

## SECTION 11

### TOXIC SUBSTANCES MANAGEMENT

#### U.S. TEAM Guide, June 2001

##### A. Applicability

This section is used to determine the compliance status of the management activities associated with the following:

1. PCBs and in-service and out-of-service PCB items
2. the removal of asbestos from buildings and its ultimate disposal
3. testing for potential radon exposure
4. management of lead based paint.

Assessors are required to review state and local regulations and, if applicable, the appropriate Agency Supplement, to perform a comprehensive assessment.

Select portions of this section (i.e., Review of Federal Legislation, State and Local Regulations, Key Compliance Requirements, Key Terms and Definitions, Typical Records to Review, Typical Physical Features to Inspect, and the Checklist) have been reviewed by USEPA personnel from the Office of Enforcement and Compliance Assurance (OECA) and USEPA's Office of General Counsel. USEPA's comments and suggestions for changes have been incorporated in this version of the TEAM Guide. USEPA did not review all portions of this section. USEPA also did not review and comment on items pertaining to federal Executive Orders, DOT regulations, OSHA regulations or any other area outside of Title 40 of the Code of Federal Regulations. Portions which have been added or revised as a result of this review are identified as either being reviewed, revised or added in March 2000, for example [**Added March 2000**].

##### B. Federal Legislation

- *The Toxic Substances Control Act (TSCA)*. This act, as last amended in 1986, 15 U.S. Code (USC) 2601-2671, is the Federal legislation which deals with the control of toxic substances. The act consists of three subchapters, one of which regulates the control of toxic substances, another governs asbestos hazard emergency response, and another subchapter regulates indoor radon abatement. The policy developed in TSCA on chemical substances is as follows (15 USC 2601(b)):
  1. adequate data should be developed with respect to the effect of chemical substances and mixtures on health and the environment and that the development of such data should be the responsibility of those who manufacture and those who process such chemical substances and mixtures
  2. adequate authority should exist to regulate chemical substances and mixtures which present an unreasonable risk of injury to health or the environment, and to take action regarding chemical substances and mixtures
  3. authority over chemical substances and mixtures should be exercised in such a manner as not to impede unduly or create unnecessary economic barriers to technological innovation while fulfilling the primary purpose of this act to assure that such innovation and commerce in such chemical substances and mixtures do not present an unreasonable risk of injury to health or the environment.

Upon request by the U.S. Environmental Protection Agency (USEPA), each Federal Department and Agency is authorized to (15 USC 2625(a)):

1. make its services, personnel, and facilities available (with or without reimbursement) to the USEPA to assist the USEPA in the administration of this act
2. furnish the USEPA with information, data, estimates, and statistics, and allow the USEPA access to all information in its possession as the USEPA may reasonably determine to be necessary for the administration of this act.

The Secretary of Defense, in cooperation with the USEPA, must, to the extent feasible and consistent with the national security, take such action as may be necessary to provide for the identification, inspection, and management (including abatement) of asbestos in any building used by the DOD as an overseas school for dependents of members of the Armed Forces. Such identification, inspection, and management (including abatement) must, subject to the preceding sentence, be carried out in a manner comparable to the manner in which a local educational agency is required to carry out such activities with respect to a school building under this act (15 USC 2643(L)(2)).

Under TSCA the national long-term goal of the United States with respect to radon levels in building is that the air within buildings in the United States should be as free of radon as the ambient air outside of buildings (15 USC 2661). The head of each Federal Department or Agency that owns a Federal building must conduct a study for the purpose of determining the extent of radon contamination in such buildings. Such study must include, in the case of a Federal building using a nonpublic water source (such as a well or other groundwater), radon contamination of the water. Such a study must be based on design criteria specified by the USEPA (15 USC 2669(a)(c)(e)).

An amendment to TSCA requires the creation of regulations governing lead-based paint activities to ensure that individuals engaged in such activities are properly trained; that training programs are accredited; and that contractors engaged in such activities are certified. Within 15 USC 2688 expressly mandates Federal agency compliance with all Federal, state, interstate, and local requirements, both substantive and procedural pertaining to lead-based paint, lead-based paint activities, and lead-based paint hazards. This section also expressly waives any immunity otherwise applicable to the United States, including immunity from penalties and fines levied by the USEPA and state agencies (15 USC 2681 through 2692) **[Revised June 1998]**.

- *The Asbestos Hazard Emergency Response Act (AHERA)* of 1986. This act, last amended in November 1990, 15 USC 2641-2656, et al., and 20 USC 4014, et al., is the Federal legislation governing the control and abatement of asbestos hazard present in school buildings. The purpose of this act is (15 USC 2641(b)):
  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 USEPA to conduct a study to find out 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 Hazardous Materials Transportation Act*. This act was amended in 1978 to regulate the transport of asbestos materials. The regulations are contained in 49 CFR 172-177. In particular 49 CFR 177 requires that asbestos must be loaded, handled, and unloaded in a manner that will minimize occupational exposure to airborne asbestos. Asbestos wastes which are transported for disposal at a landfill or other disposal facility must meet all applicable requirements.
- Executive Order (EO) 12088, *Federal Compliance with Pollution Standards*. This EO, dated 13 October 1978, requires Federally owned and operated facilities to comply with applicable Federal, state, and local pollution control standards. It makes the head of each executive agency responsible for seeing to it that the agencies, facilities, programs, and activities it funds meet applicable Federal, state, and local environmental requirements or to correct situations that are not in compliance with such requirements. In addition, the EO requires that each agency ensure that sufficient funds for environmental compliance are requested in the agency budget.

### **C. State/Local Regulations [Revised March 2000]**

For information on regulations in specific states, see the State Supplements to TEAM Guide.

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.

#### D. 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) **[Revised March 2000]**.
- PCB Equipment Marking - The following equipment is required to be marked indicating that they contain PCBs (40 CFR 761.40 and 761.45) **[Revised March 2000]**:
  - ?? PCB Containers
  - ?? PCB Transformers (500 ppm or >)
  - ?? PCB Large High-Voltage Capacitors
  - ?? equipment containing a PCB Transformer (500 ppm or >) or a PCB Large High-Voltage Capacitor
  - ?? PCB Large Low-Voltage Capacitors at the time of removal from service
  - ?? electric motors using PCB coolants
  - ?? hydraulic systems using PCB hydraulic fluid
  - ?? heat transfer systems (other than PCB Transformers) using PCBs
  - ?? 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 more than 45 kg (99.4 lb) of liquid PCBs with PCBs at concentrations  $\geq 50$  ppm or with one or more PCB Transformers
  - ?? 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 >).
  - ?? voltage regulators with a PCB concentration of  $\geq 500$  ppm (individually)
  - ?? 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) ) **[Revised March 2000]**.

- 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) ) **[Revised March 2000]**.
- PCB Spills - Spills of 10 lb or more of PCBs of concentrations of 50 ppm must be reported to the USEPA regional office. Spills of greater than 1 lb or more by weight 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) ) **[Revised March 2000]**.
- 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) ) **[Revised October 1998, Reviewed March 2000]**.
- 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) **[Revised March 2000]**.
- 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) **[Revised October 1998, Reviewed March 2000]**.
- 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) **[Revised March 2000]**.

- 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) **[Revised March 2000]**.
- Renovation and Demolition of Asbestos-Containing Structures - Facilities that demolish structures containing asbestos above certain limits, must meet notification requirements, emission control requirements and wetting requirements. This applies to facilities that demolish structures containing at least 80 linear meters (260 linear feet) of regulated asbestos containing material (RACM) on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of RACM on other components or at least 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components, and facilities renovating structures and stripping or removing at least 80 linear meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of friable asbestos on other facility components and at least 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components. If the concentration of asbestos is less than this level, then the facility must submit notification of demolition. Facilities being demolished under state or local governmental agency orders shall have the portion of the facility containing friable asbestos adequately wetted during the wrecking operation. When a site is demolished by intentional burning, all RACM must be removed. No RACM shall be stripped, removed, or otherwise handled or distributed unless at least one onsite representative trained in asbestos removal is present. When air cleaning is used as a method of controlling emissions of asbestos to the outside air, the fabric filter collection systems are required to meet specific standards, unless alternative equipment is authorized for use by the USEPA (40 CFR 61.145 and 61.152).
- 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) **[Revised March 2000]**.
- Radon - See Component Supplement.
- 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) **[Revised March 2000]**.
- 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) **[Revised March 2000]**.

- 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) **[Revised March 2000]**.
- 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. Appendix 11-4 provides information on determining whether or not LBP, a paint-lead hazard, a dust-lead hazard, or a soil-lead hazard is present. (40 CFR 745.227) **[Revised April 2001]**.

## E. Key Compliance Definitions

- *Abatement* - any measure or set of measures designed to permanently eliminate LBP hazards. Abatement includes, but is not limited to (40 CFR 745.223) **[Revised April 2001]**:
  1. the removal of paint and dust, the permanent enclosure or encapsulation of lead-based paint, the replacement of painted surfaces or fixtures, or the removal or permanent covering of soil, when lead-based paint hazards are present in such paint, dust or 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.
- *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) **[Added March 2000]**.
- *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) **[Added March 2000]**.
- *Active Waste Disposal Site* - any disposal site other than an inactive site (40 CFR 61.14).
- *Adequately Wetted* - sufficiently mixed or penetrated with liquid to prevent the release of particulates (40 CFR 61.14).

- *Air Compressor System* - air compressors, piping, receiver tanks, volume tanks and bottles, dryers, airlines, and related appurtenances (40 CFR 761.3) [**Added October 1998**].
- *Air Erosion* - the passage of air over friable ACM which may result in the release of asbestos fibers (40 CFR 763.83) [**Added March 2000**].
- *Arithmetic Mean* - the algebraic sum of data values divided by the number of data values (e.g., the sum of the concentration of lead in several soil samples divided by the number of samples) (40 CFR 745.63) [**Added April 2001**].
- *Asbestos* - substances comprised of or derived from actinolite, amosite, anthophyllite, chrysotile, crocidolite, or tremolite (40 CFR 61.14).
- *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) [**Added March 2000**].
- *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) [**Added March 2000**].
- *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) [**Added March 2000**].
- *Asbestos-Containing Waste Materials* - means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of 40 CFR 141. This term also includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. However, as applied to demolition and renovation operations, this term includes regulated ACM waste and materials contaminated with asbestos including disposable equipment and clothing (40 CFR 61.141).
- *Asbestos Debris* - pieces of ACM 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) [**Added March 2000**].
- *Asbestos Material* - asbestos or any material containing asbestos (40 CFR 61.141).
- *Asbestos Waste from Control Devices* - any waste material that contains asbestos and is collected by a pollution control device (40 CFR 61.141).
- *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 that contains less than 1.36 kg (3 lb) of dielectric fluid.
  2. Large High-Voltage Capacitor - a capacitor that contains 1.36 kg (3 lb) or more of dielectric fluid and which operates at 2000 V (a.c. or d.c.) or above.
  3. Large Low-Voltage Capacitor - a capacitor that contains 1.36 kg (3 lb) or more of dielectric fluid and which operates at 2000 V (a.c. or d.c.).
- *Category I Nonfriable Asbestos-Containing Material (ACM)* - asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos (40 CFR 61.141).
- *Category II Nonfriable ACM* - any material including Category I nonfriable ACM containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure (40 CFR 61.141).

- *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).
- *Chewable Surface* - an interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an “accessible surface” as defined in 42 U.S.C. 4851b(2)). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable (40 CFR 745.63) **[Added April 2001]**.
- *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).
- *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) **[Added October 1998]**.
- *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).
- *Commercial Asbestos* - any material containing asbestos that is extracted from ore and has value because of its asbestos content (40 CFR 61.141).
- *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) **[Added March 2000]**.
- *Commercial Storer of PCB Waste* - the owner or operator of each facility that is subject to the PCB storage unit standards of Sec. 761.65(b)(1) or (c)(7) or meets the alternate storage criteria of Sec. 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 Sec. 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 USEPA 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) **[Revised October 1998]**.
- *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).

- *Common Area Group* - a group of common areas that are similar in design, construction, and function. Common area groups include, but are not limited to hallways, stairwells, and laundry rooms (40 CFR 745.63) [**Added April 2001**].
- *Concentration* - the relative content of a specific substance contained within a larger mass, such as the amount of lead (in micrograms per gram or parts per million by weight) in a sample of dust or soil (40 CFR 745.63) [**Added April 2001**].
- *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).
- *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) [**Added March 2000**].
- *Cutting* - to penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching (40 CFR 61.141).
- *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 ACBM in question may also indicate damage (40 CFR 763.83) [**Added March 2000**].
- *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 ACBM in question may also indicate damage (40 CFR 763.83) [**Added March 2000**].
- *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 ACBM in question may also indicate damage (40 CFR 763.83) [**Added March 2000**].
- *Demolition* - the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of a facility (40 CFR 61.141).
- *Deteriorated Paint* - paint that is cracking, flaking, chipping, peeling, or otherwise separating from the substrate of a building component (40 CFR 745.223).

- *Deteriorated Paint* - any interior or exterior paint or other coating that is peeling, chipping, chalking or cracking, or any paint or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate (40 CFR 745.63) [**Added April 2001**].
- *Disposal* - intentionally or accidentally to discard, throw away, or otherwise complete or terminate the useful life of PCBs and PCB Items (40 CFR 761.3).
- *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).
- *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) (40 CFR 761.123).
- *Dripline* - the area within 3 feet surrounding the perimeter of a building [**Added April 2001**].
- *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) [**Added October 1998**].
- *Elevated Blood 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 Operation* - a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment (40 CFR 61.141).
- *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)[**Added June 1998**].
- *Emergency Situations* - for continuing use of a PCB transformer exists when (40 CFR 761.3):
  1. neither a non-PCB transformer nor a non-PCB-contaminated transformer is currently in storage for reuse or readily available within 24 h for installation
  2. immediate replacement is necessary to continue service for power users.
- *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) [**Added March 2000**].
- *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) [**Added March 2000**].

- *Evaluation* - for LBP this means a risk assessment and/or inspection (40 CFR 745.103).
- *Facility Component* - any part of any facility, including equipment (40 CFR 61.141).
- *Fiber Release Episode* - any uncontrolled or unintentional disturbance of ACM resulting in visible emission (40 CFR 763.83) **[Added March 2000]**.
- *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) **[Added March 2000]**.
- *Friable Asbestos Material* - any material that contains more than 1 percent asbestos and can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure (40 CFR 61.141).
- *Friction Surface* - an interior or exterior surface that is subject to abrasion or friction, including, but not limited to, certain window, floor, and stair surfaces (40 CFR 745.63) **[Added April 2001]**.
- *Fugitive Source* - any source of emissions not controlled by an air pollution control device (40 CFR 61.141).
- *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) **[Added March 2000]**.
- *Glove Bag* - a sealed compartment with attached inner gloves used for the handling of ACM (40 CFR 61.141).
- *High Concentration PCBs* - PCBs that contain 500 ppm or greater PCBs, or those materials which the USEPA requires to be assumed to contain 500 ppm or greater PCBs in the absence of testing (40 CFR 761.123).
- *High-Efficiency Particulate Air (HEPA) Filter* - a filtering system capable of trapping and retaining at least 99.97 percent of all monodispersed particles 0.3 μm in diameter or larger (40 CFR 763.83) **[Added March 2000]**.
- *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 h or more (an average of 16.8 h or more per week) for non-porous surfaces and 335 h or more (an average of 6.7 h 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 h per week workstation, 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) **[Added October 1998]**.
- *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) **[Added March 2000]**.
- *Impact Surface* - an interior or exterior surface that is subject to damage by repeated sudden force such as certain parts of door frames (40 CFR 745.63) **[Added April 2001]**.
- *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 m [98 ft] of a nonindustrial, nonsubstation building (40 CFR 761.3).
- *In Poor Condition* - the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material (40 CFR 61.141).

