFR 761.62(a) or 761.62(b), approval has been received from the U.S. EPA Regional Administrator in the U.S. EPA Region where the disposal site is located for disposal or storage occurring in a single U.S. EPA Region; or the Director of the National Program Chemicals Division, for disposal occurring in more than one U.S. EPA Region.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.150.12. PCB household waste must be disposed of according to specific parameters (40 CFR 761.50(b)(5) and 761.63)</p>	<p>Verify that PCB household waste is managed in a facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, or in a facility with an approval to dispose of PCB bulk product waste.</p> <p>(NOTE: PCB household waste managed according to these parameters is not subject to any other requirements under 40 CFR 761.)</p>
<p>TT.150.13. Fluorescent light ballasts with PCBs must meet specific requirements for disposal (40 CFR 761.50(b)(2), 761.60(b)(2)(ii), and 761.60(b)(6)(iii)).</p>	<p>(NOTE: Fluorescent light ballasts containing PCBs only in an intact and non-leaking PCB Small Capacitor can be disposed of as municipal solid waste. The exception to this is any person who manufactures or at any time manufactured PCB Capacitors or PCB Equipment, and acquired the PCB Capacitor in the course of such manufacturing. In that case, the PCB Small Capacitors are to be placed in a container meeting the DOT packaging requirements at 49 CFR 171 through 180 and disposed of at an approved incinerator.)</p> <p>Verify that fluorescent light ballasts containing PCBs in their potting material are disposed of in a TSCA-approved disposal facility, as bulk product waste under 40 CFR 761.62 (see checklist items TT.150.11 and TT.150.12), as household waste under 40 CFR 761.63 (where applicable) (see checklist items TT.110.8 and TT.150.13), or in accordance with the decontamination provisions of 40 CFR 761.79 (see checklist items TT.160.1 through TT.160.6).</p>
<p>TT.150.14. Material containing PCBs that has been dredged or excavated from waters of the United States must be managed and disposed of according to specific parameters (40 CFR 761.60(a)(5) and 761.61(b)(3)).</p>	<p>Verify that dredged materials containing PCBs at concentrations of 50 ppm or > are disposed of:</p> <ul style="list-style-type: none"> – in a compliant incinerator – in a compliant chemical waste landfill – using a disposal method approved by the U.S EPA Regional Administrator in the U.S. EPA Region in which the PCBs are located. <p>Verify that material containing < 50 ppm PCBs that has been dredged or excavated from waters of the United States is managed or disposed of as follows:</p> <ul style="list-style-type: none"> – in accordance with a permit that has been issued under section 404 of the Clean Water Act, or the equivalent of such a permit as provided for in regulations of the U.S. Army Corps of Engineers at 33 CFR 320 – in accordance with a permit issued by the U.S. Army Corps of Engineers under section 103 of the Marine Protection, Research, and Sanctuaries Act, or the equivalent of such a permit as provided for in regulations of the U.S. Army Corps of Engineers at 33 CFR 320.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.150.15. Municipal sewage treatment sludges are required to be disposed of according to certain parameters (40 CFR 761.60(a)(5)).</p>	<p>Verify that municipal sewage treatment sludges containing PCBs at concentrations of 50 ppm or > are disposed of:</p> <ul style="list-style-type: none"> – in a compliant incinerator – in a compliant chemical waste landfill – using a disposal method approved by the U.S EPA Regional Administrator in the U.S. EPA Region in which the PCBs are located.
<p>TT.150.16. PCB wastes generated during and as a result of research and development or wastes generated during the chemical analysis of samples containing PCBs must meet specific parameters (40 CFR 761.50(b)(6) and 761.64).</p>	<p>(NOTE: For determining the presence of PCBs in samples, chemical analysis includes: sample preparation, sample extraction, extract cleanup, extract concentration, addition of PCB standards, and instrumental analysis. Portions of samples of a size designated in a chemical extraction and analysis method for PCBs and extracted for purposes of determining the presence of PCBs or concentration of PCBs are unregulated for PCB disposal under 40 CFR 761.)</p> <p>Verify that liquid wastes, including rinse solvents, are disposed of according to 40 CFR 761.61(a)(5)(iv).</p> <p>Verify that non-liquid wastes are disposed of in the same manner as non-liquid cleaning materials and personal protective equipment waste according to 40 CFR 761.61(a)(5)(v)(A).</p>
<p>TT.150.17. The disposal of PCB/Radioactive waste must take both the PCB concentration and radioactive properties into account (40 CFR 761.50(b)(7)(ii))</p>	<p>Verify that both the PCB concentration and radioactive properties are considered prior to disposal.</p> <p>(NOTE: If, taking into account only the properties of the PCBs in the waste (and not the radioactive properties of the waste), the waste meets the requirements for disposal in a facility permitted, licensed, or registered by a state as a municipal or non-municipal non-hazardous waste landfill (e.g., PCB bulk product waste), then the person may dispose of the PCB/radioactive waste, without regard to the PCB component of the waste, on the basis of its radioactive properties in accordance with all applicable requirements for the radioactive component of the waste.)</p>
<p>TT.150.18. The disposal of porous surfaces must meet specific requirements (40 CFR 761.50(b)(8)).</p>	<p>(NOTE: In most cases a person must dispose of porous surfaces as materials where PCBs have penetrated far beneath the surface, rather than a simple surface contamination.)</p> <p>Verify that the disposal of porous surfaces on which PCBs have been spilled and which meet the definition of PCB remediation waste is done in accordance with 40 CFR 761.61(a)(5)(iii).</p> <p>Verify that the disposal of porous surfaces which are part of manufactured non-liquid products containing PCBs and meeting the definition of PCB bulk product</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>waste is done in accordance with 40 CFR 761.62.</p> <p>(NOTE: Any person may decontaminate concrete surfaces upon which PCBs have been spilled in accordance with 40 CFR 761.79(b)(4), if the decontamination procedure is commenced within 72 h of the initial spill of PCBs to the concrete or portion thereof being decontaminated. Any person may decontaminate porous non-liquid PCBs in contact with non-porous surfaces, such as underground metal fuel tanks coated with fire retardant resin or pitch, for purposes of unrestricted use or disposal in a smelter in accordance with 40 CFR 761.79(b)(3).</p>
<p>TT.150.19. When a facility is required to use incineration as a disposal method under 40 CFR 761.60, but, an alternative method is pursued, specific reporting requirements must be met (40 CFR 761.60(e)).</p>	<p>Verify that a request is submitted for a waiver from incineration requirements by any person who is required to incinerate any PCBs and PCB Items under 40 CFR 761.60 and who can demonstrate that an alternative method of destroying PCBs and PCB Items exists and that this alternative method can achieve a level of performance equivalent to an approved incinerator or a compliant high efficiency boiler</p> <p>(NOTE: Requests for approval of alternate methods that will be operated in more than one U.S. EPA Region must be submitted to the Director, National Program Chemicals Division except for research and development activities involving < 500 lb of PCB material. Requests for approval of alternate methods that will be operated in only one U.S. EPA Region must be submitted to the appropriate U.S. EPA Regional Administrator. The applicant must show that his or her method of destroying PCBs will not present an unreasonable risk of injury to health or the environment. On the basis of such information and any available information, the U.S. EPA Regional Administrator or the Director, National Program Chemicals Division may, in his or her discretion, approve the use of the alternate method. Any approval must be stated in writing and may include additional conditions and provisions.)</p> <p>Verify that, if operating under a waiver, all conditions of the waiver are being met.</p> <p>Verify that the alternate method of destroying PCBs or PCB Items is not used prior to obtaining permission from the appropriate U.S. EPA official.</p>
<p>TT.150.20. Each operator of a chemical waste landfill, incinerator, or approved alternative to incineration must give written notices to the state and local governments (40 CFR 761.60(f)).</p>	<p>Verify that each operator of a chemical waste landfill, incinerator, or approved alternative to incineration gives the following written notices to the state and local governments within whose jurisdiction the disposal facility is located:</p> <ul style="list-style-type: none"> – notice at least 30 days before a facility is first used for disposal of PCBs required by these regulations – at the request of any state or local government, annual notice of the quantities and general description of PCBs disposed of during the year. <p>(NOTE: The U.S. EPA Regional Administrator may reduce the notice period</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	from 30 days to a period of no less than 5 days in order to expedite interim approval of the chemical waste landfill located in Sedgwick County, Kansas.)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.160</p> <p>Decontamination</p>	<p>(NOTE: 40 CFR 761 applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated include, but are not limited to: dielectric fluids; solvents; oils; waste oils; heat transfer fluids; hydraulic fluids; paints or coatings; sludges; slurries; sediments; dredge spoils; soils; materials containing PCBs as a result of spills; and other chemical substances or combinations of substances, including impurities and byproducts and any byproduct, intermediate, or impurity manufactured at any point in a process. Requirements applicable to PCBs at concentrations < 50 ppm also apply to contaminated surfaces at PCB concentrations $\leq 10\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 50\text{ ppm}$ to < 500 ppm also apply to contaminated surfaces at PCB concentrations $> 10\mu\text{g}/100\text{ cm}^2$ to < $100\mu\text{g}/100\text{ cm}^2$. Requirements applicable to PCBs at concentrations $\geq 500\text{ ppm}$ also apply to contaminated surfaces at PCB concentrations $\geq 100\mu\text{g}/100\text{ cm}^2$. See also the definition for PCB Concentration Assumptions (40 CFR 761.1(b)(1), 761.1(b)(3) and 761.2).)</p>
<p>TT.160.1. Decontamination is required to be done to certain standards (40 CFR 761.79(a), 761.79(b), and 761.79(f)).</p>	<p>(NOTE: Decontamination in accordance with these standards does not require a disposal approval under 40 CFR 761, Subpart D. Materials from which PCBs have been removed by decontamination may be distributed in commerce. Materials from which PCBs have been removed by decontamination may be used or reused (see checklist items TT.10.3 and TT.20.2). Materials from which PCBs have been removed by decontamination, not including decontamination waste and residuals, are unregulated for disposal.)</p> <p>Verify that any person decontaminating porous surfaces other than concrete and non-porous surfaces covered with a porous surface, such as paint or coating on metal, obtains an alternative decontamination approval.</p> <p>Verify that the following standards are met when using chopping (including wire chopping), distilling, filtering, oil/water separation, spraying, soaking, wiping, stripping of insulation, scraping, scarification or the use of abrasives or solvents may to remove or separate PCBs from liquids, concrete, or non-porous surfaces:</p> <ul style="list-style-type: none"> – for water containing PCBs: <ul style="list-style-type: none"> – < 200 $\mu\text{g}/\text{L}$ (i.e., 200 ppb PCBs) for non-contact use in a closed system where there are no releases – for water discharged to a treatment works or to navigable waters, <3 $\mu\text{g}/\text{L}$ (approximately <3 ppb) or a PCB discharge limit included in a permit issued under section 307(b) or 402 of the Clean Water Act – $\leq 0.5\mu\text{g}/\text{L}$ (i.e., approximately $\leq 0.5\text{ ppb}$ PCBs) for unrestricted use – for organic liquids and non-aqueous inorganic liquids containing PCBs, <2 mg/kg (i.e., 2 ppm PCBs) – for non-porous surfaces in contact with liquid and non-liquid PCBs: <ul style="list-style-type: none"> – for unrestricted use:

