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APPENDIX B

40 CFR 761

**Polychlorinated Biphenyls (PCBs)
Manufacturing, Processing, Distribution in Commerce,
and Use Prohibitions**



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Title 40: Protection of Environment

[Browse Previous](#) | [Browse Next](#)

PART 761—POLYCHLORINATED BIPHENYLS (PCBs) MANUFACTURING, PROCESSING, DISTRIBUTION IN COMMERCE, AND USE PROHIBITIONS

Section Contents

Subpart A—General

- § 761.1 Applicability.
- § 761.2 PCB concentration assumptions for use.
- § 761.3 Definitions.
- § 761.19 References.

Subpart B—Manufacturing, Processing, Distribution in Commerce, and Use of PCBs and PCB Items

- § 761.20 Prohibitions and exceptions.
- § 761.30 Authorizations.
- § 761.35 Storage for reuse.

Subpart C—Marking of PCBs and PCB Items

- § 761.40 Marking requirements.
- § 761.45 Marking formats.

Subpart D—Storage and Disposal

- § 761.50 Applicability.
- § 761.60 Disposal requirements.
- § 761.61 PCB remediation waste.
- § 761.62 Disposal of PCB bulk product waste.
- § 761.63 PCB household waste storage and disposal.
- § 761.64 Disposal of wastes generated as a result of research and development activities authorized under § 761.30(j) and chemical analysis of PCBs.
- § 761.65 Storage for disposal.
- § 761.70 Incineration.
- § 761.71 High efficiency boilers.
- § 761.72 Scrap metal recovery ovens and smelters.
- § 761.75 Chemical waste landfills.
- § 761.77 Coordinated approval.
- § 761.79 Decontamination standards and procedures.

Subpart E—Exemptions

- § 761.80 Manufacturing, processing and distribution in commerce exemptions.

Subpart F—Transboundary Shipments of PCBs for Disposal

- § 761.91 Applicability.
- § 761.93 Import for disposal.
- § 761.97 Export for disposal.
- § 761.99 Other transboundary shipments.

Subpart G—PCB Spill Cleanup Policy

- § 761.120 Scope.
- § 761.123 Definitions.
- § 761.125 Requirements for PCB spill cleanup.
- § 761.130 Sampling requirements.
- § 761.135 Effect of compliance with this policy and enforcement.

Subparts H–I [Reserved]

Subpart J—General Records and Reports

- § 761.180 Records and monitoring.
- § 761.185 Certification program and retention of records by importers and persons generating PCBs in excluded manufacturing processes.
- § 761.187 Reporting importers and by persons generating PCBs in excluded manufacturing processes.
- § 761.193 Maintenance of monitoring records by persons who import, manufacture, process, distribute in commerce, or use chemicals containing inadvertently generated PCBs.

Subpart K—PCB Waste Disposal Records and Reports

- § 761.202 EPA identification numbers.
- § 761.205 Notification of PCB waste activity (EPA Form 7710–53).
- § 761.207 The manifest—general requirements.
- § 761.208 Use of the manifest.
- § 761.209 Retention of manifest records.
- § 761.210 Manifest discrepancies.
- § 761.211 Unmanifested waste report.
- § 761.215 Exception reporting.
- § 761.218 Certificate of disposal.

Subpart L [Reserved]

Subpart M—Determining a PCB Concentration for Purposes of Abandonment or Disposal of Natural Gas Pipeline: Selecting Sample Sites, Collecting Surface Samples, and Analyzing Standard PCB Wipe Samples

- § 761.240 Scope and definitions.
- § 761.243 Standard wipe sample method and size.
- § 761.247 Sample site selection for pipe segment removal.
- § 761.250 Sample site selection for pipeline section abandonment.
- § 761.253 Chemical analysis.
- § 761.257 Determining the regulatory status of sampled pipe.

Subpart N—Cleanup Site Characterization Sampling for PCB Remediation Waste in Accordance with §761.61(a)(2)

- § 761.260 Applicability.
- § 761.265 Sampling bulk PCB remediation waste and porous surfaces.

- § 761.267 Sampling non-porous surfaces.
- § 761.269 Sampling liquid PCB remediation waste.
- § 761.272 Chemical extraction and analysis of samples.
- § 761.274 Reporting PCB concentrations in samples.

Subpart O—Sampling To Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance With §761.61(a)(6)

- § 761.280 Application and scope.
- § 761.283 Determination of the number of samples to collect and sample collection locations.
- § 761.286 Sample size and procedure for collecting a sample.
- § 761.289 Compositing samples.
- § 761.292 Chemical extraction and analysis of individual samples and composite samples.
- § 761.295 Reporting and recordkeeping of the PCB concentrations in samples.
- § 761.298 Decisions based on PCB concentration measurements resulting from sampling.

Subpart P—Sampling Non-Porous Surfaces for Measurement-Based Use, Reuse, and On-Site or Off-Site Disposal Under §761.61(a)(6) and Decontamination Under §761.79(b)(3)

- § 761.300 Applicability.
- § 761.302 Proportion of the total surface area to sample.
- § 761.304 Determining sample location.
- § 761.306 Sampling 1 meter square surfaces by random selection of halves.
- § 761.308 Sample selection by random number generation on any two-dimensional square grid.
- § 761.310 Collecting the sample.
- § 761.312 Compositing of samples.
- § 761.314 Chemical analysis of standard wipe test samples.
- § 761.316 Interpreting PCB concentration measurements resulting from this sampling scheme.

Subpart Q—Self-Implementing Alternative Extraction and Chemical Analysis Procedures for Non-liquid PCB Remediation Waste Samples

- § 761.320 Applicability.
- § 761.323 Sample preparation.
- § 761.326 Conducting the comparison study.

Subpart R—Sampling Non-Liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance With §761.62, and Sampling PCB Remediation Waste Destined for Off-Site Disposal, in Accordance With §761.61

- § 761.340 Applicability.
- § 761.345 Form of the waste to be sampled.
- § 761.346 Three levels of sampling.
- § 761.347 First level sampling—waste from existing piles.
- § 761.348 Contemporaneous sampling.
- § 761.350 Subsampling from composite samples.
- § 761.353 Second level of sample selection.
- § 761.355 Third level of sample selection.
- § 761.356 Conducting a leach test.
- § 761.357 Reporting the results of the procedure used to simulate leachate generation.
- § 761.358 Determining the PCB concentration of samples of waste.
- § 761.359 Reporting the PCB concentrations in samples.

Subpart S—Double Wash/Rinse Method for Decontaminating Non-Porous Surfaces

- § 761.360 Background.
- § 761.363 Applicability.
- § 761.366 Cleanup equipment.
- § 761.369 Pre-cleaning the surface.

§ 761.372 Specific requirements for relatively clean surfaces.

§ 761.375 Specific requirements for surfaces coated or covered with dust, dirt, grime, grease, or another absorbent material.

§ 761.378 Decontamination, reuse, and disposal of solvents, cleaners, and equipment.

Subpart T—Comparison Study for Validating a New Performance-Based Decontamination Solvent Under §761.79(d)(4)

§ 761.380 Background.

§ 761.383 Applicability.

§ 761.386 Required experimental conditions for the validation study and subsequent use during decontamination.

§ 761.389 Testing parameter requirements.

§ 761.392 Preparing validation study samples.

§ 761.395 A validation study.

§ 761.398 Reporting and recordkeeping.

Authority: 15 U.S.C. 2605, 2607, 2611, 2614, and 2616.

Subpart A—General



[top](#)

§ 761.1 Applicability.



[top](#)

(a) This part establishes prohibitions of, and requirements for, the manufacture, processing, distribution in commerce, use, disposal, storage, and marking of PCBs and PCB Items.

(b)(1) This part 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.

(2) Unless otherwise noted, PCB concentrations shall be determined on a weight-per-weight basis (e.g., milligrams per kilogram), or for liquids, on a weight-per-volume basis (e.g., milligrams per liter) 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. For example, measure AroclorTM1242 PCBs based on a comparison with AroclorTM1242 standards. Measure individual congener PCBs based on a comparison with individual PCB congener standards.

(3) Most provisions in this part apply only if PCBs are present in concentrations above a specified level. Provisions that apply to PCBs at concentrations of < 50 ppm apply also to contaminated surfaces at PCB concentrations of $\leq 10 \mu\text{g}/100 \text{ cm}^2$. Provisions that apply to PCBs at concentrations of ≥ 50 to < 500 ppm apply also to contaminated surfaces at PCB concentrations of $> 10/100 \text{ cm}^2$ to $< 100 \mu\text{g}/100 \text{ cm}^2$. Provisions that apply to PCBs at concentrations of ≥ 500 ppm apply also to contaminated surfaces at PCB concentrations of $\geq 100 \mu\text{g}/100 \text{ cm}^2$.

(4) PCBs can be found in liquid, non-liquid and multi-phasic (combinations of liquid and non-liquid) forms. A person should use the following criteria to determine PCB concentrations to determine which provisions of this part apply to such PCBs.

(i) Any person determining PCB concentrations for non-liquid PCBs must do so on a dry weight basis.

(ii) Any person determining PCB concentrations for liquid PCBs must do so on a wet weight basis. Liquid PCBs containing more than 0.5 percent by weight non-dissolved material shall be analyzed as multi-phasic non-liquid/liquid mixtures.

(iii) Any person determining the PCB concentration of samples containing PCBs and non-dissolved non-liquid materials ≥ 0.5 percent, must separate the non-dissolved materials into non-liquid PCBs and liquid PCBs. For multi-phasic non-liquid/liquid or liquid/liquid mixtures, the phases shall be separated before chemical analysis. Following phase separation, the PCB concentration in each non-liquid phase shall be determined on a dry weight basis and the PCB concentration in each liquid phase shall be determined separately on a wet weight basis.

(iv) Any person disposing of multi-phasic non-liquid/liquid or liquid/liquid mixtures must use the PCB disposal requirements that apply to the individual phase with the highest PCB concentration except where otherwise noted. Alternatively, phases may be separated and disposed of using the PCB disposal requirements that apply to each separated, single-phase material.

(5) No person may avoid any provision specifying a PCB concentration by diluting the PCBs, unless otherwise specifically provided.

(6) Unless otherwise specified, references to weights or volumes of PCBs in this part apply to the total weight or total volume of the material (oil, soil, debris, etc.) that contains regulated concentrations of PCBs, not the calculated weight or volume of only the PCB molecules contained in the material.

(c) Definitions of the terms used in these regulations are in subpart A. The basic requirements applicable to disposal and marking of PCBs and PCB Items are set forth in subpart D—Disposal of PCBs and PCB Items and in subpart C—Marking of PCBs and PCB Items. Prohibitions applicable to PCB activities are set forth in subpart B—Manufacture, Processing, Distribution in Commerce, and Use of PCBs and PCB Items. Subpart B also includes authorizations from the prohibitions. Subparts C and D set forth the specific requirements for disposal and marking of PCBs and PCB Items.

(d) Section 15 of the Toxic Substances Control Act (TSCA) states that failure to comply with these regulations is unlawful. Section 16 imposes liability for civil penalties upon any person who violates these regulations, and the Administrator can establish appropriate remedies for any violations subject to any limitations included in section 16 of TSCA. Section 16 also subjects a person to criminal prosecution for a violation which is knowing or willful. In addition, section 17 authorizes Federal district courts to enjoin activities prohibited by these regulations, compel the taking of actions required by these regulations, and issue orders to seize PCBs and PCB Items manufactured, processed or distributed in violation of these regulations.

(e) These regulations do not preempt other more stringent Federal statutes and regulations.

(f) Unless and until superseded by any new more stringent regulations issued under EPA authorities, or any permits or any pretreatment requirements issued by EPA, a state or local government that affect release of PCBs to any particular medium:

(1) Persons who inadvertently manufacture or import PCBs generated as unintentional impurities in excluded manufacturing processes, as defined in §761.3, are exempt from the requirements of subpart B of this part, provided that such persons comply with subpart J of this part, as applicable.

(2) Persons who process, distribute in commerce, or use products containing PCBs generated in excluded manufacturing processes defined in §761.3 are exempt from the requirements of subpart B provided that such persons comply with subpart J of this part, as applicable.

(3) Persons who process, distribute in commerce, or use products containing recycled PCBs defined in §761.3, are exempt from the requirements of subpart B of this part, provided that such persons comply with subpart J of this part, as applicable.

(4) Except as provided in §761.20 (d) and (e), persons who process, distribute in commerce, or use products containing excluded PCB products as defined in §761.3, are exempt from the requirements of subpart B of this part.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979, as amended at 49 FR 28189, July 10, 1984; 53 FR 24220, June 27, 1988; 63 FR 35436, June 29, 1998; 64 FR 33759, June 24, 1999]

§ 761.2 PCB concentration assumptions for use.



[top](#)

(a)(1) Any person may assume that transformers with < 3 pounds (1.36 kilograms (kgs)) of fluid, circuit breakers, reclosers, oil-filled cable, and rectifiers whose PCB concentration is not established contain PCBs at < 50 ppm.

(2) Any person must assume that mineral oil-filled electrical equipment that was manufactured before July 2, 1979, and whose PCB concentration is not established is PCB-Contaminated Electrical Equipment (i.e., contains ≥ 50 ppm PCB, but < 500 ppm PCB). All pole-top and pad-mounted distribution transformers manufactured before July 2, 1979, must be assumed to be mineral-oil filled. Any person may assume that electrical equipment manufactured after July 2, 1979, is non-PCB (i.e., < 50 ppm PCBs). If the date of manufacture of mineral oil-filled electrical equipment is unknown, any person must assume it to be PCB-Contaminated.

(3) Any person must assume that a transformer manufactured prior to July 2, 1979, that contains 1.36 kg (3 pounds) or more of fluid other than mineral oil and whose PCB concentration is not established, is a PCB Transformer (i.e., ≥ 500 ppm). If the date of manufacture and the type of dielectric fluid are unknown, any person must assume the transformer to be a PCB Transformer.

(4) Any person must assume that a capacitor manufactured prior to July 2, 1979, whose PCB concentration is not established contains ≥ 500 ppm PCBs. Any person may assume that a capacitor manufactured after July 2, 1979, is non-PCB (i.e., < 50 ppm PCBs). If the date of manufacture is unknown, any person must assume the capacitor contains ≥ 500 ppm PCBs. Any person may assume that a capacitor marked at the time of manufacture with the statement "No PCBs" in accordance with §761.40(g) is non-PCB.

(b) PCB concentration may be established by:

(1) Testing the equipment; or

(2)(i) A permanent label, mark, or other documentation from the manufacturer of the equipment indicating its PCB concentration at the time of manufacture; and

(ii) Service records or other documentation indicating the PCB concentration of all fluids used in servicing the equipment since it was first manufactured.

[63 FR 35436, June 29, 1998, as amended at 64 FR 33759, June 24, 1999]

§ 761.3 Definitions.



[top](#)

For the purpose of this part:

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

Agency means the United States Environmental Protection Agency.

Air compressor system means air compressors, piping, receiver tanks, volume tanks and bottles, dryers, airlines, and related appurtenances.

Annual document log means the detailed information maintained at the facility on the PCB waste handling at the facility.

Annual report means the written document submitted each year by each disposer and commercial storer of PCB waste to the appropriate EPA Regional Administrator. The annual report is a brief summary of the information included in the annual document log.

ASTM means American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

Byproduct means a chemical substance produced without separate commercial intent during the manufacturing or processing of another chemical substance(s) or mixture(s).

Capacitor means 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:

(1) *Small capacitor* means a capacitor which contains less than 1.36 kg (3 lbs.) of dielectric fluid. The following assumptions may be used if the actual weight of the dielectric fluid is unknown. A capacitor whose total volume is less than 1,639 cubic centimeters (100 cubic inches) may be considered to contain less than 1.36 kgs (3 lbs.) of dielectric fluid and a capacitor whose total volume is more than 3,278 cubic centimeters (200 cubic inches) must be considered to contain more than 1.36 kg (3 lbs.) of dielectric fluid. A capacitor whose volume is between 1,639 and 3,278 cubic centimeters may be considered to contain less than 1.36 kg (3 lbs.) of dielectric fluid if the total weight of the capacitor is less than 4.08 kg (9 lbs.).

(2) *Large high voltage capacitor* means a capacitor which contains 1.36 kg (3 lbs.) or more of dielectric fluid and which operates at 2,000 volts (a.c. or d.c.) or above.

(3) *Large low voltage capacitor* means a capacitor which contains 1.36 kg (3 lbs.) or more of dielectric fluid and which operates below 2,000 volts (a.c. or d.c.).

CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601-9657).

Certification means a written statement regarding a specific fact or representation that contains the following language:

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

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

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

Chemical waste landfill means a landfill at which protection against risk of injury to health or the environment from migration 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 specified in §761.75.

Cleanup site means the areal 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.

Commerce means trade, traffic, transportation, or other commerce:

(1) Between a place in a State and any place outside of such State, or

(2) Which affects trade, traffic, transportation, or commerce described in paragraph (1) of this definition.

Commercial storer of PCB waste means the owner or operator of each facility that is subject to the PCB storage unit standards of §761.65(b)(1) or (c)(7) or meets the alternate storage criteria of §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 §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 EPA approval as a commercial storer of PCB waste. Storage of one company's PCB waste by a related company is not considered commercial storage. A "related company" includes, but is not limited to: a parent company and its subsidiaries; sibling companies owned by the same parent company; companies owned by a common holding company; members of electric cooperatives; entities within the same Executive agency as defined at 5 U.S.C. 105; and a company having a joint ownership interest in a facility from which PCB waste is generated (such as a jointly owned electric power generating station) where the PCB waste is stored by one of the co-owners of the facility. A "related company" does not include another voluntary member of the same trade association. Change in ownership or title of a generator's facility, where the generator is storing PCB waste, does not make the new owner of the facility a commercial storer of PCB waste.

Designated facility means the off-site disposer or commercial storer of PCB waste designated on the manifest as the facility that will receive a manifested shipment of PCB waste.

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

Disposer of PCB waste, as the term is used in subparts J and K of this part, means any person who owns or operates a facility approved by EPA for the disposal of PCB waste which is regulated for disposal under the requirements of subpart D of this part.

Distribute in commerce and *Distribution in Commerce* when used to describe an action taken with respect to a chemical substance, mixture, or article containing a substance or mixture means to sell, or the sale of, the substance, mixture, or article in commerce; to introduce or deliver for introduction into commerce, or the introduction or delivery for introduction into commerce of the substance, mixture, or article; or to hold or the holding of, the substance, mixture, or article after its introduction into commerce.

DOT means the United States Department of Transportation.

Dry weight means 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.

EPA identification number means the 12-digit number assigned to a facility by EPA upon notification of PCB waste activity under §761.205.

Excluded manufacturing process means a manufacturing process in which quantities of PCBs, as determined in accordance with the definition of inadvertently generated PCBs, calculated as defined, and from which releases to products, air, and water meet the requirements of paragraphs (1) through (5) of this definition, or the importation of products containing PCBs as unintentional impurities, which products meet the requirements of paragraphs (1) and (2) of this definition.

(1) The concentration of inadvertently generated PCBs in products leaving any manufacturing site or imported into the United

States must have an annual average of less than 25 ppm, with a 50 ppm maximum.

(2) The concentration of inadvertently generated PCBs in the components of detergent bars leaving the manufacturing site or imported into the United States must be less than 5 ppm.

(3) The release of inadvertently generated PCBs at the point at which emissions are vented to ambient air must be less than 10 ppm.

(4) The amount of inadvertently generated PCBs added to water discharged from a manufacturing site must be less than 100 micrograms per resolvable gas chromatographic peak per liter of water discharged.

(5) Disposal of any other process wastes above concentrations of 50 ppm PCB must be in accordance with subpart D of this part.

Excluded PCB products means PCB materials which appear at concentrations less than 50 ppm, including but not limited to:

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

(2) Products contaminated with Aroclor or other PCB materials from historic PCB uses (investment casting waxes are one example).

(3) Recycled fluids and/or equipment contaminated during use involving the products described in paragraphs (1) and (2) of this definition (heat transfer and hydraulic fluids and equipment and other electrical equipment components and fluids are examples).

(4) Used oils, provided that in the cases of paragraphs (1) through (4) of this definition:

(i) The products or source of the products containing < 50 ppm concentration PCBs were legally manufactured, processed, distributed in commerce, or used before October 1, 1984.

(ii) The products or source of the products containing < 50 ppm concentrations PCBs were legally manufactured, processed, distributed in commerce, or used, i.e., pursuant to authority granted by EPA regulation, by exemption petition, by settlement agreement, or pursuant to other Agency-approved programs;

(iii) The resulting PCB concentration (i.e. below 50 ppm) is not a result of dilution, or leaks and spills of PCBs in concentrations over 50 ppm.

Facility means all contiguous land, and structures, other appurtenances, and improvements on the land, used for the treatment, storage, or disposal of PCB waste. A facility may consist of one or more treatment, storage, or disposal units.

Fluorescent light ballast means a device that electrically controls fluorescent light fixtures and that includes a capacitor containing 0.1 kg or less of dielectric.

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

High occupancy area means any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste. Examples could include a residence, school, day care center, sleeping quarters, a single or multiple occupancy 40 hours per week work station, a school class room, a cafeteria in an industrial facility, a control room, and a work station at an assembly line.

Importer means any person defined as an "importer" at §720.3(l) of this chapter who imports PCBs or PCB Items and is under the jurisdiction of the United States.

Impurity means a chemical substance which is unintentionally present with another chemical substance.

In or Near Commercial Buildings means within the interior of, on the roof of, attached to the exterior wall of, in the parking area serving, or within 30 meters of a non-industrial non-substation building. Commercial buildings are typically accessible to both members of the general public and employees, and include: (1) Public assembly properties, (2) educational properties, (3) institutional properties, (4) residential properties, (5) stores, (6) office buildings, and (7) transportation centers (e.g., airport terminal buildings, subway stations, bus stations, or train stations).

Incinerator means an engineered device using controlled flame combustion to thermally degrade PCBs and PCB Items. Examples of devices used for incineration include rotary kilns, liquid injection incinerators, cement kilns, and high temperature boilers.

Industrial building means a building directly used in manufacturing or technically productive enterprises. Industrial buildings are not

generally or typically accessible to other than workers. Industrial buildings include buildings used directly in the production of power, the manufacture of products, the mining of raw materials, and the storage of textiles, petroleum products, wood and paper products, chemicals, plastics, and metals.

Laboratory means a facility that analyzes samples for PCBs and is unaffiliated with any entity whose activities involve PCBs.

Leak or leaking means any instance in which a PCB Article, PCB Container, or PCB Equipment has any PCBs on any portion of its external surface.

Liquid PCBs means a homogenous flowable material containing PCBs and no more than 0.5 percent by weight non-dissolved material.

Low occupancy area means any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: less than 840 hours (an average of 16.8 hours per week) for non-porous surfaces and less than 335 hours (an average of 6.7 hours per 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).

Manifest means the shipping document EPA form 8700–22 and any continuation sheet attached to EPA form 8700–22, originated and signed by the generator of PCB waste in accordance with the instructions included with the form and subpart K of this part.

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

Manufacture means to produce, manufacture, or import into the customs territory of the United States.

Manufacturing process means all of a series of unit operations operating at a site, resulting in the production of a product.

Mark means the descriptive name, instructions, cautions, or other information applied to PCBs and PCB Items, or other objects subject to these regulations.

Marked means 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.

Market/Marketers means the processing or distributing in commerce, or the person who processes or distributes in commerce, used oil fuels to burners or other marketers, and may include the generator of the fuel if it markets the fuel directly to the burner.

Mineral Oil PCB Transformer means 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.

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

Municipal solid wastes means garbage, refuse, sludges, wastes, and other discarded materials resulting from residential and non-industrial operations and activities, such as household activities, office functions, and commercial housekeeping wastes.

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

Non-liquid PCBs means 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 minutes.

Non-PCB Transformer means any transformer that contains less than 50 ppm PCB; except that 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 §761.30(a)(2)(v).

Non-porous surface means 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.

NTIS means the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA

22161.

On site means within the boundaries of a contiguous property unit.

Open burning means 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:

- (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.

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

PCB Article means any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. "PCB Article" includes capacitors, transformers, electric motors, pumps, pipes and any other manufactured item (1) which is formed to a specific shape or design during manufacture, (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the PCB Article.

PCB Article Container means 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.

PCB bulk product waste means 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 ≥ 50 ppm PCBs. PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under §761.60(a) through (c), §761.61, §761.63, or §761.64. PCB bulk product waste includes, but is not limited to:

- (1) Non-liquid bulk wastes or debris from the demolition of buildings and other man-made structures manufactured, coated, or serviced with PCBs. PCB bulk product waste does not include debris from the demolition of buildings or other man-made structures that is contaminated by spills from regulated PCBs which have not been disposed of, decontaminated, or otherwise cleaned up in accordance with subpart D of 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.

PCB Capacitor means any capacitor that contains ≥ 500 ppm PCB. Concentration assumptions applicable to capacitors appear under §761.2.

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

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

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

PCB Equipment means 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.

PCB field screening test means 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.

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

PCB Item means 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.

PCB/radioactive waste means 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.

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

- (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 §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 man-made 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 means sewage sludge as defined in 40 CFR 503.9(w) which contains ≥ 50 ppm PCBs, as measured on a dry weight basis.

PCB Transformer means any transformer that contains ≥ 500 ppm PCBs. For PCB concentration assumptions applicable to transformers containing 1.36 kilograms (3 lbs.) or more of fluid other than mineral oil, see §761.2. For provisions permitting reclassification of electrical equipment, including PCB Transformers, containing ≥ 500 ppm PCBs to PCB-Contaminated Electrical Equipment, see §761.30(a) and (h).

PCB waste(s) means those PCBs and PCB Items that are subject to the disposal requirements of subpart D of this part.

Performance-based organic decontamination fluid (PODF) means kerosene, diesel fuel, terpene hydrocarbons, and terpene hydrocarbon/alcohol mixtures.

Person means any natural or judicial person including any individual, corporation, partnership, or association; any State or political subdivision thereof; any interstate body; and any department, agency, or instrumentality of the Federal Government.

Porous surface means 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.

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

Process means the preparation of a chemical substance or mixture, after its manufacture, for distribution in commerce:

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

Qualified incinerator means one of the following:

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

Quantifiable Level/Level of Detection means 2 micrograms per gram from any resolvable gas chromatographic peak, i.e. 2 ppm.