- *Inactive Waste Disposal Site* - any disposal site or portion of it where additional asbestos-containing waste material will not be deposited and where the surface is not disturbed by vehicular traffic (40 CFR 61.141).
- *Industrial Building* - a building directly used in manufacturing or technically productive enterprises (40 CFR 761.3).
- *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.
- *Interior Window Sill* - the portion of the horizontal window ledge that protrudes into the interior of the room (40 CFR 745.63) **[Added April 2001]**.
- *Lead-Based Paint (LBP)* - paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm<sup>2</sup> 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/cm<sup>2</sup> 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 would result in adverse human health effects as established by the appropriate Federal agency (40 CFR 745.103 and 745.223).
- *Lead-based Paint Hazard* - hazardous lead-based paint, dust-lead hazard or soil-lead hazard defined as follows: (40 CFR 745.63 and 745.65) **[Added April 2001]**:
  1. A paint-lead hazard is any of the following:
    - a. Any lead-based paint on a friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or
    - b. floor) are equal to or greater than the dust-lead hazard levels
    - c. Any damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component (such as a door knob that knocks into a wall or a door that knocks against its door frame.
    - d. Any chewable lead-based painted surface on which there is evidence of teeth marks.
    - e. Any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.
  2. A dust-lead hazard is surface dust in a residential dwelling or child-occupied facility that contains a mass-per-area concentration of lead equal to or exceeding 40 micrograms/ft<sup>2</sup> on floors or 250 micrograms/ft<sup>2</sup> on interior window sills based on wipe samples.
  3. A soil-lead hazard is bare soil on residential real property or on the property of a child-occupied facility that contains total lead equal to or exceeding 400 ppm (g/g) in a play area or average of 1,200 ppm of bare soil in the rest of the yard based on soil samples.
- *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 Administrator pursuant to TSCA section 403 (40 CFR 745.223).
- *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).

- *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).
- *Liquid PCBs* - a homogenous flowable material containing PCBs and no more than 0.5 percent by weight non-dissolved material (40 CFR 761.3) **[Added October 1998]**.
- *Loading* - the quantity of a specific substance present per unit of surface area, such as the amount of lead in micrograms contained in the dust collected from a certain surface area divided by the surface area in square feet or square meters (40 CFR 745.63) **[Added April 2001]**.
- *Low Concentration PCBs* - PCBs that are tested and found to contain less than 500 ppm PCBs or those PCB-containing materials which USEPA 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) **[Added October 1998]**.
- *Management Practice (MP)* - practices that, although not mandated by law, are encouraged to promote safe operating procedures.
- *Mark* - the descriptive name, instructions, cautions, or other information applied to PCBs and PCB items, or other objects subject to these regulations (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 these regulations (40 CFR 761.3).
- *Mid-yard* - an area of a residential yard approximately midway between the dripline of a residential building and the nearest property boundary or between the driplines of a residential building and another building on the same property (40 CFR 745.63) **[Added April 2001]**.
- *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).
- *Miscellaneous ACM* - miscellaneous material that is ACM in a school building (40 CFR 763.83) **[Added March 2000]**.
- *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) **[Added March 2000]**.

- *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)[**Added June 1998**].
- *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) [**Added March 2000**].
- *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) [**Added October 1998**].
- *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) [**Added October 1998**].
- *Non-Scheduled Renovation* - a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted (40 CFR 61.141).
- *Open Burning* - the combustion of any PCB regulated for disposal, in a manner not approved or otherwise allowed under subpart D of this part, and without any of the following [**Added October 1998**]:
  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 (40 CFR 761.3).
- *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) [**Added March 2000**].
- *Outside Air* - the air outside buildings and structures, including but not limited to, air under a bridge or an open ferry dock (40 CFR 61.141).
- *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).
- *PCB or PCBs* - a 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 (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. This includes capacitors, transformers, electric motors, pumps, and pipes (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 [**Added October 1998**]:
  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 this part.
  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).
- *PCB Capacitor* - any capacitor that contains  $\geq 500$  ppm PCB. Concentration assumptions applicable to capacitors appear under 40 CFR 761.2 (40 CFR 761.3) [**Added October 1998**].
- *PCB Concentration Assumptions* - the following assumption may be made in relation to PCB concentrations (40 CFR 761.1(b)(2), 761.1(b)(3), and 761.2(a)) [**Revised October 1999**]:
  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 2 July 1979, and whose PCB concentration is not established, is PCB-Contaminated Electrical Equipment (i.e., contains  $\geq 50$  PCB, but  $< 500$  ppm PCB)
  3. all pole-top and pad-mounted distribution transformers manufactured before 2 July 1979 are assumed to be mineral-oil filled
  4. electrical equipment manufactured after 2 July 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 2 July 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.,  $\geq 500$  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 2 July 1979, whose PCB concentration is not established contains  $\geq 500$  ppm PCBs
  7. a capacitor manufactured after 2 July 1979 is non-PCB (i.e.,  $< 50$  ppm PCBs). If the date of manufacture is unknown, assume the capacitor contains  $\geq 500$  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  $\leq 10 \text{ ?g/100 cm}^2$
  10. provisions that apply to PCBs at concentrations of  $\geq 50$  to  $< 500$  ppm apply also to contaminated surfaces at PCB concentrations of  $> 10 \text{ ?g/100 cm}^2$  to  $< 100 \text{ ?g/100 cm}^2$
  11. provisions that apply to PCBs at concentrations of  $\geq 500$  ppm apply also to contaminated surfaces at PCB concentrations of  $\geq 100 \text{ ?g/100 cm}^2$ .

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-Contaminated* - a non-liquid material containing PCBs at concentrations  $\geq 50$  ppm but  $<500$  ppm; a liquid material containing PCBs at concentrations  $\geq 50$  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) [**Added October 1998**].
- *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  $\geq 50$  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) [**Revised October 1998**].
- *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) [**Added October 1998**].
- *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  $\geq 50$  ppm, demolition and renovation wastes, and industrial or heavy duty equipment with PCBs are not household wastes (40 CFR 761.3) [**Added October 1998**].
- *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) [**Revised October 1998**].
- *PCB/Radioactive Waste* - PCBs regulated for disposal under subpart D of this part 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) [**Added October 1998**].
- *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 18 April 1978, that are currently at concentrations  $\geq 50$  ppm PCBs, regardless of the concentration of the original spill; materials which are currently at any volume or concentration where the original source was  $\geq 500$  ppm PCB beginning on 18 April 1978, or  $\geq 50$  ppm PCB beginning on 2 July 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) [**Revised October 1999**].

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  $\geq$  50 ppm PCBs, as measured on a dry weight basis (40 CFR 761.3) [**Added October 1998**].
  - *PCB Transformer* - any transformer that contains  $\geq$  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  $\geq$  500 ppm PCBs to PCB-Contaminated Electrical Equipment, see 40 CFR 761.30(a) and (h) (40 CFR 761.3) [**Added October 1998**].
  - *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).
  - *Paint in Poor Condition* - more than 10 ft<sup>2</sup> of deteriorated paint or exterior components with large surface areas; or more than 2 ft<sup>2</sup> 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 USEPA 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 EPA pursuant to 40 CFR 745.326 that is developed for the same purpose. This 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)[**Added June 1998**].
  - *Particulate Asbestos Material* - finely divided particles of asbestos or material containing asbestos (40 CFR 61.141).
  - *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)[**Added June 1998**].
  - *Planned Renovation Operations* - a renovation operation, or a number of such operations, in which the amount of friable asbestos material that will be removed or stripped within a given period of time can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience (40 CFR 61.141).
  - *Play Area* - an area of frequent soil contact by children of less than 6 yr of age as indicated by, but not limited to, such factors including the following: the presence of play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners (40 CFR 745.63) [**Added April 2001**].

- *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) **[Added October 1998]**.
- *Posing 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 (40 CFR 761.3).
- *Potential Damage* - circumstances in which (40 CFR 763.83) **[Added March 2000]**:
  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) **[Added March 2000]**:
  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) **[Added March 2000]**.
- *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).
- *Radon-222* - a naturally occurring, inert, radioactive gas that is formed from the radioactive decay of uranium.
- *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).
- *Regulated Asbestos-Containing Material (RACM)* - includes friable asbestos material; Category I nonfriable ACM that has become friable; Category I nonfriable ACM that has been subjected to grinding, casting, cutting, or abrading; and Category II nonfriable ACM that has a high probability of becoming crumbled, crushed, or pulverized (40 CFR 61.141).
- *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) **[Added March 2000]**.
- *Remove* - to take out RACM from any structure (40 CFR 61.141).
- *Renovation* - altering in any way one or more structure components. Operations in which load-supporting structural members are wrecked or taken out are excluded (40 CFR 61.141).

- *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 this part (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) [**Added June 1998**].
- *Renovator* - any person who performs for compensation a renovation. (40 CFR 745.83) [**Added June 1998**].
- *Repair* - returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release (40 CFR 763.83) [**Added March 2000**].
- *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) [**Added October 1998**].
- *Residential Building* - a building containing one or more residential dwellings (40 CFR 745.63) [**Added April 2001**].
- *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.
- *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) [**Added March 2000**].
- *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).
- *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.
- *Room* - a separate part of the inside of a building, such as a bedroom, living room, dining room, kitchen, bathroom, laundry room, or utility room. To be considered a separate room, the room must be separated from adjoining rooms by built-in walls or archways that extend at least 6 inches from an intersecting wall. Half walls or bookcases count as room separators if built-in. Movable or collapsible partitions or partitions consisting solely of shelves or cabinets are not considered built-in walls. A screened in porch that is used as a living area is a room (40 CFR 745.63) [**Added April 2001**].
- *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) [**Added March 2000**].
- *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).

- *School* - any elementary or secondary school as defined in section 8801 of Title 20 (TSCA Section 202(12)) [**Added March 2000**].
- *School Building* (40 CFR 763.83) [**Added March 2000**]:
  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.
- *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.
- *Sewage Sludge* - sewage sludge as defined in Sec. 503.9(w) of this chapter that contains < 50 ppm (on a dry weight basis) PCBs (40 CFR 761.3) [**Added October 1998**].
- *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).
- *Soil Sample* - a sample collected in a representative location using ASTM E1727, “Standard Practice for Field Collection of Soil Samples for Lead Determination by Atomic Spectrometry Techniques,” or equivalent method (40 CFR 745.63) [**Added April 2001**].
- *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) [**Added October 1998**].
- *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 part 761, the minimum surface area to be sampled shall be 100 cm<sup>2</sup> (40 CFR 761.3) [**Added October 1998**].
- *Strip* - to take off RACM from any part of a facility (40 CFR 61.141).
- *Structural Member* - any load-supporting member of a structure, such as beams and load-supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls (40 CFR 61.141).
- *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) [**Added October 1998**].

- *Target Housing* - any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 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).
- *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 part 761 (40 CFR 761.3) [Added October 1998].
- *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) [Added October 1998].
- *Visible Emissions* - any emissions which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed water vapor (40 CFR 61.141).
- *Weighted Arithmetic Mean* - the arithmetic mean of sample results weighted by the number of subsamples in each sample. Its purpose is to give influence to a sample relative to the surface area it represents. A single surface sample is comprised of a single subsample. A composite sample may contain from two to four subsamples of the same area as each other and of each single surface sample in the composite. The weighted arithmetic mean is obtained by summing, for all samples, the product of the sample's result multiplied by the number of subsamples in the sample, and dividing the sum by the total number of subsamples contained in all samples. For example, the weighted arithmetic mean of a single surface sample containing 60 micrograms/ft<sup>2</sup>, a composite sample (three subsamples) containing 100 micrograms/ft<sup>2</sup>, and a composite sample (4 subsamples) containing 110 micrograms/ft<sup>2</sup> is 100 micrograms/ft<sup>2</sup>. This result is based on the equation  $[60+(3*100)+(4*110)]/(1+3+4)$  (40 CFR 745.63) [Added April 2001].
- *Wet Weight* - reporting chemical analysis results by including either the weight, or the volume and density, of all liquids (40 CFR 761.3) [Added October 1998].
- *Window Trough* -, for a typical double-hung window, the portion of the exterior windowsill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. The window trough is sometimes referred to as the window "well" (40 CFR 745.63) [Added April 2001].
- *Wipe Sample* - a sample collected by wiping a representative surface of known area, as determined by ASTM E1728, "Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques," or equivalent method, with an acceptable wipe material as defined in ASTM E 1792, "Standard Specification for Wipe Sampling Materials for Lead in Surface Dust" (40 CFR 745.63) [Added April 2001].
- *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).

## F. 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
- Federal facility Master Plan Document
- Spill Prevention Control and Countermeasure (SPCC) Plan

#### **G. 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

## H. Guidance for Toxic Substances Management Checklist Users

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	<b>REFER TO CHECKLIST ITEMS:</b>
PCB Management	
All Federal Facilities	T1.1.1.US. and T1.1.2.US.
Missing Checklist Items	T1.2.1.US.
PCBs General	T1.10.1.US. through T1.10.3.US.
PCB Records	T1.15.1.US. through T1.15.3.US.
PCB Transformers	T1.20.1.US. through T1.20.10.US.
PCB Spills	T1.25.1.US. through T1.25.3.US.
PCB Items	T1.30.1.US. through T1.30.5.US.
PCBs in Research	T1.35.1.US.
PCB Storage	T1.40.1.US. through T1.40.9.US.
PCB Transportation	T1.45.1.US. and T1.45.2.US.
PCB Disposal	T1.50.1.US. through T1.50.15.US.
PCB Import/Export	T1.55.1.US. through T1.55.7.US.
Asbestos Management	
All Federal Facilities	T2.1.1.US.
Missing Checklist Items	T2.2.1.US.
Renovation and Demolition of Asbestos Containing Structures	T2.5.1.US. through T2.5.9.US.
Asbestos Personnel Training	T2.10.1.US.
Asbestos Disposal	T2.15.1.US. through T2.15.4.US.
Asbestos in Schools	T2.20.1.US. through T2.20.11.US.
Radon Management	
All Federal Facilities	T3.1.1.US.
Missing Checklist Items	T3.2.1.US.
Lead-Based Paint (LBP) Management	
All Federal Facilities	T4.1.1.US.
Missing Checklist Items	T4.3.1.US.
Notifications	T4.10.1.US. through T4.10.4.US.
Training Requirements	T4.15.1.US. and T4.15.2.US.

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**REFER TO  
CHECKLIST  
ITEMS:**

Work Practice Standards

T4.20.1.US. through T4.20.4.US.