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - for non-porous surfaces previously in contact with liquid PCBs at any concentration, where no free-flowing liquids are currently present, $\leq 10 \mu\text{g}/100 \text{ cm}^2$ as measured by a standard wipe test at selected locations - for non-porous surfaces in contact with non-liquid PCBs (including non-porous surfaces covered with a porous surface, such as paint or coating on metal), cleaning to Visual Standard No. 2, Near-White Blast Cleaned Surface Finish, of the National Association of Corrosion Engineers (NACE). Compliance with standard No. 2 is verified by visually inspecting all cleaned areas - for disposal in a smelter meeting specified standards under 40 CFR 761.72: <ul style="list-style-type: none"> - for non-porous surfaces previously in contact with liquid PCBs at any concentration, where no free-flowing liquids are currently present, $< 100 \mu\text{g}/100 \text{ cm}^2$ as measured by a standard wipe test at selected locations - for non-porous surfaces in contact with non-liquid PCBs (including non-porous surfaces covered with a porous surface, such as paint or coating on metal), cleaning to Visual Standard No. 3, Commercial Blast Cleaned Surface Finish, of NACE. Compliance with standard No. 3 is verified by visually inspecting all cleaned areas - for concrete, $\leq 10 \mu\text{g}/100 \text{ cm}^2$ as measured by a standard wipe test if the decontamination procedure is started within 72 h of the initial spill of PCBs to the concrete or portion thereof being decontaminated. <p>Verify that confirmatory sampling is done as follows:</p> <ul style="list-style-type: none"> - for liquids, sample in accordance with 40 CFR 761.269 and 761.272 - for non-porous surfaces and concrete described, sample in accordance with Subpart P of 40 CFR 761. <p>Verify that a written record of sampling is established and maintained for 3 yr from the date of any decontamination.</p> <p>Verify that the record shows sampling locations and analytical results and is retained at the site of the decontamination or a copy of the record is made available to U.S. EPA in a timely manner, if requested.</p> <p>Verify that recordkeeping requirements are met under 40 CFR 761.180(a) (see checklist item TT.30.1).</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.160.2. When using self-implementing decontamination procedures, specific requirements must be met (40 CFR 761.79(c) and 761.79(f)(2)).</p>	<p>(NOTE: Self-implementing decontamination procedures are available as an alternative to the measurement-based decontamination methods.)</p> <p>Verify that PCB Containers are decontaminated by flushing the internal surfaces of the container three times with a solvent containing <50 ppm PCBs and each rinse uses a volume of the flushing solvent equal to approximately 10 percent of the PCB Container capacity.</p> <p>Verify that movable equipment contaminated by PCBs, tools, and sampling equipment is decontaminated by:</p> <ul style="list-style-type: none"> – swabbing surfaces that have contacted PCBs with a solvent – a double wash/rinse in accordance with 40 CFR 761.360 through 761.378 – another applicable decontamination procedure. <p>Verify that a non-porous surface in contact with free-flowing mineral oil dielectric fluid (MODEF) at levels \leq 10,000 ppm PCBs, decontaminates as follows:</p> <ul style="list-style-type: none"> – drain the free-flowing MODEF and allow the residual surfaces to drain for an additional 15 h – dispose of drained MODEF in accordance with 40 CFR 761.79(g) – soak the surfaces to be decontaminated in a sufficient amount of clean (containing < 2 ppm PCBs) performance-based organic decontamination fluid (PODF) such that there is a minimum of 800 mL of PODF for each 100 cm² of contaminated or potentially contaminated surface for at least 15 h at \geq 20 C – drain the PODF from the surfaces – dispose of the drained PODF in accordance with 40 CFR 761.79(g). <p>(NOTE: Approved PODFs include kerosene, diesel fuel, terpene hydrocarbons, and mixtures of terpene hydrocarbons and terpene alcohols.)</p> <p>Verify that, when decontaminating a non-porous surface in contact with free-flowing MODEF containing >10,000 ppm PCB in MODEF or askarel PCB (up to 70 percent PCB in a mixture of trichlorobenzenes and tetrachlorobenzenes), the following is done:</p> <ul style="list-style-type: none"> – drain the free-flowing MODEF or askarel and allow the residual surfaces to drain for an additional 15 h – dispose of drained MODEF or askarel in accordance with 40 CFR 761.79(g) – soak the surfaces to be decontaminated in a sufficient amount of clean PODF (containing < 2 ppm PCBs) such that there is a minimum of 800 mL of PODF for each 100 cm² of contaminated or potentially contaminated surface for at least 15 h at \geq 20 °C – drain the PODF from the surfaces – dispose of the drained PODF in accordance with 40 CFR 761.79(g)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> -resoak the surfaces to be decontaminated in a sufficient amount of clean PODF (containing < 2 ppm PCBs) such that there is a minimum of 800 mL of PODF for each 100 cm² of surface for at least 15 h at >= 20 °C - drain the PODF from the surfaces - dispose of the drained PODF in accordance with 40 CFR 761.79(g). <p>Verify that the decontamination of piping and air lines in an air compressor system is done as follows:</p> <ul style="list-style-type: none"> - before decontamination proceeds, disconnect or bypass the air compressors and air dryers from the piping and air lines and decontaminate the air compressors and air dryers separately - dispose of filter media and desiccant in the air dyers based on their existing PCB concentration - test the connecting line and appurtenances of the system to assure that there is no leakage by introducing air into the closed system at from 90 to 100 psi. Only if there is a pressure drop of <5 psi in 30 minutes may decontamination take place. - when there is no leakage, fill the piping and air lines with clean (containing <2 ppm PCBs) solvent. Solvents include PODF, aqueous potassium hydroxide at a pH between 9 and 12, or water containing 5 percent sodium hydroxide by weight - circulate the solvent to achieve turbulent flow through the piping and air lines in the air compressor system until the total volume of solvent circulated equals 10 times the total volume of the particular article being decontaminated, then drain the solvent - calculate the total volume of solvent circulated by multiplying the pump rate by the time of pumping - refill the system with clean solvent and repeat the circulation and drain process. <p>Verify that, when using thermal processes to decontaminate metal surfaces in contact with PCBs, one of the following options is used:</p> <ul style="list-style-type: none"> - surfaces in contact with liquid and non-liquid PCBs at concentrations < 500 ppm may be decontaminated in a scrap metal recovery oven or smelter for purposes of disposal - surfaces in contact with liquid or non-liquid PCBs at concentrations >= 500 ppm may be smelted in a smelter, but must first be decontaminated to a surface concentration of 100 µg/100 cm². <p>Verify that a written record documenting compliance with the self-implementing decontamination procedures, as outlined above, is retained for 3 yr after completion of the decontamination procedures (e.g., video recordings, photographs).</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.160.3. Decontamination solvents are required to meet specific criteria (40 CFR 761.79(d)).</p>	<p>Verify that, unless otherwise provided, the solubility of PCBs in any solvent used for purposes of decontamination under this section is 5 percent or more by weight.</p> <p>(NOTE: The solvent may be reused for decontamination so long as its PCB concentration is <50 ppm.)</p> <p>(NOTE: Solvents may be tested and validated for performance-based decontamination of non-porous surfaces contaminated with MODEP or other PCB liquids, in accordance with the self-implementing procedures. Specific conditions for the performance-based testing from this validation are determined in the validation study.)</p>
<p>TT.160.4. Any person conducting decontamination activities shall limit their exposure and take necessary measures to protect against direct release of PCBs to the environment from the decontamination area (40 CFR 761.79(e)).</p>	<p>Verify that individuals conducting decontamination activities take necessary measures to protect against direct release of PCBs to the environment from the decontamination area.</p> <p>Verify that individuals participating in decontamination activities wear or use protective clothing or equipment to protect against dermal contact or inhalation of PCBs or materials containing PCBs (see checklist item TT.10.4).</p>
<p>TT.160.5. Decontamination waste and residues shall be disposed of at their existing PCB concentration unless otherwise specified (40 CFR 761.79(g)).</p>	<p>(NOTE: Distillation bottoms or residues and filter media are regulated for disposal as PCB remediation waste.)</p> <p>Verify that PCBs physically separated from regulated waste during decontamination are disposed of at their original concentration.</p> <p>Verify that hydrocarbon solvent used or reused for decontamination that contains < 50 ppm PCB is burned and marketed in accordance with the requirements for used oil in 40 CFR. 761.20(e), disposed of in accordance with 40 CFR. 761.60(a) (see checklist items TT.130.2, TT.150.2, TT.150.3, TT.150.14, and TT.150.15) or 761.60(e) (see checklist item TT.150.20), or decontaminated.</p> <p>Verify that chlorinated solvent at any PCB concentration used for decontamination are disposed of in an incinerator in accordance with 40 CFR 761.70 or decontaminated.</p> <p>Verify that solvents \geq 50 ppm other than those described above are disposed of in accordance with 40 CFR. 761.60(a) (see checklist items TT.130.2, TT.150.2, TT.150.3, TT.150.14, and TT.150.15) or decontaminated.</p> <p>Verify that non-liquid cleaning materials and personal protective equipment waste at any concentration, including non-porous surfaces and other non-liquid materials such as rags, gloves, booties, other disposable personal protective equipment, and</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	similar materials resulting from decontamination are disposed of in accordance with 40 CFR 761.61(a)(5)(v).
TT.160.6. Any person wishing to decontaminate material or perform sampling using an alternate method is required to apply in writing to the U.S. EPA Regional Administrator (40 CFR 761.79(h)).	<p>Verify that any person wishing to decontaminate material using an alternate method applies in writing to the U.S. EPA Regional Administrator in the U.S. EPA Region where the activity would take place, or the Director of the National Program Chemicals Division, for the decontamination activity occurring in more than one U.S. EPA Region.</p> <p>Verify that each application describes the material to be decontaminated and the proposed decontamination method, and demonstrates that the proposed method is capable of decontaminating the material to the applicable level.</p> <p>(NOTE: 40 CFR 761.79(h)(1) and 40 CFR 761.79(h)(2) are slightly different from one another. 40 CFR 761.79(h)(1) applies to alternatives to 40 CFR 761.79(b) measurement-based methods. 40 CFR 761.79(h)(2) applies to performance-based methods.)</p> <p>Verify that any person wishing to sample decontaminated material in an alternate manner applies in writing to the U.S. EPA Regional Administrator in the U.S. EPA Region where the activity would take place, or the Director of the National Program Chemicals Division for decontamination activity occurring in more than one U.S. EPA Region.</p> <p>Verify that each application contains a description of the material to be decontaminated, the nature and PCB concentration of the contaminating material (if known), the decontamination method, the proposed sampling procedure, and a justification for how the proposed sampling is equivalent to or more comprehensive than the usual required sampling procedure.</p> <p>(NOTE: U.S. EPA will issue a written decision on each application for risk-based decontamination or sampling.</p> <p>Verify that nobody conducts decontamination or sampling using an alternate methodology prior to obtaining written approval from U.S. EPA.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>POLYCHLORINATED BIPHENYLS (PCBs)</p> <p>TT.170</p> <p>Import/ Export</p>	<p>(NOTE: These requirements apply to the shipment of PCB Items into and out of the United States for disposal.)</p>
<p>TT.170.1. The import of PCB Items for disposal is subject to certain restrictions (40 CFR 761.93(a) and 761.99).</p>	<p>Determine if the facility receives imported PCB Items for disposal.</p> <p>Verify that PCBs and PCB Items are not imported for disposal without an exemption issued under the authority of TSCA section 6(e)(3).</p> <p>(NOTE: The following transboundary shipments are not considered imports:</p> <ul style="list-style-type: none"> - PCB waste generated in the U.S., transported outside the Customs Territory of the U.S. (including any residuals resulting from cleanup of spills of such wastes in transit) through another country or its territorial waters, or through international waters, and returned to the U.S. for disposal - PCB waste in transit, including any residuals resulting from cleanup of spills during transit, through the U.S. (e.g., from Mexico to Canada, from Canada to Mexico).
<p>TT.170.2. The export PCBs or PCB Items for disposal is subject to certain restrictions (40 CFR 761.97 and 761.99).</p>	<p>Verify that the facility is not exporting PCBs or PCB Items for disposal without an exemption.</p> <p>(NOTE: PCBs and PCB Items at concentrations < 50 ppm (or < 10 µg PCB/100 cm² if no free-flowing liquids are present) may be exported for disposal.)</p> <p>(NOTE: In relation to export for disposal, PCBs and PCB Items of unknown concentrations are to be treated as if they contain >= 50 ppm.)</p> <p>(NOTE: The following transboundary shipments are not considered exports:</p> <ul style="list-style-type: none"> - PCB waste generated in the U.S., transported outside the Customs Territory of the U.S. (including any residuals resulting from cleanup of spills of such wastes in transit) through another country or its territorial waters, or through international waters, and returned to the U.S. for disposal - PCB waste in transit, including any residuals resulting from cleanup of spills during transit, through the U.S. (e.g., from Mexico to Canada, from Canada to Mexico).

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>ASBESTOS</p> <p>TT.200</p> <p>In Schools</p>	<p>(NOTE: This protocol does not include coverage of the requirements under 40 CFR 61, Subpart M (National Emission Standards for Hazardous Air Pollutants (NESHAP)).)</p>
<p>TT.200.1. Each building that is leased, owned, or otherwise used as a school building is required to be inspected, and reinspected, for asbestos containing building materials (ACBM) and a report generated (40 CFR 763.85).</p>	<p>(NOTE: Any building that is leased or acquired on or after October 12, 1988, that is to be used as a school building must be inspected prior to use as a school building. If emergency use of a building as a school building is required, inspection will occur within 30 days.)</p> <p>Verify that all school buildings have been inspected for friable and nonfriable ACBM, including sampling, as required by an accredited inspector.</p> <p>Verify that, for each area of a school building, each person performing an inspection:</p> <ul style="list-style-type: none"> – visually inspects the area to identify the locations of all suspected ACBM – touches all suspected ACBM to determine whether they are friable – identifies all homogeneous areas of friable suspected ACBM and all homogeneous areas of nonfriable suspected ACBM – assume that some or all of the homogeneous areas are ACM, and, for each homogeneous area that is not assumed to be ACM, collects and submits for analysis bulk samples – assesses friable material in areas where samples are collected, friable material in areas that are assumed to be ACBM, and friable ACBM identified during a previous inspection – record the following and submit a copy of such record for inclusion in the management plan within 30 days of the inspection: <ul style="list-style-type: none"> – an inspection report with the date of the inspection signed by each accredited person making the inspection, state of accreditation, and if applicable, his or her accreditation number – an inventory of the locations of the homogeneous areas where samples are collected, exact location where each bulk sample is collected, dates that samples are collected, homogeneous areas where friable suspected ACBM is assumed to be ACM, and homogeneous areas where nonfriable suspected ACBM is assumed to be ACM – a description of the manner used to determine sampling locations, the name and signature of each accredited inspector who collected the samples, state of accreditation, and, if applicable, his or her accreditation number – a list of whether the homogeneous areas identified are surfacing material, thermal system insulation, or miscellaneous material – assessments made of friable material, the name and signature of each accredited inspector making the assessment, state of accreditation, and

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p style="text-align: center;">if applicable, his or her accreditation number.</p> <p>Verify that, in each school building, reinspection of all friable and nonfriable known or assumed ACBM is done every 3 yr by an accredited inspector after a management plan is in place.</p> <p>Verify that, for each area of a school building, each person performing a reinspection:</p> <ul style="list-style-type: none"> – visually reinspects, and reassesses, the condition of all friable known or assumed ACBM – visually inspects material that was previously considered nonfriable ACBM and touches the material to determine whether it has become friable since the last inspection or reinspection – identifies any homogeneous areas with material that has become friable since the last inspection or reinspection – for each homogeneous area of newly friable material that is already assumed to be ACBM, bulk samples are collected and submitted for analysis – assesses the condition of the newly friable material in areas where samples are collected, and newly friable materials in areas that are assumed to be ACBM – reassesses the condition of friable known or assumed ACBM previously identified – records the following and submits a copy for inclusion in the management plan within 30 days of the reinspection: <ul style="list-style-type: none"> – the date of the reinspection, the name and signature of the person making the reinspection, state of accreditation, and if applicable, his or her accreditation number, and any changes in the condition of known or assumed ACBM – the exact locations where samples are collected during the reinspection, a description of the manner used to determine sampling locations, the name and signature of each accredited inspector who collected the samples, state of accreditation, and, if applicable, his or her accreditation number – any assessments or reassessments made of friable material, the name and signature of the accredited inspector making the assessments, state of accreditation, and if applicable, his or her accreditation number. <p>(NOTE: Thermal system insulation that has retained its structural integrity and that has an undamaged protective jacket or wrap that prevents fiber release is treated as nonfriable and therefore is subject only to periodic surveillance and preventive measures as necessary.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.200.2. Sampling and analysis of asbestos in schools is required to be done according to specific parameters (40 CFR 763.86 and 763.87).</p>	<p>Verify that an accredited inspector collects, in a statistically random manner that is representative of the homogeneous area, bulk samples from each homogeneous area of friable surfacing material that is not assumed to be ACM, and collects the samples as follows:</p> <ul style="list-style-type: none"> – at least three bulk samples from each homogeneous area that is 1,000 ft² or less, except a homogeneous area is determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount > 1 percent – at least five bulk samples from each homogeneous area that is > 1,000 ft² but <= to 5,000 ft², except a homogeneous area is determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount > 1 percent – at least seven bulk samples from each homogeneous area that is > 5,000 ft², except a homogeneous area is determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount > 1 percent. <p>Verify that, an accredited inspector collects, in a randomly distributed manner, at least three bulk samples from each homogeneous area of thermal system insulation that is not assumed to be ACM.</p> <p>Verify that, an accredited inspector collects at least one bulk sample from each homogeneous area of patched thermal system insulation that is not assumed to be ACM if the patched section is < 6 linear or square feet.</p> <p>Verify that, in a manner sufficient to determine whether the material is ACM or not ACM, an accredited inspector collects bulk samples from each insulated mechanical system that is not assumed to be ACM where cement or plaster is used on fittings such as tees, elbows, or valves, except a homogeneous area is determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount > 1 percent.</p> <p>(NOTE: Bulk samples are not required to be collected from any homogeneous area where the accredited inspector has determined that the thermal system insulation is fiberglass, foam glass, rubber, or other non-ACBM.)</p> <p>Verify that, in a manner sufficient to determine whether material is ACM or not ACM, an accredited inspector collects bulk samples from each homogeneous area of friable miscellaneous material that is not assumed to be ACM.</p> <p>Verify that, if any homogeneous area of nonfriable suspected ACBM is not assumed to be ACM, an accredited inspector collects, in a manner sufficient to determine whether the material is ACM or not ACM, bulk samples from the homogeneous area of nonfriable suspected ACBM that is not assumed to be ACM.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that local education agencies have bulk samples analyzed for asbestos using laboratories accredited by the National Bureau of Standards (NBS).</p> <p>(NOTE: The National Bureau of Standards is now known as the National Institute for Standards and Technology (NIST). NIST operates a National Voluntary Laboratory Accreditation Program (NVLAP).)</p> <p>Verify that local education agencies use laboratories which have received interim accreditation for polarized light microscopy (PLM) analysis under the U.S. EPA Interim Asbestos Bulk Sample Analysis Quality Assurance Program until the NBS PLM laboratory accreditation program for PLM is operational.</p> <p>(NOTE: Bulk samples shall not be composited for analysis and shall be analyzed for asbestos content by PLM, using the “Interim Method for the Determination of Asbestos in Bulk Insulation Samples” found at appendix E of 40 CFR 763, Subpart E.)</p> <p>(NOTE: A homogeneous area is considered not to contain ACM only if the results of all samples required to be collected from the area show asbestos in amounts of 1 percent or less. A homogeneous area shall be determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount > 1 percent.)</p> <p>Verify that the name and address of each laboratory performing an analysis, the date of analysis, and the name and signature of the person performing the analysis is submitted for inclusion into the management plan within 30 days of the analysis.</p>
<p>TT.200.3. Each inspection or reinspection is required to result in a written assessment of all friable known or assumed ACBM in the school building (40 CFR 763.88).</p>	<p>Verify that an accredited inspector provides a written assessment of all friable known or assumed ACBM in the school building.</p> <p>Verify that each accredited inspector providing a written assessment signs and dates the assessment, provides their state of accreditation, and if applicable, accreditation number, and submits a copy of the assessment for inclusion in the management plan within 30 days of the assessment.</p> <p>Verify that the assessment classifies the ACBM and suspected ACBM assumed to be ACM into one of the following categories:</p> <ul style="list-style-type: none"> – damaged or significantly damaged thermal system insulation ACM – damaged friable surfacing ACM – significantly damaged friable surfacing ACM – damaged or significantly damaged friable miscellaneous ACM – ACBM with potential for damage – ACBM with potential for significant damage – any remaining friable ACBM or friable suspected ACBM.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(NOTE: The assessment may include the following considerations:</p> <ul style="list-style-type: none"> - location and the amount of the material, both in total quantity and as a percentage of the functional space - condition of the material, specifying: <ul style="list-style-type: none"> - type of damage or significant damage (e.g., flaking, blistering, water damage, or other signs of physical damage) - severity of damage (e.g., major flaking, severely torn jackets, as opposed to occasional flaking, minor tears to jackets) - extent or spread of damage over large areas or large percentages of the homogeneous area - whether the material is accessible - the material's potential for disturbance - known or suspected causes of damage or significant damage (e.g., air erosion, vandalism, vibration, water) - preventive measures which might eliminate the reasonable likelihood of undamaged ACM from becoming significantly damaged.) <p>(NOTE: The local education agency shall select a person accredited to develop management plans to review the results of each inspection, reinspection, and assessment for the school building and to conduct any other necessary activities in order to recommend in writing to the local education agency appropriate response actions. The accredited person shall sign and date the recommendation, provide his or her state of accreditation, and, if applicable, provide his or her accreditation number, and submit a copy for inclusion in the management plan.)</p>
<p>TT.200.4. An asbestos management plan is required for each school building (40 CFR 763.93).</p>	<p>Verify that asbestos management plans have been submitted to an agency designated by the governor of the state in which the local education agency is located, and that they include all buildings that the local education agency leases, owns or otherwise uses as school buildings prior to their use as school buildings.</p> <p>(NOTE: The plan may be submitted in stages that cover a portion of the school buildings under the authority of the local education agency.)</p> <p>Verify that the plan is kept current and up-to-date with ongoing operational and maintenance, periodic surveillance, inspection, reinspection and response action activities.</p> <p>Verify that the plan was developed by an accredited management planner and includes:</p> <ul style="list-style-type: none"> - a list of the name and address of each school building and whether the building contains friable ACBM, nonfriable ACBM, and friable and nonfriable suspected ACBM assumed to be ACM - for each inspection done before December 14, 1987:

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - date of the inspection - a blueprint, diagram or written description of each school building that identifies clearly each location and approximate square or linear footage of any homogeneous or sampling area where material was sampled for ACM, and, if possible, the exact locations where bulk samples were collected, and the dates of collection - a copy of the analyses of any bulk samples, dates of analyses, and a copy of any other laboratory reports pertaining to analyses - a description of any response actions or preventive measures taken to reduce asbestos exposure, including if possible, the names and addresses of all contractors involved, start and completion dates of the work, and results of any air samples analyzed during and upon completion of the work - descriptions of any assessments required to be made under 40 CFR 763.88, of material that was identified before December 14, 1987, as friable ACM or friable suspected ACM assumed to be ACM, and the name and signature, state of accreditation, and if applicable, accreditation number of each accredited person making the assessments - for each inspection and reinspection: <ul style="list-style-type: none"> - the date of the inspection or reinspection and the name and signature, state of accreditation and, if applicable, the accreditation number of each accredited inspector performing the inspection or reinspection - a blueprint, diagram, or written description of each school building that identifies clearly each location and approximate square or linear footage of homogeneous areas where material was sampled for ACM, the exact location where each bulk sample was collected, date of collection, homogeneous areas where friable suspected ACM is assumed to be ACM, and where nonfriable suspected ACM is assumed to be ACM - a description of the manner used to determine sampling locations, and the name and signature of each accredited inspector collecting samples, the state of accreditation, and if applicable, his or her accreditation number - a copy of the analyses of any bulk samples collected and analyzed, the name and address of any laboratory that analyzed bulk samples, a statement that the laboratory meets applicable requirements, the date of analysis, and the name and signature of the person performing the analysis - a description of assessments of all ACM and suspected ACM assumed to be ACM, and the name, signature, state of accreditation, and if applicable, accreditation number of each accredited person making the assessments. - the name, address, and telephone number of the person designated to ensure that the duties of the local education agency are carried out, and the course name, and dates and hours of training taken by that person to carry out the duties

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - the recommendations made to the local education agency regarding response actions, the name, signature, state of accreditation of each person making the recommendations, and if applicable, his or her accreditation number - a detailed description of preventive measures and response actions to be taken, including methods to be used, for any friable ACBM, the locations where such measures and action will be taken, reasons for selecting the response action or preventive measure, and a schedule for beginning and completing each preventive measure and response action. - with respect to the person or persons who inspected for ACBM and who will design or carry out response actions, except for operations and maintenance, with respect to the ACBM, one of the following statements: <ul style="list-style-type: none"> - if the state has adopted a contractor accreditation program under section 206(b) of Title II of TSCA, a statement that the person(s) is accredited under such plan - a statement that the local education agency used (or will use) persons who have been accredited by another state which has adopted a contractor accreditation plan under section 206(b) of Title II of TSCA or is accredited by an U.S. EPA-approved course under section 206(c) of Title II of TSCA. - a detailed description in the form of a blueprint, diagram, or in writing of any ACBM or suspected ACBM assumed to be ACM which remains in the school once response actions are undertaken. This description is updated as response actions are completed. - a plan for reinspection, a plan for operations and maintenance activities, and a plan for periodic surveillance, a description of the recommendation made by the management planner regarding additional cleaning as part of an operations and maintenance program, and the response of the local education agency to that recommendation - a description of steps taken to inform workers and building occupants, or their legal guardians, about inspections, reinspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress - an evaluation of the resources needed to complete response actions successfully and carry out reinspection, operations and maintenance activities, periodic surveillance and training - with respect to each consultant who contributed to the management plan, the name of the consultant and one of the following statements: <ul style="list-style-type: none"> - if the state has adopted a contractor accreditation plan under section 206(b) of Title II of TSCA, a statement that the consultant is accredited under such plan - a statement that the contractor is accredited by another state which has adopted a contractor accreditation plan under section 206(b) of Title II of TSCA, or is accredited by an U.S. EPA-approved course developed under section 206(c) of Title II of TSCA. <p>(NOTE: A local education agency may require each management plan to contain</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>a statement signed by an accredited management plan developer that such person has prepared or assisted in the preparation of such plan or has reviewed such plan, and that such plan is in compliance. Such statement may not be signed by a person who, in addition to preparing or assisting in preparing the management plan, also implements (or will implement) the management plan.)</p> <p>Verify that the management plans are available, without cost or restriction, for inspection by representatives of U.S. EPA and the state, the public, including teachers, other school personnel and their representatives, and parents.</p> <p>Verify that each local education agency maintains in its administrative office a complete, updated copy of a management plan for each school under its administrative control or direction. The management plans shall be available, during normal business hours, without cost or restriction, for inspection by representatives of U.S. EPA and the state, the public, including teachers, other school personnel and their representatives, and parents. (NOTE: The local education agency may charge a reasonable cost to make copies of management plans. A management plan must be available for inspection without cost or restriction to workers before work begins in an area of the school building.).</p> <p>(NOTE: The local education agency shall notify, in writing, any relevant parent, teacher or employee organizations, of the availability of the plans and shall include in the plans: a description of the steps taken to notify such organizations and dated copies of the notifications.)</p> <p>Verify that each school maintains in its administrative office a complete, updated copy of the management plan for that school.</p> <p>Verify that each management plan contains a true and correct statement, signed by the individual designated by the local education agency, which certifies that the general, local education agency responsibilities, have been met or will be met.</p>
<p>TT.200.5. Periodic surveillance is required at least once every 6 mo after a management plan is in effect (40 CFR 763.92(b), 763.90(a) and 763.90(b)(2)).</p>	<p>Verify that, at least once every 6 mo after a management plan is in effect, each local education agency conducts periodic surveillance in each building that it leases, owns, or otherwise uses as a school building that contains ACBM or is assumed to contain ACBM.</p> <p>Verify that individuals performing periodic surveillance:</p> <ul style="list-style-type: none"> – visually inspected all areas that are identified in the management plan as ACBM or assumed ACBM – record the date of the surveillance, his or her name, and any changes in the condition of the materials – submits to the person designated to carry out general local education agency responsibilities a copy of the surveillance record for inclusion in the management plan.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	(NOTE: The local education agency must select and implement, in a timely manner, the appropriate response action, consistent with the written assessment, that protects human health and the environment in the least burdensome manner, considering local circumstances and economic concerns.)
TT.200.6. Response actions are required to be selected and implemented in a timely manner and according to specific methods (40 CFR 763.90).	<p>Verify that, if damaged or significantly damaged thermal system insulation ACM is present in the building, the local education agency will:</p> <ul style="list-style-type: none"> – at least repair the damaged area – remove the damaged material if it is not feasible, due to technological difficulties, to repair the damage – maintain all thermal system insulation ACM and its coverings in an intact state and undamaged condition. <p>Verify that, if damaged friable surfacing ACM or damaged friable miscellaneous ACM is present, the local education agency selects from the following response actions:</p> <ul style="list-style-type: none"> – encapsulation – enclosure – removal – repair. <p>Verify that, if significantly damaged friable surfacing ACM or significantly damaged friable miscellaneous ACM is present in a building, the local education agency:</p> <ul style="list-style-type: none"> – immediately isolates the functional space and restricts access unless isolation is not needed to protect human health and the environment – removes the material in the functional space or, depending on whether enclosure or encapsulation is sufficient to protect human health and the environment, enclose or encapsulate. <p>Verify that, if any friable surfacing ACM, thermal system insulation ACM, or friable miscellaneous ACM that has potential for damage is present in the building, an appropriate operations and maintenance (O&M) program is implemented.</p> <p>Verify that, if any friable surfacing ACM, thermal insulation ACM, or friable miscellaneous ACM that has potential for significant damage is present, the local education agency:</p> <ul style="list-style-type: none"> – implements an appropriate O&M program – institutes preventative measures to eliminate the reasonable likelihood that