RCRA means the Resource Conservation and Recovery Act (40 U.S.C. 6901 *et seq.*).

Recycled PCBs means those PCBs which appear in the processing of paper products or asphalt roofing materials from PCB-contaminated raw materials. Processes which recycle PCBs must meet the following requirements:

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

Research and development (R&D) for PCB disposal means 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.

Retrofill means to remove PCB or PCB-contaminated dielectric fluid and to replace it with either PCB, PCB-contaminated, or non-PCB dielectric fluid.

Rupture of a PCB Transformer means a violent or non-violent break in the integrity of a PCB Transformer caused by an overtemperature and/or overpressure condition that results in the release of PCBs.

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

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

Small quantities for research and development means any quantity of PCBs (1) that is originally packaged in one or more hermetically sealed containers of a volume of no more than five (5.0) milliliters, and (2) that is used only for purposes of scientific experimentation or analysis, or chemical research on, or analysis of, PCBs, but not for research or analysis for the development of a PCB product.

Soil washing means 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.

Standard wipe sample means a sample collected for chemical extraction and analysis using the standard wipe test as defined in §761.123. Except as designated elsewhere in part 761, the minimum surface area to be sampled shall be 100 cm².

Storage for disposal means temporary storage of PCBs that have been designated for disposal.

SW-846 means 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.

Totally enclosed manner means any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs.

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

Transporter of PCB waste means, for the purposes of subpart K of this part, any person engaged in the transportation of regulated PCB waste by air, rail, highway, or water for purposes other than consolidation by a generator.

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

Treatability Study means a study in which PCB waste is subjected to a treatment process to determine:

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

TSCA means the Toxic Substances Control Act (15 U.S.C. 2601 *et seq.*).

TSCA PCB Coordinated Approval means 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.

Unit means 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).

U.S. GPO means the U.S. Government Printing Office, 710 North Capitol St., NW., Washington, DC 20401.

Waste Oil means used products primarily derived from petroleum, which include, but are not limited to, fuel oils, motor oils, gear oils, cutting oils, transmission fluids, hydraulic fluids, and dielectric fluids.

Wet weight means reporting chemical analysis results by including either the weight, or the volume and density, of all liquids.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 25239, June 20, 1984, as amended at 49 FR 28189, July 10, 1984; 49 FR 29066, July 18, 1984; 49 FR 44638, Nov. 8, 1984; 50 FR 29199, July 17, 1985; 50 FR 32176, Aug. 9, 1985; 53 FR 24220, June 27, 1988; 53 FR 27327, July 19, 1988; 54 FR 52745, Dec. 21, 1989; 55 FR 26205, June 27, 1990; 58 FR 32061, June 8, 1993; 61 FR 11106, Mar. 18, 1996; 63 FR 35437, June 29, 1998; 64 FR 33759, June 24, 1999]

§ 761.19 References.



[top](#)

(a) [Reserved]

(b) *Incorporation by reference.* The following material is incorporated by reference, and is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. These incorporations by reference were approved by the Director of the Office of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the Federal Register. Copies of the incorporated material

are available for inspection at the EPA Docket Center (EPA/DC), Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC 20460-0001. Copies of the incorporated material may be obtained from the American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

References	CFR Citation
ASTM D 93 – 90 Standard Test Methods for Flash Point by Pensky-Martens Closed Tester	§761.71(b)(2)(vi); §761.75(b)(8)(iii)
ASTM D 129–64 (Reapproved 1978) Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)	§761.71(b)(2)(vi)
ASTM D 240–87 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuel by Bomb Calorimeter	§761.71(b)(2)(vi)
ASTM D 482–87 Standard Test Method for Ash from Petroleum Products	§761.71(b)(2)(vi)
ASTM D 524–88 Standard Test Method for Ramsbottom Carbon Residue of Petroleum Products	§761.71(b)(2)(vi)
ASTM D 808–87 Standard Test Method for Chlorine in New and Used Petroleum Products (Bomb Method)	§761.71(b)(2)(vi)
ASTM D 923–86 Standard Test Method for Sampling Electrical Insulating Liquids	§761.60(g)(1)(ii); (g)(2)(ii)
ASTM D 923–89 Standard Methods of Sampling Electrical Insulating Liquids	§761.60(g)(1)(ii); (g)(2)(ii)
ASTM D 1266–87 Standard Test Method for Sulfur in Petroleum Products (Lamp Method)	§761.71(b)(2)(vi)
ASTM D 1796–83 (Reapproved 1990) Standard Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method (Laboratory Procedure)	§761.71(b)(2)(vi)
ASTM D 2158–89 Standard Test Method for Residues in Liquified Petroleum (LP) Gases	§761.71(b)(2)(vi)
ASTM D 2709–88 Standard Test Method for Water and Sediment in Distillate Fuels by Centrifuge	§761.71(b)(2)(vi)
ASTM D 2784–89 Standard Test Method for Sulfur in Liquified Petroleum Gases (Oxy-hydrogen Burner or Lamp)	§761.71(b)(2)(vi)
ASTM D 3178–84 Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coke and Coal	§761.71(b)(2)(vi)
ASTM D 3278–89 Standard Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus	§761.75(b)(8)(iii)
ASTM E 258–67 (Reapproved 1987) Standard Test Method for Total Nitrogen Inorganic Material by Modified KJELDAHL Method	§761.71(b)(2)(vi)

[47 FR 22098, May 21, 1982, as amended at 49 FR 29067, July 18, 1984; 49 FR 36648, Sept. 19, 1984; 53 FR 10391, Mar. 31, 1988; 53 FR 12524, Apr. 15, 1988; 53 FR 21641, June 9, 1988; 57 FR 13323, Apr. 16, 1992; 59 FR 33697, June 30, 1994; 60 FR 34465, July 3, 1995; 63 FR 35439, June 29, 1998; 64 FR 33759, June 24, 1999; 69 FR 18803, Apr. 9, 2004; 72 FR 57239, Oct. 9, 2007]

Subpart B—Manufacturing, Processing, Distribution in Commerce, and Use of PCBs and PCB Items



[top](#)

§ 761.20 Prohibitions and exceptions.



[top](#)

Except as authorized in §761.30, the activities listed in paragraphs (a) and (d) of this section are prohibited pursuant to section 6(e)(2) of TSCA. The requirements set forth in paragraph (c) of this section and subpart F of this part concerning export and import of PCBs and PCB Items for disposal are established pursuant to section 6(e)(1) of TSCA. Subject to any exemptions granted pursuant to section 6(e)(3)(B) of TSCA, the activities listed in paragraphs (b) and (c) of this section are prohibited pursuant to section 6(e)(3)(A) of TSCA. In addition, the Administrator hereby finds, under the authority of section 12(a)(2) of TSCA, that the manufacture, processing, and distribution in commerce of PCBs at concentrations of 50 ppm or greater and PCB Items with PCB concentrations of 50 ppm or greater present an unreasonable risk of injury to health within the United States. This finding is based upon the well-documented human health and environmental hazard of PCB exposure, the high probability of human and environmental exposure to PCBs and PCB Items from manufacturing, processing, or distribution activities; the potential hazard of PCB exposure posed by the transportation of PCBs or PCB Items within the United States; and the evidence that contamination of the environment by PCBs is spread far beyond the areas where they are used. In addition, the Administrator hereby finds, for purposes of section 6(e)(2)(C) of TSCA, that any exposure of human beings or the environment to PCBs, as measured or detected by any scientifically acceptable analytical method, may be significant, depending on such factors as the quantity of PCBs involved in the exposure, the likelihood of exposure to humans and the environment, and the effect of exposure. For purposes of determining which PCB Items are totally enclosed, pursuant to section 6(e)(2)(C) of TSCA, since exposure to such Items may be significant, the Administrator further finds that a totally enclosed manner is a manner which results in no exposure to humans or the environment to PCBs. The following activities are considered totally enclosed: distribution in commerce of intact, nonleaking electrical equipment such as transformers (including transformers used in railway locomotives and self-propelled cars), capacitors, electromagnets, voltage regulators, switches (including sectionalizers and motor starters), circuit breakers, reclosers, and cable that contain PCBs at any concentration and processing and distribution in commerce of PCB Equipment containing an intact, nonleaking PCB Capacitor. See paragraph (c)(1) of this section for provisions allowing the distribution in commerce of PCBs and PCB Items.

(a) No persons may use any PCB, or any PCB Item regardless of concentration, in any manner other than in a totally enclosed manner within the United States unless authorized under §761.30, except that:

(1) An authorization is not required to use those PCBs or PCB Items which consist of excluded PCB products as defined in §761.3.

(2) An authorization is not required to use those PCBs or PCB Items resulting from an excluded manufacturing process or recycled PCBs as defined in §761.3, provided all applicable conditions of §761.1(f) are met.

(3) An authorization is not required to use those PCB Items which contain or whose surfaces have been in contact with excluded PCB products as defined in §761.3.

(4) An authorization is not required to use sewage sludge where the uses are regulated at parts 257, 258, and 503 of this chapter. No person may blend or otherwise dilute PCBs regulated for disposal, including PCB sewage sludge and sewage sludge not used pursuant to parts 257, 258, and 503 of this chapter, for purposes of use or to avoid disposal requirements under this part. Except as explicitly provided in subpart D of this part, no person may dispose of regulated PCB wastes including, but not limited to, PCB remediation waste, PCB bulk product waste, PCBs, and PCB industrial sludges, into treatment works, as defined in §503.9(aa) of this chapter.

(b) No person may manufacture PCBs for use within the United States or manufacture PCBs for export from the United States without an exemption, except that: an exemption is not required for PCBs manufactured in an excluded manufacturing process as defined in §761.3, provided all applicable conditions of §761.1(f) are met.

(c) No persons may process or distribute in commerce any PCB, or any PCB Item regardless of concentration, for use within the United States or for export from the United States without an exemption, except that an exemption is not required to process or distribute in commerce PCBs or PCB Items resulting from an excluded manufacturing process as defined in §761.3, or to process or distribute in commerce recycled PCBs as defined in §761.3, or to process or distribute in commerce excluded PCB products as defined in §761.3, provided that all applicable conditions of §761.1(f) are met. In addition, the activities described in paragraphs (c) (1) through (5) of this section may also be conducted without an exemption, under the conditions specified therein.

(1) PCBs at concentrations of 50 ppm or greater, or PCB Items with PCB concentrations of 50 ppm or greater, sold before July 1, 1979 for purposes other than resale may be distributed in commerce only in a totally enclosed manner after that date.

(2) Any person may process and distribute in commerce for disposal PCBs at concentrations of ≥ 50 ppm, or PCB Items with PCB concentrations of ≥ 50 ppm, if they comply with the applicable provisions of this part.

(i) Processing activities which are primarily associated with and facilitate storage or transportation for disposal do not require a TSCA PCB storage or disposal approval.

(ii) Processing activities which are primarily associated with and facilitate treatment, as defined in §260.10 of this chapter, or disposal require a TSCA PCB disposal approval unless they are part of an existing approval, are part of a self-implementing activity under §761.61(a) or §761.79 (b) or (c), or are otherwise specifically allowed under subpart D of this part.

(iii) With the exception of provisions in §761.60 (a)(2) and (a)(3), in order to meet the intent of §761.1(b), processing, diluting, or otherwise blending of waste prior to being introduced into a disposal unit for purposes of meeting a PCB concentration limit shall be done in accordance with a TSCA PCB disposal approval or comply with the requirements of §761.79.

(iv) Where the rate of delivering liquids or non-liquids into a PCB disposal unit is an operating parameter, this rate shall be a condition of the TSCA PCB disposal approval for the unit when an approval is required.

(3) PCBs and PCB Items may be exported for disposal in accordance with the requirements of subpart F of this part.

(4) PCBs, at concentrations of less than 50 ppm, or PCB Items, with concentrations of less than 50 ppm, may be processed and distributed in commerce for purposes of disposal.

(5) Decontaminated materials. Any person may distribute in commerce equipment, structures, or other liquid or non-liquid materials that were contaminated with PCBs \geq 50 ppm, including those not otherwise authorized for distribution in commerce under this part, provided that one of the following applies:

(i) The materials were decontaminated in accordance with a TSCA PCB disposal approval issued under subpart D of this part, with §761.79, or with applicable EPA PCB spill cleanup policies in effect at the time of the decontamination.

(ii) If not previously decontaminated, the materials now meet an applicable decontamination standard in §761.79(b).

(d) The use of waste oil that contains any detectable concentration of PCB as a sealant, coating, or dust control agent is prohibited. Prohibited uses include, but are not limited to, road oiling, general dust control, use as a pesticide or herbicide carrier, and use as a rust preventative on pipes.

(e) In addition to any applicable requirements under 40 CFR part 279, subparts G and H, marketers and burners of used oil who market (process or distribute in commerce) for energy recovery, used oil containing any quantifiable level of PCBs are subject to the following requirements:

(1) *Restrictions on marketing.* Used oil containing any quantifiable level of PCBs (2 ppm) may be marketed only to:

(i) Qualified incinerators as defined in 40 CFR 761.3.

(ii) Marketers who market off-specification used oil for energy recovery only to other marketers who have notified EPA of their used oil management activities, and who have an EPA identification number where an identification number is required by 40 CFR 279.73. This would include persons who market off-specification used oil who are subject to the requirements at 40 CFR part 279 and the notification requirements of 40 CFR 279.73.

(iii) Burners identified in 40 CFR 279.61(a)(1) and (2). Only burners in the automotive industry may burn used oil generated from automotive sources in used oil-fired space heaters provided the provisions of 40 CFR 279.23 are met. The Regional Administrator may grant a variance for a boiler that does not meet the 40 CFR 279.61(a)(1) and (2) criteria after considering the criteria listed in 40 CFR 260.32 (a) through (f). The applicant must address the relevant criteria contained in 40 CFR 260.32 (a) through (f) in an application to the Regional Administrator.

(2) *Testing of used oil fuel.* Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.

(i) The person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCB must obtain analyses or other information to support that claim.

(ii) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in §761.60(g)(2). However, for purposes of this part, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB concentration of 50 ppm or greater for purposes of complying with the disposal requirements of this part.

(iii) Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.

(3) *Restrictions on burning.* (i) Used oil containing any quantifiable levels of PCB may be burned for energy recovery only in the combustion facilities identified in paragraph (e)(1) of this section when such facilities are operating at normal operating temperatures (this prohibits feeding these fuels during either startup or shutdown operations). Owners and operators of such facilities are "burners" of used oil fuels.

(ii) Before a burner accepts from a marketer the first shipment of used oil fuel containing detectable PCBs (2 ppm), the burner must provide the marketer a one-time written and signed notice certifying that:

(A) The burner has complied with any notification requirements applicable to "qualified incinerators" (§761.3) or to "burners" regulated under 40 CFR part 279, subpart G.

(B) The burner will burn the used oil only in a combustion facility identified in paragraph (e)(1) of this section and identify the class of burner he qualifies.

(4) *Recordkeeping requirements.* The following recordkeeping requirements are in addition to the recordkeeping requirements for marketers found in 40 CFR 279.72(b), 279.74(a), (b) and (c), and 279.75, and for burners found in 40 CFR 279.65 and 279.66.

(i) *Marketers.* Marketers who first claim that the used oil fuel contains no detectable PCBs must include among the records required by 40 CFR 279.72(b) and 279.74(b) and (c), copies of the analysis or other information documenting his claim, and he must include among the records required by 40 CFR 279.74(a) and (c) and 279.75, a copy of each certification notice received or prepared relating to transactions involving PCB-containing used oil.

(ii) *Burners.* Burners must include among the records required by 40 CFR 279.65 and 279.66, a copy of each certification notice required by paragraph (e)(3)(ii) of this section that he sends to a marketer.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020, (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 49 FR 25241, June 20, 1984; 49 FR 28190, July 10, 1984; 49 FR 44638, Nov. 8, 1984; 53 FR 12524, Apr. 15, 1988; 53 FR 24220, June 27, 1988; 58 FR 15435, Mar. 23, 1993; 58 FR 34205, June 23, 1993; 60 FR 34465, July 3, 1995; 61 FR 11106, Mar. 18, 1996; 63 FR 35439, June 29, 1998; 64 FR 33760, June 24, 1999]

§ 761.30 Authorizations.



top

The following non-totally enclosed PCB activities are authorized pursuant to section 6(e)(2)(B) of TSCA:

(a) *Use in and servicing of transformers (other than railroad transformers).* PCBs at any concentration may be used in transformers (other than in railroad locomotives and self-propelled railroad cars) and may be used for purposes of servicing including rebuilding these transformers for the remainder of their useful lives, subject to the following conditions:

(1) *Use conditions.* (i) As of October 1, 1985, the use and storage for reuse of PCB Transformers that pose an exposure risk to food or feed is prohibited.

(ii) As of October 1, 1990, the use of network PCB Transformers with higher secondary voltages (secondary voltages equal to or greater than 480 volts, including 480/277 volt systems) in or near commercial buildings is prohibited. Network PCB Transformers with higher secondary voltages which are removed from service in accordance with this requirement must either be reclassified to PCB Contaminated or non PCB status, placed into storage for disposal, or disposed.

(iii) Except as otherwise provided, as of October 1, 1985, the installation of PCB Transformers, which have been placed into storage for reuse or which have been removed from another location, in or near commercial buildings is prohibited.

(A) Retrofilled mineral oil PCB Transformers may be installed for reclassification purposes indefinitely after October 1, 1990.

(B) Once a retrofilled transformer has been installed for reclassification purposes, it must be tested 3 months after installation to ascertain the concentration of PCBs. If the PCB concentration is below 50 ppm, the transformer can be reclassified as a non-PCB Transformer. If the PCB concentration is between 50 and 500 ppm, the transformer can be reclassified as a PCB-Contaminated transformer. If the PCB concentration remains at 500 ppm or greater, the entire process must either be repeated until the transformer has been reclassified to a non-PCB or PCB-Contaminated transformer in accordance with paragraph (a)(2)(v) of this section or the transformer must be removed from service.

(iv) As of October 1, 1990, all higher secondary voltage radial PCB Transformers, in use in or near commercial buildings, and lower secondary voltage network PCB Transformers not located in sidewalk vaults in or near commercial buildings (network transformers with secondary voltages below 480 volts) that have not been removed from service as provided in paragraph (a)(1)(iv)(B) of this section, must be equipped with electrical protection to avoid transformer ruptures caused by high current faults. As of February 25, 1991, all lower secondary voltage radial PCB Transformers, in use in or near commercial buildings, must be equipped with electrical protection to avoid transformer ruptures caused by high current faults.

(A) Current-limiting fuses or other equivalent technology must be used to detect sustained high current faults and provide for the complete deenergization of the transformer (within several hundredths of a second in the case of higher secondary voltage radial PCB Transformers and within tenths of a second in the case of lower secondary voltage network PCB Transformers), before transformer rupture occurs. Lower secondary voltage radial PCB Transformers must be equipped with electrical protection as provided in paragraph (a)(1)(iv)(E) of this section. The installation, setting, and maintenance of current-limiting fuses or other equivalent technology to avoid PCB Transformer ruptures from sustained high current faults must be completed in accordance with good engineering practices.

(B) All lower secondary voltage network PCB Transformers not located in sidewalk vaults (network transformers with secondary voltages below 480 volts), in use in or near commercial buildings, which have not been protected as specified in paragraph (a)(1)(iv)(A) of this section by October 1, 1990, must be removed from service by October 1, 1993.

(C) As of October 1, 1990, owners of lower secondary voltage network PCB Transformers, in use in or near commercial buildings which have not been protected as specified in paragraph (a)(1)(iv)(A) of this section and which are not located in sidewalk vaults,

must register in writing those transformers with the EPA Regional Administrator in the appropriate region. The information required to be provided in writing to the Regional Administrator includes:

(1) The specific location of the PCB Transformer(s).

(2) The address(es) of the building(s) and the physical location of the PCB Transformer(s) on the building site(s).

(3) The identification number(s) of the PCB Transformer(s).

(D) As of October 1, 1993, all lower secondary voltage network PCB Transformers located in sidewalk vaults (network transformers with secondary voltages below 480 volts) in use near commercial buildings must be removed from service.

(E) As of February 25, 1991, all lower secondary voltage radial PCB Transformers must be equipped with electrical protection, such as current-limiting fuses or other equivalent technology, to detect sustained high current faults and provide for the complete deenergization of the transformer or complete deenergization of the faulted phase of the transformer within several hundredths of a second. The installation, setting, and maintenance of current-limiting fuses or other equivalent technology to avoid PCB Transformer ruptures from sustained high current faults must be completed in accordance with good engineering practices.

(v) As of October 1, 1990, all radial PCB Transformers with higher secondary voltages (480 volts and above, including 480/277 volt systems) in use in or near commercial buildings must, in addition to the requirements of paragraph (a)(1)(iv)(A) of this section, be equipped with protection to avoid transformer ruptures caused by sustained low current faults.

(A) Pressure and temperature sensors (or other equivalent technology which has been demonstrated to be effective in early detection of sustained low current faults) must be used in these transformers to detect sustained low current faults.

(B) Disconnect equipment must be provided to insure complete deenergization of the transformer in the event of a sensed abnormal condition (e.g., an overpressure or overtemperature condition in the transformer), caused by a sustained low current fault. The disconnect equipment must be configured to operate automatically within 30 seconds to 1 minute of the receipt of a signal indicating an abnormal condition from a sustained low current fault, or can be configured to allow for manual deenergization from a manned on-site control center upon the receipt of an audio or visual signal indicating an abnormal condition caused by a sustained low current fault. Manual deenergization from a manned on-site control center must occur within 1 minute of the receipt of the audio or visual signal indicating an abnormal condition caused by a sustained low current fault. If automatic operation is selected and a circuit breaker is utilized for disconnection, it must also have the capability to be manually opened if necessary.

(C) The enhanced electrical protective system required for the detection of sustained low current faults and the complete and rapid deenergization of transformers must be properly installed, maintained, and set sensitive enough (in accordance with good engineering practices) to detect sustained low current faults and allow for rapid and total deenergization prior to PCB Transformer rupture (either violent or non violent rupture) and release of PCBs.

(vi)(A) No later than December 28, 1998 all owners of PCB Transformers, including those in storage for reuse, must register their transformers with the Environmental Protection Agency, National Program Chemicals Division, Office of Pollution Prevention and Toxics (7404), 1200 Pennsylvania Ave., NW., Washington, DC 20460. This registration requirement is subject to the limitations in paragraph (a)(1) of this section.

(1) A transformer owner who assumes a transformer is a PCB-Contaminated transformer, and discovers after December 28, 1998 that it is a PCB-Transformer, must register the newly-identified PCB Transformer, in writing, with the Environmental Protection Agency no later than 30 days after it is identified as such. This requirement does not apply to transformer owners who have previously registered with the EPA PCB Transformers located at the same address as the transformer that they assumed to be PCB-Contaminated and later determined to be a PCB Transformer.

(2) A person who takes possession of a PCB Transformer after December 28, 1998 is not required to register or re-register the transformer with the EPA.

(B) Any person submitting a registration under this section must include:

(1) Company name and address.

(2) Contact name and telephone number.

(3) Address where these transformers are located. For mobile sources such as ships, provide the name of the ship.

(4) Number of PCB Transformers and the total weight in kilograms of PCBs contained in the transformers.

(5) Whether any transformers at this location contain flammable dielectric fluid (optional).

(6) Signature of the owner, operator, or other authorized representative certifying the accuracy of the information submitted.

(C) A transformer owner must retain a record of each PCB Transformer's registration (e.g., a copy of the registration and the return receipt signed by EPA) with the inspection and maintenance records required for each PCB Transformer under paragraph (a)(1)(xii)(I) of this section.

(D) A transformer owner must comply with all requirements of paragraph (a)(1)(vi)(A) of this section to continue the PCB-Transformer's authorization for use, or storage for reuse, pursuant to this section and TSCA section 6(e)(2)(B).

(vii) As of December 1, 1985, PCB Transformers in use in or near commercial buildings must be registered with building owners. For PCB Transformers located in commercial buildings, PCB Transformer owners must register the transformers with the building owner of record. For PCB Transformers located near commercial buildings, PCB Transformer owners must register the transformers with all owners of buildings located within 30 meters of the PCB Transformer(s). Information required to be provided to building owners by PCB Transformer owners includes but is not limited to:

(A) The specific location of the PCB Transformer(s).

(B) The principal constituent of the dielectric fluid in the transformer(s) (e.g., PCBs, mineral oil, or silicone oil).

(C) The type of transformer installation (e.g., 208/120 volt network, 208/120 volt radial, 208 volt radial, 480 volt network, 480/277 volt network, 480 volt radial, 480/277 volt radial).

(viii) As of December 1, 1985, combustible materials, including, but not limited to paints, solvents, plastics, paper, and sawn wood must not be stored within a PCB Transformer enclosure (i.e., in a transformer vault or in a partitioned area housing a transformer); within 5 meters of a transformer enclosure, or, if unenclosed (unpartitioned), within 5 meters of a PCB Transformer.

(ix) A visual inspection of each PCB Transformer (as defined in the definition of "PCB Transformer" under §761.3) in use or stored for reuse shall be performed at least once every 3 months. 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.

(x) If a PCB Transformer is found to have a leak which results in any quantity of PCBs running off or about to run off the external surface of the transformer, then the transformer must be repaired or replaced to eliminate the source of the leak. In all cases any leaking material must be cleaned up and properly disposed of according to disposal requirements of subpart D of this part. Cleanup of the released PCBs must be initiated as soon as possible, but in no case later than 48 hours of its discovery. Until appropriate action is completed, any active leak of PCBs must be contained to prevent exposure of humans or the environment and inspected daily to verify containment of the leak. Trenches, dikes, buckets, and pans are examples of proper containment measures.

(xi) If a PCB Transformer is involved in a fire-related incident, the owner of the transformer must immediately report the incident to the National Response Center (toll-free 1-800-424-8802; in Washington, DC 202-426-2675). A fire-related incident is defined as any incident involving a PCB Transformer which involves the generation of sufficient heat and/or pressure (by any source) to result in the violent or non-violent rupture of a PCB Transformer and the release of PCBs. Information must be provided regarding the type of PCB Transformer installation involved in the fire-related incident (e.g., high or low secondary voltage network transformer, high or low secondary voltage simple radial system, expanded radial system, primary selective system, primary loop system, or secondary selective system or other systems) and the readily ascertainable cause of the fire-related incident (e.g., high current fault in the primary or secondary or low current fault in secondary). The owner of the PCB Transformer must also take measures as soon as practically and safely possible to contain and control any potential releases of PCBs and incomplete combustion products into water. These measures include, but are not limited to:

(A) The blocking of all floor drains in the vicinity of the transformer.