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Appendix 11-1, *PCB Label Format.*

Appendix 11-2, *Dielectric Fluid Trend Names and Manufacturers.*

Appendix 11-3, *PCB Waste Disposal Guidance.*

Appendix 11-4, *LBP Determinations.*

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<b>REGULATORY REQUIREMENTS:</b>	<b>REVIEWER CHECKS: June 2001</b>
<p><b>PCB MANAGEMENT</b></p> <p><b>T1.1 All Federal Facilities</b></p> <p><b>T1.1.1.US.</b> The current status of any ongoing or unresolved consent orders, compliance agreements, notice of violations (NOVs), inter-agency agreements, or equivalent state enforcement actions is required to be examined (a finding under this checklist item will have the enforcement action/identifying information as the citation).</p> <p><b>T1.1.2.US.</b> PCB concentrations are required to be established by certain methods (40 CFR 761.2(b)) <b>[Added October 1998].</b></p>	<p>(NOTE: When conducting the assessment, be aware of possible pollution prevention opportunities in this section and report them to the individual responsible for assessing pollution prevention.)</p> <p>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.</p> <p>Verify that PCB concentrations have been established one of the following ways:</p> <ul style="list-style-type: none"> <li>? Testing the equipment</li> <li>? Permanent label, mark, or other documentation from the manufacturer of the equipment indicating its PCB concentration at the time of manufacture</li> <li>? Service records or other documentation indicating the PCB concentration of all fluids used in servicing the equipment since it was first manufactured.</li> </ul> <p>(NOTE: See the definition of PCB Concentration Assumptions for further clarification.)</p>



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<b>REGULATORY REQUIREMENTS:</b>	<b>REVIEWER CHECKS: June 2001</b>
<p><b>PCB MANAGEMENT</b></p> <p><b>T1.2 Missing Checklist Items</b></p> <p><b>T1.2.1.US.</b> Facilities are required to comply with all applicable Federal regulatory requirements not contained in this checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine if any new regulations have been issued since the finalization of TEAM.</p> <p>Determine if the facility has activities or facilities which are regulated, but not addressed in this checklist.</p> <p>Verify that the facility is in compliance with all applicable and newly issued regulations.</p>



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<b>REGULATORY REQUIREMENTS:</b>	<b>REVIEWER CHECKS: June 2001</b>
<p><b>PCBs</b></p> <p><b>T1.10 General</b></p> <p><b>T1.10.1.US.</b> 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 are used or stored at any time, an inventory is required (40 CFR 761.180(a)(2)(iii) through 761.180(a)(2)(vi)).</p> <p><b>T1.10.2.US.</b> Storage rooms and certain equipment that contains PCBs must be marked with an <math>M_L</math> marking (40 CFR 761.40 and 761.45). <b>[Revised October 1999].</b></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 &lt; 50 ppm also apply to contaminated surfaces at PCB concentrations <math>\leq 10/100 \text{ cm}^2</math>. Requirements applicable to PCBs at concentrations &gt; 50 ppm to &lt; 500 ppm also apply to contaminated surfaces at PCB concentrations &gt; 10/100 <math>\text{cm}^2</math> to &lt; 100??. Requirements applicable to PCBs at concentrations <math>\geq 500</math> ppm also apply to contaminated surfaces at PCB concentrations <math>\geq 100</math>?. See also the definition for PCB Concentration Assumptions. (40 CFR 761.1(b)(1) and 761.1(b)(2)) <b>[Added October 1998].</b>)</p> <p>Determine if 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</p> <p>Verify that there is an inventory/record of the following:</p> <ul style="list-style-type: none"> <li>? total number (by type) of PCB Articles, PCB Article Containers, and PCB Containers placed into storage for disposal or disposed of during the calendar year</li> <li>? total weight placed into storage for disposal or disposed of during the calendar year of: <ul style="list-style-type: none"> <li>? PCBs in PCB Articles</li> <li>? contents of PCB Article Container</li> <li>? contents of PCB Containers</li> <li>? bulk PCB Waste</li> </ul> </li> <li>? a list of PCBs and PCB Items remaining in-service at the end of the calendar year. The total weight of any PCBs and PCB Items in containers including identification of container contents and the total number of PCB Transformers, PCB Large, High- and Low-Voltage Capacitors, and the total weight of PCBs in PCB Transformers.</li> </ul> <p>(NOTE: Marking Format is Large PCB Mark (<math>M_L</math>) 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 (<math>M_s</math>) may be used.)</p> <p>Verify that the following equipment is marked with an <math>M_L</math> marking that can be easily read by any person inspecting or servicing the equipment (see Appendix 11-</p>

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	<p>1 for a sample of the marking):</p> <ul style="list-style-type: none"> <li>? PCB Containers with PCBs in concentrations of &gt; 50 ppm 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</li> <li>? PCB Transformers (500 ppm or greater)</li> <li>? 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</li> <li>? 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</li> <li>? PCB Large Low-Voltage Capacitors at the time of removal from service</li> <li>? Electric motors using PCB coolants with a concentration &gt; 50 ppm</li> <li>? Hydraulic systems using PCB hydraulic fluid with concentrations &gt; 50 ppm</li> <li>? Heat transfer systems (other than PCB Transformers) using PCB concentrations &gt; 50 ppm</li> <li>? PCB Article Containers containing any of the above</li> <li>? Each storage area used to store PCBs and PCB Items for disposal</li> <li>? Transport vehicles loaded with PCB Containers that contain &gt; 45 kg (99.4 lb) of liquid PCBs with PCBs at concentrations <math>\geq</math> 50 ppm or with one or more PCB Transformers with PCB concentrations of &gt; 500 ppm are marked on each end and side</li> <li>? Vault doors, machinery room doors, fences, hallways, or means of access, other than a manhole or gate cover, to a PCB Transformer (500 ppm or greater)</li> <li>? Voltage regulators which contain 1.36 kg (3 lb) or more of dielectric fluid with a PCB concentration of <math>\geq</math> 500 ppm (individually)</li> <li>? Vault doors, machinery room doors, fences, hallways, or means of access, other than grates or manhole covers, to voltage regulators that contain 1.36 kg (3 lb) or more of dielectric fluid with a PCB concentration of <math>\geq</math> 500 ppm.</li> </ul> <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, then 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)".</p> <p>Verify that each Large Low Voltage Capacitor, each Small Voltage Capacitor normally used in an alternating current circuit, and each fluorescent light ballast built between 1 July 1978 and 1 July 1998 that does not contain PCBs were marked at the time of manufacture with the statement "No PCBs".</p>

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	<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 26 April 1999, all PCB Large Low Voltage Capacitors not previously marked, are marked individually, or 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 &lt; 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 EPA exemption to manufacture.</p> <p>Verify that a record is maintained after 26 April 1999 of those PCB Large Low Voltage Capacitors in a protected location.</p> <p>Verify that, after 26 April 1999, all equipment containing a PCB Transformer or a PCB Large, High, or Low Voltage Capacitor are marked.</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<sub>L</sub> mark.</p> <p>(NOTE: A mark other than the M<sub>L</sub> mark may be used if:</p> <ul style="list-style-type: none"> <li>? The program using an alternative mark was started prior to 15 August, 1985 and can be substantiated with documentation</li> <li>? Prior to 15 August 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</li> <li>? The EPA Regional Administrator was informed in writing of the use of the alternative mark by 3 October 1988</li> <li>? The EPA Regional Administrator approved the use of an alternative mark.</li> </ul> <p>(NOTE: Appendix 11-2 contains a list of manufacturers that produced PCB-Contaminated dielectric fluid.)</p> <p>(NOTE: The annual document log/inventory should contain a list of all PCB equipment at the site.)</p>

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<p><b>T1.10.3.US.</b> Generators, transporters, and disposers of PCB waste are required to have a USEPA identification number (40 CFR 761.202 through 761.205) [<b>Revised October 1998</b>].</p>	<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 and just temporarily store before they transport for disposal.)</p> <p>Verify that generators of PCB waste have a USEPA identification number before processing, storing, dispensing, transporting, or offering for transport PCB waste.</p> <p>Verify that transporters or disposers of PCB waste have a USEPA identification number.</p> <p>Verify that, if required, Form 7710-53, Notification of PCB Waste Activity, was filed with USEPA by 4 April 1990 and a USEPA identification number was obtained.</p> <p>(NOTE: When a facility has previously notified USEPA of its PCB waste handling activities using EPA Form 7710-53 and those activities change, the facility must resubmit 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 the Agency 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>

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<p><b>T1.15</b></p> <p><b>PCB RECORDS</b></p> <p><b>T1.15.1.US.</b> A written annual document log must be prepared by 1 July 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)) [<b>Revised October 1998</b>].</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 by this part 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 &lt; 50 ppm also apply to contaminated surfaces at PCB concentrations <math>\leq 10/100 \text{ cm}^2</math>. Requirements applicable to PCBs at concentrations &gt; 50 ppm to &lt; 500 ppm also apply to contaminated surfaces at PCB concentrations <math>&gt; 10/100 \text{ cm}^2</math> to &lt; <math>100^2</math>. Requirements applicable to PCBs at concentrations <math>\geq 500 \text{ ppm}</math> also apply to contaminated surfaces at PCB concentrations <math>\geq 100^2</math>. See also the definition for PCB Concentration Assumptions.(40 CFR 761.1(b)(1) and 761.1(b)(2)) [<b>Added October 1998</b>].)</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>Review the written annual document log for the following:</p> <ul style="list-style-type: none"> <li>? Identification of Federal facility</li> <li>? Calendar year covered</li> <li>? Manifest number for every manifest generated</li> <li>? Total number (by type) of PCB Articles, PCB Article Containers, and PCB Containers placed into storage for disposal or disposed of during the calendar year</li> <li>? Total weight placed into storage for disposal or disposed of during the calendar year of: <ul style="list-style-type: none"> <li>? PCBs in PCB Articles</li> <li>? Contents of PCB Article Container</li> <li>? Contents of PCB Containers</li> <li>? Bulk PCB Waste</li> </ul> </li> <li>? A list of PCBs and PCB Items remaining in-service at the end of the calendar year. The total weight of any PCBs and PCB Items in containers including identification of container contents and the total number of PCB Transformers, PCB Large, High- and Low-Voltage Capacitors, and the total weight of PCBs in PCB Transformers</li> <li>? A record of each telephone call or other form of verification to confirm the receipt of PCB Waste transported by independent transport</li> <li>? The name, address, and telephone number of the person to whom the item was transferred, date of transfer, and the serial number of the item or internal identification number whenever a PCB Item, except small capacitors, with a concentration <math>\geq 50 \text{ ppm}</math> is distributed in commerce for reuse.</li> </ul>

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<p><b>T1.15.2.US.</b> 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><b>T1.15.3.US.</b> Storage and disposal facilities for PCBs shall maintain specific records for 3 yr (40 CFR 761.180(f)).</p>	<p>(NOTE: In this context, PCB Voltage Regulators will be recorded as PCB Transformers.)</p> <p>Verify that the annual document log contains the following for each manifest, for unmanifested waste, and for any PCBs or PCB Items received from or shipped from another facility owned or operated by the generator:</p> <ul style="list-style-type: none"> <li>? Date removed from service for disposal (first date material placed in PCB Container)</li> <li>? Date placed into transport for offsite storage/disposal</li> <li>? Date of disposal (if known)</li> <li>? Weight of PCB Wastes: <ul style="list-style-type: none"> <li>? Total bulk for PCB wastes</li> <li>? In each article for PCB Transformers or Capacitors</li> <li>? Total in each container for PCB Containers</li> <li>? Total weight of contents and of the PCB Article (in kilograms) in each PCB Article Container</li> </ul> </li> <li>? Serial number or other unique identification number (except for bulk wastes)</li> <li>? Description of the contents for PCB Containers and Article Containers.</li> </ul> <p>Determine if the following information is provided by reviewing the annual document log:</p> <ul style="list-style-type: none"> <li>? All signed manifests generated or received during the calendar year</li> <li>? All CODs that have been generated or received during the calendar year.</li> </ul> <p>Verify that records on water analysis and operations are being kept for the required 20 yr.</p> <p>Verify that facilities which store or dispose of PCBs collect and maintain the following records for 3 yr:</p> <ul style="list-style-type: none"> <li>? All documents, correspondence, and data that have been provided by any state or local government</li> <li>? All documents, correspondence, and data provided to the state or local governments by the facility</li> <li>? Any applications and related correspondence concerning wastewater</li> </ul>

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	discharge permits, solid waste permits, building permits, or other permits and authorizations.





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<p><b>T1.20.3.US.</b> Railroad transformers must not contain dielectric fluid with greater than 1000 ppm PCB and must be serviced according to specific requirements (40 CFR 761.30(b)(1)(vi), 761.30(b)(2)(ii), and 761.30(b)(2)(iii)) [Citation Revised October 1998].</p> <p><b>T1.20.4.US.</b> 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><b>T1.20.5.US.</b> 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)) [Revised October 1998].</p>	<p>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 28 December 1998 is not required to register or re-register the transformer with the USEPA.)</p> <p>Verify that records of each registration (e.g., a copy of the registration and the return receipt signed by USEPA) is retained with the required inspection records.</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 less than 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 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>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 (<math>\geq</math> 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 that 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>

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<p><b>T1.20.6.US.</b> PCB transformers are required to be properly serviced (40 CFR 761.30(a)(2)).</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 &gt;, 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 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 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 to avoid transformer ruptures caused by sustained low current faults.</p> <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"> <li>? Specific location</li> <li>? Principal constituent of the dielectric fluid</li> <li>? The type of transformer installation (e.g., 208/120 volt network, 208/120 volt radial).</li> </ul> <p>Verify that servicing activities are properly conducted as follows by reviewing servicing records:</p> <ul style="list-style-type: none"> <li>? Transformers classified as PCB-contaminated Electrical Equipment (50 to 500 ppm PCBs) are only serviced with dielectric fluid containing less than 500 ppm PCB.</li> <li>? The transformer coil is not removed during servicing of PCB Transformers with PCB concentrations of 500 ppm or greater</li> <li>? PCBs removed during servicing are captured and are either reused as dielectric fluid or disposed of properly</li> <li>? 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</li> </ul>

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<p><b>T1.20.7.US.</b> Inspections must be performed once every 3 mo for all in use or stored for reuse PCB Transformers with &gt; 500 ppm PCB (40 CFR 761.30(a)(1)(ix) and 761.30(a)(1)(xii) through 761.30(a)(1)(xiv)) <b>[Revised October 1999].</b></p>	<p>Electrical Equipment (50 to 500 ppm PCBs)            ? Dielectric fluids containing less than 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> <p>(NOTE: PCB Transformers may be serviced with dielectric fluid at any concentration.)</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"> <li>? Location of transformer</li> <li>? Dates of each visual inspection</li> <li>? Date when any leak was discovered</li> <li>? Name of person conducting inspection</li> <li>? Location and estimate of the dielectric fluid quantity for any leaks</li> <li>? Date and description of any cleanup, containment, or repair performed</li> <li>? Results of any containment daily inspections for transformers with uncorrected active leaks</li> <li>? Registration of the PCB Transformer</li> <li>? Records of transfer of ownership in compliance with 40 CFR 761.180(a)(2)(ix) (see checklist item T1.15.1.US.).</li> </ul> <p>(NOTE: Reduced visual inspections of at least once every 12 mo are allowed for PCB Transformers with either of the following:</p> <ul style="list-style-type: none"> <li>? Impervious, undrained, secondary containment capacity of at least 100 percent of the total dielectric fluid volume of all transformers so contained</li> <li>? A PCB Transformer that has been tested and found to contain &lt; 60,000 ppm PCBs (after 3 mo of in-service use if the transformer has been serviced for purposes of reducing the PCB concentration).</li> </ul> <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>