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>the ACM or its covering will become significantly damaged, deteriorated, or delaminated</p> <ul style="list-style-type: none"> – removes the material as soon as possible if appropriate preventative measures cannot be effectively implemented and isolates the area and restricts access is necessary to avoid an imminent and substantial endangerment to human health and the environment, unless other response actions are determined to protect human health or the environment. <p>Verify that response actions including removal, encapsulation, enclosure, or repair, other than small-scale, short-duration repairs, are designed and conducted by persons accredited to design and conduct response actions.</p> <p>Verify that, at the conclusion of any action to remove, encapsulate, or enclose ACBM or material assumed to be ACBM, a person designated by the local education agency visually inspects each functional space where the action was conducted to determine whether the action has been properly completed.</p> <p>Verify that the person designated by the local education agency collects air samples using aggressive sampling as described in Appendix A of 40 CFR 763, Subpart E to monitor air for clearance after each removal, encapsulation, and enclosure project involving ACBM, except for projects that are of small-scale, short-duration.</p> <p>Verify that the local education agency arranges for air samples to be analyzed for asbestos using laboratories accredited by the National Institute of Standards and Technology (NIST) or, under circumstances described in 40 CFR 763.80 through 763.98, laboratories enrolled in the American Industrial Hygiene Association Proficiency Analytical Testing Program for phase contrast microscopy (PCM).</p>
<p>TT.200.7. A person must be designated by the local education agency to perform specific tasks and functions (40 CFR 763.84(g)).</p>	<p>Verify that the person designated to ensure that requirements concerning asbestos in schools are implemented correctly is trained in the following:</p> <ul style="list-style-type: none"> – health effects of asbestos – detection, identification, and assessment of ACM – options for controlling ACM – asbestos management programs – relevant state and federal regulations.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.200.8. An operations, maintenance and repair program is required to be developed whenever any friable ACBM is present or assumed to be present in a building that is used as a school building (40 CFR 763.91(a) through 763.91(e)).</p>	<p>(NOTE: Any material identified as nonfriable ACBM or nonfriable assumed ACBM must be treated as friable ACBM when the material is about to become friable as a result of activities performed in the school building.)</p> <p>Verify that employees of local education agencies are protected according to the standards in 40 CFR 763.121 (see checklist items TT.230.1 through TT.230.9) while performing operations, maintenance, and repair (O&M) activities involving ACM and who are not covered by the Asbestos Standard of the Occupational Safety and Health Administration (OSHA), 29 CFR 1926.1101, or an asbestos standard adopted by a state as part of a state plan approved by OSHA under Section 18 of OSHA or a state asbestos regulation which the U.S. EPA has determined to be more stringent than 40 CFR 763.120 through 763.126.</p> <p>Verify that, unless the building has been cleaned using equivalent methods within the previous 6 mo, all areas of a school building where friable ACBM, damaged or significantly damaged thermal system insulation ACM, or friable suspected ACBM assumed to be ACM are present are cleaned at least once after the completion of the required inspection and before the initiation of any response action, other than O&M activities or repair, according to the following procedures:</p> <ul style="list-style-type: none"> – HEPA-vacuum or steam-clean all carpets – HEPA-vacuum or wet-clean all other floors and all other horizontal surfaces – dispose of all debris, filters, mopheads, and cloths in sealed, leak-tight containers. <p>Verify that the accredited management planner makes a written recommendation to the local education agency whether additional cleaning is needed, and if so, the methods and frequency of such cleaning.</p> <p>Verify that the following actions are taken for any O&M operations disturbing friable ACBM:</p> <ul style="list-style-type: none"> – entry is restricted into the area by persons other than those needed to perform the maintenance project (this can be done by isolating the area or by scheduling) – signs are posted to prevent entry by unauthorized persons – air-handling systems are shutoff or temporarily modified and other sources of air movement are restricted – whatever work practices are required to prohibit the spread of any released fibers are used – all fixtures or other components in the immediate work area are cleaned – the asbestos debris and other cleaning materials are placed in a sealed, leak-tight container. <p>Verify that response actions for any maintenance activities disturbing friable ACBM, other than small-scale, short-duration maintenance are designed by persons accredited to design response actions and conducted by persons accredited</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	to conduct response actions.
TT.200.9. Warning labels are required to be attached immediately adjacent to any friable and nonfriable ACBM and suspected ACBM assumed to be ACM located in routine maintenance areas (such as boiler rooms) at each school building (40 CFR 763.95).	<p>Verify that labels are in place in the following areas:</p> <ul style="list-style-type: none"> – where friable ACBM was responded to by any means other than removal – where there is ACBM for which no response action was carried out. <p>Verify that labels are displayed in highly visible places and remain posted until the ACBM that is labeled is removed.</p> <p>Verify that the label reads, CAUTION: ASBESTOS. HAZARDOUS. DO NOT DISTURB WITHOUT PROPER TRAINING AND EQUIPMENT.</p>
TT.200.10. All members of the school maintenance and custodial staff who might work in a building that contains ACBM are required to receive at least 2 h of awareness training whether or not they are required to work with ACBM (40 CFR 763.92(a)(1) and 763.92(a)(3)).	<p>Verify that the school maintenance and custodial staff has been trained.</p> <p>Verify that new personnel are trained within 60 days after start of employment.</p> <p>Verify that the training has included:</p> <ul style="list-style-type: none"> – information regarding asbestos and the various uses and forms – information on the health effects associated with asbestos exposure – locations of all ACBM identified throughout each school building in which they work – recognition of damaged, deterioration, and delamination of ACBM – name and telephone number of the person designated to carry out responsibilities for asbestos management and the availability and location of the management plan. <p>(NOTE: Local education agency maintenance and custodial staff who have attended U.S. EPA-approved asbestos training or received equivalent training for O&M and periodic surveillance activities involving asbestos shall be considered trained.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.200.11. School maintenance and custodial staff that conduct any activities that will result in the disturbance of ACBM are required to received an additional 14 h of training (40 CFR 763.92(a)(2) and 763.92(a)(3)).</p>	<p>Verify that staff has received additional training that includes:</p> <ul style="list-style-type: none"> – descriptions of the proper methods of handling ACBM – information on the use of respiratory protection as contained in the U.S. EPA/NIOSH (National Institute for Occupational Safety and Health) <i>Guide to Respiratory Protection for the Asbestos Abatement Industry</i> – the requirements found in 40 CFR 763.91, 763.92 and Appendices A, B, C, and D of 40 CFR 763 Subpart E (763.80 through 763.99) – abatement requirements in 40 CFR 763.120 through 763.126 and 40 CFR 61.140 through 61.157 – OSHA regulations contained in 29 CFR 1926.1101 – hands-on training in the use of respiratory protection, other personal protection measures, and good work practices. <p>(NOTE: Local education agency maintenance and custodial staff who have attended U.S. EPA-approved asbestos training or received equivalent training for O&M and periodic surveillance activities involving asbestos shall be considered trained.)</p>
<p>TT.200.12. Specific actions are required to be taken in response to a fiber release episode (40 CFR 763.91(f)).</p>	<p>Verify that the following procedures are implemented in the event of a minor fiber release episode (i.e., the falling or dislodging of 3 square or linear feet or less of friable ACBM):</p> <ul style="list-style-type: none"> – thoroughly saturate the debris using wet methods – clean the area – place the asbestos debris in a sealed, leak-tight container – repair the area of damaged ACM with materials such as asbestos-free spackling, plaster, cement, or insulation, or seal with latex paint or an encapsulant, or immediately have the appropriate response action implemented. <p>Verify that the following procedures are implemented in the event of a major fiber release episode (i.e., the falling or dislodging of more than 3 square or linear feet of friable ACBM):</p> <ul style="list-style-type: none"> – restrict entry into the area and post signs to prevent entry into the area by persons other than those necessary to perform the response action – shut off or temporarily modify the air-handling system to prevent the distribution of fibers to other areas in the building – the response action for any major fiber release episode is designed by persons accredited to design response actions and conducted by persons accredited to conduct response actions.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.200.13. Records pertaining to asbestos in schools are required to be maintained in a central location in the administrative office of both the school and the local education agency (40 CFR 763.94).</p>	<p>Verify that required records are maintained in a centralized location in the administrative office of both the school and the local education agency as part of the management plan.</p> <p>Verify that records for each homogeneous area where all ACBM has been removed, are retained for 3 yr after the next reinspection, or for an equivalent period.</p> <p>Verify that, for each preventive measure and response action taken for friable and nonfriable ACBM and friable and nonfriable suspected ACBM assumed to be ACM, the local education agency provides:</p> <ul style="list-style-type: none"> – a detailed written description of the measure or action, including methods used, the location where the measure or action was taken, reasons for selecting the measure or action, start and completion dates of the work, names and addresses of all contractors involved, and if applicable, their state of accreditation, and accreditation numbers, and if ACBM is removed, the name and location of storage or disposal site of the ACM – the name and signature of any person collecting any air sample required to be collected at the completion of certain response actions, the locations where samples were collected, date of collection, the name and address of the laboratory analyzing the samples, the date of analysis, the results of the analysis, the method of analysis, the name and signature of the person performing the analysis, and a statement that the laboratory is compliant. <p>Verify that, for each person required to be trained, the local education agency provides the person's name and job title, the date that training was completed by that person, the location of the training, and the number of hours completed in such training.</p> <p>Verify that, for each time that periodic surveillance is performed, the local education agency records the name of each person performing the surveillance, the date of the surveillance, and any changes in the conditions of the materials.</p> <p>Verify that, for each time that cleaning is performed, the local education agency records the name of each person performing the cleaning, the date of such cleaning, the locations cleaned, and the methods used to perform such cleaning.</p> <p>Verify that, for each time that operations and maintenance activities under are performed, the local education agency records the name of each person performing the activity, the start and completion dates of the activity, the locations where such activity occurred, a description of the activity including preventive measures used, and if ACBM is removed, the name and location of storage or disposal site of the ACM.</p> <p>Verify that, for each time that major asbestos activity is performed, the local education agency provides the name and signature, state of accreditation, and if</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>applicable, the accreditation number of each person performing the activity, the start and completion dates of the activity, the locations where such activity occurred, a description of the activity including preventive measures used, and if ACM is removed, the name and location of storage or disposal site of the ACM.</p> <p>Verify that, for each fiber release episode, the local education agency provides the date and location of the episode, the method of repair, preventive measures or response action taken, the name of each person performing the work, and if ACM is removed, the name and location of storage or disposal site of the ACM.</p>

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>ASBESTOS</p> <p>TT.230</p> <p>Abatement Projects</p>	<p>(NOTE: The requirements in TT.230 must be followed during asbestos abatement projects by employers of state and local government employees not covered by the Asbestos Standard of the Occupational Safety and Health Administration (OSHA), 29 CFR 1926.1101, an Asbestos Standard adopted by a state as part of a state plan approved by OSHA under section 18 of the Occupational Safety and Health Act, or a state asbestos regulation which U.S. EPA has determined to be comparable to or more stringent than 40 CFR 763. The rule covers those employees who take part in asbestos abatement work (40 CFR 763.120).)</p>
<p>TT.230.1. Specific standards on permissible exposure limits and communication are required to be met (40 CFR 763.121(c) and 763.121(d)).</p>	<p>Verify that the employer ensures no employee is exposed to an airborne concentration of asbestos in excess of 0.2 fiber/cm³ of air as an 8-hour time-weighted average (TWA).</p> <p>Verify that, on multi-employer worksites, an employer performing asbestos work requiring the establishment of a regulated area informs other employers on the site of the nature of the employer's work with asbestos and of the existence of and requirements pertaining to regulated areas.</p>
<p>TT.230.2. Regulated areas are required to be established and managed according to certain parameters (40 CFR 763.121(e)).</p>	<p>Verify that a regulated area is established in work areas where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the permissible exposure limit (PEL) of 0.2 fiber/cm³ of air as an 8-hour TWA.</p> <p>Verify that the regulated area is demarcated in any manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne concentrations of asbestos in excess of the PEL.</p> <p>Verify that access to regulated areas is limited to authorized persons.</p> <p>Verify that all persons entering a regulated area are supplied with an appropriate respirator.</p> <p>Verify that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the regulated area.</p> <p>Verify that, wherever feasible, the employer establishes negative-pressure enclosures before commencing removal, demolition, and renovation operations.</p> <p>Verify that the employer designates a competent person to perform or supervise the following duties:</p> <ul style="list-style-type: none"> – set up the enclosure – ensure the integrity of the enclosure – control entry to and exit from the enclosure – supervise all required employee exposure monitoring – ensure that employees working within the enclosure wear required respirators

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>and protective clothing</p> <ul style="list-style-type: none"> - ensure that employees are trained in the use of engineering controls, work practices, and personal protective equipment - ensure that employees use the hygiene facilities and observe the required decontamination procedures - ensure that engineering controls are functioning properly. <p>Verify that the competent person is trained in all aspects of asbestos abatement, the contents of this regulation, the identification of asbestos and its removal procedures, and other practices for reducing the hazard.</p> <p>(NOTE: For small-scale, short-duration operations, such as pipe repair, valve replacement, installing electrical conduits, installing or removing drywall, roofing, and other general building maintenance or renovation, the employer is not required to designate a competent person or perform the actions associated with the competent person or establish negative-pressure enclosures before commencing removal, demolition, and renovation operations.)</p>
<p>TT.230.3. Exposure monitoring is required to be done according to specific parameters (40 CFR 763.121(f)).</p>	<p>Verify that each employer performs monitoring to determine accurately the airborne concentrations of asbestos to which employees may be exposed.</p> <p>Verify that determinations of employee exposure are made from breathing zone air samples that are representative of the 8-hour TWA of each employee.</p> <p>Verify that representative 8-hour TWA employee exposure is determined on the basis of one or more samples representing full shift exposure for employees in each work area.</p> <p>Verify that initial monitoring is performed at the initiation of each asbestos job to determine accurately the airborne concentrations of asbestos to which employees may be exposed.</p> <p>(NOTE: The employer may demonstrate that employee exposures are below the action level by means of objective data demonstrating that the product or material containing asbestos cannot release airborne fibers in concentrations exceeding the action level under those work conditions having the greatest potential for releasing asbestos. Where the employer has monitored each asbestos job, and the data were obtained during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the employer may rely on such earlier monitoring results to satisfy the requirements for initial monitoring (This process is called an "exemption." Exemptions are specifically discussed at TT.230.9).)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that daily monitoring is done that is representative of the exposure of each employee who is assigned to work within a regulated area.</p> <p>(NOTE: When all employees within a regulated area are equipped with supplied-air respirators operated in the positive-pressure mode, the employer may dispense with the daily monitoring.)</p> <p>(NOTE: If the periodic monitoring reveals that employee exposures, as indicated by statistically reliable measurements, are below the action level, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring.)</p> <p>Verify that all samples taken are personal samples collected following the procedures specified in Appendix A of 40 CFR 763.121.</p> <p>Verify that all samples are evaluated using the U.S. EPA/OSHA Reference Method (ORM) specified in Appendix A of 40 CFR 763.121, or an equivalent counting method.</p> <p>(NOTE: If an equivalent method to the ORM is used, the employer ensures that the method meets the following criteria:</p> <ul style="list-style-type: none"> – replicate exposure data used to establish equivalency are collected in side-by-side field and laboratory comparisons – the comparison indicates that 90 percent of the samples collected in the range 0.5 to 2.0 times the permissible limit have an accuracy range of plus or minus 25 percent of the ORM results with a 95 percent confidence level as demonstrated by a statistically valid protocol – the equivalent method is documented and the results of the comparison testing are maintained. <p>Verify that affected employees are notified of the monitoring results that represent the employees' exposure as soon as possible following receipt of monitoring results.</p> <p>(NOTE: Notification can be in writing either individually or by posting at a centrally located place that is accessible to affected employees.)</p> <p>Verify that the employer provides affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to asbestos.</p> <p>Verify that, when observation of the monitoring of employee exposure to asbestos requires entry into an area where the use of protective clothing or equipment is required, the observer is provided with and required to use such clothing and equipment and comply with all other applicable safety and health procedures.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.230.4. Employers are required to use an approved method to achieve compliance with the PEL (40 CFR 763.121(g)).</p>	<p>Verify that the employer uses one or any combination of the following control methods to achieve compliance with the PEL:</p> <ul style="list-style-type: none"> – local exhaust ventilation equipped with HEPA filter dust collection systems – general ventilation systems – vacuum cleaners equipped with HEPA filters – enclosure or isolation of processes producing asbestos dust – use of wet methods, wetting agents, or removal encapsulants to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup – prompt disposal of wastes contaminated with asbestos in leak-tight containers – use of work practices or other engineering controls that the U.S. EPA or authorized regulatory agency can show to be feasible. <p>Verify that, wherever the feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, the employer uses them to reduce employee exposure to the lowest levels attainable by these controls and supplements them by the use of respiratory protection.</p> <p>Verify that high-speed abrasive disc saws that are not equipped with appropriate engineering controls are not used for work related to asbestos.</p> <p>Verify that compressed air is not used to remove asbestos materials containing asbestos unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air.</p> <p>Verify that materials containing asbestos are not applied by spray methods.</p> <p>(NOTE: The employer shall not use employee rotation as a means of compliance with the exposure limit.)</p>
<p>TT.230.5. Respirators are required to be used in certain circumstances and meet certain operating requirements (40 CFR 763.121(h)).</p>	<p>Verify that respirators are used in the following circumstances:</p> <ul style="list-style-type: none"> – during the interval necessary to install or implement feasible engineering and work practice controls – in work operations such as maintenance and repair activities, or other activities for which engineering and work practice controls are not feasible – in work situations where feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the exposure limit – in emergencies. <p>Verify that, where respirators are used, the employer selects and provide, at no cost to the employee, the appropriate respirator as specified in Appendix E of this document and ensures that the employee uses the respirator provided.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(NOTE: The employer shall select respirators from among those jointly approved as being acceptable for protection by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR 11.)</p> <p>Verify that the employer provides a powered, air-purifying respirator in lieu of any negative-pressure respirator specified in Appendix E of this document whenever both of the following are met:</p> <ul style="list-style-type: none"> – an employee chooses to use this type of respirator – this respirator will provide adequate protection to the employee. <p>Verify that, where respiratory protection is used, the employer institutes a respirator program including all information and guidance necessary for their proper selection, use, and care and emergency use.</p> <p>(NOTE: Although the regulations 40 CFR 763.121(h)(3)(i) use the term “employee,” the preamble to the final rule states: “The employer must develop a respirator program” (see 52 FR 5618.5260 (February 25, 1987)).)</p> <p>Verify that the employer permits each employee who uses a filter respirator to change the filter elements whenever an increase in breathing resistance is detected and maintains an adequate supply of filter elements.</p> <p>Verify that employees who wear respirators are permitted to leave work areas to wash their faces and respirator facepieces whenever necessary to prevent skin irritation associated with respirator use.</p> <p>(NOTE: No employee shall be assigned to tasks requiring the use of respirators if, based on his or her most recent examination, an examining physician determines that the employee will be unable to function normally wearing a respirator, or that the safety or health of the employee or of other employees will be impaired by the use of a respirator. Such employee shall be assigned to another job or given the opportunity to transfer to a different position, the duties of which he or she is able to perform, with the same employer, in the same geographical area, and with the same seniority, status, and rate of pay he or she had just prior to such transfer, if such a different position is available.)</p> <p>Verify that the respirator is fitted properly.</p> <p>Verify that either quantitative or qualitative (for half-mask respirators, where permitted) face fit tests are performed at the time of initial fitting and at least every 6 mo thereafter for each employee wearing a negative-pressure respirator.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>TT.230.6. Protective clothing and hygiene will be provided and used (40 CFR 763.121(i), 763.121(j) and 765.121(l)(2)).</p>	<p>Verify that protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings is provided for any employee exposed to airborne concentrations of asbestos that exceed the PEL.</p> <p>Verify that the laundering of contaminated clothing is done so as to prevent the release of airborne asbestos in excess of the PEL.</p> <p>(NOTE: Any employer who gives contaminated clothing to another person for laundering shall inform such person of the requirement to prevent the release of airborne asbestos in excess of the exposure limit.)</p> <p>Verify that asbestos waste scrap, debris, bags, containers, equipment and contaminated clothing consigned for disposal are collected and disposed of in sealed, labeled impermeable bags or other closed, labeled and impermeable containers.</p> <p>Verify that contaminated clothing is transported in sealed impermeable bags, or other closed, impermeable containers, and is properly labeled.</p> <p>Verify that a competent person periodically examines worksuits worn by employees for rips or tears that may occur during performance of work.</p> <p>Verify that, when rips or tears are detected while an employee is working within a negative-pressure enclosure, they are immediately mended, or the worksuit is immediately replaced.</p> <p>Verify that clean change areas are provided for employees required to work in regulated areas or required to wear protective clothing.</p> <p>(NOTE: Instead of the change area requirement, the employer may permit employees engaged in small-scale, short-duration operations to clean their protective clothing with a portable HEPA-equipped vacuum before leaving the area where maintenance was performed.)</p> <p>Verify that change areas are equipped with separate storage facilities for protective clothing and street clothing.</p> <p>Verify that, whenever food or beverages are consumed at the worksite and employees are exposed to airborne concentrations of asbestos in excess of the permissible exposure limit, the employer provides lunch areas in which the airborne concentrations of asbestos are below the action level.</p> <p>Verify that, except for small-scale, short-duration operations, the employer establishes a decontamination area that is adjacent and connected to the regulated area for the decontamination of employees contaminated with asbestos.</p> <p>(NOTE: The decontamination area consists of an equipment room, shower area,</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>and clean room in series. The employer shall ensure that employees enter and exit the regulated area through the decontamination area.)</p> <p>Verify that the clean room is equipped with a locker or appropriate storage container for each employee's use.</p> <p>Verify that, where feasible, shower facilities are provided.</p> <p>Verify that the showers are contiguous both to the equipment room and the clean change room, unless the employer can demonstrate that this location is not feasible.</p> <p>Verify that, where the employer can demonstrate that it is not feasible to locate this shower between the equipment room and the clean change room, the employer ensures that employees do one or both of the following:</p> <ul style="list-style-type: none"> – remove asbestos contamination from their worksuits using a HEPA vacuum before proceeding to a shower that is not contiguous to the work area – remove their contaminated worksuits, don clean worksuits, and proceed to a shower that is not contiguous to the work area. <p>Verify that the equipment room is supplied with impermeable, labeled bags and containers for the containment and disposal of contaminated protective clothing and equipment.</p> <p>Verify that employees:</p> <ul style="list-style-type: none"> – enter the decontamination area through the clean room – remove and deposit street clothing within a locker provided for their use – put on protective clothing and respiratory protection before leaving the clean room. <p>Verify that employees pass through the equipment room before entering the enclosure.</p> <p>Verify that employees remove all gross contamination and debris from their protective clothing before leaving the regulated area.</p> <p>Verify that employees remove their protective clothing in the equipment room and deposit the clothing in labeled impermeable bags or containers.</p> <p>Verify that employees do not remove their respirators in the equipment room.</p> <p>Verify that employees shower prior to entering the clean room.</p> <p>Verify that, after showering, employees enter the clean room before changing into</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	street clothes.
TT.230.7. Employers are required to communicate hazards to employees (40 CFR 763.121(k)).	<p>Verify that warning signs that demarcate the regulated area are provided and displayed at each location where airborne concentrations of asbestos may be in excess of the exposure limit.</p> <p>Verify that signs are posted at such a distance from such a location that an employee may read the signs and take necessary protective steps before entering the area marked by the signs.</p> <p>Verify that the signs have the following information:</p> <p style="text-align: center;">DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA</p> <p>Verify that labels are affixed to all products containing asbestos and to all containers containing such products, including waste containers.</p> <p>Verify that, where feasible, installed asbestos products contain a visible label.</p> <p>Verify that labels are printed in large, bold letters on a contrasting background and contain the following information:</p> <p style="text-align: center;">DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD</p> <p>Verify that labels contain a warning statement against breathing airborne asbestos fibers.</p> <p>(NOTE: The provisions for labels being affixed to products and container containing asbestos do not apply where:</p> <ul style="list-style-type: none"> – asbestos fibers have been modified by a bonding agent, coating, binder, or other material, provided that the manufacturer can demonstrate that, during any reasonably foreseeable use, handling, storage, disposal, processing, or transportation, no airborne concentrations of asbestos fibers in excess of the action level (oil fibers/cm³ of air as an 8 hr TWA) will be released – asbestos is present in a product in concentrations < 0.1 percent by weight.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that the employer starts a training program for all employees exposed to airborne concentrations of asbestos at or above the action level and ensures their participation in the program.</p> <p>Verify that training is provided prior to or at the time of initial assignment, (unless the employee has received equivalent training within the previous 12 mo) and at least annually thereafter.</p> <p>Verify that the training program is conducted in a manner that the employee is able to understand and each employee is informed of the following:</p> <ul style="list-style-type: none"> – methods of recognizing asbestos – the health effects associated with asbestos exposure – the relationship between smoking and asbestos in producing lung cancer – the nature of operations that could result in exposure to asbestos, the importance of necessary protective controls to minimize exposure including, as applicable, engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, emergency procedures, and waste disposal procedures, and any necessary instruction in the use of these controls and procedures – the purpose, proper use, fitting instructions, and limitations of respirators – the appropriate work practices for performing the asbestos job – medical surveillance program requirements – the federal regulations under 40 CFR 763.120 through 763.126, including appendices. <p>Verify that all written materials relating to the employee training program are readily available, including a copy of the regulation.</p>
<p>TT.230.8. Employers are required to implement a medical surveillance program (40 CFR 763.121(m)).</p>	<p>Verify that a medical surveillance program has been started for all employees engaged in work involving levels of asbestos at or above the action level for 30 or more days per yr, or who are required to wear negative-pressure respirators.</p> <p>Verify that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and are provided at no cost to the employee and at a reasonable time and place.</p> <p>(NOTE: Persons other than such licensed physicians who administer the pulmonary function testing shall complete a training course in spirometry sponsored by an appropriate academic or professional institution.)</p> <p>Verify that medical examinations and consultations are made available on the following schedules:</p> <ul style="list-style-type: none"> – prior to assignment of the employee to an area where negative-pressure