(B) The containment of water runoff.

(C) The control and treatment (prior to release) of any water used in subsequent cleanup operations.

(xii) Records of inspection and maintenance history shall be maintained at least 3 years after disposing of the transformer and shall be made available for inspection, upon request by EPA. Such records shall contain the following information for each PCB Transformer:

(A) Its location.

(B) The date of each visual inspection and the date that leak was discovered, if different from the inspection date.

(C) The person performing the inspection.

(D) The location of any leak(s).

(E) An estimate of the amount of dielectric fluid released from any leak.

(F) The date of any cleanup, containment, repair, or replacement.

(G) A description of any cleanup, containment, or repair performed.

(H) The results of any containment and daily inspection required for uncorrected active leaks.

- (I) Record of the registration of PCB Transformer(s).
- (J) Records of transfer of ownership in compliance with §761.180(a)(2)(ix).
- (xiii) A reduced visual inspection frequency of at least once every 12 months applies to PCB Transformers that utilize either of the following risk reduction measures. These inspections may take place any time during the calendar year as long as there is a minimum of 180 days between inspections.
- (A) A PCB Transformer which has impervious, undrained, secondary containment capacity of at least 100 percent of the total dielectric fluid volume of all transformers so contained or
- (B) A PCB Transformer which has been tested and found to contain less than 60,000 ppm PCBs (after 3 months of in service use if the transformer has been serviced for purposes of reducing the PCB concentration).
- (xiv) An increased visual inspection frequency of at least once every week applies to any PCB Transformer in use or stored for reuse which poses an exposure risk to food or feed. The user of a PCB Transformer posing an exposure risk to food is responsible for the inspection, recordkeeping, and maintenance requirements under this section until the user notifies the owner that the transformer may pose an exposure risk to food or feed. Following such notification, it is the owner's ultimate responsibility to determine whether the PCB Transformer poses an exposure risk to food or feed.
- (xv) In the event a mineral oil transformer, assumed to contain less than 500 ppm of PCBs as provided in §761.2, is tested and found to be contaminated at 500 ppm or greater PCBs, it will be subject to all the requirements of this Part 761. In addition, efforts must be initiated immediately to bring the transformer into compliance in accordance with the following schedule:
- (A) Report fire-related incidents, effective immediately after discovery.
- (B) Mark the PCB transformer within 7 days after discovery.
- (C) Mark the vault door, machinery room door, fence, hallway or other means of access to the PCB Transformer within 7 days after discovery.
- (D) Register the PCB Transformer in writing with the building owner within 30 days of discovery.
- (E) Install electrical protective equipment on a radial PCB Transformer and a non-sidewalk vault, lower secondary voltage network PCB Transformer in or near a commercial building within 18 months of discovery or by October 1, 1990, whichever is later.
- (F) Remove a non-sidewalk vault, lower secondary voltage network PCB Transformer in or near a commercial building, if electrical protective equipment is not installed, within 18 months of discovery or by October 1, 1993, whichever is later.
- (G) Remove a lower secondary voltage network PCB Transformer located in a sidewalk vault in or near a commercial building, within 18 months of discovery or by October 1, 1993, whichever is later.
- (H) Retrofill and reclassify a radial PCB Transformer or a lower or higher secondary voltage network PCB Transformer, located in other than a sidewalk vault in or near a commercial building, within 18 months or by October 1, 1990, whichever is later. This is an option in lieu of installing electrical protective equipment on a radial or lower secondary voltage network PCB Transformer located in other than a sidewalk vault or of removing a higher secondary voltage network PCB Transformer or a lower secondary voltage network PCB Transformer, located in a sidewalk vault, from service.
- (I) Retrofill and reclassify a lower secondary voltage network PCB Transformer, located in a sidewalk vault, in or near a commercial building within 18 months or by October 1, 1993, whichever is later. This is an option in lieu of installing electrical protective equipment or removing the transformer from service.
- (J) Retrofill and reclassify a higher secondary voltage network PCB Transformer, located in a sidewalk vault, in or near a commercial building within 18 months or by October 1, 1990, whichever is later. This is an option in lieu of other requirements.
- (2) *Servicing conditions.* (i) Transformers classified as PCB-Contaminated Electrical Equipment (as defined in the definition of "PCB-Contaminated Electrical Equipment" under §761.3) may be serviced (including rebuilding) only with dielectric fluid containing less than 500 ppm PCB.
- (ii) Any servicing (including rebuilding) of PCB Transformers (as defined in the definition of "PCB Transformer" under §761.3) that requires the removal of the transformer coil from the transformer casing is prohibited. PCB Transformers may be serviced (including topping off) with dielectric fluid at any PCB concentration.
- (iii) PCBs removed during any servicing activity must be captured and either reused as dielectric fluid or disposed of in accordance with the requirements of §761.60. PCBs from PCB Transformers must not be mixed with or added to dielectric fluid from PCB-Contaminated Electrical Equipment.
- (iv) Regardless of its PCB concentration, dielectric fluids containing less than 500 ppm PCB that are mixed with fluids that contain 500 ppm or greater PCB must not be used as dielectric fluid in any electrical equipment. The entire mixture of dielectric fluid must be considered to be greater than 500 ppm PCB and must be disposed of in an incinerator that meets the requirements in §761.70.

(v) You may reclassify a PCB Transformer that has been tested and determined to have a concentration of ≥ 500 ppm PCBs to a PCB-Contaminated transformer (≥ 50 but < 500 ppm) or to a non-PCB transformer (< 50 ppm), and you may reclassify a PCB-Contaminated transformer that has been tested and determined to have a concentration of ≥ 50 ppm but < 500 ppm to a non-PCB transformer, as follows:

(A) Remove the free-flowing PCB dielectric fluid from the transformer. Flushing is not required. Either test the fluid or assume it contains $\geq 1,000$ ppm PCBs. Refill the transformer with fluid containing known PCB levels according to the following table. Determine the transformer's reclassified status according to the following table (if following this process does not result in the reclassified status you desire, you may repeat the process):

If test results show the PCB concentration (ppm) in the transformer prior to refill is . . .	and you refill the transformer with dielectric fluid containing . . .	and you . . .	and test results show the PCB concentration (ppm) after refill is . . .	then the transformer's reclassified status is . . .
$\geq 1,000$ (or untested)	< 50 ppm PCBs	operate the transformer electrically under loaded conditions for at least 90-continuous days after refill, then test the fluid for PCBs	≥ 50 but < 500	PCB-contaminated
	< 50 ppm PCBs	operate the transformer electrically under loaded conditions for at least 90-continuous days after refill, then test the fluid for PCBs	< 50	non-PCB
≥ 500 but $< 1,000$	< 50 ppm PCBs	test the fluid for PCBs at least 90 days after refill	≥ 50 but < 500	PCB-contaminated
	< 50 ppm PCBs	test the fluid for PCBs at least 90 days after refill	< 50	non-PCB
≥ 50 but < 500	≥ 2 but < 50 ppm PCBs	test the fluid for PCBs at least 90 days after refill	< 50	non-PCB
	< 2 ppm PCBs	(no need to test)	(not applicable)	non-PCB

(B) If you discover that the PCB concentration of the fluid in a reclassified transformer has changed, causing the reclassified status to change, the transformer is regulated based on the actual concentration of the fluid. For example, a transformer that was reclassified to non-PCB status is regulated as a PCB-Contaminated transformer if you discover that the concentration of the fluid has increased to ≥ 50 but < 500 ppm PCBs. If you discover that the PCB concentration of the fluid has risen to ≥ 500 ppm, the transformer is regulated as a PCB Transformer. Follow paragraphs (a)(1)(xv)(A) through (J) of this section to come into compliance with the regulations applicable to PCB Transformers. You also have the option of repeating the reclassification process.

(C) The Director, National Program Chemicals Division, may, without further rulemaking, grant approval on a case-by-case basis for the use of alternative methods to reclassify transformers. You may request an approval by writing to the Director, National Program Chemicals Division (7404), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Describe the equipment you plan to reclassify, the alternative reclassification method you plan to use, and test data or other evidence on the effectiveness of the method.

(D) You must keep records of the reclassification required by §761.180(g).

(vi) Any dielectric fluid containing 50 ppm or greater PCB used for servicing transformers must be stored in accordance with the storage for disposal requirements of §761.65.

(vii) Processing and distribution in commerce of PCBs for purposes of servicing transformers is permitted only for persons who are granted an exemption under TSCA 6(e)(3)(B).

(b) *Use in and servicing of railroad transformers.* PCBs may be used in transformers in railroad locomotives or railroad self-propelled cars ("railroad transformers") and may be processed and distributed in commerce for purposes of servicing these transformers in a manner other than a totally enclosed manner subject to the following conditions:

(1) *Use restrictions.* After July 1, 1986, use of railroad transformers that contain dielectric fluids with a PCB concentration >1,000 ppm is prohibited.

(2) *Servicing restrictions.* (i) If the coil is removed from the casing of a railroad transformer (e.g., the transformer is rebuilt), after January 1, 1982, the railroad transformer may not be refilled with dielectric fluid containing a PCB concentration greater than 50 ppm;

(ii) After January 1, 1984, railroad transformers may only be serviced with dielectric fluid containing less than 1000 ppm PCB, except as provided in paragraph (b)(2)(i) of this section;

(iii) Dielectric fluid may be filtered through activated carbon or otherwise industrially processed for the purpose of reducing the PCB concentration in the fluid;

(iv) Any PCB dielectric fluid that is used to service PCB railroad transformers must be stored in accordance with the storage for disposal requirements of §761.65;

(v) After July 1, 1979, processing and distribution in commerce of PCBs for purposes of servicing railroad transformers is permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(vi) A PCB Transformer may be converted to a PCB-Contaminated Transformer or to a non-PCB Transformer by draining, refilling, and/or otherwise servicing the railroad transformer. In order to reclassify, the railroad transformer's dielectric fluid must contain less than 500 ppm (for conversion to PCB-Contaminated Transformer) or less than 50 ppm PCB (for conversion to a non-PCB Transformer) after a minimum of three months of inservice use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the transformer.

(c) *Use in mining equipment.* After January 1, 1982, PCBs may be used in mining equipment only at a concentration level of <50 ppm.

(d) *Use in heat transfer systems.* After July 1, 1984, PCBs may be used in heat transfer systems only at a concentration level of < 50 ppm. Heat transfer systems that were in operation after July 1, 1984, with a concentration level of <50 ppm PCBs may be serviced to maintain a concentration level of <50 ppm PCBs. Heat transfer systems may only be serviced with fluids containing <50 ppm PCBs.

(e) *Use in hydraulic systems.* After July 1, 1984, PCBs may be used in hydraulic systems only at a concentration level of <50 ppm. Hydraulic systems that were in operation after July 1, 1984, with a concentration level of <50 ppm PCBs may be serviced to maintain a concentration level of <50 ppm PCBs. Hydraulic systems may only be serviced with fluids containing <50 ppm PCBs.

(f) *Use in carbonless copy paper.* Carbonless copy paper containing PCBs may be used in a manner other than a totally enclosed manner indefinitely.

(g) [Reserved]

(h) *Use in and servicing of electromagnets, switches and voltage regulators.* PCBs at any concentration may be used in electromagnets, switches (including sectionalizers and motor starters), and voltage regulators and may be used for purposes of servicing this equipment (including rebuilding) for the remainder of their useful lives, subject to the following conditions:

(1) *Use conditions.* (i) After October 1, 1985, the use and storage for reuse of any electromagnet which poses an exposure risk to food or feed is prohibited if the electromagnet contains greater than 500 ppm PCBs.

(ii) Use and storage for reuse of voltage regulators which contain 1.36 kilograms (3 lbs) or more of dielectric fluid with a PCB concentration of \geq 500 ppm are subject to the following provisions:

(A) The owner of the voltage regulator must mark its location in accordance with §761.40.

(B) If a voltage regulator is involved in a fire-related incident, the owner must immediately report the incident to the National

Response Center (Toll-free: 1-800-424-8802; in Washington, DC: 202-426-2675). A fire-related incident is defined as any incident that involves the generation of sufficient heat and/or pressure, by any source, to result in the violent or non-violent rupture of the voltage regulator and the release of PCBs.

(C) The owner of the voltage regulator must inspect it in accordance with the requirements of paragraphs (a)(1)(ix), (a)(1)(xiii), and (a)(1)(xiv) of this section that apply to PCB Transformers.

(D) The owner of the voltage regulator must comply with the recordkeeping and reporting requirements at §761.180.

(iii) The owner of a voltage regulator that assumes it contains <500 ppm PCBs as provided in §761.2, and discovers by testing that it is contaminated at ≥500 ppm PCBs, must comply with paragraph (h)(1)(ii)(A) of this section 7 days after the discovery, and paragraphs (h)(1)(ii)(B), (h)(1)(ii)(C), and (h)(1)(ii)(D) of this section immediately upon discovery.

(2) *Servicing conditions.* (i) Servicing (including rebuilding) any electromagnet, switch, or voltage regulator with a PCB concentration of 500 ppm or greater which requires the removal and rework of the internal components is prohibited.

(ii) Electromagnets, switches, and voltage regulators classified as PCB-Contaminated Electrical Equipment (as defined in the definition of "PCB-Contaminated Electrical Equipment" under §761.3) may be serviced (including rebuilding) only with dielectric fluid containing less than 500 ppm PCB.

(iii) PCBs removed during any servicing activity must be captured and either reused as dielectric fluid or disposed of in accordance with the requirements of §761.60. PCBs from electromagnets switches, and voltage regulators with a PCB concentration of at least 500 ppm must not be mixed with or added to dielectric fluid from PCB-Contaminated Electrical Equipment.

(iv) Regardless of its PCB concentration, dielectric fluids containing less than 500 ppm PCB that are mixed with fluids that contain 500 ppm or greater PCB must not be used as dielectric fluid in any electrical equipment. The entire mixture of dielectric fluid must be considered to be greater than 500 ppm PCB and must be disposed of in an incinerator that meets the requirements of §761.70.

(v) You may reclassify an electromagnet, switch, or voltage regulator that has been tested and determined to have a concentration of ≥500 ppm PCBs to PCB-Contaminated status (≥50 but <500 ppm) or to non-PCB status (<50 ppm), and you may reclassify a PCB-Contaminated electromagnet, switch, or voltage regulator that has been tested and determined to have a concentration of ≥500 ppm but <500 ppm to a non-PCB status, as follows:

(A) Remove the free-flowing PCB dielectric fluid from the electromagnet, switch, or voltage regulator. Flushing is not required. Either test the fluid or assume it contains ≥1,000 ppm PCBs. Retrofill the electromagnet, switch, or voltage regulator with fluid containing known PCB levels according to the following table. Determine the electromagnet, switch, or voltage regulator's reclassified status according to the following table (if following this process does not result in the reclassified status you desire, you may repeat the process):

If test results show the PCB concentration (ppm) in the equipment prior to retrofill is . . .	and you retrofill the equipment with dielectric fluid containing . . .	and you . . .	and test results show the PCB concentration (ppm) after retrofill is . . .	then the electromagnet, switch, or voltage regulator's reclassified status is . . .
≥1,000 (or untested)	<50 ppm PCBs	operate the equipment electrically under loaded conditions for at least 90-continuous days after retrofill, then test the fluid for PCBs	≥50 but <500	PCB-contaminated
	<50 ppm PCBs	operate the equipment electrically under loaded conditions	<50	non-PCB

		for at least 90-continuous days after retrofill, then test the fluid for PCBs		
≥500 but <1,000	<50 ppm PCBs	test the fluid for PCBs at least 90 days after retrofill	≥50 but <500	PCB-contaminated
	<50 ppm PCBs	test the fluid for PCBs at least 90 days after retrofill	<50	non-PCB
≥50 but <500	≥2 but <50 ppm PCBs	test the fluid for PCBs at least 90 days after retrofill	<50	non-PCB
	<2 ppm PCBs	(no need to test)	(not applicable)	non-PCB

(B) If you discover that the PCB concentration of the fluid in a reclassified electromagnet, switch, or voltage regulator has changed, causing the reclassified status to change, the electromagnet, switch, or voltage regulator is regulated based on the actual concentration of the fluid. For example, an electromagnet, switch, or voltage regulator that was reclassified to non-PCB status is regulated as a PCB-Contaminated electromagnet, switch, or voltage regulator if you discover that the concentration of the fluid has increased to ≥50 but <500 ppm PCBs. If you discover that the PCB concentration of the fluid in a voltage regulator has risen to ≥500 ppm, follow paragraph (h)(1)(iii) of this section to come into compliance with the regulations applicable to voltage regulators containing ≥500 ppm PCBs. You also have the option of repeating the reclassification process.

(C) The Director, National Program Chemicals Division may, without further rulemaking, grant approval on a case-by-case basis for the use of alternative methods to reclassify electromagnets, switches or voltage regulators. You may request an approval by writing to the Director, National Program Chemicals Division (7404), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Describe the equipment you plan to reclassify, the alternative reclassification method you plan to use, and test data or other evidence on the effectiveness of the method.

(D) You must keep records of the reclassification required by §761.180(g).

(vi) Any dielectric fluid containing 50 ppm or greater PCB used for servicing electromagnets, switches, or voltage regulators must be stored in accordance with the storage for disposal requirements of §761.65.

(vii) Processing and distribution in commerce of PCBs for purposes of servicing electromagnets, switches or voltage regulators is permitted only for persons who are granted an exemption under TSCA 6(e)(3)(B).

(i) *Use and reuse of PCBs in natural gas pipeline systems; use and reuse of PCB-Contaminated natural gas pipe and appurtenances.* (1)(i) PCBs are authorized for use in natural gas pipeline systems at concentrations <50 ppm.

(ii) PCBs are authorized for use, at concentrations ≥50 ppm, in natural gas pipeline systems not owned or operated by a seller or distributor of natural gas.

(iii)(A) PCBs are authorized for use, at concentrations ≥50 ppm, in natural gas pipeline systems owned or operated by a seller or distributor of natural gas, if the owner or operator:

(1) Submits to EPA, upon request, a written description of the general nature and location of PCBs ≥50 ppm in their natural gas pipeline system. Each written description shall be submitted to the EPA Regional Administrator having jurisdiction over the segment or component of the system (or the Director, National Program Chemicals Division, Office of Prevention, Pesticides, and Toxic Substances, if the system is contaminated in more than one region).

(2) Within 120 days after discovery of PCBs ≥50 ppm in natural gas pipeline systems, or by December 28, 1998, whichever is later, characterizes the extent of PCB contamination by collecting and analyzing samples to identify the upstream and downstream end points of the segment or component where PCBs ≥50 ppm were discovered.

(3) Within 120 days of characterization of the extent of PCB contamination, or by December 28, 1998, whichever is later, samples and analyzes all potential sources of introduction of PCBs into the natural gas pipeline system for PCBs ≥50 ppm. Potential sources include natural gas compressors, natural gas scrubbers, natural gas filters, and interconnects where natural gas is received upstream from the most downstream sampling point where PCBs ≥50 ppm were detected; potential sources exclude valves, drips, or other small liquid condensate collection points.

(4) Within 1 year of characterization of the extent of PCB contamination, reduces all demonstrated sources of PCBs ≥50 ppm to

<50 ppm, or removes such sources from the natural gas pipeline system; or implements other engineering measures or methods to reduce PCB levels to <50 ppm and to prevent further introduction of PCBs \geq 50 ppm into the natural gas pipeline system (e.g., pigging, decontamination, in-line filtration).

(5) Repeats sampling and analysis at least annually where PCBs are \geq 50 ppm, until sampling results indicate the natural gas pipeline segment or component is <50 ppm PCB in two successive samples with a minimum interval between samples of 180 days.

(6) Marks aboveground sources of PCB liquids in natural gas pipeline systems with the M_L Mark in accordance with §761.45(a), where such sources have been demonstrated through historical data or recent sampling to contain PCBs \geq 50 ppm.

(B) Owners or operators of natural gas pipeline systems which do not include potential sources of PCB contamination as described in paragraph (i)(1)(iii)(A)(3) of this section containing \geq 50 ppm PCB are not subject to paragraphs (i)(1)(iii)(A)(2), (i)(1)(iii)(A)(3), (i)(1)(iii)(A)(4), or (i)(1)(iii)(A)(6) of this section. Owners or operators of these systems, however, must comply with the other provisions of this section (e.g., sampling of any collected PCB liquids and recordkeeping).

(C) The owner or operator of a natural gas pipeline system must document in writing all data collected and actions taken, or not taken, pursuant to the authorization in paragraph (i)(1)(iii)(A) of this section. They must maintain the information for 3 years after the PCB concentration in the component or segment is reduced to <50 ppm, and make it available to EPA upon request.

(D) The Director, National Program Chemicals Division, after consulting with the appropriate EPA Region(s) may, based on a finding of no unreasonable risk, modify in writing the requirements of paragraph (i)(1)(iii)(A) of this section, including extending any compliance date, approving alternative formats for documentation, waiving one or more requirements for a segment or component, requiring sampling and analysis, and requiring implementation of engineering measures to reduce PCB concentrations. EPA will make such modifications based on the natural gas pipeline system size, configuration, and current operating conditions; nature, extent or source of contamination; proximity of contamination to end-users; or previous sampling, monitoring, remedial actions or documentation of activities taken regarding compliance with this authorization or other applicable Federal, State, or local laws and regulations. The Director, National Program Chemicals Division, may defer the authority described in this paragraph, upon request, to the appropriate EPA Region.

(E) The owner or operator of a natural gas pipeline system may use historical data to fulfill the requirements of paragraphs (i)(1)(iii)(A)(1), (i)(1)(iii)(A)(2) and (i)(1)(iii)(A)(3) of this section. They may use documented historical actions taken to reduce PCB concentrations in known sources; decontaminate components or segments of natural gas pipeline systems; or otherwise to reduce PCB levels to fulfill the requirements of paragraph (i)(1)(iii)(A)(4) of this section.

(2) Any person may reuse PCB-Contaminated natural gas pipe and appurtenances in a natural gas pipeline system, provided all free-flowing liquids have been removed.

(3) Any person may use PCB-Contaminated natural gas pipe, drained of all free-flowing liquids, in the transport of liquids (e.g., bulk hydrocarbons, chemicals, petroleum products, or coal slurry), as casing to provide secondary containment or protection (e.g., protection for electrical cable), as industrial structural material (e.g., fence posts, sign posts, or bridge supports), as temporary flume at construction sites, as equipment skids, as culverts under transportation systems in intermittent flow situations, for sewage service with written consent of the Publicly Owned Treatment Works (POTW), for steam service, as irrigation systems (<20 inch diameter) of less than 200 miles in length, and in a totally enclosed compressed air system.

(4) Any person characterizing PCB contamination in natural gas pipe or natural gas pipeline systems must do so by analyzing organic liquids collected at existing condensate collection points in the pipe or pipeline system. The level of PCB contamination found at a collection point is assumed to extend to the next collection point downstream. Any person characterizing multi-phasic liquids must do so in accordance with §761.1(b)(4); if no liquids are present, they must use standard wipe samples in accordance with subpart M of this part.

(5)(i) Any person disposing of liquids containing PCBs \geq 50 ppm removed, spilled, or otherwise released from a natural gas pipeline system must do so in accordance with §761.61(a)(5)(iv) based on the PCB concentration at the time of removal from the system. Any person disposing of materials contaminated by spills or other releases of PCBs \geq 50 ppm from a natural gas pipeline systems, must do so in accordance with §§761.61 or 761.79, as applicable.

(ii) Any person who markets or burns for energy recovery liquids containing PCBs at concentrations <50 ppm PCBs at the time of removal from a natural gas pipeline system must do so in accordance with the provisions pertaining to used oil at §761.20(e). No other use of liquid containing PCBs at concentrations above the quantifiable level/level of detection removed from a natural gas pipeline system is authorized.

(j) *Research and development.* For purposes of this section, authorized research and development (R&D) activities include, but are not limited to: the chemical analysis of PCBs, including analyses to determine PCB concentration; determinations of the physical properties of PCBs; studies of environmental transport processes; studies of biochemical transport processes; studies of effects of PCBs on the environment; and studies of the health effects of PCBs, including direct toxicity and toxicity of metabolic products of PCBs. Authorized R&D activities do not include research, development, or analysis for the development of any PCB product. Any person conducting R&D activities under this section is also responsible for determining and complying with all other applicable Federal, State, and local laws and regulations. Although the use of PCBs and PCBs in analytical reference samples derived from waste material is authorized in conjunction with PCB-disposal related activities, R&D for PCB disposal (as defined under §761.3) is addressed in §761.60(j). PCBs and PCBs in analytical reference samples derived from waste materials are authorized for use, in a

manner other than a totally enclosed manner, provided that:

(1) They obtain the PCBs and PCBs in analytical reference samples derived from waste materials from sources authorized under §761.80 to manufacture, process, and distribute PCBs in commerce and the PCBs are packaged in compliance with the Hazardous Materials Regulations at 49 CFR parts 171 through 180.

(2) They store all PCB wastes resulting from R&D activities (e.g., spent laboratory samples, residuals, contaminated media such as clothing, etc.) in compliance with §761.65(b) and dispose of all PCB wastes in compliance with §761.64.

(3) [Reserved]

(4) No person may manufacture, process, or distribute in commerce PCBs for research and development unless they have been granted an exemption to do so under TSCA section 6(e)(3)(B).

(k) *Use in scientific instruments.* PCBs may be used indefinitely in scientific instruments, for example, in oscillatory flow birefringence and viscoelasticity instruments for the study of the physical properties of polymers, as microscopy mounting fluids, as microscopy immersion oil, and as optical liquids in a manner other than a totally enclosed manner. No person may manufacture, process, or distribute in commerce PCBs for use in scientific instruments unless they have been granted an exemption to do so under TSCA section 6(e)(3)(B).

(l) *Use in capacitors.* PCBs at any concentration may be used in capacitors, subject to the following conditions:

(1) *Use conditions.* (i) After October 1, 1988, the use and storage for reuse of PCB Large High Voltage Capacitors and PCB Large Low Voltage Capacitors which pose an exposure risk to food or feed is prohibited.