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<p><b>T1.20.8.US.</b> 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> <p><b>T1.20.9.US.</b> When a PCB Transformer with concentrations of PCBs 500 ppm or greater is involved in a fire, the incident must be reported immediately to the NRC (40 CFR 761.30(a)(1)(xi)).</p> <p><b>T1.20.10.US.</b> Mineral oil transformers that are tested and found to be contaminated with 500 PPM or greater must meet specific requirements (40 CFR 761.30(a)(1)(xv) [<b>Added October 1998</b>]).</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> <p>Determine if 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>Determine if plans exist to repair or replace transformers to eliminate the source of the leak.</p> <p>Verify that cleaned up material is disposed of according to appropriate requirements.</p> <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"> <li>? Floor drains were blocked</li> <li>? Water runoff was contained.</li> </ul> <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"> <li>? Fire-related incidents are reported immediately after discovery</li> <li>? Mark the transformer within 7 days after discovery</li> <li>? Mark the vault door, machinery room door, fence, hallway, or other means of access to the PCB Transformer within 7 days after discovery</li> <li>? Register the transformer with the building owner within 7 days.</li> </ul>



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<p>761.120(c), and 761.125(b)).</p> <p><b>T1.25.3.US.</b> 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 761.120(a)(2), 761.120(b), 761.120(c), and 761.125(c)).</p>	<p>Verify that the above cleanup requirements are done within 48 h after identifying the spill unless an emergency or adverse weather delays the process.</p> <p>Verify that the cleanup is documented with records and certification of decontamination and the records are maintained for 5 yr.</p> <p>(NOTE: The final numerical cleanup standards do not apply to spills directly into surface waters, drinking water, sewers, grazing lands, and vegetable gardens.)</p> <p>(NOTE: The USEPA 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>Verify that the following actions are taken within 24 h (or within 48 h for PCB Transformer with PCB concentrations of greater than 500 ppm) of discovery of the spill:</p> <ul style="list-style-type: none"> <li>? notification of the USEPA regional office and the NRC</li> <li>? 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. If there are no visible traces the area of the spill may be estimated</li> <li>? clearly visible signs are placed advising persons to avoid the area</li> <li>? the area of visible contamination is recorded and documented, identifying the extent and center of the spill</li> <li>? cleanup of visible traces of the fluid from hard surfaces is initiated</li> <li>? removal of all visible traces of the spill on soil and other media such as gravel, sand, etc., is started.</li> </ul> <p>Verify that if the spill occurs in an outdoor substation:</p> <ul style="list-style-type: none"> <li>? contaminated solid surfaces are cleaned to a PCB concentration of 100 micrograms/cm<sup>2</sup> (as measured by standard wipe tests)</li> <li>? 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</li> <li>? post-cleanup sampling is done.</li> </ul> <p>Verify that if the spill occurs in a restricted access area other than an outdoor substation:</p> <ul style="list-style-type: none"> <li>? high-contact solid surfaces are cleaned to 10 micrograms/100 cm<sup>2</sup> (as measured by standard wipe tests)</li> <li>? low-contact, indoor, impervious solid surfaces are decontaminated to 10micrograms/100 cm<sup>2</sup></li> <li>? low contact, indoor, nonimpervious surfaces are cleaned to either 10</li> </ul>

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	<p>micrograms or 100 micrograms/100 cm<sup>2</sup> and encapsulated at the option of the facility</p> <ul style="list-style-type: none"> <li>? low-contact, outdoor surfaces (both impervious and nonimpervious) are cleaned to 100 micrograms/100 cm<sup>2</sup></li> <li>? soil contaminated by the spill is cleaned to 25 ppm PCBs by weight</li> <li>? post-cleanup sampling is done.</li> </ul> <p>Verify that spills in nonrestricted access locations are decontaminated as follows:</p> <ul style="list-style-type: none"> <li>? Furnishings, toys, and other easily replaceable household items are disposed of and replaced</li> <li>? Indoor solid surfaces and high-contact outdoor solid surfaces are cleaned to 10 micrograms/100 cm<sup>2</sup> (as measured by standard wipe tests)</li> <li>? Indoor vault areas and low-contact, outdoor, impervious solid surfaces are decontaminated to 10 micrograms/100 cm<sup>2</sup></li> <li>? At the option of the facility, low-contact, outdoor, nonimpervious solid surfaces are cleaned to either 10 or 100 micrograms/100 cm<sup>2</sup> and encapsulated</li> <li>? 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</li> <li>? post-cleanup sampling is done.</li> </ul> <p>Verify that records documenting all cleanup and decontamination are maintained for 5 yr.</p> <p>(NOTE: The occurrence/discovery of the spill on the weekend or overtime costs are not considered acceptable reasons to delay response.)</p> <p>(NOTE: The final numerical cleanup standards do not apply to spills directly into surface waters, drinking water, sewers, grazing lands, and vegetable gardens.)</p> <p>(NOTE: The USEPA 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>





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<p><b>T1.30.3.US.</b> Capacitors may contain PCBs at any concentration subject to certain requirements (40 CFR 761.30(l)).</p> <p><b>T1.30.4.US.</b> 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><b>T1.30.5.US.</b> 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)) [Added October 1999].</p>	<p>Verify that electromagnets, switches, and voltage regulators that contain between 50 and 500 ppm PCB (PCB-contaminated Electrical Equipment) are only serviced with dielectric fluid that contains less than 500 ppm PCB.</p> <p>Verify that PCBs removed or captured are either reused as dielectric fluid or disposed of properly.</p> <p>Verify that dielectric fluid containing a mixture of fluids with less than 500 ppm PCBs are not used as dielectric fluid in any electrical equipment.</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>Verify that any circuit breakers, reclosers, and cables used are serviced using only dielectric fluid that contains less than 50 ppm PCB and have been free from leaks.</p> <p>Verify that the following conditions are met when using porous surfaces contaminated by spills of liquid PCBs at concentrations <math>\geq 50</math> ppm:</p> <ul style="list-style-type: none"> <li>?the source of PCB contamination is removed or contained to prevent further release to porous surfaces</li> <li>?If the porous surface is accessible to superficial surface cleaning, a double wash rinse procedure is conducted on the surface to remove surface PCBs and the treated surface is allowed to dry for 24 h.</li> </ul> <p>Verify that, after accessible surfaces have been cleaned, and for all surfaces inaccessible to cleanup:</p> <ul style="list-style-type: none"> <li>?the surface is completely covered with one of the following to prevent the release of PCBs:</li> </ul>

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	<ul style="list-style-type: none"> <li>? 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</li> <li>? A solid barrier fastened to the surface and covering the contaminated area or all accessible parts of the contaminated area.</li> <li>? The surface is marked with the M<sub>L</sub> Mark in a location easily visible to individuals present in the area; the M<sub>L</sub> Mark is placed over the encapsulated area or the barrier to the encapsulated area</li> <li>? M<sub>L</sub> Marks are replaced when worn or illegible.</li> </ul> <p>Verify that a porous surface contaminated with PCBs is not removed from its location or current use except for removal for disposal.</p>





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<p><b>T1.40.2.US.</b> 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)) [Revised October 1998].</p>	<p>service for disposal is exempt from the 1-yr time limit provided a written record documents all attempts to secure disposal and the written record is available for review 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> <p>(NOTE: Any person storing PCB waste that is subject to the 1-yr time limit may provide written notification to the USEPA Regional Administrator for the 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 unsuccessful. Upon receipt of the notice by the USEPA Regional Administrator, the time for disposal is automatically extended for 1 additional year (2 yr total) if the following conditions are met:</p> <ul style="list-style-type: none"> <li>?The notification is received by the USEPA 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</li> <li>?a written record documenting all continuing attempts to secure disposal is maintained until the waste is disposed of</li> <li>?the required written record is available for inspection or submission if requested by USEPA</li> <li>?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.</li> </ul> <p>Failure to initiate and continue attempts to secure disposal throughout the total time the waste is in storage shall automatically disqualify the notifier from receiving an automatic extension under this section.)</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"> <li>?It is permitted to manage hazardous waste in containers, and spills of PCBs are properly cleaned up</li> <li>?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</li> <li>?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</li> <li>?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</li> <li>?It is subject to a TSCA Coordinated Approval that includes provisions for storage of PCBs</li> <li>?It has a TSCA PCB waste management approval that includes provisions for storage.</li> </ul>

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<p><b>T1.40.3.US.</b> 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><b>T1.40.4.US.</b> Specific operational procedures are required at PCB storage units (40 CFR 761.65(c)(4), 761.65(c)(5), and 761.65(c)(8)) <b>[Revised October 1998].</b></p>	<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"> <li>? Nonleaking PCB Articles and PCB Equipment</li> <li>? 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</li> <li>? PCB Containers in which nonliquid PCBs have been placed</li> <li>? PCB Containers containing liquid PCBs at a concentration <math>\geq 50</math> provided Spill, Prevention, Control, and Countermeasure (SPCC) plan has been prepared for the temporary storage area and the liquid PCB waste is in DOT authorized packaging or stationary bulk storage tanks.</li> </ul> <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>Verify that the following practices are conducted at any area where PCBs or PCB Items are stored:</p> <ul style="list-style-type: none"> <li>? Movable equipment used for handling PCBs and PCB Items that directly contact PCBs is not removed from storage unit unless decontaminated</li> <li>? Inspections for leaks of all PCB Items in storage are done at least once every 30 days</li> <li>? 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</li> <li>? PCB Items are marked with the date when they are removed from service for disposal</li> <li>? PCB Items are positioned so that they can be located by the marked date</li> <li>? 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 container.</li> </ul>

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<p><b>T1.40.5.US.</b> 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)) <b>[Revised October 1998]</b>.</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 parts 171 through 180.</p> <p>Verify that PCB wastes not subject to the HMR (i.e., PCB wastes at concentrations of &lt;20 ppm or &lt;1 pound 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>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"> <li>? Containers are non-leaking</li> <li>? 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.</li> <li>? Containers meet all regulations and requirements pertaining to nuclear criticality safety.</li> </ul> <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 appropriate 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> <p>(NOTE: The following DOT-specified containers that conform to the requirements of 49 CFR, chapter I, subchapter C in effect on 30 September 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</p>

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<p><b>T1.40.6.US.</b> Commercial storers of PCB Waste must have final storage approval (40 CFR 761.65(d)).</p>	<p>environment as the DOT-specified containers.)</p> <p>Verify that, if the containers larger than DOT-approved containers are used, an SPCC plan covering the containers storing PCBs has been prepared.</p> <p>Verify that the commercial storer has final storage approval from the USEPA regional administrator for PCB waste.</p> <p>(NOTE: Commercial storers were required to file for final storage approval by 2 August 1990. After filing for final approval, they will operate under interim approval until the a final decision is made on approval.)</p> <p>(NOTE: The following storage facilities may be exempt from this requirements for storage approval:</p> <ul style="list-style-type: none"> <li>? storage areas at transfer facilities unless the PCB waste is stored at the transfer facility for more than 10 consecutive days between destinations</li> <li>? 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</li> <li>? 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.)</li> </ul>
<p><b>T1.40.7.US.</b> PCB Articles may be stored for reuse if specific parameters are met (40 CFR 761.35) [<b>Added October 1998</b>].</p>	<p>Verify that PCB Articles are not stored in an area that is not designed, constructed, and operated in compliance with 40 CFR 761.65(b) for more than 5 yr after the date the Article was originally removed from use or 5 yr after 25 August 1998, whichever is later.</p> <p>Verify that, when storing PCB Articles in a noncompliant area, the following are met:</p> <ul style="list-style-type: none"> <li>? all applicable use and marking requirements are met</li> <li>? records including the following are kept, starting at the time the PCB Article is removed from use or 28 August 1998: <ul style="list-style-type: none"> <li>? the date of removal or 28 August 1998 if the removal date is not known</li> <li>? projected location and future use of the Article</li> <li>? the date the PCB Article is scheduled for repair, if applicable.</li> </ul> </li> </ul> <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 USEPA Regional Administrator.)</p> <p>(NOTE: A PCB Article may be stored for reuse indefinitely in:</p>

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<p><b>T1.40.8.US.</b> PCB household waste must be stored according to specific parameters (40 CFR 761.63) [Added October 1998].</p> <p><b>T1.40.9.US.</b> The storage of bulk PCB remediation waste or PCB bulk product waste must meet certain requirements (40 CFR 761.65(c)(9)) [Added October 1998].</p>	<p>? a unit in compliance with 40 CFR 761.65(b) ? a unit permitted to manage hazardous waste containers.)</p> <p>Verify that PCB household waste stored in a unit regulated for storage of PCB waste is not commingled with PCB waste.</p> <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:</p> <ul style="list-style-type: none"> <li>? 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.</li> <li>? the waste does not generate leachate through decomposition or other reactions.</li> <li>? the storage site has: <ul style="list-style-type: none"> <li>? a liner that 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</li> <li>? a liner 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</li> <li>? a liner 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</li> <li>? a liner installed to cover all surrounding earth likely to be in contact with the waste</li> <li>? 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</li> <li>? a run-on control system designed, constructed, operated, and maintained such that: <ul style="list-style-type: none"> <li>? it prevents flow onto the stored waste during peak discharge from at least a 25-yr storm</li> <li>? it collects and controls at least the water volume resulting from a</li> </ul> </li> </ul> </li> </ul>

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	<p style="text-align: center;">24-h, 25-yr storm.</p> <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>





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<p><b>T1.45.2.US.</b> 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)) <b>[Revised October 1998]</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 USEPA 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"> <li>? a legible copy of the manifest for which the generator does not have confirmation of delivery</li> <li>? 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.</li> </ul>



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<p><b>1998].</b></p> <p><b>T1.50.4.US.</b> Checklist item deleted. <b>[Deleted October 1998].</b></p> <p><b>T1.50.5.US.</b> Checklist item deleted. <b>[Deleted October 1998].</b></p> <p><b>T1.50.6.US.</b> PCB Transformers with PCB concentrations of 500 ppm or greater shall be disposed of in either a USEPA approved incinerator or a chemical waste landfill (40 CFR 761.60(b)(1)).</p> <p><b>T1.50.7.US.</b> PCB Capacitors must be disposed of in accordance with certain requirements (40 CFR 761.60(b)(2) and 761.60(b)(4)(ii)) <b>[Revised October 1998].</b></p>	<p>Verify that, if liquids with PCB concentrations at <math>\geq 50</math> ppm and <math>&lt; 500</math> 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).</p> <p>Verify that liquids from incidental sources, such as precipitation, condensation, leachate, or load separation with PCB concentrations at <math>\geq 50</math> ppm and <math>&lt; 500</math> 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:</p> <ul style="list-style-type: none"> <li>? Disposal does not violate land disposal restriction regulations</li> <li>? Information, if provided to or obtained by the owner or operator of the chemical waste landfill, that shows the liquids do not exceed 500 ppm and are not an ignitable waste.</li> </ul> <p>Checklist item deleted due to 29 June 1998 regulatory revision.</p> <p>Checklist item deleted due to 29 June 1998 regulatory revision.</p> <p>Determine if the PCB Transformers are being disposed of at a USEPA-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>Verify that disposal of PCB Capacitors was done as follows:</p> <ul style="list-style-type: none"> <li>? PCB Small Capacitors (less than 1.36 kg (3 lb) of PCBs) are disposed of in a solid waste landfill</li> <li>? PCB Large, High- or Low-Voltage Capacitors (greater than 1.36 kg (3 lb) of PCBs) containing more than 500 ppm are incinerated in a USEPA-approved incinerator.</li> </ul> <p>(NOTE: The Large, High- or Low-Voltage capacitors may be disposed of in a chemical waste landfill upon approval of the USEPA.)</p> <p>Verify that Large Capacitors that contain <math>\geq 50</math> ppm but <math>&lt; 500</math> ppm are disposed of in an approved disposal facility.</p>