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>respirators are worn</p> <ul style="list-style-type: none"> - when the employee is assigned to an area where exposure to asbestos may be at or above the action level for 30 or more days per yr, within 10 working days following the thirtieth day of exposure - at least annually thereafter. <p>(NOTE: No medical examination is required of any employee if adequate records show that the employee has been examined within the past 1-yr period.)</p> <p>Verify that medical examinations include:</p> <ul style="list-style-type: none"> - a medical and work history with special emphasis directed to the pulmonary cardiovascular and gastrointestinal systems - on initial examination, the standardized questionnaire contained in Appendix D, part 1 of 40 CFR 763.121 and, on annual examination, the abbreviated standardized questionnaire contained in Appendix D, part 2 of 40 CFR 763.121 - a physical examination directed to the pulmonary and gastrointestinal systems, roentgenograms to be administered at the discretion of the physician, and pulmonary function tests of forced vital capacity (FVC) and forced expiratory volume at one second (FEV). Interpretation and classification of chest roentgenograms must be conducted in accordance with Appendix E of 40 CFR 761.121 - any other examinations and tests deemed necessary by the examining physician. <p>Verify that the employer provides the following information to the physician:</p> <ul style="list-style-type: none"> - a copy of 40 CFR 763, Subpart G and Appendices D and E of 40 CFR 761.121 - a description of the affected employee's duties as they relate to the employee's exposure - the employee's representative exposure level or anticipated exposure level - a description of any personal protective and respiratory equipment used or to be used - information from previous medical examinations of the affected employee that is no otherwise available to the examining physician. <p>Verify that the employer obtains a written opinion from the examining physician and that the written opinion contains the results of the medical examination and includes:</p> <ul style="list-style-type: none"> - the physicians opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos - any recommended limitations on the employee or on the use of personal

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>protective equipment such as respirators</p> <ul style="list-style-type: none"> - a statement that the employee has been informed by the physician of the results of the medical examinations and of any medical condition that may result from asbestos exposure. <p>Verify that a copy of the physician's written opinion is provided to the affected employee within 30 days from its receipt.</p>
<p>TT.230.9. Employers are required to maintain certain records (40 CFR 763.121(n)).</p>	<p>Verify that an accurate record is maintained of data used to support exemptions, including the following:</p> <ul style="list-style-type: none"> - the product qualifying for exemption - the source of the objective data - the testing protocol, results of testing, and/or analysis of the material for the release of asbestos - a description of the operation exempted and how the data support the exemption - other data relevant to the operations, materials, processing, or employee exposures covered by the exemption. <p>Verify that records of objective data supporting exemptions are maintained for the duration of the employer's reliance upon such objective data.</p> <p>Verify that an accurate record is kept for at least 30 yr of all measurements taken to monitor employee exposure to asbestos, including:</p> <ul style="list-style-type: none"> - the date of measurement - the operation involving exposure to asbestos that is being monitored - sampling and analytical methods used and evidence of their accuracy - number, duration, and results of samples taken - type of protective devices worn, if any - name, social security number, and exposure of the employees whose exposures are represented. <p>Verify that medical surveillance records are kept for the duration of employment plus 30 yr, and include the following information:</p> <ul style="list-style-type: none"> - the name and social security number of the employee - a copy of the employee's medical examination results, including the medical history, questionnaire responses, results of any tests, and physician's recommendations - physician's written opinions - any employee medical complaints related to exposure to asbestos - a copy of the information provided to the physician.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that all employee training records are kept for 1 yr beyond the last date of employment by that employer.</p> <p>Verify that the employer, upon request, makes any required exposure records available for examination and copying to affected employees, former employees, designated representatives, and the U.S. EPA Administrator.</p> <p>Verify that the employer, upon request, makes required medical records available for examination and copying to the subject employees, anyone have the specific written consent of the subject employee, and the U.S. EPA Administrator.</p> <p>(NOTE: Whenever the employer ceases to operate and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the U.S. EPA Administrator at least 90 days prior to disposal and, upon request, transmit them to the U.S. EPA Administrator.)</p>
<p>TT.230.10. Employers are required to report to U.S. EPA about asbestos abatement projects (40 CFR 763.124).</p>	<p>Verify that employers report to the Regional Asbestos Coordinator for the U.S. EPA Region in which the asbestos abatement project is located at least 10 days before any such project except:</p> <ul style="list-style-type: none"> – one that involves less than either 3 linear feet or 3 square feet of friable asbestos material – an emergency project (which must be reported as soon as possible but in no case more than 48 hours after the project begins). <p>Verify that the report includes:</p> <ul style="list-style-type: none"> – the employer’s name and address – the location, including street address, of the asbestos abatement project – the scheduled starting and completion dates for the project. <p>(NOTE: Employers do not have to file a report if they submit a notice to U.S. EPA under the National Emission Standard for Asbestos, 40 CFR 61.146, at least 10 days before they begin the asbestos abatement project and that notice clearly indicates that employees covered by the rule will perform some or all of the asbestos abatement work.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>ASBESTOS</p> <p>TT.260</p> <p>Prohibition on Manufacturing, Importing, Processing and Distributing in Commerce of Certain Asbestos-Containing Products</p>	
<p>TT.260.1. Manufacturers and importers are required to comply with prohibitions related to asbestos-containing products (40 CFR 763.165).</p>	<p>Verify that after August 27, 1990, no person manufactures or imports the following asbestos-containing products, either for use in the United States or for export:</p> <ul style="list-style-type: none"> – flooring felt – new uses of asbestos. <p>Verify that after August 26, 1996, no person manufactures or imports the following asbestos-containing products, either for use in the United States or for export:</p> <ul style="list-style-type: none"> – commercial paper – corrugated paper – rollboard – specialty paper. <p>(NOTE: These import prohibitions do not prohibit either of the following:</p> <ul style="list-style-type: none"> – the import into the customs territory of the United States of products imported solely for shipment outside the customs territory of the United States, unless further repackaging or processing of the product is performed in the United States – activities involving purchases or acquisitions of small quantities of products made outside the customs territory of the United States for personal use in the United States.)
<p>TT.260.2. Processors are required to comply with prohibitions related to asbestos-containing products (40 CFR 763.167).</p>	<p>Verify that after August 27, 1990, no person processes for any use, either in the United States or for export, any of the following asbestos-containing products:</p> <ul style="list-style-type: none"> – flooring felt – new uses of asbestos. <p>Verify that after August 26, 1996, no person processes for any use, either in the</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>United States or for export, any of the following asbestos-containing products:</p> <ul style="list-style-type: none"> – commercial paper – corrugated paper – rollboard – specialty paper.
<p>TT.260.3. Certain prohibitions apply when distributing asbestos-containing products in commerce (40 CFR 763.169).</p>	<p>Verify that, after August 25, 1992, no person distributes in commerce, either for use in the United States or for export, any of the following asbestos-containing products:</p> <ul style="list-style-type: none"> – flooring felt – new uses of asbestos. <p>Verify that after August 25, 1997, no person distributes in commerce, either for use in the United States or for export, any of the following asbestos-containing products:</p> <ul style="list-style-type: none"> – commercial paper – corrugated paper – rollboard – specialty paper. <p>(NOTE: A manufacturer, importer, processor, or any other person who is subject to a ban on distribution in commerce must, within 6 mo of the effective date of the ban of a specific asbestos-containing product from distribution in commerce, dispose of all their remaining stock-on-hand of that product, by means that are in compliance with applicable local, state, and federal restrictions which are current at that time.)</p>
<p>TT.260.4. Manufacturers, importers, and processors are required to abide by certain labeling requirements for asbestos-containing products (40 CFR 763.171).</p>	<p>Verify that after August 27, 1990, manufacturers, importers, and processors of the following asbestos-containing products label the products at the time of manufacture, import, or processing:</p> <ul style="list-style-type: none"> – flooring felt – new uses of asbestos. <p>(NOTE: This requirement includes labeling all manufacturers', importers', and processors' stock-on-hand as of August 27, 1990.)</p> <p>Verify that after August 25, 1995, manufacturers, importers, and processors of the following asbestos-containing products label the products at the time of manufacture, import, or processing:</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - commercial paper - corrugated paper - rollboard - specialty paper. <p>(NOTE: This includes labeling all manufacturers', importers', and processors' stock-on-hand as of August 25, 1995.)</p> <p>Verify that the label is placed directly on the visible exterior of the wrappings and packaging in which the product is placed for sale, shipment, or storage.</p> <p>Verify that, if the product has more than one layer of external wrapping or packaging, the label is attached to the innermost layer adjacent to the product.</p> <p>Verify that, if the innermost layer of product wrapping or packaging does not have a visible exterior surface larger than 5 in², either a tag is securely attached to the product's innermost layer of product wrapping or packaging, or a label is attached to the next outer layer of product packaging or wrapping.</p> <p>Verify that any products that are distributed in commerce to someone other than the end user, shipped, or stored without packaging or wrapping are labeled or tagged directly on a visible exterior surface of the product.</p> <p>Verify that labels are either printed directly on product packaging or in the form of a sticker or tag made of plastic, paper, metal, or other durable substances.</p> <p>Verify that labels are attached so that they cannot be removed without defacing or destroying them.</p> <p>(NOTE: Product labels shall consist of block letters and numerals of color that contrasts with the background of the label or tag. Labels shall be sufficiently durable to equal or exceed the life, including storage and disposal, of the product packaging or wrapping. The size of the label or tag must be at least 15.25 cm (6 inches) on each side. If the product packaging is too small to accommodate a label of this size, the label may be reduced in size proportionately to the size of the product packaging or wrapping down to a minimum 2.5 cm (1 inch) on each side if the product wrapping or packaging has a visible exterior surface larger than 5 square inches. Products shall be labeled in English as follows:</p> <p style="text-align: center;">NOTICE</p> <p style="text-align: center;">This product contains ASBESTOS. The U.S. Environmental Protection Agency has banned the distribution in U.S. commerce of this product under section 6 of the Toxic Substances Control Act (15 U.S.C. 2605) as of (insert effective date of ban on distribution in commerce). Distribution of this product in commerce after this date and intentionally removing or tampering with this label are violations of federal law.)</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that no one intentionally removes, defaces, covers, or otherwise obscures or tampers with a label or sticker that has been applied, except when the product is used or disposed of.</p>
<p>TT.260.5. Manufacturers, importers, processors, and distributors are required to maintain specific records (40 CFR 763.178)</p>	<p>Verify that manufacturers, importers, and processors perform an inventory of the stock-on-hand of each banned product as of the effective date of the ban for that product for the applicable activity.</p> <p>Verify that the inventory is in writing and includes the type of product, the number of product units currently in the stock-on-hand of the person performing the inventory, and the location of the stock.</p> <p>Verify that results of the inventory for a banned product are maintained by the person for 3 yr after the effective date of the 40 CFR 763.165 or 40 CFR 763.167 ban on the product (see checklist items TT.260.1 and TT.260.2).</p> <p>Verify that manufacturers, importers, processors, and distributors subject to the asbestos bans for a product, between the effective dates, keep records of all commercial transactions regarding the product, including the dates of purchases and sales and the quantities purchased or sold.</p> <p>Verify that these records are maintained for 3 yr after the effective date of the 40 CFR 763.169 ban for the product (see checklist item TT.260.3).</p> <p>Verify that each person required to meet labeling requirements, keeps a copy of the label used in compliance with 40 CFR 763.171 for 3 yr after the effective date of the ban on distribution in commerce for the product for which the 40 CFR 763.171 requirements apply.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>LEAD-BASED PAINT (LBP)</p> <p>TT.300</p> <p>Notification Requirements</p>	
<p>TT.300.1. The lessor is responsible for informing lessees of target housing (see definitions) of the presence of any known LBP and/or LBP hazards according to specific parameters (40 CFR 745.100, 745.101, 745.107, 745.113(b), and 745.113(c)).</p>	<p>(NOTE: The deadlines for these requirements were as follows: – for owners of more than four residential dwellings, September 6, 1996 – for owners of one to four residential dwellings, December 6, 1996.)</p> <p>(NOTE: The disclosure requirements do not imply a positive obligation on the lessor to conduct any evaluation or reduction activities.)</p> <p>Verify that in the disclosure process the lessor provides the following prior to signature on a lease:</p> <ul style="list-style-type: none"> – a copy of a U.S. EPA approved lead hazard information pamphlet – the presence of any known LBP and/or LBP hazards in the target housing being leased – any additional information available concerning the known LBP and/or LBP hazards such as the basis for determination that LBP or LBP hazards exist, the location of the LBP or LBP hazards, and the condition of the painted surfaces – copies of records or reports available pertaining to LBP or LBP hazards in the target housing, including reports regarding common areas – records or reports regarding other residential dwelling in multifamily target housing if the information is a part of an evaluation or reduction of LBP and/or LBP hazard in the target housing as a whole. <p>Verify that the contracts to lease target housing include an attachment containing the following elements in the language of the contract:</p> <ul style="list-style-type: none"> – a lead warning statement (appropriate language can be found in 40 CFR 745.113) – a statement by the lessor disclosing the presence of known LBP or LBP hazards in the target housing, or a statement indicating no knowledge of the presence of LBP and/or LBP hazards – any additional information available concerning the known LBP and/or LBP hazards such as the basis for determination that LBP or LBP hazards exist, the location of the LBP or LBP hazards and the condition of the painted surfaces – a list of records/reports available to the lessor pertaining to the LBP and/ LBP hazards that have been provided to the purchaser – a statement by the lessee indicating the above items have been received