(ii) After October 1, 1988, the use of PCB Large High Voltage Capacitors and PCB Large Low Voltage Capacitors is prohibited unless the capacitor is used within a restricted-access electrical substation or in a contained and restricted-access indoor installation. A restricted-access electrical substation is an outdoor, fenced or walled-in facility that restricts public access and is used in the transmission or distribution of electric power. A contained and restricted-access indoor installation does not have public access and has an adequate roof, walls, and floor to contain any release of PCBs within the indoor location.

(2) [Reserved]

(m) *Use in and servicing of circuit breakers, reclosers and cable.* PCBs at any concentration may be used in circuit breakers, reclosers, and cable and may be used for purposes of servicing this electrical equipment (including rebuilding) for the remainder of their useful lives, subject to the following conditions:

(1) *Servicing conditions.* (i) Circuit breakers, reclosers, and cable may be serviced (including rebuilding) only with dielectric fluid containing less than 50 ppm PCB.

(ii) Any circuit breaker, recloser or cable found to contain at least 50 ppm PCBs may be serviced only in accordance with the conditions contained in 40 CFR 761.30(h)(2).

(2) [Reserved]

(n)–(o) [Reserved]

(p) *Continued use of porous surfaces contaminated with PCBs regulated for disposal by spills of liquid PCBs.* (1) Any person may use porous surfaces contaminated by spills of liquid PCBs at concentrations $>10 \mu\text{g}/100 \text{ cm}^2$ for the remainder of the useful life of the surfaces and subsurface material if the following conditions are met:

(i) The source of PCB contamination is removed or contained to prevent further release to porous surfaces.

(ii) If the porous surface is accessible to superficial surface cleaning:

(A) The double wash rinse procedure in subpart S of this part is conducted on the surface to remove surface PCBs.

(B) The treated surface is allowed to dry for 24 hours.

(iii) After accessible surfaces have been cleaned according to paragraph (p)(1)(ii) of this section and for all surfaces inaccessible to cleanup:

(A) The surface is completely covered to prevent release of PCBs with:

(1) 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; or

(2) A solid barrier fastened to the surface and covering the contaminated area or all accessible parts of the contaminated area. Examples of inaccessible areas are underneath a floor-mounted electrical transformer and in an impassible space between an electrical transformer and a vault wall.

(B) The surface is marked with the M_LMark in a location easily visible to individuals present in the area; the M_LMark shall be placed over the encapsulated area or the barrier to the encapsulated area.

(C) M_LMarks shall be replaced when worn or illegible.

(2) Removal of a porous surface contaminated with PCBs from its location or current use is prohibited except for removal for disposal in accordance with §§761.61 or 761.79 for surfaces contaminated by spills, or §761.62 for manufactured porous surfaces.

(q) [Reserved]

(r) *Use in and servicing of rectifiers.* Any person may use PCBs at any concentration in rectifiers for the remainder of the PCBs' useful life, and may use PCBs <50 ppm in servicing (including rebuilding) rectifiers.

(s) *Use of PCBs in air compressor systems.* (1) Any person may use PCBs in air compressor systems at concentrations <50 ppm.

(2) Any person may use PCBs in air compressor systems (or components thereof) at concentrations ≥50 ppm provided that:

(i) All free-flowing liquids containing PCBs ≥50 ppm are removed from the air compressor crankcase and the crankcase is refilled with non-PCB liquid.

(ii) Other air compressor system components contaminated with PCBs ≥50 ppm, are decontaminated in accordance with §761.79 or disposed of in accordance with subpart D of this part.

(iii) Air compressor piping with a nominal inside diameter of <2 inches is decontaminated by continuous flushing for 4 hours, at no <300 gallons per hour (§761.79 contains solvent requirements).

(3) The requirements in paragraph (s)(2) of this section must be completed by August 30, 1999 or within 1 year of the date of discovery of PCBs at ≥50 ppm in the air compressor system, whichever is later. The EPA Regional Administrator for the EPA Region in which an air compressor system is located may, at his/her discretion and in writing, extend this timeframe.

(t) *Use of PCBs in other gas or liquid transmission systems.* (1) PCBs are authorized for use in intact and non-leaking gas or liquid transmission systems at concentrations <50 ppm PCBs.

(2) PCBs are authorized for use at concentrations ≥50 ppm in intact and non-leaking gas or liquid transmission systems not owned or operated by a seller or distributor of the gas or liquid transmitted in the system.

(3) Any person may use PCBs at concentrations ≥50 ppm in intact and non-leaking gas or liquid transmission systems, with the written approval of the Director, National Program Chemicals Division, subject to the requirements applicable to natural gas pipeline systems at paragraphs (i)(1)(iii)(A), (i)(1)(iii)(C) through (i)(1)(iii)(E), and (i)(2) through (i)(5) of this section.

(u) *Use of decontaminated materials.* (1) Any person may use equipment, structures, other non-liquid or liquid materials that were contaminated with PCBs during manufacture, use, servicing, or because of spills from, or proximity to, PCBs ≥50 ppm, including those not otherwise authorized for use under this part, provided:

(i) The materials were decontaminated in accordance with:

(A) A TSCA PCB disposal approval issued under subpart D of this part;

(B) Section 761.79; or

(C) Applicable EPA PCB spill cleanup policies (e.g., TSCA, RCRA, CERCLA, EPA regional) in effect at the time of the decontamination; or

(ii) If not previously decontaminated, the materials now meet an applicable decontamination standard in §761.79(b).

(2) No person shall use or reuse materials decontaminated in accordance with paragraph (u)(1)(i) of this section or meeting an applicable decontamination standard in paragraph (u)(1)(ii) of this section, in direct contact with food, feed, or drinking water unless otherwise allowed under this section or this part.

(3) Any person may use water containing PCBs at concentrations ≤0.5µg/L PCBs without restriction.

(4) Any person may use water containing PCBs at concentrations <200 µg/L (i.e., <200 ppb PCBs) for non-contact use in a closed system where there are no releases (e.g., as a non-contact cooling water).

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020, 2025 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982]

Editorial Note: For Federal Register citations affecting §761.30 see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 761.35 Storage for reuse.

(a) The owner or operator of a PCB Article may store it for reuse in an area which is not designed, constructed, and operated in compliance with §761.65(b), for no more than 5 years after the date the Article was originally removed from use (e.g., disconnected electrical equipment) or 5 years after August 28, 1998, whichever is later, if the owner or operator complies with the following conditions:

(1) Follows all use requirements at §761.30 and marking requirements at subpart C of this part that are applicable to the PCB Article.

(2) Maintains records starting at the time the PCB Article is removed from use or August 28, 1998. The records must indicate:

(i) The date the PCB Article was removed from use or August 28, 1998, if the removal date is not known.

(ii) The projected location and the future use of the PCB Article.

(iii) If applicable, the date the PCB Article is scheduled for repair or servicing.

(b) The owner or operator of a PCB Article may store it for reuse in an area that does not comply with §761.65(b) for a period longer than 5 years, provided that the owner or operator has received written approval from the EPA Regional Administrator for the Region in which the PCB Article is stored. An owner or operator of a PCB Article seeking approval to extend the 5-year period must submit a request for extension to the EPA Regional Administrator at least 6 months before the 5-year storage for reuse period expires and must include an item-by-item justification for the desired extension. The EPA Regional Administrator may include any conditions to such approval deemed necessary to protect health or the environment. The owner or operator of the PCB Article being stored for reuse must comply with the other applicable provisions of this part, including the record retention requirements at §761.180(a).

(c) Any person may store a PCB Article for reuse indefinitely in:

(1) A unit in compliance with §761.65(b).

(2) A unit permitted under section 3004 of RCRA to manage hazardous wastes in containers.

(3) A unit permitted by a State authorized under section 3006 of RCRA to manage hazardous waste.

[63 FR 35443, June 29, 1998]

Subpart C—Marking of PCBs and PCB Items**§ 761.40 Marking requirements.**

(a) Each of the following items in existence on or after July 1, 1978 shall be marked as illustrated in Figure 1 in §761.45(a): The mark illustrated in Figure 1 is referred to as M_L throughout this subpart.

(1) PCB Containers;

(2) PCB Transformers 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. [Marking of PCB-Contaminated Electrical Equipment is not required];

(3) 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;

(4) Equipment containing a PCB Transformer 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 of the equipment from use if not already marked;

(5) PCB Large Low Voltage Capacitors at the time of removal from use (see also paragraph (k) of this section).

(6) Electric motors using PCB coolants (See also paragraph (e) of this section).

(7) Hydraulic systems using PCB hydraulic fluid (See also paragraph (e) of this section);

(8) Heat transfer systems (other than PCB Transformers) using PCBs (See also paragraph (e) of this section);

(9) PCB Article Containers containing articles or equipment that must be marked under paragraphs (a) (1) through (8) of this section;

(10) Each storage area used to store PCBs and PCB Items for disposal.

(b) As of October 1, 1978, each transport vehicle loaded with PCB Containers that contain more than 45 kg (99.4 lbs.) of liquid PCBs at concentrations of ≥ 50 ppm or with one or more PCB Transformers shall be marked on each end and each side with the M_L mark as described in §761.45(a).

(c) As of January 1, 1979, the following PCB Articles shall be marked with mark M_L as described in §761.45(a):

(1) All PCB Transformers not marked under paragraph (a) of this section [marking of PCB-Contaminated Electrical Equipment is not required];

(2) All PCB Large High Voltage Capacitors not marked under paragraph (a) of this section

(i) Will be marked individually with mark M_L , or

(ii) If one or more PCB Large High Voltage Capacitors are installed in a protected location such as on a power pole, or structure, or behind a fence; the pole, structure, or fence shall be marked with mark M_L , and a record or procedure identifying the PCB Capacitors shall be maintained by the owner or operator at the protected location.

(d) As of January 1, 1979, all PCB Equipment containing a PCB Small Capacitor shall be marked at the time of manufacture with the statement, "This equipment contains PCB Capacitor(s)". The mark shall be of the same size as the mark M_L .

(e) As of October 1, 1979, applicable PCB Items in paragraphs (a)(1), (a)(6), (a)(7), and (a)(8) of this section containing PCBs in concentrations of 50 to 500 ppm shall be marked with the M_L mark as described in §761.45(a).

(f) Where mark M_L is specified but the PCB Article or PCB Equipment is too small to accommodate the smallest permissible size of mark M_L , mark M_S as described in §761.45(b), may be used instead of mark M_L .

(g) Each large low voltage capacitor, each small capacitor normally used in alternating current circuits, and each fluorescent light ballast manufactured ("manufactured", for purposes of this sentence, means built) between July 1, 1978 and July 1, 1998 that do not contain PCBs shall be marked by the manufacturer at the time of manufacture with the statement, "No PCBs". The mark shall be of similar durability and readability as other marking that indicate electrical information, part numbers, or the manufacturer's name. For purposes of this paragraph marking requirement only is applicable to items built domestically or abroad after June 30, 1978.

(h) All marks required by this subpart must be 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 persons inspecting or servicing the marked PCB Items, storage units, or transport vehicles.

(i) Any chemical substance or mixture that is manufactured after the effective date of this rule and that contains less than 500 ppm PCB (0.05% on a dry weight basis), including PCB that is a byproduct or impurity, must be marked in accordance with any requirements contained in the exemption granted by EPA to permit such manufacture and is not subject to any other requirement in this subpart unless so specified in the exemption. This paragraph applies only to containers of chemical substances or mixtures. PCB articles and equipment into which the chemical substances or mixtures are processed, are subject to the marking requirements contained elsewhere in this subpart.

(j) PCB Transformer locations shall be marked as follows:

(1) Except as provided in paragraph (j)(2) of this section, as of December 1, 1985, the vault door, machinery room door, fence, hallway, or means of access, other than grates and manhole covers, to a PCB Transformer must be marked with the mark M_L as required by paragraph (a) of this section.

(2) A mark other than the M_L mark may be used provided all of the following conditions are met:

(i) The program using such an alternative mark was initiated prior to August 15, 1985, and can be substantiated with documentation.

(ii) Prior to August 15, 1985, coordination between the transformer owner and the primary fire department occurred, and the primary fire department knows, accepts, and recognizes what the alternative mark means, and that this can be substantiated with documentation.

(iii) The EPA Regional Administrator in the appropriate region is informed in writing of the use of the alternative mark by October 3, 1988 and is provided with documentation that the program began before August 15, 1985, and documentation that demonstrates that prior to that date the primary fire department knew, accepted and recognized the meaning of the mark, and included this information in firefighting training.

(iv) The Regional Administrator will either approve or disapprove in writing the use of an alternative mark within 30 days of receipt of the documentation of a program.

(3) Any mark placed in accordance with the requirements of this section must be placed in the locations described in paragraph (j)(1) of this section and in a manner that can be easily read by emergency response personnel fighting a fire involving this equipment.

(k) As of April 26, 1999 the following PCB Items shall be marked with the M_L mark as described in §761.45(a):

(1) All PCB Large Low Voltage Capacitors not marked under paragraph (a) of this section shall be marked individually, or if one or more PCB Large Low Voltage Capacitors are installed in a protected location such as on a power pole, or structure, or behind a fence, then the owner or operator shall mark the pole, structure, or fence with the M_L mark, and maintain a record or procedure identifying the PCB Capacitors at the protected location. PCB Large Low Voltage Capacitors in inaccessible locations inside equipment need not be marked individually, provided the owner or operator marks the equipment in accordance with paragraph (k)(2) of this section, and marks the individual capacitors at the time of removal from use in accordance with paragraph (a) of this section.

(2) All equipment not marked under paragraph (a) of this section containing a PCB Transformer or a PCB Large High or Low Voltage Capacitor.

(l)(1) All voltage regulators which contain 1.36 kilograms (3 lbs.) or more of dielectric fluid with a PCB concentration of ≥ 500 ppm must be marked individually with the M_L mark as described in §761.45(a).

(2) Locations of voltage regulators which contain 1.36 kilograms (3 lbs.) or more of dielectric fluid with a PCB concentration of ≥ 500 ppm shall be marked as follows: The vault door, machinery room door, fence, hallway, or means of access, other than grates or manhole covers, must be marked with the M_L mark as described in §761.45(a).

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 47 FR 37359, Aug. 25, 1982; 50 FR 29201, July 17, 1985; 50 FR 32176, Aug. 9, 1985; 53 FR 12524, Apr. 15, 1988; 53 FR 27329, July 19, 1988; 63 FR 35443, June 29, 1998; 64 FR 33760, June 24, 1999]

§ 761.45 Marking formats.



The following formats shall be used for marking:

(a) *Large PCB Mark*— M_L . Mark M_L shall be as shown in Figure 1, letters and striping on a white or yellow background and shall be sufficiently durable to equal or exceed the life (including storage for disposal) of the PCB Article, PCB Equipment, or PCB Container. The size of the mark shall be at least 15.25 cm (6 inches) on each side. If the PCB Article or PCB Equipment is too small to accommodate this size, the mark may be reduced in size proportionately down to a minimum of 5 cm (2 inches) on each side.

(b) *Small PCB Mark*— M_s . Mark M_s shall be as shown in Figure 2, letters and striping on a white or yellow background, and shall be sufficiently durable to equal or exceed the life (including storage for disposal) of the PCB Article, PCB Equipment, or PCB Container. The mark shall be a rectangle 2.5 by 5 cm (1 inch by 2 inches). If the PCB Article or PCB Equipment is too small to accommodate this size, the mark may be reduced in size proportionately down to a minimum of 1 by 2 cm (.4 by .8 inches).



Figure 1

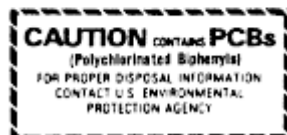


Figure 2

[View or download PDF](#)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982]

Subpart D—Storage and Disposal



§ 761.50 Applicability.



(a) *General PCB disposal requirements.* Any person storing or disposing of PCB waste must do so in accordance with subpart D of this part. The following prohibitions and conditions apply to all PCB waste storage and disposal:

(1) No person may open burn PCBs. Combustion of PCBs approved under §761.60 (a) or (e), or otherwise allowed under part 761, is not open burning.

(2) No person may process liquid PCBs into non-liquid forms to circumvent the high temperature incineration requirements of §761.60(a).

(3) No person may discharge water containing PCBs to a treatment works (as defined §503.9(aa) of this chapter) or to navigable waters unless the PCB concentration is <3 µg/L (approximately 3 ppb), or unless the discharge is in accordance with a PCB discharge limit included in a permit issued under section 307(b) or 402 of the Clean Water Act.

(4) Spills and other uncontrolled discharges of PCBs at concentrations of ≥50 ppm constitute the disposal of PCBs.

(5) Any person land disposing of non-liquid PCBs may avoid otherwise-applicable sampling requirements by presuming that the PCBs disposed of are ≥500 ppm (or ≥100 µg/100 cm² if no free-flowing liquids are present).

(6) Any person storing or disposing of PCBs is also responsible for determining and complying with all other applicable Federal, State, and local laws and regulations.

(b) *PCB waste* —(1) *PCB liquids.* Any person removing PCB liquids from use (i.e., not PCB remediation waste) must dispose of them in accordance with §761.60(a), or decontaminate them in accordance with §761.79.

(2) *PCB Items.* Any person removing from use a PCB Item containing an intact and non-leaking PCB Article must dispose of it in accordance with §761.60(b), or decontaminate it in accordance with §761.79. PCB Items where the PCB Articles are no longer intact and non-leaking are regulated for disposal as PCB bulk product waste under §761.62(a) or (c).

(i) Fluorescent light ballasts containing PCBs only in an intact and non-leaking PCB Small Capacitor are regulated for disposal under §761.60(b)(2)(ii).

(ii) Fluorescent light ballasts containing PCBs in the potting material are regulated for disposal as PCB bulk product waste under §761.62.

(3) *PCB remediation waste.* PCB remediation waste, including PCB sewage sludge, is regulated for cleanup and disposal in accordance with §761.61.

(i) Any person responsible for PCB waste at as-found concentrations ≥50 ppm that was either placed in a land disposal facility, spilled, or otherwise released into the environment prior to April 18, 1978, regardless of the concentration of the spill or release; or placed in a land disposal facility, spilled, or otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979, where the concentration of the spill or release was ≥50 ppm but < 500 ppm, must dispose of the waste as follows:

(A) Sites containing these wastes are presumed not to present an unreasonable risk of injury to health or the environment from exposure to PCBs at the site. However, the EPA Regional Administrator may inform the owner or operator of the site that there is reason to believe that spills, leaks, or other uncontrolled releases or discharges, such as leaching, from the site constitute ongoing disposal that may present an unreasonable risk of injury to health or the environment from exposure to PCBs at the site, and may require the owner or operator to generate data necessary to characterize the risk. If after reviewing any such data, the EPA Regional Administrator makes a finding, that an unreasonable risk exists, then he or she may direct the owner or operator of the site to dispose of the PCB remediation waste in accordance with §761.61 such that an unreasonable risk of injury no longer exists.

(B) Unless directed by the EPA Regional Administrator to dispose of PCB waste in accordance with paragraph (b)(3)(i)(A) of this section, any person responsible for PCB waste at as-found concentrations ≥50 ppm that was either placed in a land disposal facility, spilled, or otherwise released into the environment prior to April 18, 1978, regardless of the concentration of the spill or release; or placed in a land disposal facility, spilled, or otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979, where the concentration of the spill or release was ≥50 ppm but < 500 ppm, who unilaterally decides to dispose of that waste (for example, to obtain insurance or to sell the property), is not required to clean up in accordance with §761.61.

Disposal of the PCB remediation waste must comply with §761.61. However, cleanup of those wastes that is not in complete compliance with §761.61 will not afford the responsible party with relief from the applicable PCB regulations for that waste.

(ii) Any person responsible for PCB waste at as-found concentrations ≥ 50 ppm that was either placed in a land disposal facility, spilled, or otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979, where the concentration of the spill or release was ≥ 500 ppm; or placed in a land disposal facility, spilled, or otherwise released into the environment on or after July 2, 1979, where the concentration of the spill or release was ≥ 50 ppm, must dispose of it in accordance with either of the following:

(A) In accordance with the PCB Spill Cleanup Policy (Policy) at subpart G of this part, for those PCB remediation wastes that meet the criteria of the Policy. Consult the Policy for a description of the spills it covers and its notification and timing requirements.

(B) In accordance with §761.61. Complete compliance with §761.61 does not create a presumption against enforcement action for penalties for any unauthorized PCB disposal.

(iii) The owner or operator of a site containing PCB remediation waste has the burden of proving the date that the waste was placed in a land disposal facility, spilled, or otherwise released into the environment, and the concentration of the original spill.

(4) *PCB bulk product waste* —(i) *General*. Any person disposing of PCB bulk product waste must do so in accordance with §761.62. PCB bulk product waste, as that term is defined in §761.3, is waste that was ≥ 50 ppm when originally removed from service, even if its current PCB concentration is < 50 ppm. PCB bulk product waste is regulated for disposal based on the risk from the waste once disposed of. For waste which is land disposed, the waste is regulated based on how readily the waste is released from disposal to the environment, in particular by leaching out from the land disposal unit.

(ii) *Metal surfaces in contact with PCBs*. Any person disposing of metal surfaces in contact with PCBs (e.g., painted metal) may use thermal decontamination procedures in accordance with §761.79(c)(6) (see §761.62(a)(6)).

(5) *PCB household waste*. Any person storing or disposing of PCB household waste, as that term is defined in §761.3, must do so in accordance with §761.63.

(6) *PCB research and development waste*. Any person disposing of PCB wastes generated during and as a result of research and development for use under §761.30(j), or for disposal under §761.60(j), must do so in accordance with §761.64.

(7) *PCB/Radioactive waste*. (i) Any person storing PCB/radioactive waste ≥ 50 ppm PCBs must do so taking into account both its PCB concentration and its radioactive properties, except as provided in §761.65(a)(1), (b)(1)(ii), and (c)(6)(i).

(ii) Any person disposing of PCB/radioactive waste must do so taking into account both its PCB concentration and its radioactive properties. If, taking into account only the properties of the PCBs in the waste (and not the radioactive properties of the waste), the waste meets the requirements for disposal in a facility permitted, licensed, or registered by a State as a municipal or non-municipal non-hazardous waste landfill (e.g., PCB bulk product waste under §761.62(b)(1)), then the person may dispose of the PCB/radioactive waste, without regard to the PCB component of the waste, on the basis of its radioactive properties in accordance with all applicable requirements for the radioactive component of the waste.

(8) *Porous surfaces*. In most cases a person must dispose of porous surfaces as materials where PCBs have penetrated far beneath the surface, rather than a simple surface contamination. Any person disposing of porous surfaces on which PCBs have been spilled and meeting the definition of PCB remediation waste at §761.3 must do so in accordance with §761.61. Any person disposing of porous surfaces which are part of manufactured non-liquid products containing PCBs and meeting the definition of PCB bulk product waste at §761.3 must do so in accordance with §761.62. Any person may decontaminate concrete surfaces upon which PCBs have been spilled in accordance with §761.79(b)(4), if the decontamination procedure is commenced within 72 hours of the initial spill of PCBs to the concrete or portion thereof being decontaminated. Any person may decontaminate porous non-liquid PCBs in contact with non-porous surfaces, such as underground metal fuel tanks coated with fire retardant resin or pitch, for purposes of unrestricted use or disposal in a smelter in accordance with §761.79(b)(3).

(c) *Storage for disposal*. Any person who holds PCB waste must store it in accordance with §761.65.

(d) *Performance specifications for disposal technologies* —(1) *Incinerators*. Any person using an incinerator to dispose of PCBs must use an incinerator that meets the criteria set forth in §761.70.

(2) *High efficiency boilers*. Any person using a high efficiency boiler to dispose of PCBs must use a boiler that meets the criteria set forth in §761.71.

(3) *Scrap metal recovery ovens and smelters*. Any person using scrap metal recovery ovens and smelters to dispose of PCBs must use a device that meets the criteria set forth in §761.72.

(4) *Chemical waste landfills*. Any person using a chemical waste landfill to dispose of PCBs must use a chemical waste landfill that meets the criteria set forth in §761.75.

(e) *TSCA PCB Coordinated Approval*. Any person seeking a TSCA PCB Coordinated Approval must follow the procedures set forth in §761.77.

[63 FR 35444, June 29, 1998, as amended at 64 FR 33760, June 24, 1999]

§ 761.60 Disposal requirements.



[top](#)

(a) *PCB liquids.* PCB liquids at concentrations ≥ 50 ppm must be disposed of in an incinerator which complies with §761.70, except that PCB liquids at concentrations ≥ 50 ppm and < 500 ppm may be disposed of as follows:

- (1) For mineral oil dielectric fluid, in a high efficiency boiler according to §761.71(a).
- (2) For liquids other than mineral oil dielectric fluid, in a high efficiency boiler according to §761.71(b).
- (3) For liquids from incidental sources, such as precipitation, condensation, leachate or load separation and are associated with PCB Articles or non-liquid PCB wastes, in a chemical waste landfill which complies with §761.75 if:

(i) [Reserved]

(ii) Information is provided to or obtained by the owner or operator of the chemical waste landfill that shows that the liquids do not exceed 500 ppm PCB and are not an ignitable waste as described in §761.75(b)(8)(ii).

(b) *PCB Articles.* This paragraph does not authorize disposal that is otherwise prohibited in §761.20 or elsewhere in this part.

(1) *Transformers.* (i) PCB Transformers shall be disposed of in accordance with either of the following:

(A) In an incinerator that complies with §761.70; or

(B) In a chemical waste landfill approved under §761.75; provided that all free-flowing liquid is removed from the transformer, the transformer is filled with a solvent, the transformer is allowed to stand for at least 18 continuous hours, and then the solvent is thoroughly removed. Any person disposing of PCB liquids that are removed from the transformer (including the dielectric fluid and all solvents used as a flush), shall do so in an incinerator that complies with §761.70 of this part, or shall decontaminate them in accordance with §761.79. Solvents may include kerosene, xylene, toluene, and other solvents in which PCBs are readily soluble. Any person disposing of these PCB liquids must ensure that the solvent flushing procedure is conducted in accordance with applicable safety and health standards as required by Federal or State regulations.

(ii) [Reserved]

(2) *PCB Capacitors.* (i) The disposal of any capacitor shall comply with all requirements of this subpart unless it is known from label or nameplate information, manufacturer's literature (including documented communications with the manufacturer), or chemical analysis that the capacitor does not contain PCBs.