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<p><b>T1.50.8.US.</b> PCB hydraulic machines containing PCBs at concentrations <math>\geq 50</math> ppm must be decontaminated or disposed of according to specific parameters (40 CFR 761.50(b)(2) and 761.60(b)(3)) [Revised October 1999].</p> <p><b>T1.50.9.US.</b> PCB-Contaminated Electrical Equipment, except capacitors, must meet specific disposal requirements (40 CFR 761.50(b)(2) and 761.60(b)(4)) [Revised October 1999].</p>	<p>Verify that capacitors in storage are placed in DOT-approved containers with absorbent material.</p> <p>Determine if PCB hydraulic machines are going for disposal or being decontaminated.</p> <p>Verify that PCB hydraulic machines with PCB concentrations at <math>\geq 50</math> ppm, such as die casting machines, are disposed of by one of the following methods:</p> <ul style="list-style-type: none"> <li>? In accordance with decontamination standards and procedures in 40 CFR 761.79</li> <li>? In a facility that is permitted, licensed, or registered to manage municipal solid waste or nonmunicipal nonhazardous waste (excluding thermal treatment units)</li> <li>? In a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72</li> <li>? In an approved disposal facility.</li> </ul> <p>Verify that all free-flowing liquid is removed from each machine and disposed of appropriately.</p> <p>(NOTE: If the PCB liquid contains <math>\geq 1000</math> ppm, the hydraulic machine must be decontaminated or flushed with a solvent that contains <math>&lt; 50</math> ppm PCB.)</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 item T1.50.3.US.).</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"> <li>? In accordance with 40 CFR 761.79</li> <li>? In a facility that is permitted, licensed, or registered to manage municipal solid waste or nonmunicipal nonhazardous waste (excluding thermal treatment units)</li> <li>? In a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72</li> <li>? In an approved disposal facility.</li> </ul> <p>Verify that any person disposing of Large Capacitors that contain <math>\geq 50</math> ppm but <math>&lt;</math></p>

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<p><b>T1.50.10.US.</b> 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)) <b>[Revised October 1999]</b>.</p> <p><b>T1.50.11.US.</b> PCB Containers shall be disposed of properly (40 CFR 761.60(c)).</p>	<p>500 ppm PCBs does so in an approved disposal facility.</p> <p>Determine if PCB Articles are going for disposal or being decontaminated.</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"> <li>? a USEPA-approved incinerator</li> <li>? a chemical waste landfill if all free-flowing liquids have been removed.</li> </ul> <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 item T1.50.3.US.).</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"> <li>? In accordance with 40 CFR 761.79</li> <li>? In a facility that is permitted, licensed, or registered to manage municipal solid waste or nonmunicipal nonhazardous waste (excluding thermal treatment units)</li> <li>? In a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72</li> <li>? In an approved disposal facility.</li> </ul> <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.</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"> <li>? In a USEPA-approved incinerator</li> </ul>

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<p><b>T1.50.12.US.</b> Certain disposal methods for PCBs are prohibited (40 CFR 761.50(a)(1) through 761.50(a)(3) and 761.50(a)(5)) <b>[Added October 1998].</b></p> <p><b>T1.50.13.US.</b> 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)) <b>[Revised October 1999].</b></p> <p><b>T1.50.14.US.</b> Disposal of PCB</p>	<p>Verify that PCB Containers used to contain only PCBs at concentrations less than 500 ppm are drained of PCB liquid prior to disposal as municipal solid waste.</p> <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 <math>\leq 3</math> <math>\mu\text{g/L}</math> (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 <math>\geq 500</math> ppm if no free-flowing liquids are present.)</p> <p>Verify that PCB bulk product waste is disposed of as follows when using performance-based disposal:</p> <ul style="list-style-type: none"> <li>Verify that in an incinerator approved under 40 CFR 761.70</li> <li>Verify that in a chemical waste landfill approved under 40 CFR 761.75</li> <li>Verify that in a permitted hazardous waste landfill</li> <li>Verify that under an approved alternate disposal method</li> <li>Verify that in accordance with the decontamination provisions of 40 CFR 761.79</li> <li>Verify that for metal surfaces in contact with PCBs, in accordance with the thermal decontamination provisions of 40 CFR. 761.79(c)(6)</li> <li>Verify that in accordance with a TSCA PCB Coordinated Approval.</li> </ul> <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 USEPA Regional Administrator in the Region where the disposal site is located for disposal or storage occurring in a single USEPA Region; or the Director of the National Program Chemicals Division, for disposal occurring in more than one USEPA Region.</p> <p>(NOTE: This applies to PCB Items where PCB Articles are no longer intact and nonleaking.)</p> <p>Verify that, when PCB bulk product waste is disposed of in a solid waste landfill,</p>

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<p>bulk product waste in solid waste landfills must be in accordance with specific parameters (40 CFR 761.62(b) through 761.62(d)) <b>[Revised October 1999]</b>.</p>	<p>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"> <li>? 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; 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)</li> <li>? other sampled PCB bulk product waste that leaches PCBs at &lt;10 ?g/L of water measured with a procedure used to simulate leachate generation.)</li> </ul> <p>Verify that, if disposal of offsite PCB bulk product waste is done at a waste 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 &gt;= 50 ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) that is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach &gt;= 10 ?g/L PCBs.</p> <p>Verify that, if materials other than those listed in the NOTE 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"> <li>? the PCB bulk product waste is segregated from organic liquids disposed of in the landfill unit</li> <li>? leachate is collected from the landfill unit and monitored for PCBs.</li> </ul> <p>Verify that, if materials other than those listed in the NOTE 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 the written notice states that the PCB bulk product waste may include components containing PCBs at &gt;= 50 ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) that is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach &gt;= 10 ?g/L PCBs.</p> <p>Verify that, for any disposal of PCB bulk product waste, a written record is</p>

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<p><b>T1.50.15.US.</b> PCB household waste must be disposed of according to specific parameters (40 CFR 761.63) [Added October 1998].</p>	<p>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 NOTE 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 Subpart C: <i>Marking of PCBs and PCB Items</i>, Subpart J: <i>General Record and Reports</i>, and Subpart K: <i>PCB Waste Disposal Records and Reports</i> 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 USEPA Regional Administrator in the Region where the disposal site is located for disposal or storage occurring in a single USEPA Region; or the Director of the National Program Chemicals Division, for disposal occurring in more than one USEPA Region.</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>



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<p><b>T1.55</b></p> <p><b>PCB IMPORT/EXPORT</b></p> <p><b>T1.55.1.US.</b> The import of PCB Items for disposal is subject to specific restrictions (40 CFR 761.91(a)) [<b>March 1996</b>].</p> <p><b>T1.55.2.US.</b> When PCBs and PCB Item with a concentration of 50 ppm or greater are imported, a waste import notice must be included (40 CFR 761.91(b)(1)) [<b>March 1996</b>].</p>	<p>(NOTE: These requirements apply to the shipment of PCB Items into and out of the United States for disposal.)</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 unless they are:</p> <ul style="list-style-type: none"> <li>? PCBs and PCB Items with a concentration of less than 50 ppm</li> <li>? PCBs and PCB Items with a concentration of 50 ppm or greater which are imported: <ul style="list-style-type: none"> <li>? From U.S. territories or possessions outside the customs territory of the United States into the customs territory of the United States for disposal</li> <li>? by a person who is an approved commercial storer or disposer and the PCBs or PCB Items are accompanied by a PCB waste import notice (this does not apply to imports from U.S. territories and possessions)</li> <li>? for analysis and disposal by a laboratory, commercial storer, or disposer of PCB waste</li> <li>? for evaluating of disposal technologies for PCB waste.</li> </ul> </li> </ul> <p>(NOTE: For the determination of concentration for this regulation, PCBs and PCB Items of unknown concentrations are required to be treated as if they contain 50 ppm or greater.)</p> <p>Verify that the PCBs and PCB Items with a concentration of 50 ppm or greater have been imported by a person who is an approved commercial storer or disposer and the PCBs or PCB Items are accompanied by a PCB waste import notice.</p> <p>Verify that the waste import notice is submitted to the USEPA in writing at last 45 days prior to the date the initial shipment enters the United States and contains the following information:</p> <ul style="list-style-type: none"> <li>? company name, name of a contact person, address, telephone number, FAX number, and USEPA identification number of the importer</li> <li>? company name, name of contact person, address (including country), telephone number, FAX number of the foreign generator, countries of transit, port of entry in the United States, and method of transportation</li> <li>? types of PCBs and PCB Items to be imported, PCB concentrations, number and frequency of shipments, maximum shipment size, maximum total quantity to be imported during the designated import period</li> <li>? projected dates of shipment and period of time intended for import activities</li> </ul>

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<p><b>T1.55.3.US.</b> Facilities that store or dispose of waste PCBs and PCB Item with a concentration of 50 ppm or greater which are imported are required to meet specific requirements (40 CFR 761.91(b)(2)) [March 1996].</p> <p><b>T1.55.4.US.</b> Specific recordkeeping and reporting procedures are required for</p>	<p>? Names, contact name, address, telephone number, FAX number, and USEPA identification number of each TSCA approved commercial storage and disposal facility where the PCB waste will be stored and disposed of</p> <p>? Written certification from each TSCA approved commercial storage or disposal facility indicating that they have agreed to accept shipment</p> <p>? Written certification from the importer indicating that they are TSCA approved</p> <p>? Written certification signed by the importer indicating that the information in the notice is complete and accurate.</p> <p>(NOTE: The notice may cover a single shipment or a series of shipments ending over a 12-mo period beginning with the date on which initial shipment enters the United States.)</p> <p>Verify that a new notice is submitted to the USEPA when:</p> <ul style="list-style-type: none"> <li>? Import disposal continues beyond 12 mo</li> <li>? Import will deviate from the terms described in the prior notice.</li> </ul> <p>Determine if the facility stores or disposes of imported PCBs or PCB Items.</p> <p>Verify that the facility does not store at any time a combined quantity of imported PCB waste from all sources in excess of 70 percent of the facility's approved maximum PCB storage capacity.</p> <p>(NOTE: This 70 percent limit expires 18 March 1999.)</p> <p>Verify that the storage/disposal meets the marking, packaging, and storage requirements found in 40 CFR 761.40 through 761.45 and 761.60 through 761.79 (see checklist items T1.10.2.US., T1.40.1.US. through T1.40.5.US., and T1.50.2.US. through T1.50.11.US.).</p> <p>(NOTE: For the purpose of complying with the 1 yr storage for disposal limit, the date of removal from service for disposal for imported PCB waste is whichever of the following dates occurs first:</p> <ul style="list-style-type: none"> <li>? The date the PCB waste enters the contiguous 48 states</li> <li>? The date the PCB waste enters any State, if the PCB waste will be disposed of in that State</li> <li>? The date the PCB waste enters the state outside the contiguous 48 states, if the PCB waste is stored in that state for a period of more than 10 consecutive days.)</li> </ul> <p>Verify that importers, storers, or disposers of imported waste PCBs and PCB Item with a concentration of 50 ppm or greater meet the requirements in 40 CFR 761.180 through 761.193 (see checklist items T1.10.1.US., and T1.15.1.US. through</p>



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<p><b>T1.55.6.US.</b> The importation of PCBs and PCB Items with a concentration of 50 ppm or greater for the purposes of evaluating the effectiveness of a disposal technology can be done without prior notification if specific parameters are met (40 CFR 761.91(d))[<b>March 1996</b>].</p> <p><b>T1.55.7.US.</b> No person may export PCBs or PCB Items for disposal without an exemption (40 CFR 761.97)[<b>Revised October 1998</b>].</p>	<p>[? 0.02 qt] for liquids.</p> <p>Verify that unused and residual PCB waste remaining after analytical use is completed is marked, stored, manifests, and disposed of according to the standard requirements for nonimported PCB waste.</p> <p>Verify that each laboratory has a TSCA PCB commercial storer approval unless a total volume of no more than 500 gal (1.89 m<sup>3</sup>) of PCB waste is in storage at any one time.</p> <p>Verify that the importer receiving the PCBs is an approved disposer.</p> <p>Verify that the quantity of PCB waste imported annually to a disposal facility does not exceed a total volume of 500 gal (1.89 m<sup>3</sup>).</p> <p>Verify that the imported waste PCB concentration does not exceed 10,000 ppm PCBs, and no more than 1 kg [? 0.45 lb] total of pure PCBs is imported annually.</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 less than 50 ppm ( or &lt; 10 ?g PCB/100 cm<sup>2</sup> 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 &lt; /= 50 ppm.)</p>

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<p><b>ASBESTOS MANAGEMENT</b></p> <p><b>T2.1 All Federal Facilities</b></p> <p><b>T2.1.1.US.</b> The current status of any ongoing or unresolved consent orders, compliance agreements, notice of violations (NOVs), inter-agency agreements, or equivalent state enforcement actions is required to be examined (a finding under this checklist item will have the enforcement action/identifying information as the citation).</p>	<p>(NOTE: When conducting the assessment, be aware of possible pollution prevention opportunities in this section and report them to the individual responsible for assessing pollution prevention.)</p> <p>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.</p>



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<p><b>ASBESTOS MANAGEMENT</b></p> <p><b>T2.2 Missing Checklist Items</b></p> <p><b>T2.2.1.US.</b> Facilities are required to comply with all applicable Federal regulatory requirements not contained in this checklist (a finding under this check list item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine if any new regulations have been issued since the finalization of TEAM.</p> <p>Determine if the facility has activities or facilities which are Federally regulated, but not addressed in this checklist.</p> <p>Verify that the facility is in compliance with all applicable and newly issued regulations.</p>





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<p>ft<sup>2</sup>) on other facility components and less than 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components are required to submit notification of demolition (40 CFR 61.145(a)(2) and 61.145(b)) [February 1995].</p> <p><b>T2.5.3.US.</b> Facilities that demolish or renovate structures must meet certain emission control requirements (40 CFR 61.145(a)(1) through 61.145(a)(3) and 61.145(c)(1) through 61.145(c)(3)) [February 1995].</p>	<p>use</p> <ul style="list-style-type: none"> <li>? Estimate of the approximate amount of friable asbestos present</li> <li>? Location of the facility</li> <li>? Schedule</li> <li>? Procedures to be used.</li> </ul> <p>(NOTE: This requirements applies to facilities that demolish structures which contain at least 80 linear meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of RACM on other facility components and facilities renovating structures and stripping or removing at least 80 linear meters (260 linear feet) of friable asbestos on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of friable asbestos on other facility components or 1 m<sup>3</sup> (35 ft<sup>3</sup>) or more off facility components.)</p> <p>Verify that all RACM is removed from facilities being demolished or renovated before any wrecking or dismantling unless:</p> <ul style="list-style-type: none"> <li>? It is a Category I nonfriable ACM that is not in poor condition and is not friable</li> <li>? The RACM is on a facility component that is encased in concrete or other similar material and is adequately wetted whenever exposed during demolition</li> <li>? It was not accessible for testing and is not discovered until after demolition began and, as a result of demolition, the materials cannot be safely removed</li> <li>? It is Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder, during demolition.</li> </ul> <p>Verify that, when a facility component, that contains or is covered or coated with RACM, is being taken out of the facility in units or sections:</p> <ul style="list-style-type: none"> <li>? They are adequately wetted when RACM is exposed during cutting and disjointsing operations</li> <li>? The units or sections are carefully lowered to ground level.</li> </ul> <p>Verify that RACM is adequately wetted when it is being stripped from facility components while it remains in place in the facility except in renovation operation where wetting would unavoidably damage equipment and the facility:</p> <ul style="list-style-type: none"> <li>? Requests a determination from the administrator as to whether unavoidable damage would occur and supply administrator with the information needed to make the decision</li> <li>? Uses one of the following emission control methods: <ul style="list-style-type: none"> <li>? A local exhaust ventilation and collection system</li> <li>? A glove bag system</li> <li>? Leaktight wrapping to contain all RACM.</li> </ul> </li> </ul>