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - signatures of lessees, agents, lessors certifying the accuracy of the statements - a statement (when one or more agents are involved) that: <ul style="list-style-type: none"> - the agent has informed the lessor of the lessor obligations under 42 U.S.C. 4852 d, and - the agent is aware of his/her duty to ensure compliance with the requirements of 40 CFR 745. <p>Verify that the lessor retains a copy of the contract attachments for no less than 3 yr from the start of the leasing period.</p> <p>(NOTE: The following are exempted from these notification requirements:</p> <ul style="list-style-type: none"> - sales of target housing at foreclosure - leases of target housing that have been found to be LBP free by an inspector certified under the federal certification program or under a federally accredited state or tribal certification program - short-term leases of 100 days or less where no lease renewal or extension can occur - renewal of existing leases in target housing where all required LBP disclosures have previously occurred (renewal includes both renegotiation of existing lease terms and/or ratification of a new lease).)
<p>TT.300.2. The seller is responsible for informing purchasers of target housing of the presence of any known LBP and/or LBP hazards according to specific parameters (40 CFR 745.100, 745.101, 745.107, 745.110, 745.113(a), and 745.113(c))</p>	<p>(NOTE: The deadlines for these requirements were as follows:</p> <ul style="list-style-type: none"> - for owners of more than four residential dwellings, September 6, 1996 - for owners of one to four residential dwellings, December 6, 1996.) <p>(NOTE: The disclosure requirements do not imply a positive obligation on the seller to conduct any evaluation or reduction activities.)</p> <p>Determine if the facility is in the process of selling any target housing.</p> <p>Verify that in the disclosure process the seller provides the following to the purchaser prior to the purchaser being obligated under any contract:</p> <ul style="list-style-type: none"> - a copy of a U.S. EPA approved lead hazard information pamphlet - the presence of any known LBP and/or LBP hazards in the target housing being sold - any additional information available concerning the known LBP and/or LBP hazards such as the basis for determination that LBP or LBP hazards exist, the location of the LBP or LBP hazards, and the condition of the painted surfaces - copies of records or reports available pertaining to LBP or LBP hazards in the target housing, including reports regarding common areas - records or reports regarding other residential dwelling in multifamily target housing if the information is a part of an evaluation or reduction of LBP and/or LBP hazard in the target housing as a whole.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>(NOTE: Before a purchaser is obligated under any contract to purchase target housing, the seller has to permit the purchaser a 10-day period to conduct a risk assessment or inspection for the presence of LBP and/or LBP hazards. A different period of time may be used if both parties mutually agree in writing. A purchaser may waive the opportunity to conduct the risk assessment or inspection, but must do so in writing.)</p> <p>Verify that the contracts to sell target housing include an attachment containing the following elements in the language of the contract:</p> <ul style="list-style-type: none"> - a lead warning statement (appropriate language can be found in 40 CFR 745.113) - a statement by the seller disclosing the presence of known LBP or LBP hazards in the target housing, or a statement indicating no knowledge of the presence of LBP and/or LBP hazards - any additional information available concerning the known LBP and/or LBP hazards such as the basis for determination that LBP or LBP hazards exist, the location of the LBP or LBP hazards, and the condition of the painted surfaces - a list of records/reports available to the seller pertaining to the LBP and/or LBP hazards that have been provided to the purchaser - a statement by the purchaser indicating the above items have been received - a statement by the purchaser that they have either: <ul style="list-style-type: none"> - received the opportunity to conduct a risk assessment or inspection - waived the opportunity - signatures of sellers, agents, purchasers certifying the accuracy of the statements - a statement (when one or more agents are involved) that: <ul style="list-style-type: none"> - the agent has informed the lessor of the lessor obligations under 42 U.S.C. 4852 d, and - the agent is aware of his/her duty to ensure compliance with the requirements of 40 CFR 745. <p>Verify that the seller retains a copy of the contract attachments for no less than 3 yr from the start of the leasing period.</p> <p>(NOTE: The following are exempted from these notification requirements:</p> <ul style="list-style-type: none"> - sales of target housing at foreclosure - leases of target housing that have been found to be LBP free by an inspector certified under the federal certification program or under a federally accredited state or tribal certification program - short-term leases of 100 days or less where no lease renewal or extension can occur - renewal of existing leases in target housing where all required LBP disclosures have previously occurred (renewal includes both renegotiation of

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	existing lease terms and/or ratification of a new lease).)
<p>TT.300.3. Specific notifications must be issued prior to the renovation of any residential unit of target housing (40 CFR 745.81, 745.82 and 745.85).</p>	<p>(NOTE: This requirement is in effect as of June 1, 1999, and applies to all renovations of target housing performed for compensation.)</p> <p>(NOTE: This requirement does not apply to renovation activities that are limited to the following:</p> <ul style="list-style-type: none"> - minor repair and maintenance activities (including minor electrical work and plumbing, that disrupts 2 ft² or less of painted surface per component - emergency renovation operations - renovations in target housing in which a written determination has been made by a certified inspector that the components affected by the renovation are free of paint or other surface coatings that contain lead \geq 1.0 mg/cm² or 0.5% by weight, where the renovator has obtained a copy of the determination.) <p>Verify that no more than 60 days prior to starting renovation activities in any residential dwelling unit of target housing, the renovator:</p> <ul style="list-style-type: none"> - provides the owner of the unit with a pamphlet and obtains either a written acknowledgment from the owner or a certificate of mailing at least 7 days prior to the renovation - provides the adult occupant of the unit if the unit is not owner occupied, and obtains one of the following: <ul style="list-style-type: none"> - from the adult occupant, a written acknowledgment that the occupant has received the pamphlet; or written certification that a pamphlet has been delivered to the dwelling and that the renovator has been unsuccessful in obtaining a written acknowledgment from an adult occupant - a certificate of mailing at least 7 days prior to the renovation. <p>(NOTE: A certificate of mailing must include the address of the unit undergoing renovation, the date and method of delivery of the pamphlet, names of the persons delivering the pamphlet, reason for lack of acknowledgment (e.g., occupant refuses to sign, no adult occupant available), the signature of the renovator, and the date of signature.)</p> <p>Verify that no more than 60 days prior to starting renovation activities in common areas of multifamily housing, the renovator:</p> <ul style="list-style-type: none"> - provides the owner with the pamphlet and obtains written acknowledgment from the owner or a certificate of mailing at least 7 days prior to the renovation - notifies in writing, or ensures written notification of, each unit of the multifamily housing and makes the pamphlet available upon request prior to

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>the start of renovation</p> <ul style="list-style-type: none"> - prepares, signs, and dates a statement describing the steps performed to notify all occupants of the intended renovation activities and to provide the pamphlet - provides further written notification if the scope, locations, or expected starting and ending dates of the planned renovation activities change after the initial notification providing revised information on the ongoing or planned activities. <p>(NOTE: Subsequent notification must be provided before the renovator initiates work beyond that which was described in the original notice.)</p> <p>Verify that the notification for renovation in common areas describes the general nature and locations of the planned renovation activities, the expected starting and ending dates, and a statement of how the occupant can obtain the LBP pamphlet at no charge from the renovator.</p>
<p>TT.300.4. Certain records are required to be kept in relation to notification of LBP renovations (40 CFR 745.81, 745.82 and 745.86).</p>	<p>(NOTE: This requirement is in effect as of June 1, 1999, and applies to all renovations of target housing performed for compensation.)</p> <p>(NOTE: This requirement does not apply to renovation activities that are limited to the following:</p> <ul style="list-style-type: none"> - minor repair and maintenance activities (including minor electrical work and plumbing, that disrupts 2 ft² or less of painted surface per component - emergency renovation operations.) <p>Verify that all records necessary to demonstrate compliance with this requirement are maintained for 3 yr, including:</p> <ul style="list-style-type: none"> - reports by a certified inspector that the components affected by the renovation are free of paint or other surface coatings that contain lead => 1.0 mg/cm² or 0.5% by weight, where the renovator has obtained a copy of the determination - signed and dated acknowledgments of receipt - certifications of attempted delivery - records of notification activities performed relating to common area renovations.

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>LEAD-BASED PAINT (LBP)</p> <p>TT.320</p> <p>Training Requirements</p>	<p>(NOTE: These requirements apply:</p> <ul style="list-style-type: none"> - to all individuals and firms engaged in LBP activities except persons who perform these activities within residential dwellings that they own, unless one of the following circumstances is present: <ul style="list-style-type: none"> - the residential dwelling is occupied by a person or persons other than the owner or the owners immediate family while these activities are being performed - a child residing in the building has been identified as having an elevated blood lead level (EBL) - only in those states or Indian Country that do not have an authorized state or tribal program (40 CFR 745.220(b)).) <p>(NOTE: This protocol does <u>not</u> include the requirements for training providers (e.g. course and curriculum requirements specified under 40 CFR 745.225 and 745.226).)</p>
<p>TT.320.1. All LBP activities are required to be performed by certified individuals and firms (40 CFR 745.220(a), 745.226(a)(3), 745.226(a)(5), 745.226(e), 745.226(f)(1), and 745.233).</p>	<p>(NOTE: This requirement is effective as of March 1, 2000.)</p> <p>Verify that all LBP activities in target housing or child occupied facilities are performed by U.S. EPA certified individuals or firms.</p> <p>(NOTE: Certification is available for inspectors, risk assessors, supervisors, project designers, or abatement workers.)</p> <p>Verify that recertification is done:</p> <ul style="list-style-type: none"> - every 3 yr if the individual completed a training course with a course test and hands-on assessment - every 5 yr if the individual completed a training course with a proficiency test. <p>(NOTE: It shall be a violation of TSCA for an individual or firm to conduct any of the lead-based paint activities described in 40 CFR 745.227 (see checklist items TT.350.1 through TT.350.4) after March 1, 2000, if that individual has not been certified by U.S. EPA to do so.)</p>
<p>TT.320.2. Training programs for LBP activities are required to be accredited (40 CFR 745.225).</p>	<p>(NOTE: This requirement is effective as of August 30, 1999.)</p> <p>Determine if the facility provides training in LBP removal.</p> <p>Verify that the training is U.S. EPA accredited.</p> <p>(NOTE: Training programs in states and Indian Country that do not have</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	authorized state programs in place by August 31, 1998, may first apply to the U.S. EPA for accreditation on or after August 31, 1998.)