(ii) Any person may dispose of PCB Small Capacitors as municipal solid waste, unless that person is subject to the requirements of paragraph (b)(2)(iv) of this section.

(iii) Any PCB Large High or Low Voltage Capacitor which contains 500 ppm or greater PCBs, owned by any person, shall be disposed of in accordance with either of the following:

(A) Disposal in an incinerator that complies with §761.70; or

(B) Until March 1, 1981, disposal in a chemical waste landfill that complies with §761.75.

(iv) Any person who manufactures or at any time manufactured PCB Capacitors or PCB Equipment, and acquired the PCB Capacitor in the course of such manufacturing, shall place the PCB Small Capacitors in a container meeting the DOT packaging requirements at 49 CFR parts 171 through 180 and dispose of them in accordance with either of the following:

(A) Disposal in an incinerator which complies with §761.70; or

(B) Until March 1, 1981, disposal in a chemical waste landfill which complies with §761.75.

(v) Notwithstanding the restrictions imposed by paragraph (b)(2)(iii)(B) or (b)(2)(iv)(B) of this section, PCB capacitors may be disposed of in PCB chemical waste landfills that comply with §761.75 subsequent to March 1, 1981, if EPA publishes a notice in the Federal Register declaring that those landfills are available for such disposal and explaining the reasons for the extension or reopening. An extension or reopening for disposal of PCB capacitors that is granted under this subsection shall be subject to such terms and conditions as the Assistant Administrator may prescribe and shall be in effect for such period as the Assistant Administrator may prescribe. EPA may permit disposal of PCB capacitors in EPA-approved chemical waste landfills after March 1, 1981, if in its opinion,

(A) Adequate incineration capability for PCB capacitors is not available, or

(B) The incineration of PCB capacitors will significantly interfere with the incineration of liquid PCBs, or

(C) There is other good cause shown.

As part of this evaluation, the Assistant Administrator will consider the impact of his action on the incentives to construct or expand PCB incinerators.

(vi) Any person disposing of large PCB capacitors or small PCB capacitors described in paragraph (b)(2)(iv) of this section in a chemical waste landfill approved under §761.75, shall first place them in a container meeting the DOT packaging requirements at 49 CFR parts 171 through 180. In all cases, the person must fill the interstitial space in the container with sufficient absorbent material (such as soil) to absorb any liquid PCBs remaining in the capacitors.

(3) *PCB hydraulic machines.* (i) Any person disposing of PCB hydraulic machines containing PCBs at concentrations of ≥ 50 ppm, such as die casting machines, shall do so by one of the following methods:

(A) In accordance with §761.79.

(B) In a facility which is permitted, licensed, or registered by a State to manage municipal solid waste subject to part 258 of this chapter or non-municipal non-hazardous waste subject to §§257.5 through 257.30 of this chapter, as applicable (excluding thermal treatment units).

(C) In a scrap metal recovery oven or smelter operating in compliance with §761.72.

(D) In a disposal facility approved under this part.

(ii) All free-flowing liquid must be removed from each machine and the liquid must be disposed of in accordance with the provisions of paragraph (a) of this section. If the PCB liquid contains $\geq 1,000$ ppm PCB, then the hydraulic machine must be decontaminated in accordance with §761.79 or flushed prior to disposal with a solvent listed at paragraph (b)(1)(i)(B) of this section which contains < 50 ppm PCB. The solvent must be disposed of in accordance with paragraph (a) of this section or §761.79.

(4) *PCB-Contaminated Electrical Equipment.* Any person disposing of PCB-Contaminated Electrical Equipment, except capacitors, shall do so in accordance with paragraph (b)(6)(ii)(A) of this section. Any person disposing of Large Capacitors that contain ≥ 50 ppm but < 500 ppm PCBs shall do so in a disposal facility approved under this part.

(5) *Natural gas pipeline systems containing PCBs.* The owner or operator of natural gas pipeline systems containing ≥ 50 ppm PCBs, when no longer in use, shall dispose of the system either by abandonment in place of the pipe under paragraph (b)(5)(i) of this section or removal with subsequent action under paragraph (b)(5)(ii) of this section. Any person determining the PCB concentrations in natural gas pipeline systems shall do so in accordance with paragraph (b)(5)(iii) of this section.

(i) *Abandonment.* Natural gas pipe containing ≥ 50 ppm PCBs may be abandoned in place under one or more of the following provisions:

(A) Natural gas pipe having a nominal inside diameter of ≤ 4 inches, and containing PCBs at any concentration but no free-flowing liquids, may be abandoned in the place it was used to transport natural gas if each end is sealed closed and the pipe is either:

(1) Included in a public service notification program, such as a "one-call" system under 49 CFR 192.614(a) and (b).

(2) Filled to 50 percent or more of the volume of the pipe with grout (such as a hardening slurry consisting of cement, bentonite, or clay) or high density polyurethane foam.

(B) PCB-Contaminated natural gas pipe of any diameter, where the PCB concentration was determined after the last transmission of gas through the pipe or at the time of abandonment, that contains no free-flowing liquids may be abandoned in the place it was used to transport natural gas if each end is sealed closed.

(C) Natural gas pipe of any diameter which contains PCBs at any concentration but no free-flowing liquids, may be abandoned in the place it was used to transport natural gas, if each end is sealed closed, and either:

(1) The interior surface is decontaminated with one or more washes of a solvent in accordance with the use and disposal requirements of §761.79(d). This decontamination process must result in a recovery of 95 percent of the solvent volume introduced into the system, and the PCB concentration of the recovered wash must be < 50 ppm (see §761.79(a)(1) for requirements on use and disposal of decontaminating fluids).

(2) The pipe is filled to 50 percent or more of the volume of the pipe with grout (such as a hardening slurry-like cement, bentonite, or clay) or high density polyurethane foam (except that only cement shall be used as grout under rivers or streams) and each end is sealed closed.

(D) Natural gas pipe of any diameter which contains PCBs at any concentration may be abandoned in place after decontamination in accordance with §761.79(c)(3), (c)(4) or (h) or a PCB disposal approval issued under §761.60(e) or §761.61(c).

(ii) *Removal with subsequent action.* Natural gas pipeline systems may be disposed of under one of the following provisions:

(A) The following classifications of natural gas pipe containing no free-flowing liquids may be disposed of in a facility permitted,

licensed, or registered by a State to manage municipal solid waste subject to part 258 of this chapter or non-municipal non-hazardous waste subject to §§257.5 through 257.30 of this chapter, as applicable (excluding thermal treatment units); a scrap metal recovery oven or smelter operating in compliance with the requirements of §761.72; or a disposal facility approved under this part:

(1) PCB-Contaminated natural gas pipe of any diameter where the PCB concentration was determined after the last transmission of gas through the pipe or during removal from the location it was used to transport natural gas.

(2) Natural gas pipe containing PCBs at any concentration and having a nominal inside diameter ≤ 4 inches.

(B) Any component of a natural gas pipeline system may be disposed of under one of the following provisions:

(1) In an incinerator operating in compliance with §761.70.

(2) In a chemical waste landfill operating in compliance with §761.75, provided that all free-flowing liquid PCBs have been thoroughly drained.

(3) As a PCB remediation waste in compliance with §761.61.

(4) In accordance with §761.79.

(iii) *Characterization of natural gas pipeline systems by PCB concentration in condensate.* (A) Any person disposing of a natural gas pipeline system under paragraphs (b)(5)(i)(B) or (b)(5)(ii)(A)(1) of this section must characterize it for PCB contamination by analyzing organic liquids collected at existing condensate collection points in the natural gas pipeline system. The level of PCB contamination found at a collection point is assumed to extend to the next collection point downstream. If no organic liquids are present, drain free-flowing liquids and collect standard wipe samples according to subpart M of this part. Collect condensate within 72 hours of the final transmission of natural gas through the part of the system to be abandoned or removed. Collect wipe samples after the last transmission of gas through the pipe or during removal from the location it was used to transport natural gas.

(B) PCB concentration of the organic phase of multi-phasic liquids shall be determined in accordance with §761.1(b)(4).

(iv) *Disposal of pipeline liquids.* (A) Any person disposing of liquids containing PCBs ≥ 50 ppm removed, spilled, or otherwise released from a natural gas pipeline system must do so in accordance with §761.61(a)(5)(iv) based on the PCB concentration at the time of removal from the system. Any person disposing of material contaminated by spills or other releases of PCBs ≥ 50 ppm from a natural gas pipeline system, must do so in accordance with §761.61 or §761.79, as applicable.

(B) Any person who markets or burns for energy recovery liquid containing PCBs at concentrations < 50 ppm PCBs at the time of removal from a natural gas pipeline system must do so in accordance with the provisions pertaining to used oil at §761.20(e). No other use of liquid containing PCBs at concentrations above the quantifiable level/level of detection removed from a natural gas pipeline system is authorized.

(6) *Other PCB Articles.* (i) PCB articles with concentrations at 500 ppm or greater must be disposed of:

(A) In an incinerator that complies with §761.70; or

(B) In a chemical waste landfill that complies with §761.75, provided that all free-flowing liquid PCBs have been thoroughly drained from any articles before the articles are placed in the chemical waste landfill and that the drained liquids are disposed of in an incinerator that complies with §761.70.

(ii)(A) Except as specifically provided in paragraphs (b)(1) through (b)(5) of this section, any person disposing of a PCB-Contaminated Article must do so by removing all free-flowing liquid from the article, disposing of the liquid in accordance with paragraph (a) of this section, and disposing of the PCB-Contaminated Article with no free-flowing liquid by one of the following methods:

(1) In accordance with §761.79.

(2) In a facility permitted, licensed, or registered by a State to manage municipal solid waste subject to part 258 of this chapter or non-municipal non-hazardous waste subject to §§257.5 through 257.30 of this chapter, as applicable (excluding thermal treatment units).

(3) In a scrap metal recovery oven or smelter operating in compliance with §761.72.

(4) In a disposal facility approved under this part.

(B) Storage for disposal of PCB-Contaminated Articles from which all free-flowing liquids have been removed is not regulated under subpart D of this part.

(C) Requirements in subparts J and K of this part do not apply to PCB-Contaminated Articles from which all free-flowing liquids have been removed.

(iii) Fluorescent light ballasts containing PCBs in their potting material must be disposed of in a TSCA-approved disposal facility, as

bulk product waste under §761.62, as household waste under §761.63 (where applicable), or in accordance with the decontamination provisions of §761.79.

(7) *Storage of PCB Articles.* Except for a PCB Article described in paragraph (b)(2)(ii) of this section and hydraulic machines that comply with the municipal solid waste disposal provisions described in paragraph (b)(3) of this section, any PCB Article, with PCB concentrations at 50 ppm or greater, shall be stored in accordance with §761.65 prior to disposal.

(8) Persons disposing of PCB Articles must wear or use protective clothing or equipment to protect against dermal contact with or inhalation of PCBs or materials containing PCBs.

(c) *PCB Containers.* (1) Unless decontaminated in compliance with §761.79 or as provided in paragraph (c)(2) of this section, a PCB container with PCB concentrations at 500 ppm or greater shall be disposed of:

(i) In an incinerator which complies with §761.70, or

(ii) In a chemical waste landfill that complies with §761.75; provided that if there are PCBs in a liquid state, the PCB Container shall first be drained and the PCB liquid disposed of in accordance with paragraph (a) of this section.

(2) Any PCB Container used to contain only PCBs at a concentration less than 500 ppm shall be disposed of as municipal solid wastes; provided that if the PCBs are in a liquid state, the PCB Container shall first be drained and the PCB liquid shall be disposed of in accordance with paragraph (a) of this section.

(3) Prior to disposal, a PCB container with PCB concentrations at 50 ppm or greater shall be stored in a unit which complies with §761.65.

(d) [Reserved]

(e) Any person who is required to incinerate any PCBs and PCB Items under this subpart and who can demonstrate that an alternative method of destroying PCBs and PCB Items exists and that this alternative method can achieve a level of performance equivalent to an incinerator approved under §761.70 or a high efficiency boiler operating in compliance with §761.71, must submit a written request to either the Regional Administrator or the Director, Office of Solid Waste, for a waiver from the incineration requirements of §761.70 or §761.71. Requests for approval of alternate methods that will be operated in more than one Region must be submitted to the Director, Office of Solid Waste, except for research and development activities involving less than 500 pounds of PCB material (see paragraph (i)(2) of this section). Requests for approval of alternate methods that will be operated in only one Region must be submitted to the appropriate EPA Regional Administrator. The applicant must show that his or her method of destroying PCBs will not present an unreasonable risk of injury to health or the environment. On the basis of such information and any available information, EPA may, in its discretion, approve the use of the alternate method if it finds that the alternate disposal method provides PCB destruction equivalent to disposal in a §761.70 incinerator or a §761.71 high efficiency boiler and will not present an unreasonable risk of injury to health or the environment. Any approval must be stated in writing and may include such conditions and provisions as EPA deems appropriate. The person to whom such waiver is issued must comply with all limitations contained in such determination. No person may use the alternate method of destroying PCBs or PCB Items prior to obtaining permission from the appropriate EPA official.

(f)(1) Each operator of a chemical waste landfill, incinerator, or alternative to incineration approved under paragraph (e) of this section shall give the following written notices to the state and local governments within whose jurisdiction the disposal facility is located:

(i) Notice at least thirty (30) days before a facility is first used for disposal of PCBs required by these regulations; and

(ii) At the request of any state or local government, annual notice of the quantities and general description of PCBs disposed of during the year. This annual notice shall be given no more than thirty (30) days after the end of the year covered.

(iii) The Regional Administrator may reduce the notice period required by paragraph (f)(1)(i) of this section from thirty days to a period of no less than five days in order to expedite interim approval of the chemical waste landfill located in Sedgwick County, Kansas.

(2) [Reserved]

(g) *Testing procedures.* (1) Owners or users of mineral oil dielectric fluid electrical equipment may use the following procedures to determine the concentration of PCBs in the dielectric fluid:

(i) Dielectric fluid removed from mineral oil dielectric fluid electrical equipment may be collected in a common container, provided that no other chemical substances or mixtures are added to the container. This common container option does not permit dilution of the collected oil. Mineral oil that is assumed or known to contain at least 50 ppm PCBs must not be mixed with mineral oil that is known or assumed to contain less than 50 ppm PCBs to reduce the concentration of PCBs in the common container. If dielectric fluid from untested, oil-filled circuit breakers, reclosers, or cable is collected in a common container with dielectric fluid from other oil-filled electrical equipment, the entire contents of the container must be treated as PCBs at a concentration of at least 50 ppm, unless all of the fluid from the other oil-filled electrical equipment has been tested and shown to contain less than 50 ppm PCBs.

(ii) For purposes of complying with the marking and disposal requirements, representative samples may be taken from either the

common containers or the individual electrical equipment to determine the PCB concentration, except that if any PCBs at a concentration of 500 ppm or greater have been added to the container or equipment then the total container contents must be considered as having a PCB concentration of 500 ppm or greater for purposes of complying with the disposal requirements of this subpart. For purposes of this subparagraph, representative samples of mineral oil dielectric fluid are either samples taken in accordance with ASTM D 923–86 or ASTM D 923–89 or samples taken from a container that has been thoroughly mixed in a manner such that any PCBs in the container are uniformly distributed throughout the liquid in the container.

(iii) Unless otherwise specified in this part, any person conducting the chemical analysis of PCBs shall do so using gas chromatography. Any gas chromatographic method that is appropriate for the material being analyzed may be used, including EPA Method 608, "Organochlorine Pesticides and PCBs" at 40 CFR part 136, Appendix A;" EPA Method 8082, "Polychlorinated Biphenyls (PCBs) by Capillary Column Gas Chromatography" of SW-846, "OSW Test Methods for Evaluating Solid Waste," which is available from NTIS; and ASTM Standard D-4059, "Standard Test Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography," which is available from ASTM.

(2) Owners or users of waste oil may use the following procedures to determine the PCB concentration of waste oil:

(i) Waste oil from more than one source may be collected in a common container, provided that no other chemical substances or mixtures, such as non-waste oils, are added to the container.

(ii) For purposes of complying with the marking and disposal requirements, representative samples may be taken from either the common containers or the individual electrical equipment to determine the PCB concentration. *Except*, That if any PCBs at a concentration of 500 ppm or greater have been added to the container or equipment then the total container contents must be considered as having a PCB concentration of 500 ppm or greater for purposes of complying with the disposal requirements of this subpart. For purposes of this paragraph, representative samples of mineral oil dielectric fluid are either samples taken in accordance with ASTM D 923–86 or ASTM D 923–89 or samples taken from a container that has been thoroughly mixed in a manner such that any PCBs in the container are uniformly distributed throughout the liquid in the container.

(iii) Unless otherwise specified in this part, any person conducting the chemical analysis of PCBs shall do so using gas chromatography. Any gas chromatographic method that is appropriate for the material being analyzed may be used, including those indicated in paragraph (g)(1)(iii) of this section.

(h) Requirements for export and import of PCBs and PCB Items for disposal are found in Subpart F of this part.

(i) *Approval authority for disposal methods.* (1) The officials designated in §§761.60(e) and 761.70 (a) and (b) to receive requests for approval of PCB disposal activities are the primary approval authorities for these activities. Notwithstanding, EPA may, at its discretion, assign the authority to review and approve any aspect of a disposal system to the Office of Solid Waste and Emergency Response or to a Regional Administrator.

(2) Except for activity authorized under paragraph (j) of this section, research and development (R&D) for PCB disposal using a total of <500 pounds of PCB material (regardless of PCB concentration) will be reviewed and approved by the EPA Regional Administrator for the Region where the R&D will be conducted, and R&D for PCB disposal using 500 pounds or more of PCB material (regardless of PCB concentration) will be reviewed and approved by the EPA.

(j) *Self-implementing requirements for research and development (R&D) for PCB disposal.* (1) Any person may conduct R&D for PCB disposal without prior written approval from EPA if they meet the following conditions:

(i) File a notification and obtain an EPA identification number pursuant to subpart K of this part.

(ii) Notify in writing the EPA Regional Administrator, the State environmental protection agency, and local environmental protection agency, having jurisdiction where the R&D for PCB disposal activity will occur at least 30 days prior to the commencement of any R&D for PCB disposal activity conducted under this section. Each written notification shall include the EPA identification number of the site where the R&D for PCB disposal activities will be conducted, the quantity of PCBs to be treated, the type of R&D technology to be used, the general physical and chemical properties of material being treated, and an estimate of the duration of the PCB activity. The EPA Regional Administrator, the State environmental protection agency, and the local environmental protection agency may waive notification in writing prior to commencement of the research.

(iii) The amount of material containing PCBs treated annually by the facility during R&D for PCB disposal activities does not exceed 500 gallons or 70 cubic feet of liquid or non-liquid PCBs and does not exceed a maximum concentration of 10,000 ppm PCBs.

(iv) No more than 1 kilogram total of pure PCBs per year is disposed of in all R&D for PCB disposal activities at a facility.

(v) Each R&D for PCB disposal activity under this section lasts no more than 1 calendar year.

(vi) Store all PCB wastes (treated and untreated PCB materials, testing samples, spent laboratory samples, residuals, untreated samples, contaminated media or instrumentation, clothing, etc.) in compliance with §761.65(b) and dispose of them according to the undiluted PCB concentration prior to treatment. However, PCB materials not treated in the R&D for PCB disposal activity may be returned either to the physical location where the samples were collected or a location where other regulated PCBs from the physical location where the samples were collected are being stored for disposal.

(vii) Use manifests pursuant to subpart K of this part for all R&D PCB wastes being transported from the R&D facility to an

approved PCB storage or disposal facility. However, §§761.207 through 761.218 do not apply if the residuals or treated samples are returned either to the physical location where the samples were collected or a location where other regulated PCBs from the physical location where the samples were collected are being stored for disposal.

(viii) Package and ship all PCB wastes pursuant to DOT requirements under 49 CFR parts 171 through 180.

(ix) Comply with the recordkeeping requirements of §761.180.

(2) Do not exceed material limitations set out in paragraphs (j)(1) (iii) and (iv) of this section and the time limitation set out in paragraph (j)(1)(v) of this section without prior written approval from EPA. Requests for approval to exceed the material limitations for PCBs in R&D for PCB disposal activities as specified in this section must be submitted in writing to the EPA Regional Administrator for the Region in which the facility conducting R&D for PCB disposal activities is located. Each request shall specify the quantity or concentration requested or additional time needed for disposal and include a justification for each increase. For extensions to the duration of the R&D for PCB disposal activity, the request shall also include a report on the accomplishments and progress of the previously authorized R&D for PCB disposal activity for which the extension is sought. The EPA Regional Administrator may grant a waiver in writing for an increase in the volume of PCB material, the maximum concentration of PCBs, the total amount of pure PCBs, or the duration of the R&D activity. Approvals will state all requirements applicable to the R&D for PCB disposal activity.

(3) The EPA Regional Administrator for the Region in which an R&D for PCB disposal activity is conducted may determine, at any time, that an R&D PCB disposal approval is required under paragraphs (e) and (i)(2) of this section or §761.70(d) to ensure that any R&D for PCB disposal activity does not present an unreasonable risk of injury to health or the environment.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979]

Editorial Note: For Federal Register citations affecting §761.60, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 761.61 PCB remediation waste.



[top](#)

This section provides cleanup and disposal options for PCB remediation waste. Any person cleaning up and disposing of PCBs managed under this section shall do so based on the concentration at which the PCBs are found. This section does not prohibit any person from implementing temporary emergency measures to prevent, treat, or contain further releases or mitigate migration to the environment of PCBs or PCB remediation waste.

(a) *Self-implementing on-site cleanup and disposal of PCB remediation waste.* EPA designed the self-implementing procedure for a general, moderately-sized site where there should be low residual environmental impact from remedial activities. The procedure may be less practical for larger or environmentally diverse sites. For these other sites, the self-implementing procedure still applies, but an EPA Regional Administrator may authorize more practical procedures through paragraph (c) of this section. Any person may conduct self-implementing cleanup and disposal of PCB remediation waste in accordance with the following requirements without prior written approval from EPA.

(1) *Applicability.* (i) The self-implementing procedures may not be used to clean up:

(A) Surface or ground waters.

(B) Sediments in marine and freshwater ecosystems.

(C) Sewers or sewage treatment systems.

(D) Any private or public drinking water sources or distribution systems.

(E) Grazing lands.

(F) Vegetable gardens.

(ii) The self-implementing cleanup provisions shall not be binding upon cleanups conducted under other authorities, including but not limited to, actions conducted under section 104 or section 106 of CERCLA, or section 3004(u) and (v) or section 3008(h) of RCRA.

(2) *Site characterization.* Any person conducting self-implementing cleanup of PCB remediation waste must characterize the site adequately to be able to provide the information required by paragraph (a)(3) of this section. Subpart N of this part provides a method for collecting new site characterization data or for assessing the sufficiency of existing site characterization data.

(3) *Notification and certification.* (i) At least 30 days prior to the date that the cleanup of a site begins, the person in charge of the

cleanup or the owner of the property where the PCB remediation waste is located shall notify, in writing, the EPA Regional Administrator, the Director of the State or Tribal environmental protection agency, and the Director of the county or local environmental protection agency where the cleanup will be conducted. The notice shall include:

(A) The nature of the contamination, including kinds of materials contaminated.

(B) A summary of the procedures used to sample contaminated and adjacent areas and a table or cleanup site map showing PCB concentrations measured in all pre-cleanup characterization samples. The summary must include sample collection and analysis dates. The EPA Regional Administrator may require more detailed information including, but not limited to, additional characterization sampling or all sample identification numbers from all previous characterization activities at the cleanup site.

(C) The location and extent of the identified contaminated area, including topographic maps with sample collection sites cross referenced to the sample identification numbers in the data summary from paragraph (a)(3)(i)(B) of this section.

(D) A cleanup plan for the site, including schedule, disposal technology, and approach. This plan should contain options and contingencies to be used if unanticipated higher concentrations or wider distributions of PCB remediation waste are found or other obstacles force changes in the cleanup approach.

(E) A written certification, signed by the owner of the property where the cleanup site is located and the party conducting the cleanup, that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the location designated in the certificate, and are available for EPA inspection. Persons using alternate methods for chemical extraction and chemical analysis for site characterization must include in the certificate a statement that such a method will be used and that a comparison study which meets or exceeds the requirements of subpart Q of this part, and for which records are on file, has been completed prior to verification sampling.

(ii) Within 30 calendar days of receiving the notification, the EPA Regional Administrator will respond in writing approving of the self-implementing cleanup, disapproving of the self-implementing cleanup, or requiring additional information. If the EPA Regional Administrator does not respond within 30 calendar days of receiving the notice, the person submitting the notification may assume that it is complete and acceptable and proceed with the cleanup according to the information the person provided to the EPA Regional Administrator. Once cleanup is underway, the person conducting the cleanup must provide any proposed changes from the notification to the EPA Regional Administrator in writing no less than 14 calendar days prior to the proposed implementation of the change. The EPA Regional Administrator will determine in his or her discretion whether to accept the change, and will respond to the change notification verbally within 7 calendar days and in writing within 14 calendar days of receiving it. If the EPA Regional Administrator does not respond verbally within 7 calendar days and in writing within 14 calendar days of receiving the change notice, the person who submitted it may deem it complete and acceptable and proceed with the cleanup according to the information in the change notice provided to the EPA Regional Administrator.

(iii) Any person conducting a cleanup activity may obtain a waiver of the 30-day notification requirement, if they receive a separate waiver, in writing, from each of the agencies they are required to notify under this section. The person must retain the original written waiver as required in paragraph (a)(9) of this section.

(4) *Cleanup levels.* For purposes of cleaning, decontaminating, or removing PCB remediation waste under this section, there are four general waste categories: bulk PCB remediation waste, non-porous surfaces, porous surfaces, and liquids. Cleanup levels are based on the kind of material and the potential exposure to PCBs left after cleanup is completed.

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

(A) *High occupancy areas.* The cleanup level for bulk PCB remediation waste in high occupancy areas is ≤ 1 ppm without further conditions. High occupancy areas where bulk PCB remediation waste remains at concentrations >1 ppm and ≤ 10 ppm shall be covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8) of this section.

(B) *Low occupancy areas.* (1) The cleanup level for bulk PCB remediation waste in low occupancy areas is ≤ 25 ppm unless otherwise specified in this paragraph.