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<p><b>T2.5.4.US.</b> Emissions from facility components that have been taken out in units or in sections from facilities being demolished under state or local orders or facilities being demolished or renovated with at least 80 linear meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of RACM on other facility components or at least 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components must be controlled (40 CFR 61.145(c)(4) and 61.145(c)(5)).</p> <p><b>T2.5.5.US.</b> Emissions from RACM that has been removed or stripped from facilities being demolished under state or local orders or facilities being demolished or renovated with at least 80 linear meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of RACM on other facility components or 1 m<sup>3</sup> (35 ft<sup>3</sup>) or greater off facility components must be controlled (40 CFR 61.14(c)(6)).</p> <p><b>T2.5.6.US.</b> When the temperature at the point of wetting is below 0 degrees C (32 degrees F) and facilities are being demolished under state or local orders or facilities with at least 80 linear</p>	<p>Verify that facility components are either stripped or contained in leaktight wrappings.</p> <p>Verify that facility components removed from facility as units or in sections for stripping meet the following:</p> <ul style="list-style-type: none"> <li>? RACM is adequately wet during stripping operations</li> <li>? a local exhaust ventilation and collection system designed and operated to capture emissions is in use</li> <li>? the exhaust system exhibits no visible emissions to outside air.</li> </ul> <p>Verify that, when wetting operations are stopped because of the temperature, a record of the temperature is made and kept on file for 2 yr.</p> <p>(NOTE: For large facility components such as reactor vessels, large tanks, and steam generators, but not beams, stripping is not required if the following are met:</p> <ul style="list-style-type: none"> <li>? the component is removed, transported, stored, disposed of, or reused without disturbing the RACM</li> <li>? the component is encased in leaktight wrapping and labeled.)</li> </ul> <p>Verify that asbestos materials that have been removed or stripped meet the following:</p> <ul style="list-style-type: none"> <li>? materials are adequately wet, and remain wet until collected for disposal</li> <li>? materials are carefully lowered to the ground or lower floor (not dropped or thrown)</li> <li>? materials not removed as units or in sections are transported to the ground via dust-tight chutes or containers if they are removed more than 50 ft above ground level.</li> </ul> <p>Verify that facility components coated or covered with RACM materials are removed as units or in sections to the maximum extent possible.</p> <p>(NOTE: Wetting is not required at this temperature.)</p> <p>Verify that, when wetting operations are stopped because of freezing temperatures, the temperature is recorded in the areas containing the facility components at the</p>

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<p>meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of RACM other facility components or at least 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components are being demolished or renovated, specific exemptions and requirements apply (40 CFR 61.145(c)(7)).</p> <p><b>T2.5.7.US.</b> Facilities being demolished under state or local governmental agency orders shall have the portion of the facility containing friable asbestos adequately wetted during the wrecking operation (40 CFR 61.145(c)(9)).</p> <p><b>T2.5.8.US.</b> When a structure is demolished by intentional burning, all RACM, including Category I and II nonfriable ACM, must be removed (40 CFR 61.145(c)(10)).</p> <p><b>T2.5.9.US.</b> When air cleaning is used as a method for controlling emissions of asbestos to the outside air, the fabric filter collection systems are required to meet specific standards unless alternative equipment is authorized for use by the USEPA (40 CFR 61.152).</p>	<p>beginning, middle, and end of each work day.</p> <p>Verify that the temperature records are kept for 2 yr.</p> <p>Verify that in facilities being demolished under state or local governmental agency orders the portion of the facility that contains friable asbestos materials is adequately wetted during the wrecking operation.</p> <p>Verify that complex removal is done before burning.</p> <p>Verify that fabric filter collection systems meet the following requirements:</p> <ul style="list-style-type: none"> <li>?airflow permeability does not exceed 9 m<sup>3</sup>/min/m<sup>2</sup> (30 ft<sup>3</sup>/min/ft<sup>2</sup>) for woven fabrics or 11 m<sup>3</sup>/min/m<sup>2</sup> (35 ft<sup>3</sup>/min/ft<sup>2</sup>) for felted fabrics</li> <li>?the felted fabric weighs at least 475 g/m<sup>2</sup> (14 oz/yd<sup>2</sup>) and is at least 1.6 mm (1/16 in.) thick throughout</li> <li>?the use of synthetic fabrics containing fill yarn other than that which is spun is avoided.</li> </ul>

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<p><b>T2.10</b></p> <p><b>ASBESTOS PERSONNEL TRAINING</b></p> <p><b>T2.10.1.US.</b> No RACM shall be stripped, removed, or otherwise handled or disturbed unless at least one onsite representative trained in asbestos removal is present (40 CFR 61.145(c)(8)) [<b>June 1995</b>].</p>	<p>Verify that a trained person is present.</p> <p>Verify that the individual receives refresher training every 2 yr.</p> <p>(NOTE: This applies to facilities that demolish structures containing at least 80 linear meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of RACM on other components or at least 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components, and facilities renovating structures and stripping or removing at least 80 linear meters (260 linear feet) of RACM on pipes, or at least 15 m<sup>2</sup> (160 ft<sup>2</sup>) of friable asbestos on other facility components and at least 1 m<sup>3</sup> (35 ft<sup>3</sup>) off facility components.)</p>





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<p><b>T2.15.3.US.</b> Active waste disposal sites where ACM is being disposed are required to meet specific standards (40 CFR 61.154(a) through 61.154(e) and 61.154(i) through 61.154(j)).</p> <p><b>T2.15.4.US.</b> Inactive waste disposal sites are required to meet specific standards (40 CFR 61.154(f) through 61.154(h) and 61.151).</p>	<p>Determine if the facility is operating a landfill where asbestos is being disposed.</p> <p>Verify that there are no visible emissions from active asbestos-containing waste disposal sites, or that one of the following is done:</p> <ul style="list-style-type: none"> <li>? At the end of each operating day, or once in a 24 h period, the waste material is covered with either at least 15 cm (6 in.) of compacted nonasbestos-containing material</li> <li>? A resinous or petroleum based dust suppression agent is applied, waste crank case oil is not suitable for this purpose</li> <li>? An alternative method of control approved by the USEPA is used.</li> </ul> <p>Verify that unless a natural barrier exists deterring access by the general public, either the waste is properly covered by non-ACM daily or proper warning signs and fences are installed and maintained as follows:</p> <ul style="list-style-type: none"> <li>? Warning signs are displayed at all entrances at intervals of 100 m (330 ft) or less along the property line of the site or the perimeter of the section of the site where ACM is disposed and state that the site contains asbestos and warns against creating dust</li> <li>? The area is adequately fenced.</li> </ul> <p>Verify that a copy of waste shipment records are maintained for 2 yr.</p> <p>Verify that until closure, a record is kept of the location, depth, and area of asbestos-containing waste on a map or diagram of the disposal area.</p> <p>Verify that upon closure, the administration receives a copy of all records.</p> <p>Verify that a procedure is in place to notify the administration in at least 45 days prior to excavating or disturbing deposited asbestos-containing waste material.</p> <p>Verify that inactive waste disposal sites meet one of the following:</p> <ul style="list-style-type: none"> <li>? No visible emissions are discharged</li> <li>? Asbestos-containing waste material is covered with at least 15 cm (6 in.) of compacted non-ACM, and a vegetation cover is grown and maintained. (In desert areas where vegetation is difficult to maintain at least 8 cm (3 in.) additional of well-graded nonasbestos-containing crushed rock may be used instead.)</li> <li>? Cover the asbestos-containing waste material with at least 60 cm (2 ft) of non-ACM and maintain the cover to prevent exposure.</li> </ul> <p>Verify that unless a natural barrier exists, warning signs and a fence are installed to</p>

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	<p>deter public access.</p> <p>Verify that warning signs are displayed at all entrances and at intervals of 100 m (328 ft) or less and are easily read indicating the area is an asbestos waste disposal site.</p> <p>Verify that a procedure is in place to notify the administrator in writing at least 45 days prior to excavating or disturbing any asbestos-contaminated waste material at an inactive waste disposal site.</p>



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<p><b>T2.20</b></p> <p><b>ASBESTOS IN SCHOOLS</b></p> <p><b>T2.20.1.US.</b> Each building that is leased, owned, or otherwise used as a school building is required to be inspected for asbestos and a report of the inspection generated (40 CFR 763.85).</p> <p><b>T2.20.2.US.</b> 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(a) through 763.88(c)).</p> <p><b>T2.20.3.US.</b> An asbestos management plan is required for each school building and submitted to the agency designated by the governor of the state (40 CFR 763.93).</p>	<p>(NOTE: The Federal facility is not responsible for publicly owned schools.)</p> <p>Determine which buildings at the installation are used as school buildings.</p> <p>Verify that the buildings have been inspected for asbestos, including sampling, by an accredited inspector.</p> <p>Verify that reinspection of all friable and nonfriable unknown or assumed ACBM occurs every 3 yr after a management plan is in place.</p> <p>Verify that each inspection and reinspection is documented in a report that is included in the management plan.</p> <p>(NOTE: Any building that is leased or acquired on or after 12 October 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 is required, inspection will occur within 30 days.)</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"> <li>? Damaged or significantly damaged thermal system insulation ACM</li> <li>? Damaged friable surfacing ACM</li> <li>? Significantly damaged friable surfacing ACM</li> <li>? Damaged or significantly damaged friable miscellaneous ACM</li> <li>? ACBM with potential for damage</li> <li>? ACBM with potential for significant damage</li> <li>? Any remaining friable ACBM or friable suspected ACBM.</li> </ul> <p>Verify that the designated person reviews the results of the inspections, reinspections, and assessments and recommend a course of action to the local education agency.</p> <p>Determine if there is a plan.</p> <p>Verify that plans have been submitted.</p> <p>Verify that the plan is kept current and up-to-date with on-going operational and maintenance activities.</p> <p>Verify that the plan was developed by an accredited management planner and</p>

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<p><b>T2.20.4.US.</b> Response actions are required to be selected and implemented in a timely manner and according to specific guidelines (40 CFR 763.90(a) through 763.90(f)).</p>	<p>includes:</p> <ul style="list-style-type: none"> <li>? a list of the names and addresses of each school building and whether the building contains friable ACBM, nonfriable ACBM, and friable and nonfriable suspected ACBM assumed to be ACM</li> <li>? Dates of inspections</li> <li>? a blueprint, diagram or written description of the school building identifying where samples were taken</li> <li>? Description of sampling methodologies</li> <li>? Analysis results</li> <li>? Descriptions of any assessments made</li> <li>? Name, address, and telephone number of the designated asbestos manager</li> <li>? Detailed description of preventative measures and response actions taken</li> <li>? Statements of accreditation</li> <li>? Description in the form of a blueprint, diagram, or writing of any ACBM or suspected ACBM assumed to be ACM which remains in the school after response actions are taken</li> <li>? a plan for reinspection</li> <li>? a description of the steps taken to inform workers, building occupants, and/or their legal occupants about asbestos related activities</li> <li>? an evaluation of the resources needed to complete response actions and carry out reinspection, operations and maintenance activities, periodic surveillance and training activities.</li> </ul> <p>Verify that a copy of the plan is on file in the school administrative office and available to workers before work beginning in any area of the building.</p> <p>Verify that a copy of the plan is available for inspection by representatives of the USEPA, the state, and the public within 5 working days after receiving a request for inspection.</p> <p>Verify that if damaged or significantly damaged thermal system insulation ACM is present in the building, the facility will:</p> <ul style="list-style-type: none"> <li>? at least repair the damaged area</li> <li>? remove the damaged material if it is not feasible, due to technological difficulties, to repair the damage</li> <li>? maintain all thermal system insulation ACM and its coverings in an intact state and undamaged condition.</li> </ul> <p>Verify that if damaged friable surfacing ACM or damaged friable miscellaneous ACM is present, the facility uses one of the following response actions:</p> <ul style="list-style-type: none"> <li>? Encapsulation</li> <li>? Enclosure</li> <li>? Removal</li> </ul>

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<p><b>T2.20.5.US.</b> An accredited person must be designated by the local education agency to perform specific tasks and functions (40 CFR 763.84(g) and 763.88(d)).</p> <p><b>T2.20.6.US.</b> 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 leased, owned, or otherwise used as a school building (40 CFR 763.91(a) through 763.91(e)) <b>[Revised January 2001]</b>.</p>	<p>? Repair.</p> <p>Verify that if significantly damaged friable surfacing ACM or significantly damaged friable miscellaneous ACM is present in a building, the facility:</p> <ul style="list-style-type: none"> <li>? Immediately isolates the functional space and restricts access unless isolation is not needed to protect human health</li> <li>? 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.</li> </ul> <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&amp;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 facility:</p> <ul style="list-style-type: none"> <li>? Implements an appropriate O&amp;M program</li> <li>? Institutes preventative measures to eliminate the reasonable likelihood that the ACM will become significantly damaged, deteriorated, or delaminated</li> <li>? Removes the material as soon as possible if appropriate preventative measures cannot be implemented.</li> </ul> <p>Verify that the person designated to ensure that requirements concerning asbestos in school are implemented correctly is trained in the following:</p> <ul style="list-style-type: none"> <li>? Health effects of asbestos</li> <li>? Detection, identification, and assessment of ACM</li> <li>? Options for controlling ACM</li> <li>? Asbestos management programs</li> <li>? Relevant state and federal regulations.</li> </ul> <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 local education agencies comply with either the OSHA Asbestos Construction Standard at 29 CFR 1926.1101, or the Asbestos Worker Protection Rule at 40 CFR 763.120, whichever is applicable (see text of regulations).</p> <p>Verify that, unless the building was 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</p>

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<p><b>January 2001].</b></p> <p><b>T2.20.7.US.</b> 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> <p><b>T2.20.8.US.</b> All members of the school maintenance and custodial staff who might work in a building that</p>	<p>assumed to be ACM are present was cleaned at least once after the completion of the inspection required by 40 CFR 763.85(a) (see checklist item T2.20.1.US) and before the initiation of any response action, other than O&amp;M activities or repair, according to the following procedures:</p> <ul style="list-style-type: none"> <li>? HEPA-vacuum or steam-clean all carpets</li> <li>? HEPA-vacuum or wet-clean all other floors and all other horizontal surfaces.</li> <li>? Dispose of all debris, filters, mopheads, and cloths in sealed, leak-tight containers.</li> </ul> <p>Verify that the following actions are taken during any O&amp;M activities disturbing friable asbestos:</p> <ul style="list-style-type: none"> <li>? 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)</li> <li>? Signs are posted to prevent entry by unauthorized persons</li> <li>? Air-handling systems are shutoff or temporarily modified and other sources of air movement are restricted</li> <li>? Whatever work practices are required to prohibit the spread of any released fibers are used</li> <li>? All fixtures or other components are cleaned in the immediate work area</li> <li>? The asbestos debris and other cleaning materials are placed in a sealed, leak-tight container.</li> </ul> <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 to conduct response actions.</p> <p>Verify that label are in place in the following areas:</p> <ul style="list-style-type: none"> <li>? Where friable ACBM was responded to by any means other than removal</li> <li>? Where there is ACBM for which no response action was carried out.</li> </ul> <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, <b>CAUTION: ASBESTOS. HAZARDOUS. DO NOT DISTURB WITHOUT PROPER TRAINING AND EQUIPMENT.</b></p> <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>