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
<p>LEAD-BASED PAINT (LBP)</p> <p>TT.350</p> <p>Work Practice Standards</p>	<p>(NOTE: These requirements apply:</p> <ul style="list-style-type: none"> - to all individuals and firms engaged in LBP activities except persons who perform these activities within residential dwellings that they own, unless one of the following circumstances is present: <ul style="list-style-type: none"> - the residential dwelling is occupied by a person or persons other than the owner or the owners immediate family while these activities are being performed - a child residing in the building has been identified as having an EBL - only in those states or Indian Country that do not have an authorized state or Tribal program (40 CFR 745.220(b)).)
<p>TT.350.1. Inspections are required to be done according to specific methodologies (40 CFR 745.227(a)(1), 745.227(b), and 745.227(f)).</p>	<p>(NOTE: These requirements are effective as of March 1, 2000.)</p> <p>Verify that inspections are done by U.S. EPA certified inspectors.</p> <p>Verify that inspections were performed according to a documented methodology (documented methodologies that are appropriate for this task are listed in 40 CFR 745.227(a)(3)) and include testing of:</p> <ul style="list-style-type: none"> - in a residential dwelling and child-occupied facility, each component with a distinct painting history and each exterior component with a distinct painting history is tested for LBP, except for components which are determined to have been replaced after 1978 or to not contain LBP at all - in a multi-family dwelling or child occupied facility, each component with a distinct painting history in every common area, except those components which have been determined to have been replaced after 1978 or to not contain LBP. <p>Verify that an inspection report is prepared that includes the following:</p> <ul style="list-style-type: none"> - date of each inspection - address of building - date of construction - apartment numbers (if applicable) - name, address, and telephone number of the owner or owners of each residential dwelling or child-occupied facility - name, signature, and certification number of each certified inspector and/or risk assessor conducting testing - name, address, and telephone number of the certified firm employing each inspector and/or risk assessor, if applicable - each testing method and device and/or sampling procedures employed for paint analysis, including quality control data and, if used the serial number of any x-ray fluorescence (XRF) device - specific location of each painted component tested for the presence of LBP - the results of the inspection expressed in terms appropriate to the sampling

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>method used.</p> <p>Verify that any paint chip, dust, or soil samples collected are collected by persons certified by the U.S. EPA and analyzed by a U.S. EPA recognized laboratory.</p>
<p>TT.350.2. Lead hazard screens are required to be done according so specific methodologies (40 CFR 745.227(a)(1), 745.227(c), and 745.227(f)).</p>	<p>(NOTE: These requirements are effective as of March 1, 2000.)</p> <p>Verify that lead hazard screens are only done by a person certified by the U.S. EPA as a risk assessor.</p> <p>Verify that lead hazard screens were performed according to a documented methodology and included:</p> <ul style="list-style-type: none"> - background information is collected on the physical characteristics of the residential dwelling or child-occupied facility and occupant use patterns that may cause LBP exposure to one or more children age 6 yr or under - a visual inspection of the residential dwelling or child-occupied facility is conducted to determine if deteriorated paint is present and locate at least two dust sampling locations - each surface with deteriorated paint which is determined, using documented methodologies, to be in poor condition and to have a distinct painting history is tested for the presence of lead - in residential dwellings two composite dust samples are collected, one from the floors and the other from the windows, in rooms, hallways, or stairwells where one or more children age 6 and under are most likely to come in contact with dust - in multi-family dwellings and child-occupied facilities in addition to floor and window samples, composite dust samples are collected from common areas where one or more children, age 6 and under, are most likely to come into contact with dust. <p>(NOTE: Sampling and testing methodologies are prescribed by the U.S. EPA under 40 CFR 745.227(a)(3).)</p> <p>Verify that a lead hazard screen report is produced which contains the following:</p> <ul style="list-style-type: none"> - date of each screening - address of building - date of construction - apartment numbers (if applicable) - name, address, and telephone number of the owner or owners of each residential dwelling or child-occupied facility - name, signature, and certification number of each risk assessor conducting testing

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none"> - name, address, and telephone number of the certified firm employing each risk assessor, if applicable - name, address, and telephone number of each recognized laboratory conducting analysis of collected samples - results of the visual inspection - each testing method and device and/or sampling procedures employed for paint analysis - specific location of each painted component tested for the presence of LBP - all data collected from onsite testing, including quality control data and, if used, the serial number of any XRF device all results of laboratory analysis on collected paint, soil, and dust samples - any other sampling results - any background information - recommendations. <p>Verify that any paint chip, dust, or soil samples collected are collected by persons certified by the U.S. EPA and analyzed by a U.S. EPA recognized laboratory.</p>
<p>TT.350.3. Risk assessments are required to be done according to specific methodologies (40 CFR 745.227(a)(1), 745.227(d), and 745.227(f)).</p>	<p>(NOTE: These requirements are effective as of March 1, 2000.)</p> <p>Verify that risk assessments are only done by a person certified by the U.S. EPA as a risk assessor.</p> <p>Verify that risk assessments were performed according to a documented methodology (documented methodologies that are appropriate for this task are listed in 40 CFR 745.227(a)(3)), and include:</p> <ul style="list-style-type: none"> - background information is collected on the physical characteristics of the residential dwelling or child-occupied facility and occupant use patterns that may cause LBP exposure to one or more children age 6 yr or under - a visual inspection of the residential dwelling or child-occupied facility is conducted to determine if deteriorated paint is present, assess the extent and causes of deterioration, and other potential LBP hazards - each surface with deteriorated paint which is determined, using documented methodologies, to be in poor condition and to have a distinct painting history is tested for the presence of lead - surfaces determined, using documented methodologies, to be a potential LBP hazard and having a distinct painting history are tested for lead - in residential dwelling dust samples (either composite or single surface samples) are collected from the floors the windows in all living areas where one or more children age 6 and under are most likely to come in contact with dust - in multi-family dwellings and child-occupied facilities in addition to floor and window samples, dust samples (either composite or single surface) are

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>collected from common areas adjacent to the sample residential dwelling or child-occupied facility and other common areas where one or more children, age 6 and under, are likely to come into contact with dust</p> <ul style="list-style-type: none"> - for child-occupied facilities, window and floor dust samples (either composite or single surface samples) are collected in each room, hallway, or stairwell utilized by one or more children age 6 and under, and in other common areas in the child-occupied facility where one or more children, age 6 and under, are likely to come into contact with dust - soil samples are collected and analyzed for lead concentration in exterior play areas where bare soil is present and dripline/foundation areas where bare soil is present. <p>(NOTE: Sampling and testing methodologies are prescribed by the U.S. EPA.)</p> <p>Verify that a risk assessment report is produced which contains the following:</p> <ul style="list-style-type: none"> - date of assessment - address of building - date of construction - apartment numbers (if applicable) - name, address, and telephone number of the owner or owners of each building - name, signature, and certification number of each risk assessor conducting testing - name, address, and telephone number of the certified firm employing each risk assessor, if applicable - name, address, and telephone number of each recognized laboratory conducting analysis of collected samples - results of the visual inspection - each testing method and device and/or sampling procedures employed for paint analysis - specific location of each painted component tested for the presence of LBP - all data collected from onsite testing, including quality control data and, if used, the serial number of any XRF device - all results of laboratory analysis on collected paint, soil, and dust samples - any other sampling results - any background information - results of previous inspections or analyses to the extent they are used as a part of the hazard determination - a description of the location, type, and severity of identified LBP hazards and any other potential lead hazards - a description of interim controls and/or abatement options for each identified LBP hazard and a suggested prioritization for addressing each hazard.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that, if the report suggests using encapsulation or enclosure, a maintenance schedule and monitoring schedule is recommended in the report.</p> <p>Verify that any paint chip, dust, or soil samples collected are collected by persons certified by the U.S. EPA and analyzed by a U.S. EPA recognized laboratory.</p>
<p>TT.350.4. LBP abatement is required to be done according to specific methodologies (40 CFR 745.227(a)(1), 745.227(e), and 745.227(f)).</p>	<p>(NOTE: These requirements are effective as of March 1, 2000.)</p> <p>Verify that each abatement project has a certified supervisor that is onsite during all work site preparation and during the post-abatement cleanup of work areas.</p> <p>Verify that, when abatement activities are being conducted, the supervisor is either onsite or available by telephone, pager, or answering service and able to be present at the work site in not more than 2 h.</p> <p>Verify that the U.S. EPA was notified prior to the start of abatement activities.</p> <p>Verify that a written occupant protection plan was developed for all projects describing the measures and management procedures that will be taken during the abatement to protect the building occupants from LBP exposure and is unique to each dwelling and each child occupied facility.</p> <p>Verify that any paint chip, dust, or soil samples collected are collected by persons certified by the U.S. EPA and analyzed by a U.S. EPA recognized laboratory.</p> <p>Verify that the occupant protection plan was prepared by a certified supervisor or project designer.</p> <p>Verify that the following constraints are followed during the abatement:</p> <ul style="list-style-type: none"> – there is no open-flame burning or torching of LBP – machine sanding or grinding or abrasive blasting of LBP is not done unless used with HEPA exhaust control which removes particles of 0.3 microns or larger from the area at 99.97 percent or greater efficiency – dry scrapings are done only in conjunction with heat guns or around electrical outlets or when treating defective paint spots totaling no more than 2 ft² in any one room, hallway or stairwell or totaling no more than 20 ft² on exterior surfaces – operating a heat gun on LBP is done only at temperatures below 1100 °F. <p>Verify that soil abatement is done by either replacing the soil with soil that is not lead contaminated or permanently covering it.</p>

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<p>Verify that the following post-abatement procedures are performed by a certified inspector or risk assessor in accordance with 40 CFR 745.223:</p> <ul style="list-style-type: none"> – a visual inspection to determine if deteriorated paint and visible dust, debris, or residue are present – elimination of deteriorated paint and visible dust, debris, or residue before clearance continues – clearance sampling for lead contaminated dust are taken a minimum of 1 h after completion of final post-abatement cleanup activities. – when there has been containment between abated and unabated areas, one dust sample is taken from one window (if available) and one dust sample from the floor of no less than four rooms (or all such spaces if there are fewer than four rooms), hallways, or stairwells within the containment area – when there has been containment between abated and unabated areas, one dust sample is taken from the floor outside the containment area – when there has been no containment, two dust samples (one dust sample from one window and one from the floor) are taken from no less than four rooms (or all such spaces if there are fewer than four rooms), hallways, or stairwells in the residential dwelling or child-occupied facility – for an exterior paint abatement, a visible inspection is performed to identify dust and paint chips. <p>Verify that residual lead levels from each dust sample are compared with applicable clearance levels for lead in dust on floors and windows and if the residual level exceed the clearance levels, all components represented by the failed test are recleaned and retested.</p> <p>(NOTE: In a multi-family dwelling with similarly constructed and maintained residential dwelling, random sampling for the purpose of clearance may be done if:</p> <ul style="list-style-type: none"> – the certified individuals who abate or clean the residential dwelling do not know which residential dwellings will be selected for random sampling – a sufficient number of residential dwellings are selected to provide a 95 percent level of confidence that no more than 5 percent or 50 of the residential dwellings (whichever is smaller) in the randomly sampled population exceed the appropriate clearance levels.) <p>Verify that an abatement report is prepared by a certified supervisor or project designer and contains the following information:</p> <ul style="list-style-type: none"> – start and completion dates – the name and address of each certified firm conducting the abatement and the name of each supervisor assigned to the abatement project – the occupant protection plan – the name, address, and signature of each certified risk assessor or inspector conducting clearance sampling and the date of clearance testing

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

COMPLIANCE CATEGORY: PCBs, ASBESTOS, AND LBP MANAGEMENT	
REGULATORY REQUIREMENT OR MANAGEMENT PRACTICE	REVIEWER CHECKS
	<ul style="list-style-type: none">- the results of clearance testing and all soil analyses and the name of each recognized laboratory that conducted the analyses- a detailed written description of the abatement, including abatement methods used, locations of rooms and/or components where abatement occurred, reason for selecting particular abatement methods for each component, and any suggested monitoring or encapsulants or enclosures.

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**Protocol for Conducting Environmental Compliance Audits at
Facilities with PCBs, Asbestos, and Lead-Based Paint Regulated
under TSCA**

**Appendix A:
Polychlorinated Biphenyl (PCB) Label Format (40 CFR 761.45)**

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**Polychlorinated Biphenyl (PCB) Label Format
(40 CFR 761.45)**

CAUTION

Contains

PCBS

(Polychlorinated Biphenyls)

A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 761 -- For disposal information contact the nearest U.S. U.S. EPA Office

In case of accident or spill, call toll free the U.S. Coast Guard National Response Center
800-424-8802

Also Contact: _____

Tel No. _____

(NOTE: See the text of 40 CFR 761.45 for details on the exact measurements of the label.)

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**Protocol for Conducting Environmental Compliance Audits at
Facilities with PCBs, Asbestos, and Lead-Based Paint Regulated
under TSCA**

**Appendix B:
Dielectric Fluid Trend Names and Manufacturers**

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Dielectric Fluid Trend Names and Manufacturers

1. U.S. Manufactured Dielectrics:

Name	Manufacturer
Apirilio	York Electronics
Aroclor	Monsanto
Aroclor B	P.R. Mallory and Co.
Asbestol	Axel Electronics
Asbestol	American Corporation
Askarel Hevi-Duty	Hevi-Duty Corporation
Askarel *	Ferranti-Packard,Ltd.
Askarel	Research-Cottrell
Askarel	Universal Mfg. Corp.
Askarel	Van Tran Electric
Askarel	ESCO Mfg. Co.
Askarel	Niagara Transformer Corp.
Askarel	Universal Mfg. Co.
Chlorextol	Allis-Chalmers
Chlorinol	Stens Magnetics
Chlorinol	Tobe Deutschmann Labs
Chlorinol	Standard Transformer Co.
Chlorinol	Sprague Electric Co.
Chlorphen	Jard Company
Diaclor	Sangamo Electric
Dykanol	Cornell Dubilier
Dykanol	Dings Co.
EEC-18	Power Zone Transformer
EEC-18	Niagara Transformer Corp.
Elemex	Maloney Electric

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Name	Manufacturer
Elemex	McGraw Edison
Eucarel	Electric Utilities Co.
Eucarel	Electro Engineering Works
Eucarel	Electromagnetic Filter Co.
Eucarel	Envirotech Buell
Hyvol	Aerovox
Inclor	Capacitor Specialities
Inerteen	York Electronics
Inerteen	Westinghouse Electric
Kaneclor	York Electronics
Nepolin	York Electronics
No-Flamol	Wagner Electric
Non-Flammable Liquid	ITE Circuit Breaker
Phyralene	Reliance Electric Co.
Phyralene	R.F. Interonics
Phyralene	R.C. Uptegaff
Pydraul	Monsanto
Pyranol	Geneva Industries
Pyranol	H.K. Porter
Pyranol	Helena Corp.
Pyranol	General Electric
Pyranol	Eriez Magnets
Saf-T-Kuhl	Kuhlman Electric
Santovac 1 and 2	Monsanto
Therminol	Monsanto

* Generic name used for insulating liquids in capacitors and transformers.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

2. Foreign Manufactured Dielectrics:

Name	Manufacturer
Aroclor	Monsanto (UK)
Clophen	Bayer (Germany)
Dk	Caffaro (Italy)
Fenclor	Caffaro (Italy)
Inclor	Caffaro (Italy)
Inclor	Chemko (Czechoslovakia)
Kennechlor	Kanegafuchi (Japan)
Phenoclor	Prodelec (France)
Phyalene	Prodelec (France)
Pyroclor	Monsanto (UK/Europe)
Santotherm FR	Monsanto (UK/Japan)
Solvol	USSR

3. Transformers that list other dielectrics or do not bear a manufacturer's identification or service plate on the transformer: if the transformer contains any of the dielectrics (commonly referred to as askarels), it is to be certified as a PCB Transformer containing in excess of 500 ppm PCB and no laboratory testing is necessary.

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**Protocol for Conducting Environmental Compliance Audits at
Facilities with PCBs, Asbestos, and Lead-Based Paint Regulated
under TSCA**

**Appendix C:
Self-implementing On-site Cleanup and Disposal of Polychlorinated
Biphenyl (PCB) Remediation Waste: Cleanup Levels and Site
Cleanup (40 CFR 761.61(a)(4) and 761.61(a)(5))**

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**Self-implementing On-site Cleanup and Disposal of Polychlorinated Biphenyl (PCB)
Remediation Waste: Cleanup Levels and Site Cleanup
(40 CFR 761.61(a)(4) and 761.61(a)(5))**

Cleanup Levels

Cleanup levels are based on the kind of material and the potential exposure to PCBs left after cleanup is completed.

Bulk PCB remediation waste includes, but is not limited to, the following non-liquid PCB remediation waste: soil, sediments, dredged materials, muds, PCB sewage sludge, and industrial sludge.