(2) Bulk PCB remediation wastes may remain at a cleanup site at concentrations >25 ppm and ≤ 50 ppm if the site is secured by a fence and marked with a sign including the M_L mark.

(3) Bulk PCB remediation wastes may remain at a cleanup site at concentrations >25 ppm and ≤ 100 ppm if the site is covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8) of this section.

(ii) *Non-porous surfaces.* In high occupancy areas, the surface PCB cleanup standard is $\leq 10 \mu\text{g}/100 \text{ cm}^2$ of surface area. In low occupancy areas, the surface cleanup standard is $<100 \mu\text{g}/100 \text{ cm}^2$ of surface area. Select sampling locations in accordance with subpart P of this part or a sampling plan approved under paragraph (c) of this section.

(iii) *Porous surfaces.* In both high and low occupancy areas, any person disposing of porous surfaces must do so based on the levels in paragraph (a)(4)(i) of this section. Porous surfaces may be cleaned up for use in accordance with §761.79(b)(4) or §761.30(p).

(iv) *Liquids*. In both high and low occupancy areas, cleanup levels are the concentrations specified in §761.79(b)(1) and (b)(2).

(v) *Change in the land use for a cleanup site*. Where there is an actual or proposed change in use of an area cleaned up to the levels of a low occupancy area, and the exposure of people or animal life in or at that area could reasonably be expected to increase, resulting in a change in status from a low occupancy area to a high occupancy area, the owner of the area shall clean up the area in accordance with the high occupancy area cleanup levels in paragraphs (a)(4)(i) through (a)(4)(iv) of this section.

(vi) The EPA Regional Administrator, as part of his or her response to a notification submitted in accordance with §761.61(a)(3) of this part, may require cleanup of the site, or portions of it, to more stringent cleanup levels than are otherwise required in this section, based on the proximity to areas such as residential dwellings, hospitals, schools, nursing homes, playgrounds, parks, day care centers, endangered species habitats, estuaries, wetlands, national parks, national wildlife refuges, commercial fisheries, and sport fisheries.

(5) *Site cleanup*. In addition to the options set out in this paragraph, PCB disposal technologies approved under §§761.60 and 761.70 are acceptable for on-site self-implementing PCB remediation waste disposal within the confines of the operating conditions of the respective approvals.

(i) *Bulk PCB remediation waste*. Any person cleaning up bulk PCB remediation waste shall do so to the levels in paragraph (a)(4)(i) of this section.

(A) Any person cleaning up bulk PCB remediation waste on-site using a soil washing process may do so without EPA approval, subject to all of the following:

(1) A non-chlorinated solvent is used.

(2) The process occurs at ambient temperature.

(3) The process is not exothermic.

(4) The process uses no external heat.

(5) The process has secondary containment to prevent any solvent from being released to the underlying or surrounding soils or surface waters.

(6) Solvent disposal, recovery, and/or reuse is in accordance with relevant provisions of approvals issued according to paragraphs (b)(1) or (c) of this section or applicable paragraphs of §761.79.

(B) Bulk PCB remediation waste may be sent off-site for decontamination or disposal in accordance with this paragraph, provided the waste is either dewatered on-site or transported off-site in containers meeting the requirements of the DOT Hazardous Materials Regulations (HMR) at 49 CFR parts 171 through 180.

(1) Removed water shall be disposed of according to paragraph (b)(1) of this section.

(2) Any person disposing off-site of dewatered bulk PCB remediation waste shall do so as follows:

(i) Unless sampled and analyzed for disposal according to the procedures set out in §§761.283, 761.286, and 761.292, the bulk PCB remediation waste shall be assumed to contain ≥ 50 ppm PCBs.

(ii) Bulk PCB remediation wastes with a PCB concentration of < 50 ppm shall be disposed of in accordance with paragraph (a)(5)(v)(A) of this section.

(iii) Bulk PCB remediation wastes with a PCB concentration ≥ 50 ppm shall be disposed of in a hazardous waste landfill permitted by EPA under section 3004 of RCRA, or by a State authorized under section 3006 of RCRA, or a PCB disposal facility approved under this part.

(iv) The generator must provide written notice, including the quantity to be shipped and highest concentration of PCBs (using extraction EPA Method 3500B/3540C or Method 3500B/3550B followed by chemical analysis using EPA Method 8082 in SW-846 or methods validated under subpart Q of this part) at least 15 days before the first shipment of bulk PCB remediation waste from each cleanup site by the generator, to each off-site facility where the waste is destined for an area not subject to a TSCA PCB Disposal Approval.

(3) Any person may decontaminate bulk PCB remediation waste in accordance with §761.79 and return the waste to the cleanup site for disposal as long as the cleanup standards of paragraph (a)(4) of this section are met.

(ii) *Non-porous surfaces*. PCB remediation waste non-porous surfaces shall be cleaned on-site or off-site for disposal on-site, disposal off-site, or use, as follows:

(A) For on-site disposal, non-porous surfaces shall be cleaned on-site or off-site to the levels in paragraph (a)(4)(ii) of this section using:

(1) Procedures approved under §761.79.

(2) Technologies approved under §761.60(e).

(3) Procedures or technologies approved under paragraph (c) of this section.

(B) For off-site disposal, non-porous surfaces:

(1) Having surface concentrations $<100 \mu\text{g}/100 \text{ cm}^2$ shall be disposed of in accordance with paragraph (a)(5)(i)(B)(2)(ii) of this section. Metal surfaces may be thermally decontaminated in accordance with §761.79(c)(6)(i).

(2) Having surface concentrations $\geq 100 \mu\text{g}/100 \text{ cm}^2$ shall be disposed of in accordance with paragraph (a)(5)(i)(B)(2)(iii) of this section. Metal surfaces may be thermally decontaminated in accordance with §761.79(c)(6)(ii).

(C) For use, non-porous surfaces shall be decontaminated on-site or off-site to the standards specified in §761.79(b)(3) or in accordance with §761.79(c).

(iii) *Porous surfaces.* Porous surfaces shall be disposed on-site or off-site as bulk PCB remediation waste according to paragraph (a)(5)(i) of this section or decontaminated for use according to §761.79(b)(4), as applicable.

(iv) *Liquids.* Any person disposing of liquid PCB remediation waste shall either:

(A) Decontaminate the waste to the levels specified in §761.79(b)(1) or (b)(2).

(B) Dispose of the waste in accordance with paragraph (b) of this section or an approval issued under paragraph (c) of this section.

(v) *Cleanup wastes.* Any person generating the following wastes during and from the cleanup of PCB remediation waste shall dispose of or reuse them using one of the following methods:

(A) Non-liquid cleaning materials and personal protective equipment waste at any concentration, including non-porous surfaces and other non-liquid materials such as rags, gloves, booties, other disposable personal protective equipment, and similar materials resulting from cleanup activities shall be either decontaminated in accordance with §761.79(b) or (c), or disposed of in one of the following facilities, without regard to the requirements of subparts J and K of this part:

(1) A facility permitted, licensed, or registered by a State to manage municipal solid waste subject to part 258 of this chapter.

(2) A facility permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste subject to §§257.5 through 257.30 of this chapter, as applicable.

(3) A hazardous waste landfill permitted by EPA under section 3004 of RCRA, or by a State authorized under section 3006 of RCRA.

(4) A PCB disposal facility approved under this part.

(B) Cleaning solvents, abrasives, and equipment may be reused after decontamination in accordance with §761.79.

(6) *Cleanup verification*—(i) *Sampling and analysis.* Any person collecting and analyzing samples to verify the cleanup and on-site disposal of bulk PCB remediation wastes and porous surfaces must do so in accordance with subpart O of this part. Any person collecting and analyzing samples from non-porous surfaces must do so in accordance with subpart P of this part. Any person collecting and analyzing samples from liquids must do so in accordance with §761.269. Any person conducting interim sampling during PCB remediation waste cleanup to determine when to sample to verify that cleanup is complete, may use PCB field screening tests.

(ii) *Verification.* (A) Where sample analysis results in a measurement of PCBs less than or equal to the levels specified in paragraph (a)(4) of this section, self-implementing cleanup is complete.

(B) Where sample analysis results in a measurement of PCBs greater than the levels specified in paragraph (a)(4) of this section, self-implementing cleanup of the sampled PCB remediation waste is not complete. The owner or operator of the site must either dispose of the sampled PCB remediation waste, or reclean the waste represented by the sample and reinitiate sampling and analysis in accordance with paragraph (a)(6)(i) of this section.

(7) *Cap requirements.* A cap means, when referring to on-site cleanup and disposal of PCB remediation waste, a uniform placement of concrete, asphalt, or similar material of minimum thickness spread over the area where remediation waste was removed or left in place in order to prevent or minimize human exposure, infiltration of water, and erosion. Any person designing and constructing a cap must do so in accordance with §264.310(a) of this chapter, and ensure that it complies with the permeability, sieve, liquid limit, and plasticity index parameters in §761.75(b)(1)(ii) through (b)(1)(v). A cap of compacted soil shall have a minimum thickness of 25 cm (10 inches). A concrete or asphalt cap shall have a minimum thickness of 15 cm (6 inches). A cap must be of sufficient strength to maintain its effectiveness and integrity during the use of the cap surface which is exposed to the environment. A cap shall not be contaminated at a level ≥ 1 ppm PCB per Aroclor™ (or equivalent) or per congener. Repairs shall begin within 72 hours of discovery for any breaches which would impair the integrity of the cap.

(8) *Deed restrictions for caps, fences and low occupancy areas.* When a cleanup activity conducted under this section includes the

use of a fence or a cap, the owner of the site must maintain the fence or cap, in perpetuity. In addition, whenever a cap, or the procedures and requirements for a low occupancy area, is used, the owner of the site must meet the following conditions:

(i) Within 60 days of completion of a cleanup activity under this section, the owner of the property shall:

(A) Record, in accordance with State law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property:

(1) That the land has been used for PCB remediation waste disposal and is restricted to use as a low occupancy area as defined in §761.3.

(2) Of the existence of the fence or cap and the requirement to maintain the fence or cap.

(3) The applicable cleanup levels left at the site, inside the fence, and/or under the cap.

(B) Submit a certification, signed by the owner, that he/she has recorded the notation specified in paragraph (a)(8)(i)(A) of this section to the EPA Regional Administrator.

(ii) The owner of a site being cleaned up under this section may remove a fence or cap after conducting additional cleanup activities and achieving cleanup levels, specified in paragraph (a)(4) of this section, which do not require a cap or fence. The owner may remove the notice on the deed no earlier than 30 days after achieving the cleanup levels specified in this section which do not require a fence or cap.

(9) *Recordkeeping.* For paragraphs (a)(3), (a)(4), and (a)(5) of this section, recordkeeping is required in accordance with §761.125(c)(5).

(b) *Performance-based disposal.* (1) Any person disposing of liquid PCB remediation waste shall do so according to §761.60(a) or (e), or decontaminate it in accordance with §761.79.

(2) Any person disposing of non-liquid PCB remediation waste shall do so by one of the following methods:

(i) Dispose of it in a high temperature incinerator approved under §761.70(b), an alternate disposal method approved under §761.60(e), a chemical waste landfill approved under §761.75, or in a facility with a coordinated approval issued under §761.77.

(ii) Decontaminate it in accordance with §761.79.

(3) Any person may manage or dispose of material containing <50 ppm PCBs that has been dredged or excavated from waters of the United States:

(i) In accordance with a permit that has been issued under section 404 of the Clean Water Act, or the equivalent of such a permit as provided for in regulations of the U.S. Army Corps of Engineers at 33 CFR part 320.

(ii) In accordance with a permit issued by the U.S. Army Corps of Engineers under section 103 of the Marine Protection, Research, and Sanctuaries Act, or the equivalent of such a permit as provided for in regulations of the U.S. Army Corps of Engineers at 33 CFR part 320.

(c) *Risk-based disposal approval.* (1) Any person wishing to sample, cleanup, or dispose of PCB remediation waste in a manner other than prescribed in paragraphs (a) or (b) of this section, or store PCB remediation waste in a manner other than prescribed in §761.65, must apply in writing to the Regional Administrator in the Region where the sampling, cleanup, disposal, or storage site is located, for sampling, cleanup, disposal, or storage occurring in a single EPA Region; or to the Director, Office of Solid Waste, for sampling, cleanup, disposal or storage occurring in more than one EPA Region. Each application must contain information described in the notification required by §761.61(a)(3). EPA may request other information that it believes necessary to evaluate the application. No person may conduct cleanup activities under this paragraph prior to obtaining written approval by EPA.

(2) EPA will issue a written decision on each application for a risk-based method for PCB remediation wastes. EPA will approve such an application if it finds that the method will not pose an unreasonable risk of injury to health or the environment.

[63 FR 35448, June 29, 1998, as amended at 64 FR 33761, June 24, 1999; 72 FR 57239, Oct. 9, 2007]

§ 761.62 Disposal of PCB bulk product waste.



top

PCB bulk product waste shall be disposed of in accordance with paragraph (a), (b), or (c) of this section. Under some of these provisions, it may not be necessary to determine the PCB concentration or leaching characteristics of the PCB bulk product waste. When it is necessary to analyze the waste to make either of these determinations, use the applicable procedures in subpart R of this part to sample the waste for analysis, unless EPA approves another sampling plan under paragraph (c) of this section.

(a) *Performance-based disposal.* Any person disposing of PCB bulk product waste may do so as follows:

- (1) In an incinerator approved under §761.70.
- (2) In a chemical waste landfill approved under §761.75.
- (3) In a hazardous waste landfill permitted by EPA under section 3004 of RCRA, or by a State authorized under section 3006 of RCRA.
- (4) Under an alternate disposal approval under §761.60(e).
- (5) In accordance with the decontamination provisions of §761.79.
- (6) For metal surfaces in contact with PCBs, in accordance with the thermal decontamination provisions of §761.79(c)(6).
- (7) In accordance with a TSCA PCB Coordinated Approval issued under §761.77.

(b) *Disposal in solid waste landfills.* (1) Any person may dispose of the following PCB bulk product waste in a facility permitted, licensed, or registered by a State as a municipal or non-municipal non-hazardous waste landfill:

- (i) 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; non-liquid building demolition debris; or non-liquid PCB bulk product waste from the shredding of automobiles or household appliances from which PCB small capacitors have been removed (shredder fluff).
- (ii) Other PCB bulk product waste, sampled in accordance with the protocols set out in subpart R of this part, that leaches PCBs at <10 µg/L of water measured using a procedure used to simulate leachate generation.

(2) Any person may dispose of PCB bulk product waste other than those materials meeting the conditions of paragraph (b)(1) of this section, (e.g., paper or felt gaskets contaminated by liquid PCBs in a facility that is permitted, licensed, or registered by a State to manage municipal solid waste subject to part 258 of this chapter or non-municipal non-hazardous waste subject to §§257.5 through 257.30 of this chapter, as applicable, if:

- (i) The PCB bulk product waste is segregated from organic liquids disposed of in the landfill unit.
- (ii) Leachate is collected from the landfill unit and monitored for PCBs.

(3) Any release of PCBs (including but not limited to leachate) from the landfill unit shall be cleaned up in accordance with §761.61.

(4)(i) Any person disposing off-site of PCB bulk product waste regulated under paragraph (b)(1) of this section at a waste management facility not having a commercial PCB storage or disposal approval must provide written notice to the facility a minimum of 15 days in advance of the first shipment from the same disposal waste stream. The notice shall state that the PCB bulk product waste may include components containing PCBs at ≥50 ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach <10 µg/L PCBs.

(ii) Any person disposing off-site of PCB bulk product waste regulated under paragraph (b)(2) of this section at a waste management facility not having a commercial PCB storage or disposal approval must provide 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. The notice shall state that the PCB bulk product waste may include components containing PCBs at ≥50 ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach ≥10 µg/L PCBs.

(5) Any person disposing of PCB bulk product waste must maintain a written record of all sampling and analysis of PCBs or notifications made under this paragraph for 3 years from the date of the waste's generation. The records must be made available to EPA upon request.

(6) Requirements in subparts C, J, and K of this part do not apply to waste disposed of under paragraph (b) of this section.

(c) *Risk-based disposal approval.* (1) Any person wishing to sample or dispose of PCB bulk product waste in a manner other than prescribed in paragraphs (a) or (b) of this section, or store PCB bulk product waste in a manner other than prescribed in §761.65, must apply in writing to the Regional Administrator in the Region where the sampling, disposal, or storage site is located, for sampling, disposal, or storage occurring in a single EPA Region; or to the Director, Office of Solid Waste, for sampling, disposal, or storage occurring in more than one EPA Region. Each application must contain information indicating that, based on technical, environmental, or waste-specific characteristics or considerations, the proposed sampling, disposal, or storage methods or locations will not pose an unreasonable risk of injury to health or the environment. EPA may request other information that it believes necessary to evaluate the application. No person may conduct sampling, disposal, or storage activities under this paragraph prior to obtaining written approval by EPA.

(2) EPA will issue a written decision on each application for a risk-based sampling, disposal, or storage method for PCB bulk product wastes. EPA will approve such an application if it finds that the method will not pose an unreasonable risk of injury to health or the environment.

(d) *Disposal as daily landfill cover or roadbed.* Bulk product waste described in paragraph (b)(1) of this section may be disposed of:

(1) 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

(2) Under asphalt as part of a road bed.

[63 FR 35451, June 29, 1998, as amended at 64 FR 33761, June 24, 1999; 72 FR 57239, Oct. 9, 2007]

§ 761.63 PCB household waste storage and disposal.



[top](#)

PCB household waste, as defined at §761.3, 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 under §761.62(c), is not subject to any other requirements of part 761 of this chapter. PCB household waste stored in a unit regulated for storage of PCB waste must not be commingled with PCB waste.

[63 FR 35452, June 29, 1998]

§ 761.64 Disposal of wastes generated as a result of research and development activities authorized under §761.30(j) and chemical analysis of PCBs.



[top](#)

This section provides disposal requirements for wastes generated during and as a result of research and development authorized under §761.30(j). This section also provides disposal requirements for wastes generated during the chemical analysis of samples containing PCBs under part 761, including §§761.30, 761.60, 761.61, 761.62, and 761.79. For determining the presence of PCBs in samples, chemical analysis includes: sample preparation, sample extraction, extract cleanup, extract concentration, addition of PCB standards, and instrumental analysis.

(a) Portions of samples of a size designated in a chemical extraction and analysis method for PCBs and extracted for purposes of determining the presence of PCBs or concentration of PCBs are unregulated for PCB disposal under this part.

(b) All other wastes generated during these activities are regulated for disposal based on their concentration at the time of disposal as follows:

(1) Liquid wastes, including rinse solvents, must be disposed of according to §761.61(a)(5)(iv).

(2) Non-liquid wastes must be disposed of in the same manner as non-liquid cleaning materials and personal protective equipment waste according to §761.61(a)(5)(v)(A).

[63 FR 35452, June 29, 1998]

§ 761.65 Storage for disposal.



[top](#)

This section applies to the storage for disposal of PCBs at concentrations of 50 ppm or greater and PCB items with PCB concentrations of 50 ppm or greater.

(a)(1) *Storage limitations.* Any PCB waste shall be disposed of as required by subpart D of this part within 1-year from the date it was determined to be PCB waste and the decision was made to dispose of it. This date is the date of removal from service for disposal and the point at which the 1-year time frame for disposal begins. PCB/radioactive waste removed from service for disposal is exempt from the 1-year time limit provided that the provisions at paragraphs (a)(2)(ii) and (a)(2)(iii) of this section are followed and the waste is managed in accordance with all other applicable Federal, State, and local laws and regulations for the management of radioactive material.

(2) *One-year extension.* Any person storing PCB waste that is subject to the 1-year time limit for storage and disposal in paragraph (a)(1) of this section may provide written notification to the EPA 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-year time limit have been unsuccessful. Upon receipt of the notice by the EPA Regional Administrator, the time for disposal is automatically extended for 1 additional year (2 years total) if the following conditions are met:

(i) The notification is received by the EPA Regional Administrator at least 30 days before the initial 1-year 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-year time limit.

- (ii) A written record documenting all continuing attempts to secure disposal is maintained until the waste is disposed of.
- (iii) The written record required by paragraph (a)(2)(ii) of this section is available for inspection or submission if requested by EPA.
- (iv) Continuing attempts to secure disposal were initiated within 270 days after the time the waste was first subject to the 1-year time limit requirement, as specified in paragraph (a)(1) of this section. 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.
- (3) *Additional extensions.* Upon written request, the EPA Regional Administrator for the Region in which the wastes are stored or the appropriate official at EPA Headquarters, may grant additional extensions beyond the 1-year extension authorized in paragraph (a)(2) of this section. At the time of the request, the requestor must supply specific justification for the additional extension and indicate what measures the requestor is taking to secure disposal of the waste or indicate why disposal could not be conducted during the period of the prior extension. The EPA Regional Administrator or the appropriate official at EPA Headquarters may require, as a condition to granting any extension under this section, specific actions including, but not limited to, marking, inspection, recordkeeping, or financial assurance to ensure that the waste does not pose an unreasonable risk of injury to health or the environment.
- (4) *Storage at an approved facility.* Increased time for storage may be granted as a condition of any TSCA PCB storage or disposal approval, by the EPA Regional Administrator for the Region in which the PCBs or PCB Items are to be stored or disposed of, or by the appropriate official at EPA Headquarters, if EPA determines that there is a demonstrated need or justification for additional time, that the owner or operator of the facility is pursuing relevant treatment or disposal options, and that no unreasonable risk of injury to health or the environment will result from the increased storage time. In making this determination, EPA will consider such factors as absence of any approved treatment technology and insufficient time to complete the treatment or destruction process. EPA may require as a condition of the approval that the owner or operator submit periodic progress reports.
- (b) Except as provided in paragraphs (b)(2), (c)(1), (c)(7), (c)(9), and (c)(10) of this section, after July 1, 1978, owners or operators of any facilities used for the storage of PCBs and PCB Items designated for disposal shall comply with the following storage unit requirements:
- (1) The facilities shall meet the following criteria:
- (i) Adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB Items;
- (ii) An adequate floor that has continuous curbing with a minimum 6 inch high curb. The floor and curbing must provide a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container or 25 percent of the total internal volume of all PCB Articles or PCB Containers stored there, whichever is greater. PCB/radioactive wastes are not required to be stored in an area with a minimum 6 inch high curbing. However, the floor and curbing must still provide a containment volume equal to at least two times the internal volume of the largest PCB Container or 25 percent of the total internal volume of all PCB Containers stored there, whichever is greater.
- (iii) No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area;
- (iv) Floors and curbing constructed of Portland cement, concrete, or a continuous, smooth, non-porous surface as defined at §761.3, which prevents or minimizes penetration of PCBs.
- (v) Not located at a site that is below the 100-year flood water elevation.
- (2) No person may store PCBs and PCB Items designated for disposal in a storage unit other than one approved pursuant to paragraph (d) of this section or meeting the design requirements of paragraph (b) of this section, unless the unit meets one of the following conditions:
- (i) Is permitted by EPA under section 3004 of RCRA to manage hazardous waste in containers, and spills of PCBs are cleaned up in accordance with subpart G of this part.
- (ii) Qualifies for interim status under section 3005 of RCRA to manage hazardous waste in containers, meets the requirements for containment at §264.175 of this chapter, and spills of PCBs are cleaned up in accordance with subpart G of this part.
- (iii) Is permitted by a State authorized under section 3006 of RCRA to manage hazardous waste in containers, and spills of PCBs are cleaned up in accordance with subpart G of this part.
- (iv) 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 found in this part.
- (v) Is subject to a TSCA Coordinated Approval, which includes provisions for storage of PCBs, issued pursuant to §761.77.
- (vi) Has a TSCA PCB waste management approval, which includes provisions for storage, issued pursuant to §761.61(c) or §761.62(c).

(c)(1) The following PCB Items may be stored temporarily in an area that does not comply with the requirements of paragraph (b) of this section for up to thirty days from the date of their removal from service, provided that a notation is attached to the PCB Item or a PCB Container (containing the item) indicating the date the item was removed from service:

(i) Non-leaking PCB Articles and PCB Equipment;

(ii) Leaking PCB Articles and PCB Equipment if the PCB Items are placed in a non-leaking PCB Container that contains sufficient sorbent materials to absorb any liquid PCBs remaining in the PCB Items;

(iii) PCB Containers containing non-liquid PCBs such as contaminated soil, rags, and debris; and

(iv) PCB containers containing liquid PCBs at concentrations of ≥ 50 ppm, provided a Spill Prevention, Control and Countermeasure Plan has been prepared for the temporary storage area in accordance with part 112 of this chapter and the liquid PCB waste is in packaging authorized in the DOT Hazardous Materials Regulations at 49 CFR parts 171 through 180 or stationary bulk storage tanks (including rolling stock such as, but not limited to, tanker trucks, as specified by DOT).

(2) Non-leaking and structurally undamaged PCB Large High Voltage Capacitors and PCB-Contaminated Electrical Equipment that have not been drained of free flowing dielectric fluid may be stored on pallets next to a storage facility that meets the requirements of paragraph (b) of this section. PCB-Contaminated Electrical Equipment that has been drained of free flowing dielectric fluid is not subject to the storage provisions of §761.65. Storage under this subparagraph will be permitted only when the storage facility has immediately available unfilled storage space equal to 10 percent of the volume of capacitors and equipment stored outside the facility. The capacitors and equipment temporarily stored outside the facility shall be checked for leaks weekly.

(3) Any storage area subject to the requirements of paragraph (b) or paragraph (c)(1) of this section shall be marked as required in subpart C §761.40(a)(10).

(4) No item of movable equipment that is used for handling PCBs and PCB Items in the storage units and that comes in direct contact with PCBs shall be removed from the storage unit area unless it has been decontaminated as specified in §761.79.

(5) All PCB Items in storage shall be checked for leaks at least once every 30 days. Any leaking PCB Items and their contents shall be transferred immediately to properly marked non-leaking containers. Any spilled or leaked materials shall be immediately cleaned up and the materials and residues containing PCBs shall be disposed of in accordance with §761.61. Records of inspections, maintenance, cleanup and disposal must be maintained in accordance with §761.180(a) and (b).