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<p>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)).</p> <p><b>T2.20.9.US.</b> 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))[<b>Revised June 1998</b>].</p> <p><b>T2.20.10.US.</b> Records pertaining to asbestos in schools are required to be maintained in a central location in the administrative office of the school (40 CFR 763.94).</p> <p><b>T2.20.11.US.</b> In the event of a fiber release episode at the school, certain actions are required (40 CFR 763.91(f)) [<b>Added January 2001</b>].</p>	<p>Verify that the training has included:</p> <ul style="list-style-type: none"> <li>? Information regarding asbestos and the various uses and forms</li> <li>? Information on the health effects associated with asbestos exposure</li> <li>? Locations of all ACBM identified throughout each school building in which they work</li> <li>? Recognition of damaged, deterioration, and location of the management plan.</li> <li>? Name and telephone number of the person designated to carry out responsibilities for asbestos management.</li> </ul> <p>Verify that staff has received additional training that includes:</p> <ul style="list-style-type: none"> <li>? Descriptions of the proper methods of handling ACBM</li> <li>? Information on the use of respiratory protection as contained in the EPA/NIOSH <i>Guide to Respiratory Protection for the Asbestos Abatement Industry</i></li> <li>? The requirements found in 40 CFR 763.91 and Appendices A, B, C, and D of 40 CFR 763 Subpart E (763.80 through 763.99)</li> <li>? Abatement requirements in 40 CFR 763.120 through 763.126 and 40 CFR 61.140 through 61.157</li> <li>? OSHA regulations contained in 29 CFR 1926.58</li> <li>? Hands-on training in the use of respiratory protection, other personal protection measures, and good work practices.</li> </ul> <p>Verify that records concerning removal of ACBM are retained for 3 yr after the next reinspection.</p> <p>Verify that records for the following are retained:</p> <ul style="list-style-type: none"> <li>? Preventive measures and response actions</li> <li>? Personnel training</li> <li>? O&amp;M activities</li> <li>? Fiber release episodes.</li> </ul> <p>Verify that the following procedures are followed 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"> <li>? Thoroughly saturate the debris using wet methods</li> <li>? Clean the area, as described in 40 CFR 763.91(e) (see checklist item T2.20.6.US.)</li> <li>? Place the asbestos debris in a sealed, leak-tight container</li> <li>? 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</li> </ul>

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	<p>implemented as required by 40 CFR 763.90 (see checklist item T2.20.4.US).</p> <p>Verify that the following procedures are followed 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 ACM):</p> <ul style="list-style-type: none"> <li>? 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</li> <li>? Shut off or temporarily modify the air-handling system to prevent the distribution of fibers to other areas in the building.</li> </ul> <p>Verify that 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.</p>



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<p><b>RADON MANAGEMENT</b></p> <p><b>T3.1 All Federal Facilities</b></p> <p><b>T3.1.1.US.</b> The current status of any ongoing or unresolved consent orders, compliance agreements, notice of violation (NOVs), interagency agreements, or equivalent state enforcement actions is required to be examined (a finding under this checklist item will have the enforcement action/ identifying information as the citation).</p>	<p>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.</p>



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<p><b>RADON MANAGEMENT</b></p> <p><b>T3.2 Missing Checklist Items</b></p> <p><b>T3.2.1.US.</b> Facilities are required to comply with all applicable Federal regulatory requirements not contained in this checklist (a finding under this check list item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine if any new regulations have been issued since the finalization of TEAM.</p> <p>Determine if the facility has activities or facilities that are regulated, but not addressed in this checklist.</p> <p>Verify that the facility is in compliance with all applicable and newly issued regulations.</p>



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<p><b>LEAD-BASED PAINT MANAGEMENT</b></p> <p><b>T4.1 All Federal Facilities</b></p> <p><b>T4.1.1.US.</b> The current status of any ongoing or unresolved consent orders, compliance agreements, notice of violations (NOVs), inter-agency agreements, or equivalent state enforcement actions is required to be examined (a finding under this checklist item will have the enforcement action/identifying information as the citation).</p>	<p>(NOTE: When conducting the assessment, be aware of possible pollution prevention opportunities in this section and report them to the individual responsible for assessing pollution prevention.)</p> <p>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.</p>



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<p><b>LEAD-BASED PAINT (LBP) MANAGEMENT</b></p> <p><b>T4.2 Missing Checklist Items</b></p> <p><b>T4.2.1.US.</b> Facilities are required to comply with all applicable Federal regulatory requirements not contained in this checklist (a finding under this check list item will have the citation of the applied regulation as a basis of finding).</p>	<p>Determine if any new regulations have been issued since the finalization of TEAM.</p> <p>Determine if the facility has activities or facilities which are regulated, but not addressed in this checklist.</p> <p>Verify that the facility is in compliance with all applicable and newly issued regulations.</p>



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<p><b>LEAD-BASED PAINT (LBP) MANAGEMENT</b></p> <p><b>T4.10 Notification Requirements</b></p> <p><b>T4.10.1.US.</b> The facility 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)) [<b>Revised June 1998</b>].</p>	<p>(NOTE: These requirements take effect as follows:  ? For owners of more than four residential dwellings, 6 September 1996  ? For owners of one to four residential dwellings, 6 December 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"> <li>? a copy of a USEPA approved lead hazard information pamphlet</li> <li>? the presence of any known LBP and/or LBP hazards in the target housing being leased</li> <li>? 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</li> <li>? copies of records or reports available pertaining to LBP or LBP hazards in the target housing, including reports regarding common areas</li> <li>? 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.</li> </ul> <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"> <li>? a lead warning statement (appropriate language can be found in 40 CFR 745.113)</li> <li>? 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</li> <li>? 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</li> <li>? a list of records/reports available to the lessor pertaining to the LBP and/ LBP hazards that have been provided to the purchaser</li> <li>? a statement by the lessee indicating the above items have been received</li> <li>? signatures of lessees, agents, lessors certifying the accuracy of the</li> </ul>

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<p><b>T4.10.2.US.</b> The facility 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)) <b>[Revised June 1998].</b></p>	<p>statements.</p> <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"> <li>? Sales of target housing at foreclosure</li> <li>? 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</li> <li>? Short-term leases of 100 days or less where no lease renewal or extension can occur</li> <li>? 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.)</li> </ul> <p>(NOTE: These requirements take effect as follows:</p> <ul style="list-style-type: none"> <li>? For owners of more than four residential dwellings, 6 September 1996</li> <li>? For owners of one to four residential dwellings, 6 December 1996.)</li> </ul> <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"> <li>? A copy of a USEPA approved lead hazard information pamphlet</li> <li>? The presence of any known LBP and/or LBP hazards in the target housing being sold</li> <li>? 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</li> <li>? Copies of records or reports available pertaining to LBP or LBP hazards in the target housing, including reports regarding common areas</li> <li>? 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.</li> </ul> <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 this opportunity, but must do so in writing.)</p>

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<p><b>T4.10.3.US.</b> 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) [Added June 1998].</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"> <li>? a lead warning statement (appropriate language can be found in 40 CFR 745.113)</li> <li>? 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</li> <li>? 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</li> <li>? a list of records/reports available to the seller pertaining to the LBP and/or LBP hazards that have been provided to the purchaser</li> <li>? a statement by the purchaser indicating the above items have been received</li> <li>? a statement by the purchaser that they have either: <ul style="list-style-type: none"> <li>? received the opportunity to conduct a risk assessment or inspection</li> <li>? waived the opportunity</li> </ul> </li> <li>? signatures of sellers, agents, purchasers certifying the accuracy of the statements.</li> </ul> <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"> <li>? sales of target housing at foreclosure</li> <li>? 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</li> <li>? short-term leases of 100 days or less where no lease renewal or extension can occur</li> <li>? 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).)</li> </ul> <p>(NOTE: This requirement is in effect as of 1 June 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"> <li>? minor repair and maintenance activities (including minor electrical work and plumbing, that disrupts 2 ft<sup>2</sup> or less of painted surface per component</li> <li>? emergency renovation operations</li> <li>? 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 =&gt; 1.0 mg/cm<sup>2</sup> or 0.5% by weight, where the renovator has obtained a copy of the</li> </ul>

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	<p>determination.)</p> <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"> <li>? 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</li> <li>? 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"> <li>? 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</li> <li>? A certificate of mailing at least 7 days prior to the renovation.</li> </ul> </li> </ul> <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"> <li>? 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</li> <li>? Notifies in writing, or ensures written notification of, each unit of the multifamily housing and make the pamphlet available upon request prior to the start of renovation</li> <li>? Prepares, signs, and dates a statement describing the steps performed to notify all occupants of the intended renovation activities and to provide the pamphlet.</li> <li>? Provide 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.</li> </ul> <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</p>

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<p><b>T4.10.4.US.</b> Certain records are required to be kept in relation to notification of LBP renovations (40 CFR 745.81, 745.82 and 745.86) [<b>Added June 1998</b>].</p>	<p>no charge from the renovator.</p> <p>(NOTE: This requirement is in effect as of 1 June 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"> <li>? minor repair and maintenance activities (including minor electrical work and plumbing, that disrupts 2 ft<sup>2</sup> or less of painted surface per component</li> <li>? emergency renovation operations.)</li> </ul> <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"> <li>? reports by a certified inspector that the components affected by the renovation are free of paint or other surface coatings that contain lead <math>\geq</math> 1.0 mg/cm<sup>2</sup> or 0.5% by weight, where the renovator has obtained a copy of the determination</li> <li>? signed and dated acknowledgments of receipt</li> <li>? certifications of attempted delivery</li> <li>? records of notification activities performed relating to common area renovations.</li> </ul>



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<p><b>LEAD-BASED PAINT (LBP) MANAGEMENT</b></p> <p><b>T4.15 Training Requirements</b></p> <p><b>T4.15.1.US.</b> All LBP activities are required to be performed by certified individuals or firms (40 CFR 745.220(a), 745.226(a)(3), 745.226(a)(5), 745.226(e), 745.226(f)(1), and 745.233) [Revised October 1999].</p> <p><b>T4.15.2.US.</b> Training programs for LBP activities are required to be accredited (40 CFR 745.225) [October 1996].</p>	<p>(NOTE: These requirements apply:</p> <ul style="list-style-type: none"> <li>?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"> <li>?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</li> <li>?a child residing in the building has been identified as having an elevated blood lead level (EBL)</li> </ul> </li> <li>?only in those States or Indian Country that do not have an authorized state or Tribal program (40 CFR 744.220(b)).)</li> </ul> <p>(NOTE: This requirement is effective as of 30 August 1999.)</p> <p>Verify that all LBP activities are performed by USEPA or State/Tribal authorized program 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"> <li>?every 3 yr if the individual completed a training course with a course test and hands-on assessment</li> <li>?every 5 yr if the individual completed a training course with a proficiency test.</li> </ul> <p>(NOTE: It shall be a violation of TSCA for an individual or firm to conduct any of the LBP activities described in 40 CFR 745.227 (see checklist items T4.20.1.US. through T4.20.4.US.) after 1 March 2000, if that individual has not been certified by EPA to do so.)</p> <p>(NOTE: This requirement is effective as of 30 August 1999.)</p> <p>Determine if the facility provides training in LBP removal.</p> <p>Verify that the training is USEPA accredited.</p> <p>(NOTE: Training programs in states and Indian Country that do not have authorized state programs in place by 31 August 1998 may first apply to the USEPA for accreditation on or after 31 August 1998.)</p>



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<p><b>LEAD-BASED PAINT (LBP) MANAGEMENT</b></p> <p><b>T4.20 Work Practice Standards</b></p> <p><b>T4.20.1.US.</b> Inspections are required to be done according to specific methodologies (40 CFR 745.65(d), 745.227(a)(1), 745.227(b), and 745.227(f)) [Revised October 1999, Revised April 2001].</p>	<p>(NOTE: These requirements apply:</p> <ul style="list-style-type: none"> <li>?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"> <li>?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</li> <li>?a child residing in the building has been identified as having an EBL</li> </ul> </li> <li>?only in those states or Indian Country that do not have an authorized State or Tribal program (40 CFR 744.220(b)).)</li> </ul> <p>(NOTE: The work practice standards in do not apply when treating paint-lead hazards of less than:</p> <ul style="list-style-type: none"> <li>?2 ft<sup>2</sup> of deteriorated lead-based paint per room or equivalent</li> <li>?20 ft<sup>2</sup> of deteriorated paint on the exterior building</li> <li>?10 percent of the total surface area of deteriorated paint on an interior or exterior type of component with a small surface area.)</li> </ul> <p>Verify that inspections are done by USEPA or State/Tribal authorized program certified inspectors.</p> <p>Verify that inspections were performed according to a documented methodology (i.e., HUD Guidelines) and include testing of:</p> <ul style="list-style-type: none"> <li>?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 determined to have been replaced after 1978 or to not contain LBP at all</li> <li>?In a multi-family dwelling or child-occupied facility, each component with a distinct painting history in every common area, except those components determined to have been replaced after 1978 or to not contain LBP.</li> </ul> <p>Verify that an inspection report is prepared that includes the following:</p> <ul style="list-style-type: none"> <li>?Date of each inspection</li> <li>?Address of building</li> <li>?Date of construction</li> <li>?Apartment numbers (if applicable)</li> <li>?Name, address, and telephone number of the owner or owners of each residential dwelling or child-occupied facility</li> <li>?Name, signature, and certification number of each certified inspector and/or risk assessor conducting testing</li> <li>?Name, address, and telephone number of the certified firm employing each inspector and/or risk assessor, if applicable</li> <li>?Each testing method and device and/or sampling procedures used for paint</li> </ul>

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<p><b>T4.20.2.US.</b> Lead hazard screens are required to be done according to specific methodologies (40 CFR 745.65(d), 745.227(a)(1), 745.227(c), and 745.227(f)) [October 1996, Revised April 2001].</p>	<p>analysis, including quality control data and, if used, the serial number of any x-ray fluorescence (XRF) device</p> <ul style="list-style-type: none"> <li>? Specific location of each painted component tested for the presence of LBP</li> <li>? The results of the inspection expressed in terms appropriate to the sampling method used.</li> </ul> <p>(NOTE: See Appendix 11-4 for information on determining whether or not LBP, a paint-lead hazard, a dust-lead hazard, or a soil-lead hazard is present.)</p> <p>(NOTE: The work practice standards in do not apply when treating paint-lead hazards of less than:</p> <ul style="list-style-type: none"> <li>? 2 ft<sup>2</sup> of deteriorated lead-based paint per room or equivalent</li> <li>? 20 ft<sup>2</sup> of deteriorated paint on the exterior building</li> <li>? 10 percent of the total surface area of deteriorated paint on an interior or exterior type of component with a small surface area.)</li> </ul> <p>Verify that lead hazard screens are only done by a person certified by the USEPA 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"> <li>? 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</li> <li>? 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</li> <li>? 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</li> <li>? 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</li> <li>? 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.</li> </ul> <p>(NOTE: Sampling and testing methodologies are prescribed by the USEPA.)</p> <p>Verify that a lead hazard screen report is produced which contains the following:</p> <ul style="list-style-type: none"> <li>? date of each screening</li> <li>? address of building</li> </ul>