- The cleanup level for bulk PCB remediation waste in high occupancy areas is ≤ 1 ppm without further conditions. High occupancy areas where bulk PCB remediation waste remains at concentrations >1 ppm and ≤ 10 ppm shall be covered with a cap meeting the requirements of 40 CFR 761.61(a)(7) and 761.61(a)(8).
- The cleanup level for bulk PCB remediation waste in low occupancy areas is ≤ 25 ppm unless otherwise specified.
- Bulk PCB remediation wastes may remain at a cleanup site at concentrations >25 ppm and ≤ 50 ppm if the site is secured by a fence and marked with a sign including the M_L mark
- Bulk PCB remediation wastes may remain at a cleanup site at concentrations >25 ppm and ≤ 100 ppm if the site is covered with a cap meeting the requirements of 40 CFR 761.61(a)(7) and 761.61(a)(8).

Non-porous surfaces.

- In high occupancy areas, the surface PCB cleanup standard is $\leq 10 \mu\text{g}/100 \text{ cm}^2$ of surface area.
- In low occupancy areas, the surface cleanup standard is $100 \mu\text{g}/100 \text{ cm}^2$ of surface area. Select sampling locations in accordance with Subpart P of 40 CFR 761 or an approved sampling plan.

Porous surfaces.

- In both high and low occupancy areas, any person disposing of porous surfaces must do so based on the levels for Bulk PCB Remediation Waste.

Liquids.

- In both high and low occupancy areas, cleanup levels are the concentrations specified in 40 CFR 761.79(b)(1) and (b)(2). The decontamination standard for water containing PCBs is:
 - less than $200 \mu\text{g}/\text{L}$ (i.e., 200 ppb PCBs) for non-contact use in a closed system where there are no releases;
 - For water discharged to a treatment works or to navigable waters, $<3 \mu\text{g}/\text{L}$ (approximately <3 ppb) or a PCB discharge limit included in a permit issued under section 307(b) or 402 of the Clean Water Act; or
 - $\leq 0.5 \mu\text{g}/\text{L}$ (i.e., approximately ≤ 0.5 ppb PCBs) for unrestricted use.
- The decontamination standard for organic liquids and non-aqueous inorganic liquids containing PCBs is $< 2 \text{ mg}/\text{kg}$ (i.e., 2 ppm PCBs).

Change in the land use for a cleanup site.

Where there is an actual or proposed change in use of an area cleaned up to the levels of a low occupancy area, and the exposure of people or animal life in or at that area could reasonably be expected to increase, resulting in a change in status from a low occupancy area to a high occupancy area, the owner of the area shall clean up the area in accordance with the high occupancy area cleanup levels

Cleanup Processes

Bulk PCB Remediation Waste:

Any person cleaning up bulk PCB remediation waste onsite using a soil washing process may do so without U.S. EPA approval, if:

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

- A non-chlorinated solvent is used.
- The process occurs at ambient temperature.
- The process is not exothermic.
- The process uses no external heat.
- The process has secondary containment to prevent any solvent from being released to the underlying or surrounding soils or surface waters.
- Solvent disposal, recovery, and/or reuse is in accordance with relevant provisions of issued approvals.

Bulk PCB remediation waste may be sent offsite for decontamination or disposal provided the waste is either dewatered onsite or transported offsite in containers meeting the requirements of the DOT Hazardous Materials Regulations (HMR) at 49 CFR 171 through 180.

Removed water shall be disposed of as PCB liquid.

Offsite disposal of dewatered bulk PCB remediation waste shall be done as follows:

- Unless sampled and analyzed for disposal, the bulk PCB remediation waste shall be assumed to contain ≥ 50 ppm PCBs.
- Bulk PCB remediation wastes with a PCB concentration of < 50 ppm shall be disposed of in a facility permitted, licensed, or registered by a state to manage municipal solid waste
- Bulk PCB remediation wastes with a PCB concentration ≥ 50 ppm shall be disposed of in a hazardous waste landfill permitted by U.S. EPA under section 3004 of RCRA, or by a state authorized under section 3006 of RCRA, or a PCB disposal facility approved under 40 CFR 761.
- Provide written notice, including the quantity to be shipped and highest concentration of PCBs (using extraction U.S. EPA Method 3500B/3540C or Method 3500B/3550B followed by chemical analysis using U.S. EPA Method 8082 in SW-846 or methods validated under Subpart Q of 40 CFR 761) at least 15 days before the first shipment of bulk PCB remediation waste from each cleanup site by the generator, to each offsite facility where the waste is destined for an area not subject to a TSCA PCB Disposal Approval.

Non-porous surfaces.

PCB remediation waste non-porous surfaces shall be cleaned onsite or offsite for disposal onsite, disposal offsite, or use, as follows:

- For onsite disposal, non-porous surfaces shall be cleaned onsite or offsite to the levels required under 40 CFR 761.61(a)(4)(ii) using:
 - Procedures approved under 40 CFR 761.79
 - Technologies approved under 40 CFR 761.60(e)
 - Procedures or technologies approved under 40 CFR 761.61(c) disposal approval

For offsite disposal, non-porous surfaces:

- Having surface concentrations $< 100 \mu\text{g}/100 \text{ cm}^2$ shall be disposed of in accordance with 761.61(a)(5)(i)(B)(2)(ii). Metal surfaces may be thermally decontaminated in accordance with 40 CFR 761.79(c)(6)(i).
- Having surface concentrations $\geq 100 \mu\text{g}/100 \text{ cm}^2$ shall be disposed of in a hazardous waste landfill permitted by U.S. EPA under section 3004 of RCRA, by a state authorized under section 3006 of RCRA, or a PCB disposal facility approved under 40 CFR 761. Metal surfaces may be thermally decontaminated in accordance with 40 CFR 761.79(c)(6)(ii).

For use, non-porous surfaces shall be decontaminated onsite or offsite to the standards specified in 40 CFR 761.79(b)(3) or in accordance with 40 CFR 761.79(c).

Porous surfaces.

Porous surfaces shall be disposed onsite or offsite as bulk PCB remediation waste according to 40 CFR 761.61(a)(5)(i) or decontaminated for use according to 40 CFR 761.79(b)(4) as applicable.

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Liquids.

Any person disposing of liquid PCB remediation waste shall either:

- Decontaminate the waste to the levels specified in 40 CFR 761.79(b)(1) or 761.79(b)(2)
- Dispose of the waste in accordance with paragraph (b) of 40 CFR 761.61 or an approval issued under paragraph (c) of 40 CFR 761.61.

Cleanup wastes.

Any person generating the following wastes during and from the cleanup of PCB remediation waste shall dispose of or reuse them using one of the following methods:

- Non-liquid cleaning materials and personal protective equipment waste at any concentration, including non-porous surfaces and other non-liquid materials such as rags, gloves, booties, other disposable personal protective equipment, and similar materials resulting from cleanup activities shall either be decontaminated in accordance with 40 CFR 761.79(b) or 761.79(c) or be disposed of in: a facility permitted, licensed, or registered by a state to manage municipal solid waste subject to 40 CFR 258; or a facility permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste subject to 40 CFR 257.5 through 257.30; a hazardous waste landfill permitted by U.S. EPA or a state under section 3006 of RCRA to accept PCB waste; or a PCB disposal facility approved under 40 CFR 761.

Cleaning solvents, abrasives, and equipment may be reused after decontamination in accordance with 40 CFR 761.79.

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**Protocol for Conducting Environmental Compliance Audits at
Facilities with PCBs, Asbestos, and Lead-Based Paint Regulated
under TSCA**

**Appendix D:
Polychlorinated Biphenyl (PCB) Wastes Disposal Guidance
(40 CFR 761.50(b))**

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Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

**Polychlorinated Biphenyl (PCB) Wastes Disposal Guidance
(40 CFR 761.50(b))**

Waste	Applicable Standard	Checklist Item number
PCB liquids	Disposal - 40 CFR 761.60(a)	TT.130.2, TT.150.2, TT.150.3, TT.150.14, and TT.150.15
	Decontamination - 40 CFR 761.79	TT.160.1 through TT.160.6
PCB Item containing an intact and non-leaking PCB Article	Disposal - 40 CFR 761.60(b)	TT.10.4, TT.150.3 through TT.150.7, TT.150.13
	Decontamination - 40 CFR 761.79	TT.160.1 through TT.160.6
PCB Item containing a PCB Article which is not intact and non-leaking	Disposal - 40 CFR 761.62(a) or 761.62(c)	TT.150.10 and TT.150.11
Fluorescent light ballasts containing PCBs only in an intact and non-leaking PCB Small Capacitor	Disposal - 40 CFR 761.60(b)(2)(ii)	TT.150.13
Fluorescent light ballasts containing PCBs in the potting material	Disposal - 40 CFR 761.60(b)(6)(iii)	TT.150.13
PCB Remediation Waste, including PCB sewage sludge	Cleanup and Disposal - 40 CFR 761.61	TT.120.5, TT.120.6, TT.130.1 through TT.130.3, TT.150.14
PCB Bulk Product Waste	Disposal - 40 CFR 761.62	TT.150.10 and TT.150.11
PCB Household Waste	Disposal - 40 CFR 761.63	TT.110.8 and TT.150.12
PCB R&D Waste	Disposal - 40 CFR 761.64	TT.150.16
PCB/Radioactive Waste	Disposal must be done taking into account both its PCB concentration and radioactive properties	
Porous Surfaces on which PCBs have been spilled and meeting the definition of remediation waste.	Disposal - 40 CFR 761.61(a)(5)(iii)	TT.130.1

Protocol for Conducting Environmental Compliance Audits of Facilities with PCBs, Asbestos, and Lead-based Paint Regulated under TSCA

Waste	Applicable Standard	Checklist Item number
Porous surfaces which are part of manufactured non-liquid products containing PCBs and meeting the definition of PCB bulk product waste	Disposal - 40 CFR 761.62	TT.150.10 and TT.150.11
Concrete surfaces on which PCBs have been spilled	Decontamination - 40 CFR 761.79(b)(4) is started within 72 h of the initial spill	TT.160.1
Porous non-liquid PCBs in contact with non-porous surfaces, such as underground metal fuel tanks coated with fire retardent resin or pitch.	Decontaminate - 40 CFR 761.79(b)(3) for purposes of unrestricted use or disposal in a smelter.	TT.160.1

**Protocol for Conducting Environmental Compliance Audits at
Facilities with PCBs, Asbestos, and Lead-Based Paint Regulated
under TSCA**

**Appendix E:
Respiratory Protection for Asbestos Fibers
(40 CFR 763.121(h)(2)(iv))**

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**Respiratory Protection for Asbestos Fibers
(40 CFR 763.121(h)(2)(iv))**

Airborne concentration of asbestos	Required respirator
Not in excess of 2 f/cc (10 x PEL).	1. Half-mask air-purifying respirator other than disposable respirator equipped with high-efficiency filters.
Not in excess of 10 f/cc (50 x PEL).	1. Full facepiece air-purifying respirator equipped with high-efficiency filters.
Not in excess of 20 f/cc (100 x PEL)	1. Any powered air-purifying respirator equipped with high-efficiency filters. 2. Any supplied-air respirator operated in continuous flow mode.
Not in excess of 200 f/cc (1,000 x PEL).	1. Full facepiece supplied-air respirator operated in pressure demand mode.
> 200 f/cc (>1,000 x PEL) or unknown concentration.	1. Full facepiece supplied air respirator operated in pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus.

Note: a. Respirators assigned for higher environmental concentrations may be used at lower concentrations.
b. A high-efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers in diameter or larger.

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**Protocol for Conducting Environmental Compliance Audits at
Facilities with PCBs, Asbestos, and Lead-Based Paint Regulated
under TSCA**

**Appendix F:
User Satisfaction Questionnaire and Comment Form**

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User Satisfaction Survey
 (OMB Approval No. 1860.01)
 Expires 9/30/2001

We would like to know if this Audit Protocol provides you with useful information. This information will be used by EPA to measure the success of this tool in providing compliance assistance and to determine future applications and needs for regulatory checklists and auditing materials.

1. Please indicate which Protocol(s) this survey applies to:

Title: _____

EPA Document Number: _____

2. Overall, did you find the Protocol helpful for conducting audits:

Yes ___ No ___

If not, what areas of the document are difficult to understand?

3. How would you rate the usefulness of the Protocol(s) for conducting compliance audits on a scale of 1-5?

1 = not useful or effective, 3 = somewhat useful/effective, 5 = very useful/effective

Low		Medium		High		
1	2	3	4	5		Introduction Section
1	2	3	4	5		Key Compliance Requirements
1	2	3	4	5		Key Terms and Definitions
1	2	3	4	5		Checklist

4. What actions do you intend to take as a result of using the protocol and/or conducting the audit? Please check all that apply.

- Contact a regulatory agency
- Contact a compliance assistance provider (e.g., trade association, state agency, EPA)
- Contact a vendor
- Disclose violations discovered during the audit under EPA's audit Policy
- Disclose violations discovered under EPA's Small Business Policy
- Obtain a permit or certification
- Change the handling of a waste, emission or pollutant
- Change a process or practice
- Purchase new process equipment
- Install emission control equipment (e.g., scrubbers, wastewater treatment)
- Install waste treatment system (control technique)
- Implement or improve pollution prevention practices (e.g., source reduction, recycling)
- Improve organizational auditing program
- Institute an Environmental Management System
- Improve the existing Environmental Management System (e.g., improve training, clarify standard operating procedures, etc.)
- Other _____

5. What, if any, environmental improvements will result from the actions to be taken (check all that apply)?

- reduced emissions
- waste reduction
- reduced risk to human health and the environment due to better management practices
- reduced quantity and toxicity of raw materials
- water conservation
- energy conservation
- conserved raw materials
- conservation of habitat or other environmental stewardship practice: _____
- other: _____
- no environmental improvements are likely to result from the use of this document

6. How did you hear about this document?

- trade association
- state technical assistance provider
- EPA internet homepage or website
- document catalog
- co-worker or business associate
- EPA, state, or local regulator
- other (please specify) _____

7. In order to understand your response, we would like to know what function you perform with respect to environmental compliance and the size of your organization.

- | | | |
|---|---|--|
| <input type="checkbox"/> <u>Company Personnel</u> | <input type="checkbox"/> <u>Trade Association</u> | <input type="checkbox"/> <u>Compliance Assistance Provider</u> |
| <input type="checkbox"/> Environmental Auditor | <input type="checkbox"/> National | <input type="checkbox"/> EPA |
| <input type="checkbox"/> Corporate Level | <input type="checkbox"/> Regional | <input type="checkbox"/> State |
| <input type="checkbox"/> Plant-level | <input type="checkbox"/> Local | <input type="checkbox"/> State Small Business Assistance |
| <input type="checkbox"/> Legal | <input type="checkbox"/> Manager | <input type="checkbox"/> Local |
| <input type="checkbox"/> Environmental Manager | <input type="checkbox"/> Information Specialist | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Operator - (e.g., Pollution Control Equipment) | | |
| <input type="checkbox"/> Other: _____ | | |

- | | |
|--|---|
| <input type="checkbox"/> <u>Regulatory Personnel</u> | <input type="checkbox"/> <u>Vendor/Consultant</u> |
| <input type="checkbox"/> State | <input type="checkbox"/> Environmental Auditor |
| <input type="checkbox"/> Local | <input type="checkbox"/> Environmental Engineer/Scientist |
| <input type="checkbox"/> EPA | <input type="checkbox"/> Attorney |

8. How many employees are located at your facility (including full-time contractors?)

- 0 - 9 10 - 49 50 - 100 101-500 More than 500

Optional (Please Print)

Name: _____ Address: _____

Title: _____ City: _____ State: _____

Zip code: _____

Organization Name: _____

Phone: () _____ E-mail: _____

Please return all pages (1 thru 3) of this survey by folding pages 1 and 2 into page 3 and using the preprinted, pre-stamped address on the reverse side of page 3. If you have accessed this document electronically from one of EPA's web sites, simply e-mail this questionnaire to: satterfield.richard@epa.gov.

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