(6) Except as provided in paragraphs (c)(6)(i) and (c)(6)(ii) of this section, any container used for the storage of liquid or non-liquid PCB waste shall be in accordance with the requirements set forth in the DOT Hazardous Materials Regulations (HMR) at 49 CFR parts 171 through 180. PCB waste not subject to the HMR (i.e., PCB wastes at concentrations of < 20 ppm or < 1 pound of PCBs regardless of concentration) must be 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. For purposes of describing PCB waste not subject to DOT's HMR on a manifest, one may use the term "Non-DOT Regulated PCBs."

(i) Containers other than those meeting HMR performance standards may be used for storage of PCB/radioactive waste provided the following requirements are met:

(A) Containers used for storage of liquid PCB/radioactive wastes must be non-leaking.

(B) Containers used for storage of non-liquid PCB/ radioactive wastes must be designed to prevent the buildup of liquids if such containers are stored in an area meeting the containment requirements of paragraph (b)(1)(ii) of this section, as well as all other applicable State or Federal regulations or requirements for control of radioactive materials.

(C) Containers used to store both liquid and non-liquid PCB/radioactive wastes must meet all regulations and requirements pertaining to nuclear criticality safety. 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.

(ii) The following DOT specification containers that conform to the requirements of 49 CFR, chapter I, subchapter C in effect on September 30, 1991, may be used for storage and transportation activities that are not subject to DOT regulation, and may be used on a transitional basis as permitted at 49 CFR 171.14. For liquid PCBs: Specification 5 container without removable head, Specification 5B container without removable head, Specification 6D overpack with Specification 2S or 2SL polyethylene containers, or Specification 17E container. For non-liquid PCBs: Specification 5 container, Specification 5B container, or Specification 17C container.

(7) Stationary storage containers for liquid PCBs can be larger than the containers specified in paragraph (c)(6) of this section provided that:

(i) The containers are designed, constructed, and operated in compliance with Occupational Safety and Health Standards, 29 CFR 1910.106, *Flammable and combustible liquids*. Before using these containers for storing PCBs, the design of the containers must be reviewed to determine the effect on the structural safety of the containers that will result from placing liquids with the specific

gravity of PCBs into the containers (see 29 CFR 1910.106(b)(1)(i)(f)).

(ii) The owners or operators of any facility using containers described in paragraph (c)(7)(i) of this section, shall prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan as described in part 112 of this title. In complying with 40 CFR part 112, the owner or operator shall read "oil(s)" as "PCB(s)" whenever it appears. The exemptions for storage capacity, 40 CFR 112.1(d)(2), and the amendment of SPCC plans by the Regional Administrator, 40 CFR 112.4, shall not apply unless some fraction of the liquids stored in the container are oils as defined by section 311 of the Clean Water Act.

(8) PCB Items shall be dated on the item when they are removed from service for disposal. The storage shall be managed so that the PCB Items can be located by this date. Storage containers provided in paragraph (c)(7) of this section, shall have a record that includes for each batch of PCBs the quantity of the batch and date the batch was added to the container. The record shall also include the date, quantity, and disposition of any batch of PCBs removed from the container.

(9) Bulk PCB remediation waste or PCB bulk product waste may be stored at the clean-up site or site of generation for 180 days subject to the following conditions:

(i) 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.

(ii) The waste must not generate leachate through decomposition or other reactions.

(iii) The storage site must have:

(A) A liner that is designed, constructed, and installed to prevent any migration of wastes off or through the liner into the adjacent subsurface soil, ground water or surface water at any time during the active life (including the closure period) of the storage site. The liner may be constructed of materials that may allow waste to migrate into the liner. The liner must be:

(1) 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.

(2) 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.

(3) Installed to cover all surrounding earth likely to be in contact with the waste.

(B) A cover that meets the requirements of paragraph (c)(9)(iii)(A) of this section, is installed to cover all of the stored waste likely to be contacted with precipitation, and is secured so as not to be functionally disabled by winds expected under normal seasonal meteorological conditions at the storage site.

(C) A run-on control system designed, constructed, operated, and maintained such that:

(1) It prevents flow onto the stored waste during peak discharge from at least a 25-year storm.

(2) It collects and controls at least the water volume resulting from a 24-hour, 25-year storm. Collection and holding facilities (e.g., tanks or basins) must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(iv) The provisions of this paragraph may be modified under §761.61(c).

(10) Owners or operators of storage facilities shall establish and maintain records as provided in §761.180.

(d) *Approval of commercial storers of PCB waste.* (1) All commercial storers of PCB waste shall have interim approval to operate commercial facilities for the storage of PCB waste until August 2, 1990. Commercial storers of PCB waste are prohibited from storing any PCB waste at their facilities after August 2, 1990 unless they have submitted by August 2, 1990 a complete application for a final storage approval under paragraph (d)(2) of this section. The period of interim approval shall continue until EPA makes a final decision on the storage application at which time such interim approval shall terminate.

(2) The Regional Administrator for the region in which the storage facility is located (or the appropriate official at EPA Headquarters, if the commercial storage area is ancillary to a disposal facility for which an official at EPA Headquarters has approval authority) shall grant written, final approval to engage in the commercial storage of PCB waste upon a determination that the criteria in paragraph (d)(2)(i) through (d)(2)(vii) of this section have been met by the applicant:

(i) The applicant, its principals, and its key employees responsible for the establishment or operation of the commercial storage facility are qualified to engage in the business of commercial storage of PCB waste.

(ii) The facility possesses the capacity to handle the quantity of PCB waste which the owner or operator of the facility has estimated will be the maximum quantity of PCB waste that will be handled at any one time at the facility.

(iii) The owner or operator of the unit has certified compliance with the storage facility standards in paragraphs (b) and (c)(7) of this section.

(iv) The owner or operator has developed a written closure plan for the facility that is deemed acceptable by the Regional Administrator (or the appropriate official at EPA Headquarters, if the commercial storage area is ancillary to a disposal facility permitted by an official at EPA Headquarters) under the closure plan standards of paragraph (e) of this section.

(v) The owner or operator has included in the application for final approval a demonstration of financial responsibility for closure that meets the financial responsibility standards of paragraph (g) of this section.

(vi) The operation of the storage facility will not pose an unreasonable risk of injury to health or the environment.

(vii) The environmental compliance history of the applicant, its principals, and its key employees may be deemed to constitute a sufficient basis for denial of approval whenever in the judgment of the appropriate EPA official that history of environmental civil violations or criminal convictions evidences a pattern or practice of noncompliance that demonstrates the applicant's unwillingness or inability to achieve and maintain compliance with the regulations.

(3) Applicants for storage approvals shall submit a written application that includes any relevant information bearing upon the qualifications of the facility's principals and key employees to engage in the business of commercial storage of PCB wastes. This information shall include, but is not limited to:

(i) The identification of the owner and the operator of the facility, including all general partners of a partnership, any limited partner of a partnership, any stockholder of a corporation or any participant in any other type of business organization or entity who owns or controls, directly or indirectly, more than 5 percent of each partnership, corporation, or other business organization and all officials of the facility who have direct management responsibility for the facility.

(ii) The identification of the person responsible for the overall operations of the facility (i.e., a plant manager, superintendent, or a person of similar responsibility) and the supervisory employees who are or will be responsible for the operation of the facility.

(iii) Information concerning the technical qualifications and experience of the persons responsible for the overall operation of the facility and the employees responsible for handling PCB waste or other wastes.

(iv) Information concerning any past State or Federal environmental violations involving the same business or another business with which the principals or supervisory employees were affiliated directly that occurred within 5 years preceding the date of submission and which relate directly to violations that resulted in either a civil penalty (irrespective of whether the matter was disposed of by an adjudication or by a without prejudice settlement) or judgment of conviction whether entered after trial or a plea, either of guilt or nolo contendere or civil injunctive relief and involved storage, disposal, transport, or other waste handling activities.

(v) A list of all companies currently owned or operated in the past by the principals or key employees identified in paragraphs (d)(3)(i) and (d)(3)(ii) of this section that are or were directly or indirectly involved with waste handling activities.

(vi) The owner's or operator's estimate of maximum PCB waste quantity to be handled at the facility.

(vii) A written statement certifying compliance with paragraph (b) or (c) of this section and containing a certification as defined in §761.3.

(viii) A written closure plan for the facility, as described in paragraph (e) of this section.

(ix) The current closure cost estimate for the facility, as described in paragraph (f) of this section.

(x) A demonstration of financial responsibility to close the facility, as described in paragraph (g) of this section.

(4) The written approval issued by EPA shall include, but not be limited to, the following:

(i) The determination that the applicant has satisfied the requirements set forth in paragraph (d)(2) of this section, and a brief statement setting forth the basis for the determination.

(ii) Incorporation of the closure plan submitted by the facility owner or operator and approved by EPA.

(iii) A condition imposing a maximum PCB storage capacity which the facility shall not exceed during its PCB waste storage operations. The maximum storage capacity imposed under this condition shall not be greater than the estimated maximum inventory of PCB waste included in the owner's or operator's application for final approval.

(iv) Such other conditions as deemed necessary by EPA to ensure that the operations of the PCB storage facility will not pose an unreasonable risk of injury to health or the environment.

(5) Storage areas at transfer facilities are exempt from the requirement to obtain approval as a commercial storer of PCB waste under this paragraph, unless the same PCB waste is stored at these facilities for a period of time greater than 10 consecutive days between destinations.

(6) Storage areas at RCRA-permitted facilities may be exempt from the separate TSCA storage approval requirements in this paragraph (d) upon a showing to the Regional Administrator's satisfaction that the facility's existing RCRA closure plan is substantially equivalent to this rule's closure plan standards, and that such facility's closure cost estimate and financial assurance

demonstration account for maximum PCB waste inventories, and the requirements of paragraph (d)(3)(i) through (d)(3)(v) and (d)(3)(vii) of this section are met. A pay-in period of longer than 3 years after approval of the storage facility pursuant to this rule, will be acceptable to EPA if that pay-in period has already been established for a valid RCRA facility or previously approved TSCA facility.

(7) Storage areas ancillary to TSCA-approved disposal facilities may be exempt from a separate facility approval provided all of the following conditions are met:

(i) The current disposal approval contains an expiration date.

(ii) The current disposal approval's closure and financial responsibility conditions specifically extend to storage areas ancillary to disposal.

(iii) The current disposal approval's closure and financial responsibility conditions provide for annual adjustments for inflation, and for modification when changes in operation would affect closure costs.

(iv) The current disposal approval contains conditions on closure and financial responsibility that are at least as stringent as those in paragraphs (e) and (g) of this section. However, the provision for a 3-year closure trust pay-in period, as specified in paragraph (g)(1)(i) of this section, would be waived in a case in which an approved TSCA facility or RCRA facility that covers PCB storage has a longer pay-in period for the trust.

(v) The current disposal approval satisfies the requirements of paragraph (d)(3)(i) through (d)(3)(v) of this section.

(8) The approval of any existing TSCA-approved disposal facility ancillary to a commercial storage facility that is deficient in any of the conditions of paragraph (d)(7)(i) through (d)(7)(v) of this section shall be called in by the Regional Administrator (or the appropriate official at EPA Headquarters, if approval was granted by an official at EPA Headquarters). The approval shall be modified to meet the requirements of paragraph (d)(7) of this section within 180 days of the effective date of this final rule, or a separate application for approval of the storage facility may be submitted to the Regional Administrator or the Director, Office of Solid Waste, in the cases where an official at EPA Headquarters issued the approval.

(e) *Closure.* (1) A commercial storer of PCB waste shall have a written closure plan that identifies the steps that the owner or operator of the facility shall take to close the PCB waste storage facility in a manner that eliminates the potential for post-closure releases of PCBs which may present an unreasonable risk to human health or the environment. An acceptable closure plan must include, at a minimum, all of the following:

(i) A description of how the PCB storage areas of the facility will be closed in a manner that eliminates the potential for post-closure releases of PCBs into the environment.

(ii) An identification of the maximum extent of storage operations that will be open during the active life of the facility, including an identification of the extent of PCB storage operations at the facility relative to other wastes that will be handled at the facility.

(iii) An estimate of the maximum inventory of PCB wastes that could be handled at one time at the facility over its active life, and a detailed description of the methods or arrangements to be used during closure for removing, transporting, storing, or disposing of the facility's inventory of PCB waste, including an identification of any off-site facilities that will be used.

(iv) A detailed description of the steps needed to remove or decontaminate PCB waste residues and contaminated containment system components, equipment, structures, and soils during closure in accordance with the levels specified in the PCB Spills Cleanup Policy in subpart G of this part, including a description of the methods for sampling and testing of surrounding soils, and the criteria for determining the extent of removal or decontamination.

(v) A detailed description of other activities necessary during the closure period to ensure that any post-closure releases of PCBs will not present unreasonable risks to human health or the environment. This includes activities such as ground-water monitoring, run-on and run-off control, and facility security.

(vi) A schedule for closure of each area of the facility where PCB waste is stored or handled, including the total time required to close each area of PCB waste storage or handling, and the time required for any intervening closure activities.

(vii) An estimate of the expected year of closure of the PCB waste storage areas, if a trust fund is opted for as the financial mechanism.

(2) A written closure plan determined to be acceptable by EPA under this section shall become a condition of any approval granted under paragraph (d) of this section.

(3) A separate and new closure plan need not be submitted in cases where a facility is currently covered by a TSCA approval or a RCRA permit, upon a showing to the satisfaction of the Regional Administrator (or the appropriate official at EPA Headquarters, if the commercial storage area is ancillary to a disposal facility for which an official at EPA Headquarters has approval authority) that the existing closure plan is substantially equivalent to closure plans required under paragraphs (d) through (g) of this section, and that the plan adequately accounts for PCB waste inventories.

(4) The commercial storer of PCB waste shall submit a written request to the Regional Administrator (or the Director, Office of Solid

Waste, if an official at EPA Headquarters approved the closure plan) for a modification to its storage approval to amend its closure plan, whenever:

(i) Changes in ownership, operating plans, or facility design affect the existing closure plan.

(ii) There is a change in the expected date of closure, if applicable.

(iii) In conducting closure activities, unexpected events require a modification of the approved closure plan.

(5) The Regional Administrator or the Director, appropriate official at EPA Headquarters, if an official at EPA Headquarters approved the closure plan, may modify the existing closure plan under the conditions described in paragraph (e)(4) of this section.

(6) Commercial storers of PCB waste shall comply with the following closure schedule:

(i) The commercial storer shall notify in writing the Regional Administrator or the Director, Office of Solid Waste, if an official at EPA Headquarters approved the closure plan, at least 60 days prior to the date on which final closure of its PCB storage facility is expected to begin.

(ii) The date when a commercial storer of PCB waste "expects to begin closure" shall be no later than 30 days after the date on which the storage facility received its final quantities of PCB waste. For good cause shown, EPA may extend the date for commencement of closure for an additional 30-day period.

(iii) Within 90 days after receiving the final quantity of PCB waste for storage, a commercial storer of PCB waste shall remove all PCB waste in storage at the facility from the facility in accordance with the approved closure plan. For good cause shown, EPA may approve a reasonable extension to the period for removal of the PCB waste.

(iv) A commercial storer of PCB waste shall complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final quantity of PCB waste for storage at the facility. For good cause shown, EPA may approve a reasonable extension to the closure period.

(7) During the closure period, all contaminated system component equipment, structures, and soils shall be disposed of in accordance with the disposal requirements of subpart D of this part, or, if applicable, decontaminated in accordance with the levels specified in the PCB Spills Cleanup Policy at subpart G of this part. When PCB waste is removed from the storage facility during closure, the owner or operator becomes a generator of PCB waste subject to the generator requirements of subpart J of this part.

(8) Within 60 days of completion of closure of each facility for the storage of PCB waste, the commercial storer of PCB waste shall submit to the Regional Administrator (or Director, Office of Solid Waste and Disposal, if an official at EPA Headquarters approved the closure plan), by registered mail, a certification that the PCB storage facility has been closed in accordance with the approved closure plan. The certification shall be signed by the owner or operator and by an independent registered professional engineer.

(f) *Closure cost estimate.* (1) A commercial storer of PCB wastes shall have a detailed estimate, in current dollars, of the cost of closing the facility in accordance with its approved closure plan. The closure cost estimate shall be in writing, be certified by the person preparing it (using the certification defined in §761.3) and comply with all of the following criteria:

(i) The closure cost estimate shall equal the cost of final closure at the point in the PCB storage facility's active life when the extent and manner of PCB storage operations would make closure the most expensive, as indicated by the facility's closure plan.

(ii) The closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to close the facility, and the third party shall not be either a corporate parent or subsidiary of the owner or operator, or member in joint ownership of the facility.

(iii) The owner or operator shall include in the estimate the current market costs for off-site commercial disposal of the facility's maximum estimated inventory of PCB wastes, except that on-site disposal costs may be used if on-site disposal capacity will exist at the facility at all times over the life of the PCB storage facility.

(iv) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of wastes, facility structures or equipment, land, or other assets associated with the facility at the time of closure.

(2) During the active life of the PCB storage facility, the commercial storer of PCB waste shall adjust annually for inflation the closure cost estimate within 60 days prior to the anniversary date of the establishment of the financial instruments used to demonstrate financial responsibility for closure, except that owners or operators who use the financial test or corporate guarantee shall adjust their closure cost estimates for inflation within 30 days after the close of the storer's fiscal year. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its *Survey of Current Business*. The Implicit Price Deflator for Gross National Product is included in a monthly publication titled *Economic Indicators*, which is available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. The inflation factor used in the latter method is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The adjustment to the closure cost estimate is then made by multiplying the most recent closure cost estimate by the latest inflation factor.

(3) Where EPA approves a modification to the facility's closure plan, and that modification increases the cost of closure, the owner

or operator shall revise the closure cost estimate no later than 30 days after the modification is approved. Any such revision shall also be adjusted for inflation in accordance with paragraph (f)(2) of this section.

(4) The owner or operator of the facility shall keep at the facility during its operating life the most recent closure cost estimate, including any adjustments resulting from inflation or from modifications to the closure plan.

(g) *Financial assurance for closure.* A commercial storer of PCB waste shall establish financial assurance for closure of each PCB storage facility that he owns or operates. In establishing financial assurance for closure, the commercial storer of PCB waste may choose from the following financial assurance mechanisms or any combination of mechanisms:

(1) The "closure trust fund," as specified in §264.143(a) of this chapter, except for paragraph (a)(3) of §264.143. For purposes of this paragraph, the following provisions also apply:

(i) Payments into the trust fund shall be made annually by the owner or operator over the remaining operating life of the facility as estimated in the closure plan, or over 3 years, whichever period is shorter. This period of time is hereafter referred to as the "pay-in period." For an existing facility, the first payment must be made within 30 calendar days after EPA has notified the facility of its conditional approval. Interim approval to operate is canceled and the application is denied if EPA does not receive verification that the payment was made in that 30-day period.

(ii) For a new facility, the first payment into the closure trust fund shall be made before EPA grants final approval of the application and before the facility may accept the initial shipment of PCB waste for commercial storage. A receipt from the trustee shall be submitted by the owner or operator to the Regional Administrator (or the Director, Office of Solid Waste, if the commercial storage area is ancillary to a disposal facility approved by an official at EPA Headquarters) before this initial delivery of PCB waste. The first payment shall be at least equal to the current closure cost estimate, divided by the number of years in the pay-in period, except as provided in paragraph (g)(7) of this section for multiple mechanisms. Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by subtracting the current value of the trust fund from the current closure cost estimate, and dividing this difference by the number of years remaining in the pay-in period.

(iii) If an owner or operator of a facility existing on the effective date of this paragraph establishes a trust fund to meet the financial assurance requirements of this paragraph, and the value of the trust fund is less than the current closure cost estimate when a final approval is granted for the facility, the amount of the current closure cost estimate still to be paid into the trust fund shall be paid in over the pay-in period as defined in paragraph (g)(1)(i) of this section. Payments shall continue to be made no later than 30 days after each anniversary date of the first payment made into the trust fund. The amount of each payment shall be determined by subtracting the current value of the trust fund from the current closure cost estimate, and dividing this difference by the number of years remaining in the pay-in period.

(iv) The submission of a trust agreement with the wording specified in §264.151(a)(1) of this chapter, including any reference to hazardous waste management facilities, shall be deemed to be in compliance with the requirement to submit a trust agreement under this subpart.

(2) The "surety bond guaranteeing payment into a closure trust fund," as specified in §264.143(b) of this chapter, including the use of the surety bond instrument specified at §264.151(b) of this chapter and the standby trust specified at §264.143(b)(3) of this chapter. The use of the surety bonds, surety bond instruments, and standby trust agreements specified in §§264.143(b) and 264.151(b) of this chapter shall be deemed to be in compliance with this subpart.

(3)(i) The "surety bond guaranteeing performance of closure," as specified at §264.143(c) of this chapter, except for paragraph (c)(5) of §264.143 of this chapter. The submission and use of the surety bond instrument specified at §264.151(c) of this chapter and the standby trust specified at §264.143(c)(3) of this chapter shall be deemed to be in compliance with the requirements under this subpart relating to the use of surety bonds and standby trust funds.

(ii) For the purposes of this paragraph, and under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Liability is established by a final administrative determination pursuant to section 16 of TSCA that the owner or operator has failed to perform final closure in accordance with the closure plan and other approval or regulatory requirements when required to do so.

(4)(i) The "closure letter of credit" specified in §264.143(d) of this chapter, except for paragraph (d)(8). The submission and use of the irrevocable letter of credit instrument specified in §264.151(d) of this chapter and the standby trust specified in §264.143(d)(3) of this chapter shall be deemed to be in compliance with the requirements of this subpart relating to the use of letters of credit and standby trust funds.

(ii) For the purposes of this paragraph, the Regional Administrator (or the Director, National Programs Chemical Division, if the commercial storage area is ancillary to a disposal facility approved by the Director, National Programs Chemical Division) may draw on the letter of credit following a final administrative determination pursuant to section 16 of TSCA that the owner or operator has failed to perform final closure in accordance with the closure plan and other approval or regulatory requirements when required to do so.

(5) "Closure insurance," as specified in §264.143(e) of this chapter, utilizing the certificate of insurance for closure specified at §264.151(e) of this chapter. The use of closure insurance as specified in §264.143(e) of this chapter and the submission and use of

the certificate of insurance specified in §264.151(e) of this chapter shall be deemed to be in compliance with the requirements of this subpart relating to the use of closure insurance.

(6) The "financial test and corporate guarantee for closure," as described in §264.143(f) of this chapter, including a letter signed by the owner's or operator's chief financial officer as specified at §264.151(f) of this chapter and, if applicable, the written corporate guarantee specified at §264.151(h) of this chapter. The use of the financial test and corporate guarantee specified in §264.143(f) of this chapter, the submission and use of the letter specified in §264.151(f) of this chapter, and the submission and use of the written corporate guarantee specified at §264.151(h) of this chapter shall be deemed to be in compliance with the requirements of this subpart relating to the use of financial tests and corporate guarantees.

(7) The corporate guarantee as specified in §264.143(f)(10) of this chapter.

(8) The use of multiple financial mechanisms, as specified in §264.143(g) of this chapter is permitted.

(9) A modification to a facility storing PCB waste that increases the maximum storage capacity indicated in the permit requires that a new financial assurance mechanism be established or an existing one be amended. When such a modification occurs, the Director of the Federal or State issuing authority must be notified in writing no later than 30 days from the completion of the modification. The new or revised financial assurance mechanism must be established and activated no later than 30 days after the Director of the Federal or State issuing authority is notified of the completion of the modification, but prior to the use of the modified portion of the facility.

(h) *Release of owner or operator.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, EPA will notify the owner or operator in writing that the owner or operator is no longer required by this section to maintain financial assurance for final closure of the facility, unless EPA has reason to believe that final closure has not been completed in accordance with the approved closure plan. EPA shall provide the owner or operator with a detailed written statement stating the reasons why EPA shall provide the owner or operator with a detailed written statement stating the reasons why he believed closure was not conducted in accordance with the approved closure plan.

(i) *Laboratories and samples.* (1) A laboratory is conditionally exempt from the notification and approval requirements for a commercial storer under §761.65 (d) through (h) when it stores samples held for disposal in a facility that complies with the standards in §761.65 (b)(1)(i) through (b)(1)(iv).

(2) A laboratory sample is exempt from the manifesting requirements in §761.208 when:

(i) The sample is being transported to a laboratory for the purpose of testing.

(ii) The sample is being transported back to the sample collector after testing.

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing.

(iv) The sample is being stored in a laboratory before testing.

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector.

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

(3) In order to qualify for the exemption in paragraph (i)(2)(i) and (i)(2)(ii) of this section, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(i) Comply with applicable U.S. Department of Transportation (DOT) or U.S. Postal Service (USPS) shipping requirements, found respectively in 49 CFR 173.345 and U.S. Postal Regulations 652.2 and 652.3.

(ii) Assure that the following information accompanies the sample:

(A) The sample collector's name, mailing address, and telephone number.

(B) The laboratory's name, mailing address, and telephone number.

(C) The quantity of the sample.

(D) The date of shipment.

(E) A description of the sample.

(iii) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(4) When the concentration of the PCB sample has been determined, and its use is terminated, the sample must be properly disposed. A laboratory must either manifest the PCB waste to a disposer or commercial storer, as required under §761.208, retain a copy of each manifest, as required under §761.209, and follow up on exception reporting, as required under §761.215 (a) and (b),

or return the sample to the sample collector who must then properly dispose of the sample. If the laboratory returns the sample to the sample collector, the laboratory must comply with the shipping requirements set forth in paragraph (i)(3)(i) through (i)(3)(iii) of this section.

(j) *Changes in ownership or operational control of a commercial storage facility.* The date of transfer of interim status or final approval shall be the date the EPA Regional Administrator (or appropriate official at EPA Headquarters) provides written approval of the transfer. EPA will provide a final written decision within 90 days of receipt of the complete new or amended application. The Agency will approve the transfer if the following conditions are met:

(1) The transferee has established financial assurance for closure pursuant to paragraph (g) of this section using a mechanism effective as of the date of final approval so that there will be no lapse in financial assurance for the transferred facility.

(2) The transferor or transferee has resolved any deficiencies (e.g., technical operations, closure plans, cost estimates, etc.) the Agency has identified in the transferor's application.