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<p><b>T4.20.3.US.</b> Risk assessments are required to be done according to specific methodologies (40 CFR 745.65(d), 745.227(a)(1), 745.227(d), and 745.227(f)) [October 1996, Revised April 2001].</p>	<ul style="list-style-type: none"> <li>? Date of construction</li> <li>? Apartment numbers (if applicable)</li> <li>? Name, address, and telephone number of the owner or owners of each residential dwelling or child-occupied facility</li> <li>? Name, signature, and certification number of each risk assessor conducting testing</li> <li>? Name, address, and telephone number of the certified firm employing each risk assessor, if applicable</li> <li>? Name, address, and telephone number of each recognized laboratory conducting analysis of collected samples</li> <li>? Results of the visual inspection</li> <li>? Each testing method and device and/or sampling procedures employed for paint analysis</li> <li>? Specific location of each painted component tested for the presence of LBP</li> <li>? 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</li> <li>? Any other sampling results</li> <li>? Any background information</li> <li>? Recommendations.</li> </ul> <p>Verify that any paint chip, dust, or soil samples collected are collected by persons certified by the USEPA and analyzed by a USEPA recognized laboratory.</p> <p>(NOTE: See Appendix 11-4 for information on determining whether or not LBP, a paint-lead hazard, a dust-lead hazard, or a soil-lead hazard is present.)</p> <p>(NOTE: The work practice standards in do not apply when treating paint-lead hazards of less than:</p> <ul style="list-style-type: none"> <li>? 2 ft<sup>2</sup> of deteriorated lead-based paint per room or equivalent</li> <li>? 20 ft<sup>2</sup> of deteriorated paint on the exterior building</li> <li>? 10 percent of the total surface area of deteriorated paint on an interior or exterior type of component with a small surface area.)</li> </ul> <p>Verify that risk assessments are only done by a person certified by the USEPA as a risk assessor.</p> <p>Verify that risk assessments were performed according to a documented methodology (i.e., HUD Guidelines), and include:</p> <ul style="list-style-type: none"> <li>? 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</li> <li>? 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</li> </ul>

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<b>REGULATORY REQUIREMENTS:</b>	<b>REVIEWER CHECKS: June 2001</b>
	<p>? Testing the following surfaces for lead which are determined, using documented methodologies, to have a distinct painting history:</p> <ul style="list-style-type: none"> <li>each friction surface or impact surface with visibly deteriorated paint</li> <li>all other surfaces with visibly deteriorated paint</li> </ul> <p>? In residential dwellings, dust samples (either composite or single-surface samples) from the interior window sill(s) and floor are collected and analyzed for lead concentration in all living areas where one or more children, age 6 and under, are most likely to come into contact with dust</p> <p>? For multi-family dwellings and child-occupied facilities, the following samples taken and in addition, interior window sill and floor dust samples (either composite or single-surface samples) are collected and analyzed for lead concentration in 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"> <li>? Each friction surface or impact surface with visibly deteriorated paint</li> <li>? All other surfaces with visibly deteriorated paint</li> </ul> <p>? For child-occupied facilities, interior window sill and floor dust samples (either composite or single-surface samples) are collected and analyzed for lead concentration 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</p> <p>? Soil samples are collected and analyzed for lead concentration in exterior play areas where bare soil is present and the rest of the yard (i.e., non-play areas) where bare soil is present.</p> <p>(NOTE: Sampling and testing methodologies are prescribed by the USEPA.)</p> <p>Verify that a risk assessment report is produced which contains the following:</p> <ul style="list-style-type: none"> <li>? Date of assessment</li> <li>? Address of building</li> <li>? Date of construction</li> <li>? Apartment numbers (if applicable)</li> <li>? Name, address, and telephone number of the owner or owners of each building</li> <li>? Name, signature, and certification number of each risk assessor conducting testing</li> <li>? Name, address, and telephone number of the certified firm employing each risk assessor, if applicable</li> <li>? Name, address, and telephone number of each recognized laboratory conducting analysis of collected samples</li> <li>? Results of the visual inspection</li> <li>? Each testing method and device and/or sampling procedures employed for paint analysis</li> <li>? Specific location of each painted component tested for the presence of LBP</li> </ul>

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<b>REGULATORY REQUIREMENTS:</b>	<b>REVIEWER CHECKS: June 2001</b>
<p><b>T4.20.4.US.</b> LBP abatement is required to be done according to specific methodologies (40 CFR 745.65(d), 745.227(a)(1), 745.227(e), and 745.227(f)) [October 1996, Revised April 2001].</p>	<ul style="list-style-type: none"> <li>? All data collected from onsite testing, including quality control data and, if used, the serial number of any XRF device</li> <li>? All results of laboratory analysis on collected paint, soil, and dust samples</li> <li>? Any other sampling results</li> <li>? Any background information</li> <li>? Results of previous inspections or analyses to the extent they are used as a part of the hazard determination</li> <li>? A description of the location, type, and severity of identified LBP hazards and any other potential lead hazards</li> <li>? A description of interim controls and/or abatement options for each identified LBP hazard and a suggested prioritization for addressing each hazard.</li> </ul> <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 USEPA and analyzed by a USEPA recognized laboratory.</p> <p>(NOTE: See Appendix 11-4 for information on determining whether or not LBP, a paint-lead hazard, a dust-lead hazard, or a soil-lead hazard is present.)</p> <p>(NOTE: The work practice standards in do not apply when treating paint-lead hazards of less than:</p> <ul style="list-style-type: none"> <li>? 2 ft<sup>2</sup> of deteriorated lead-based paint per room or equivalent</li> <li>? 20 ft<sup>2</sup> of deteriorated paint on the exterior building</li> <li>? 10 percent of the total surface area of deteriorated paint on an interior or exterior type of component with a small surface area.)</li> </ul> <p>(NOTE: See Appendix 11-4 for information on determining whether or not LBP, a paint-lead hazard, a dust-lead hazard, or a soil-lead hazard is present.)</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 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 USEPA and analyzed by a USEPA recognized laboratory.</p>

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<b>REGULATORY REQUIREMENTS:</b>	<b>REVIEWER CHECKS: June 2001</b>
	<p>Verify that the USEPA was notified prior to the start of abatement activities.</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"> <li>? There is no open-flame burning or torching of LBP</li> <li>? 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</li> <li>? 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 ft<sup>2</sup> in any one room, hallway or stairwell or totaling no more than 20 ft<sup>2</sup> on exterior surfaces</li> <li>? Operating a heat gun on LBP is done only at temperatures below 1100 °F.</li> </ul> <p>Verify that soil abatement is done by removing the soil, the soil is replaced by soil with a lead concentration as close to local background as practicable, but no greater than 400 ppm and the soil that is removed is not used as top soil at another residential property or child-occupied facility.</p> <p>Verify that, is soil is not removed during soil abatement, the soil is permanently covered.</p> <p>Verify that the following post-abatement clearance procedures are performed by a certified inspector or risk assessor:</p> <ul style="list-style-type: none"> <li>? A visual inspection to determine if deteriorated paint and visible dust, debris, or residue are present</li> <li>? Elimination of deteriorated paint and visible dust, debris, or residue before clearance continues</li> <li>? Following the visual inspection and any post-abatement cleanup, clearance sampling for lead in dust is done (NOTE: Clearance sampling may be conducted by employing single-surface sampling or composite sampling techniques.)</li> <li>? Clearance sampling for dust are done using documented methodologies that incorporate adequate quality control procedures</li> <li>? Clearance sampling for lead contaminated dust are taken a minimum of 1 h after completion of final post-abatement cleanup activities</li> <li>? After conducting an abatement with containment between abated and unabated areas, one dust sample is taken from: <ul style="list-style-type: none"> <li>? One interior window sill</li> <li>? One window trough (if present)</li> <li>? The floors of each of no less than four rooms, hallways or stairwells within the containment area (NOTE: If there are less than four rooms, hallways or stairwells within the containment area, then all rooms,</li> </ul> </li> </ul>

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	<p>           hallways or stairwells are sampled            ? the floor outside the containment area.            ? after conducting an abatement with no containment:              ? two dust samples are taken from each of no less than four rooms, hallways or stairwells in the residential dwelling or child-occupied facility.              ? one dust sample is taken from one interior window sill and window trough (if present)              ? one dust sample is taken from the floor of each room, hallway or stairwell selected. (NOTE: If there are less than four rooms, hallways or stairwells within the residential dwelling or child-occupied facility then all rooms, hallways or stairwells are sampled.)            ? For an exterior paint abatement, a visible inspection is performed to identify dust and paint chips.         </p> <p>Verify that the certified inspector or risk assessor compares the residual lead level (as determined by the laboratory analysis) from each single surface dust sample with clearance levels for lead in dust on floors, interior window sills, and window troughs or from each composite dust sample with the applicable clearance levels for lead in dust on floors, interior window sills, and window troughs divided by half the number of subsamples in the composite sample.</p> <p>Verify that, if the residual lead level in a single surface dust sample equals or exceeds the applicable clearance level or if the residual lead level in a composite dust sample equals or exceeds the applicable clearance level divided by half the number of subsamples in the composite sample, the components represented by the failed sample are recleaned and retested.</p> <p>(NOTE: The clearance levels for lead in dust are 40 micrograms/ft<sup>2</sup> for floors, 250 micrograms/ft<sup>2</sup> for interior window sills, and 400 micrograms/ft<sup>2</sup> for window troughs.)</p> <p>(NOTE: In a multi-family dwelling with similarly constructed and maintained residential dwelling, random sampling for the purposes of clearance may be done if:            ? 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> <p>Verify that an abatement report is prepared by a certified supervisor or project designer and contains the following information:</p> <p>           ? start and completion dates            ? the name and address of each certified firm conducting the abatement and the         </p>

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	<p>name of each supervisor assigned to the abatement project</p> <p>? the occupant protection plan</p> <p>? the name, address, and signature of each certified risk assessor or inspector conducting clearance sampling and the date of clearance testing</p> <p>? the results of clearance testing and all soil analyses and the name of each recognized laboratory that conducted the analyses</p> <p>? 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.</p>

**Appendix 11-1**

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



## Appendix 11-2

### Dielectric Fluid Trend Names and Manufacturers

#### 1. U.S. Manufactured Dielectrics:

<b>Name</b>	<b>Manufacturer</b>
Aroclor	Monsanto
Aroclor B	Mallory
Sbestol	American Corporation
Askarel Hevi-Duty	Hevi-Duty Corporation
Askarel *	Ferranti-Packard, Ltd.
Askarel	Universal Mfg. Co.
Chlorextol	Allis-Chalmers
Chlorinol	Sparagoe Electric
Chlorphen	Jard Company
Diaclor	Sangamo Electric
Dykanol	Cornell Dubilier
Elemex	McGraw Edison
Eucarel	Electric Utilities Co.
Hyvol	Aerovox
Inerteen	Westinghouse Electric
No-Flamol	Wagner Electric
Pyranol	General Electric
Saf-T-Kuhl	Kuhlman Electric

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

#### 2. Foreign Manufactured Dielectrics:

<b>Name</b>	<b>Manufacturer</b>
Clophen	Bayer (Germany)
Fenclo	Caffaro (Italy)

Kennechlor	Mitsubishi (Japan)
Phenoclor	Prodelec (France)
DK	Caffaro (Italy)
Pyralene	Prodelec (France)
Solvol	USSR
Santotherm	Mitsubishi (Japan)

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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.

**Appendix 11-3**

**PCB Wastes Disposal Guidance  
(40 CFR 761.50(b))  
[Added October 1998]**

<b>Waste</b>	<b>Applicable Standard</b>	<b>Checklist Item number</b>
PCB liquids	Disposal - 40 CFR 761.60(a)  Decontamination - 40 CFR 761.79	T1.50.2.US. through T1.50.5.US.
PCB Item containing an intact and non-leaking PCB Article	Disposal - 40 CFR 761.60(b)  Decontamination - 40 CFR 761.79	T1.50.6.US. through T1.50.10.US.
PCB Item containing a PCB Article which is not intact and non-leaking	Disposal - 40 CFR 761.62(a) or 761.62(c)	T1.50.14.US.
Fluorescent light ballasts containing PCBs only in an intact and non-leaking PCB Small Capacitor	Disposal - 40 CFR 761.60(b)(2)(ii)	T1.50.6.US.
Fluorescent light ballasts containing PCBs in the potting material	Disposal - 40 CFR 761.62	T1.50.14.US. and T1.50.15.US.
PCB Remediation Waste, including PCB sewage sludge	Cleanup and Disposal - 40 CFR 761.61	
PCB Bulk Product Waste	Disposal - 40 CFR 761.62	T1.50.14.US. and T1.50.15.US.
PCB Household Waste	Disposal - 40 CFR 761.63	T1.50.16.US.
PCB R&D Waste	Disposal - 40 CFR 761.64	
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)	
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	T1.50.14.US. and T1.50.15.US.
Concrete surfaces on which PCBs have been spilled	Decontamination - 40 CFR 761.79(b)(4) is started within 72 h of the initial spill	

Waste	Applicable Standard	Checklist Item number
Porous non-liquid PCBs in contact with non-porous surfaces, such as underground metal fuel tanks coated with fire retardant resin or pitch.	Decontaminate - 40 CFR 761.79(b)(3) for purposes of unrestricted use or disposal in a smelter.	

## Appendix 11-4

### **LBP Determinations (40 CFR 245.277(h)) [Added April 2001]**

Lead-based paint is present:

- ?? On any surface that is tested and found to contain lead equal to or in excess of 1.0 milligrams per square centimeter or equal to or in excess of 0.5% by weight; and
- ?? On any surface like a surface tested in the same room equivalent that has a similar painting history and that is found to be lead-based paint.

A paint-lead hazard is present:

- ?? On any friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface (e.g., the window sill or floor) are equal to or greater than the dust hazard levels identified in Sec. 745.227(b);
- ?? On any chewable lead-based paint surface on which there is evidence of teeth marks;
- ?? Where there is any damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component (such as a door knob that knocks into a wall or a door that knocks against its door frame; and
- ?? If there is any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

A dust-lead hazard is present in a residential dwelling or child occupied facility:

- ?? In a residential dwelling on floors and interior window sills when the weighted arithmetic mean lead loading for all single surface or composite samples of floors and interior window sills are equal to or greater than 40 micrograms/ft<sup>2</sup> for floors and 250 micrograms/ft<sup>2</sup> for interior window sills, respectively;
- ?? On floors or interior window sills in an unsampled residential dwelling in a multi-family dwelling, if a dust-lead hazard is present on floors or interior window sills, respectively, in at least one sampled residential unit on the property; and
- ?? On floors or interior windowsills in an unsampled common area in a multi-family dwelling, if a dust-lead hazard is present on floors or interior windowsills, respectively, in at least one sampled common area in the same common area group on the property.

A soil-lead hazard is present:

- ?? In a play area when the soil-lead concentration from a composite play area sample of bare soil is equal to or greater than 400 ppm; or
- ?? In the rest of the yard when the arithmetic mean lead concentration from a composite sample (or arithmetic mean of composite samples) of bare soil from the rest of the yard (i.e., non-play areas) for each residential building on a property is equal to or greater than 1,200 ppm.