(k) *States and the Federal Government.* States and the Federal Government are exempt from the requirements of paragraphs (f) and (g) of this section.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 47 FR 37359, Aug. 8, 1982; 49 FR 28191, July 10, 1984; 53 FR 12524, Apr. 15, 1988; 54 FR 52746, Dec. 21, 1989; 55 FR 695, Jan. 8, 1990; 55 FR 26205, June 27, 1990; 58 FR 15809, Mar. 24, 1993; 58 FR 34205, June 23, 1993; 58 FR 59374, Nov. 9, 1993; 63 FR 35439, 35452, June 29, 1998; 72 FR 57239, Oct. 9, 2007]

§ 761.70 Incineration.



[top](#)

This section applies to facilities used to incinerate PCBs required to be incinerated by this part.

(a) *Liquid PCBs.* An incinerator used for incinerating PCBs shall be approved by EPA pursuant to paragraph (d) of this section. Requests for approval of incinerators to be used in more than one region must be submitted to the Director, Office of Solid Waste, except for research and development involving less than 500 pounds of PCB material (see §761.60(i)(2)). Requests for approval of incinerators to be used in only one region must be submitted to the appropriate Regional Administrator. The incinerator shall meet all of the requirements specified in paragraphs (a) (1) through (9) of this section, unless a waiver from these requirements is obtained pursuant to paragraph (d)(5) of this section. In addition, the incinerator shall meet any other requirements which may be prescribed pursuant to paragraph (d)(4) of this section.

(1) Combustion criteria shall be either of the following:

(i) Maintenance of the introduced liquids for a 2-second dwell time at 1200 °C (±100 °C) and 3 percent excess oxygen in the stack gas; or

(ii) Maintenance of the introduced liquids for a 1 1/2 second dwell time at 1600 °C (±100 °C) and 2 percent excess oxygen in the stack gas.

(2) Combustion efficiency shall be at least 99.9 percent computed as follows:

$$\text{Combustion efficiency} = \left[\frac{C_{CO_2}}{C_{CO_2} + C_{CO}} \right] 100$$

where

C_{CO_2} = Concentration of carbon dioxide.

C_{CO} = Concentration of carbon monoxide.

(3) The rate and quantity of PCBs which are fed to the combustion system shall be measured and recorded at regular intervals of no longer than 15 minutes.

(4) The temperatures of the incineration process shall be continuously measured and recorded. The combustion temperature of the incineration process shall be based on either direct (pyrometer) or indirect (wall thermocouple-pyrometer correlation) temperature readings.

(5) The flow of PCBs to the incinerator shall stop automatically whenever the combustion temperature drops below the temperatures specified in paragraph (a)(1) of this section.

(6) Monitoring of stack emission products shall be conducted:

- (i) When an incinerator is first used for the disposal of PCBs under the provisions of this regulation;
- (ii) When an incinerator is first used for the disposal of PCBs after the incinerator has been modified in a manner which may affect the characteristics of the stack emission products; and
- (iii) At a minimum such monitoring shall be conducted for the following parameters:

(a) O₂; (b) CO; (c) CO₂; (d) Oxides of Nitrogen (NO_x); (e) Hydrochloric Acid (HCl); (f) Total Chlorinated Organic Content (RCI); (g) PCBs; and (h) Total Particulate Matter.

(7) At a minimum monitoring and recording of combustion products and incineration operations shall be conducted for the following parameters whenever the incinerator is incinerating PCBs:

(i) O₂; (ii) CO; and (iii) CO₂. The monitoring for O₂ and CO shall be continuous. The monitoring for CO₂ shall be periodic, at a frequency specified by the Regional Administrator or appropriate official at EPA Headquarters.

(8) The flow of PCBs to the incinerator shall stop automatically when any one or more of the following conditions occur, unless a contingency plan is submitted by the incinerator owner or operator and approved by the Regional Administrator or appropriate official at EPA Headquarters. The contingency plan indicates what alternative measures the incinerator owner or operator would take if any of the following conditions occur:

- (i) Failure of monitoring operations specified in paragraph (a)(7) of this section;
- (ii) Failure of the PCB rate and quantity measuring and recording equipment specified in paragraph (a)(3) of this section; or
- (iii) Excess oxygen falls below the percentage specified in paragraph (a)(1) of this section.

(9) Water scrubbers shall be used for HCl control during PCB incineration and shall meet any performance requirements specified by EPA. Scrubber effluent shall be monitored and shall comply with applicable effluent or pretreatment standards, and any other State and Federal laws and regulations. An alternate method of HCl control may be used if the alternate method has been approved by EPA. (The HCl neutralizing capability of cement kilns is considered to be an alternate method.)

(b) *Nonliquid PCBs.* An incinerator used for incinerating nonliquid PCBs, PCB Articles, PCB Equipment, or PCB Containers shall be approved by EPA pursuant to paragraph (d) of this section. Requests for approval of incinerators to be used in more than one region must be submitted to the Director, Office of Solid Waste except for research and development involving less than 500 pounds of PCB material (see §761.60(i)(2)). Requests for approval of incinerators to be used in only one region must be submitted to the appropriate Regional Administrator. The incinerator shall meet all of the requirements specified in paragraphs (b)(1) and (2) of this section unless a waiver from these requirements is obtained pursuant to paragraph (d)(5) of this section. In addition, the incinerator shall meet any other requirements that may be prescribed pursuant to paragraph (d)(4) of this section.

(1) The mass air emissions from the incinerator shall be no greater than 0.001g PCB/kg of the PCB introduced into the incinerator.

(2) The incinerator shall comply with the provisions of paragraphs (a)(2), (3), (4), (6), (7), (8)(i) and (ii), and (9) of this section.

(c) *Maintenance of data and records.* All data and records required by this section shall be maintained in accordance with §761.180, Records and monitoring.

(d) *Approval of incinerators.* Prior to the incineration of PCBs and PCB Items the owner or operator of an incinerator shall receive the written approval of the Agency Regional Administrator for the region in which the incinerator is located, or the appropriate official at EPA Headquarters. Approval from the appropriate official at EPA Headquarters may be effective in all ten EPA regions. Such approval shall be obtained in the following manner:

(1) *Application.* The owner or operator shall submit to the Regional Administrator or the Director, Office of Solid Waste an application which contains:

- (i) The location of the incinerator;
- (ii) A detailed description of the incinerator including general site plans and design drawings of the incinerator;
- (iii) Engineering reports or other information on the anticipated performance of the incinerator;
- (iv) Sampling and monitoring equipment and facilities available;
- (v) Waste volumes expected to be incinerated;
- (vi) Any local, State, or Federal permits or approvals; and
- (vii) Schedules and plans for complying with the approval requirements of this regulation.

(2) *Trial burn.* (i) Following receipt of the application described in paragraph (d)(1) of this section, EPA shall determine if a trial burn is required and notify the person who submitted the report whether a trial burn of PCBs and PCB Items must be conducted. EPA

may require the submission of any other information that EPA finds to be reasonably necessary to determine the need for a trial burn. Such other information shall be restricted to the types of information required in paragraphs (d)(1)(i) through (vii) of this section.

(ii) If EPA determines that a trial burn must be held, the person who submitted the report described in paragraph (d)(1) of this section shall submit to the Regional Administrator or the Director, Office of Solid Waste a detailed plan for conducting and monitoring the trial burn. At a minimum, the plan must include:

(A) Date trial burn is to be conducted;

(B) Quantity and type of PCBs and PCB Items to be incinerated;

(C) Parameters to be monitored and location of sampling points;

(D) Sampling frequency and methods and schedules for sample analyses; and

(E) Name, address, and qualifications of persons who will review analytical results and other pertinent data, and who will perform a technical evaluation of the effectiveness of the trial burn.

(iii) Following receipt of the plan described in paragraph (d)(2)(ii) of this section, EPA will approve the plan, require additions or modifications to the plan, or disapprove the plan. If the plan is disapproved, EPA will notify the person who submitted the plan of such disapproval, together with the reasons why it is disapproved. That person may thereafter submit a new plan in accordance with paragraph (d)(2)(ii) of this section. If the plan is approved (with any additions or modifications which EPA may prescribe), EPA will notify the person who submitted the plan of the approval. Thereafter, the trial burn shall take place at a date and time to be agreed upon between EPA and the person who submitted the plan.

(3) *Other information.* In addition to the information contained in the report and plan described in paragraphs (d)(1) and (2) of this section, EPA may require the owner or operator to submit any other information that the EPA finds to be reasonably necessary to determine whether an incinerator shall be approved.

Note: The Regional Administrator will have available for review and inspection an Agency manual containing information on sampling methods and analytical procedures for the parameters required in §761.70(a) (3), (4), (6), and (7) plus any other parameters he/she may determine to be appropriate. Owners or operators are encouraged to review this manual prior to submitting any report required in §761.70.

(4) *Contents of approval.* (i) Except as provided in paragraph (d)(5) of this section, the Regional Administrator or the appropriate official at EPA Headquarters may not approve an incinerator for the disposal of PCBs and PCB Items unless he finds that the incinerator meets all of the requirements of paragraphs (a) and/or (b) of this section.

(ii) In addition to the requirements of paragraphs (a) and/or (b) of this section, EPA may include in an approval any other requirements that EPA finds are necessary to ensure that operation of the incinerator does not present an unreasonable risk of injury to health or the environment from PCBs. Such requirements may include a fixed period of time for which the approval is valid.

(5) *Waivers.* An owner or operator of the incinerator may submit evidence to the Regional Administrator or the Director, Office of Solid Waste that operation of the incinerator will not present an unreasonable risk of injury to health or the environment from PCBs, when one or more of the requirements of paragraphs (a) and/or (b) of this section are not met. On the basis of such evidence and any other available information, EPA may, in its discretion, find that any requirement of paragraphs (a) and (b) of this section is not necessary to protect against such a risk, and may waive the requirements in any approval for that incinerator. Any finding and waiver under this paragraph must be stated in writing and included as part of the approval.

(6) *Persons approved.* An approval will designate the persons who own and who are authorized to operate the incinerator, and will apply only to such persons, except as provided in paragraph (d)(8) of this section.

(7) *Final approval.* Approval of an incinerator will be in writing and signed by the appropriate EPA official. The approval will state all requirements applicable to the approved incinerator.

(8) *Transfer of property.* Any person who owns or operates an approved incinerator must notify EPA at least 30 days before transferring ownership in the incinerator or the property it stands upon, or transferring the right to operate the incinerator. The transferor must also submit to EPA, at least 30 days before such transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's EPA incinerator approval. Within 30 days of receiving such notification and affidavit, EPA will issue an amended approval substituting the transferee's name for the transferor's name, or EPA may require the transferee to apply for a new incinerator approval. In the latter case, the transferee must abide by the transferor's EPA approval until EPA issues the new approval to the transferee.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605))

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 48 FR 13185, Mar. 30, 1983; 49 FR 28191, July 10, 1984; 53 FR 12524, Apr. 15, 1988; 58 FR 15809, Mar. 24, 1993; 63 FR 35439, June 29, 1998; 72 FR 57240, Oct. 9, 2007]

§ 761.71 High efficiency boilers.[top](#)

(a) To burn mineral oil dielectric fluid containing a PCB concentration of ≥ 50 ppm, but < 500 ppm:

(1) The boiler shall comply with the following criteria:

(i) The boiler is rated at a minimum of 50 million BTU hours.

(ii) If the boiler uses natural gas or oil as the primary fuel, the carbon monoxide concentration in the stack is ≤ 50 ppm and the excess oxygen is at least 3 percent when PCBs are being burned.

(iii) If the boiler uses coal as the primary fuel, the carbon monoxide concentration in the stack is ≤ 100 ppm and the excess oxygen is at least 3 percent when PCBs are being burned.

(iv) The mineral oil dielectric fluid does not comprise more than 10 percent (on a volume basis) of the total fuel feed rate.

(v) The mineral oil dielectric fluid is not fed into the boiler unless the boiler is operating at its normal operating temperature (this prohibits feeding these fluids during either start up or shut down operations).

(vi) The owner or operator of the boiler:

(A) Continuously monitors and records the carbon monoxide concentration and excess oxygen percentage in the stack gas while burning mineral oil dielectric fluid; or

(B) If the boiler will burn $< 30,000$ gallons of mineral oil dielectric fluid per year, measures and records the carbon monoxide concentration and excess oxygen percentage in the stack gas at regular intervals of no longer than 60 minutes while burning mineral oil dielectric fluid.

(vii) The primary fuel feed rates, mineral oil dielectric fluid feed rates, and total quantities of both primary fuel and mineral oil dielectric fluid fed to the boiler are measured and recorded at regular intervals of no longer than 15 minutes while burning mineral oil dielectric fluid.

(viii) The carbon monoxide concentration and the excess oxygen percentage are checked at least once every hour that mineral oil dielectric fluid is burned. If either measurement falls below the levels specified in this section, the flow of mineral oil dielectric fluid to the boiler shall be stopped immediately.

(2) Thirty days before any person burns mineral oil dielectric fluid in the boiler, the person gives written notice to the EPA Regional Administrator for the EPA Region in which the boiler is located and that the notice contains the following information:

(i) The name and address of the owner or operator of the boiler and the address of the boiler.

(ii) The boiler rating in units of BTU/hour.

(iii) The carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when mineral oil dielectric fluid is burned.

(iv) The type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack.

(3) When burning mineral oil dielectric fluid, the boiler must operate at a level of output no less than the output at which the measurements required under paragraph (a)(2)(iii) of this section were taken.

(4) Any person burning mineral oil dielectric fluid in a boiler obtains the following information and retains the information for 5 years at the boiler location:

(i) The data required to be collected under paragraphs (a)(1)(vi) and (vii) of this section.

(ii) The quantity of mineral oil dielectric fluid burned in the boiler each month.

(b) To burn liquids, other than mineral oil dielectric fluid, containing a PCB concentration of ≥ 50 ppm, but < 500 ppm:

(1) The boiler shall comply with the following criteria:

(i) The boiler is rated at a minimum of 50 million BTU/hour.

(ii) If the boiler uses natural gas or oil as the primary fuel, the carbon monoxide concentration in the stack is ≤ 50 ppm and the excess oxygen is at least 3 percent when PCBs are being burned.

- (iii) If the boiler uses coal as the primary fuel, the carbon monoxide concentration in the stack is ≤ 100 ppm and the excess oxygen is at least 3 percent when PCBs are being burned.
- (iv) The waste does not comprise more than 10 percent (on a volume basis) of the total fuel feed rate.
- (v) The waste is not fed into the boiler unless the boiler is operating at its normal operating temperature (this prohibits feeding these fluids during either start up or shut down operations).
- (vi) The owner or operator of the boiler must:
- (A) Continuously monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack gas while burning waste fluid; or
- (B) If the boiler will burn $< 30,000$ gallons of waste fluid per year, measure and record the carbon monoxide concentration and excess oxygen percentage in the stack gas at regular intervals of no longer than 60 minutes while burning waste fluid.
- (vii) The primary fuel feed rate, waste fluid feed rate, and total quantities of both primary fuel and waste fluid fed to the boiler must be measured and recorded at regular intervals of no longer than 15 minutes while burning waste fluid.
- (viii) The carbon monoxide concentration and the excess oxygen percentage must be checked at least once every hour that the waste is burned. If either measurement falls below the levels specified in either (a)(1)(ii) or (a)(1)(iii) of this section, the flow of waste to the boiler shall be stopped immediately.
- (2) Prior to any person burning these liquids in the boiler, approval must be obtained from the EPA Regional Administrator for the EPA Region in which the boiler is located and any persons seeking such approval must submit to the EPA Regional Administrator a request containing at least the following information:
- (i) The name and address of the owner or operator of the boiler and the address of the boiler.
- (ii) The boiler rating in units of BTU/hour.
- (iii) The carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when low concentration PCB liquid is burned.
- (iv) The type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack.
- (v) The type of waste to be burned (e.g., hydraulic fluid, contaminated fuel oil, heat transfer fluid, etc.).
- (vi) The concentration of PCBs and of any other chlorinated hydrocarbon in the waste and the results of analyses using the American Society of Testing and Materials (ASTM) methods as follows: Carbon and hydrogen content using ASTM D-3178-84, nitrogen content using ASTM E-258-67 (Reapproved 1987), sulfur content using ASTM D-2784-89, ASTM D-1266-87, or ASTM D-129-64, chlorine content using ASTM D-808-87, water and sediment content using either ASTM D-2709-88 or ASTM D-1796-83 (Reapproved 1990), ash content using ASTM D-482-87, calorific value using ASTM D-240-87, carbon residue using either ASTM D-2158-89 or ASTM D-524-88, and flash point using ASTM D-93-90.
- (vii) The quantity of wastes estimated to be burned in a 30-day period.
- (viii) An explanation of the procedures to be followed to ensure that burning the waste will not adversely affect the operation of the boiler such that combustion efficiency will decrease.
- (3) On the basis of the information in paragraph (b)(2) of this section and any other available information, the Regional Administrator may, at his/her discretion, find that the alternate disposal method will not present an unreasonable risk of injury to health or the environment and approve the use of the boiler.
- (4) When burning PCB wastes, the boiler must operate at a level of output no less than the output at which the measurements required under paragraph (b)(2)(iii) of this section were taken.
- (5) Any person burning liquids in boilers approved as provided in paragraph (b)(3) of this section, must obtain the following information and retain the information for 5 years at the boiler location:
- (i) The data required to be collected in paragraphs (b)(1)(vi) and (b)(1)(vii) of this section.
- (ii) The quantity of low concentration PCB liquid burned in the boiler each month.
- (iii) The analysis of the waste required by paragraph (b)(2)(vi) of this section taken once a month for each month during which low concentration PCB liquid is burned in the boiler.

[63 FR 35454, June 29, 1998]

§ 761.72 Scrap metal recovery ovens and smelters.

[top](#)

Any person may dispose of residual PCBs associated with PCB-Contaminated articles regulated for disposal under §761.60(b), metal surfaces in PCB remediation waste regulated under §761.61, or metal surfaces in PCB bulk product waste regulated under §§761.62(a)(6) and 761.79(c)(6), from which all free-flowing liquids have been removed:

(a) In a scrap metal recovery oven:

- (1) The oven shall have at least two enclosed (i.e., negative draft, no fugitive emissions) interconnected chambers.
- (2) The equipment with all free-flowing liquid removed shall first be placed in the primary chamber at room temperature.
- (3) The primary chamber shall operate at a temperature between 537 °C and 650 °C for a minimum of 21/2hours and reach a minimum temperature of 650 °C (1,202 °F) once during each heating cycle or batch treatment of unheated, liquid-free equipment.
- (4) Heated gases from the primary chamber must feed directly into the secondary chamber (i.e., afterburner) which must operate at a minimum temperature of 1,200 °C (2,192 °F) with at least a 3 percent excess oxygen and a retention time of 2.0 seconds with a minimum combustion efficiency of 99.9 percent according to the definition in §761.70(a)(2).
- (5) Heating of the primary chamber shall not commence until the secondary chamber has reached a temperature of 1,200 ±100 °C (2,192 ° ±180 °F).
- (6) Continuous emissions monitors and recorders for carbon dioxide, carbon monoxide, and excess oxygen in the secondary chamber and continuous temperature recorders in the primary and secondary chambers shall be installed and operated while the primary and secondary chambers are in operation to assure that the two chambers are within the operating parameters in paragraphs (a)(3) through (a)(5) of this section.
- (7) Emissions from the secondary chamber must be vented through an exhaust gas stack in accordance with either:
 - (i) State or local air regulations or permits, or
 - (ii) The standards in paragraph (a)(8) of this section.

(8) Exhaust gas stack emissions shall be for: particulates <0.015 grains/dry standard cubic foot, sulfur dioxide <35 parts per million by volume (ppmv), nitrogen oxide <150 ppmv, carbon monoxide <35 ppmv, and hydrogen chloride <35 ppmv.

(9) A measurement of the temperature in the secondary chamber at the time the primary chamber starts heating must be taken, recorded and retained at the facility for 3 years from the date each charge is introduced into the primary chamber.

(b) By smelting:

- (1) The operating temperature of the hearth must be at least 1,000 °C at the time it is charged with any PCB-Contaminated non-porous surface.
- (2) Each charge containing a PCB-Contaminated item must be added into molten metal or a hearth at ≥1,000 °C.
- (3) Successive charges may not be introduced into the hearth in less than 15-minute intervals.
- (4) The smelter must operate in compliance with any applicable emissions standards in part 60 of this chapter.
- (5) The smelter must have an operational device which accurately measures directly or indirectly, the temperature in the hearth.
- (6) Take, record and retain at the disposal facility for 3 years from the date each charge is introduced, a reading of the temperature in the hearth at the time it is charged with a non-porous surface item.

(c)(1) Scrap metal recovery ovens and smelters must either have a final permit under RCRA (part 266, subpart H of this chapter and §270.66 of this chapter) or be operating under a valid State air emissions permit which includes a standard for PCBs.

(2) Scrap metal recovery ovens and smelters disposing of PCBs must provide notification as disposers of PCBs, are not required to submit annual reports, and shall otherwise comply with all applicable provisions of subparts J and K of this part, as well as other applicable Federal, State, and local laws and regulations.

(3) In lieu of the requirements in paragraph (c)(1) of this section, upon written request by the owner or operator of a scrap metal recovery oven or smelter, the EPA Regional Administrator, for the Region where the oven or smelter is located, may make a finding in writing, based on a site-specific risk assessment, that the oven or smelter does not pose an unreasonable risk of injury to health or the environment because it is operating in compliance with the parameters and conditions listed in paragraph (a) or (b) of this section even though the oven or smelter does not have a RCRA or State air permit as required by paragraph (c)(1) of this section. The written request shall include a site-specific risk assessment.

(d) PCB liquids, other liquid waste qualifying as waste oils which may be used as provided for at §761.20(e), or PCB remediation

waste, other than PCB-Contaminated articles, may not be disposed of in a scrap metal recovery oven or smelter unless approved or otherwise allowed under subpart D of this part.

[63 FR 35455, June 29, 1998, as amended at 64 FR 33761, June 24, 1999]

§ 761.75 Chemical waste landfills.



top

This section applies to facilities used to dispose of PCBs in accordance with the part.

(a) *General.* A chemical waste landfill used for the disposal of PCBs and PCB Items shall be approved by the Agency Regional Administrator pursuant to paragraph (c) of this section. The landfill shall meet all of the requirements specified in paragraph (b) of this section, unless a waiver from these requirements is obtained pursuant to paragraph (c)(4) of this section. In addition, the landfill shall meet any other requirements that may be prescribed pursuant to paragraph (c)(3) of this section.

(b) *Technical requirements.* Requirements for chemical waste landfills used for the disposal of PCBs and PCB Items are as follows:

(1) *Soils.* The landfill site shall be located in thick, relatively impermeable formations such as large-area clay pans. Where this is not possible, the soil shall have a high clay and silt content with the following parameters:

(i) In-place soil thickness, 4 feet or compacted soil liner thickness, 3 feet;

(ii) Permeability (cm/sec), equal to or less than 1×10^{-7} ;

(iii) Percent soil passing No. 200 Sieve, >30;

(iv) Liquid Limit, >30; and

(v) Plasticity Index >15.

(2) *Synthetic membrane liners.* Synthetic membrane liners shall be used when, in the judgment of the Regional Administrator, the hydrologic or geologic conditions at the landfill require such a liner in order to provide at least a permeability equivalent to the soils in paragraph (b)(1) of this section. Whenever a synthetic liner is used at a landfill site, special precautions shall be taken to insure that its integrity is maintained and that it is chemically compatible with PCBs. Adequate soil underlining and soil cover shall be provided to prevent excessive stress on the liner and to prevent rupture of the liner. The liner must have a minimum thickness of 30 mils.

(3) *Hydrologic conditions.* The bottom of the landfill shall be above the historical high groundwater table as provided below. Floodplains, shorelands, and groundwater recharge areas shall be avoided. There shall be no hydraulic connection between the site and standing or flowing surface water. The site shall have monitoring wells and leachate collection. The bottom of the landfill liner system or natural in-place soil barrier shall be at least fifty feet from the historical high water table.

(4) *Flood protection.* (i) If the landfill site is below the 100-year floodwater elevation, the operator shall provide surface water diversion dikes around the perimeter of the landfill site with a minimum height equal to two feet above the 100-year floodwater elevation.

(ii) If the landfill site is above the 100-year floodwater elevation, the operators shall provide diversion structures capable of diverting all of the surface water runoff from a 24-hour, 25-year storm.

(5) *Topography.* The landfill site shall be located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping.

(6) *Monitoring systems* —(i) *Water sampling.* (A) For all sites receiving PCBs, the ground and surface water from the disposal site area shall be sampled prior to commencing operations under an approval provided in paragraph (c) of this section for use as baseline data.

(B) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled at least monthly when the landfill is being used for disposal operations.

(C) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled for a time period specified by the Regional Administrator on a frequency of no less than once every six months after final closure of the disposal area.

(ii) *Groundwater monitor wells.* (A) If underlying earth materials are homogenous, impermeable, and uniformly sloping in one direction, only three sampling points shall be necessary. These three points shall be equally spaced on a line through the center of the disposal area and extending from the area of highest water table elevation to the area of the lowest water table elevation on the property.

(B) All monitor wells shall be cased and the annular space between the monitor zone (zone of saturation) and the surface shall be completely backfilled with Portland cement or an equivalent material and plugged with Portland cement to effectively prevent percolation of surface water into the well bore. The well opening at the surface shall have a removable cap to provide access and to prevent entrance of rainfall or stormwater runoff. The well shall be pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis. The discharge shall be treated to meet applicable State or Federal discharge standards or recycled to the chemical waste landfill.

(iii) *Water analysis.* As a minimum, all samples shall be analyzed for the following parameters, and all data and records of the sampling and analysis shall be maintained as required in §761.180(d)(1). Sampling methods and analytical procedures for these parameters shall comply with those specified in 40 CFR part 136 as amended in 41 FR 52779 on December 1, 1976.

(A) PCBs.

(B) pH.

(C) Specific conductance.

(D) Chlorinated organics.

(7) *Leachate collection.* A leachate collection monitoring system shall be installed above the chemical waste landfill. Leachate collection systems shall be monitored monthly for quantity and physicochemical characteristics of leachate produced. The leachate should be either treated to acceptable limits for discharge in accordance with a State or Federal permit or disposed of by another State or Federally approved method. Water analysis shall be conducted as provided in paragraph (b)(6)(iii) of this section. Acceptable leachate monitoring/collection systems shall be any of the following designs, unless a waiver is obtained pursuant to paragraph (c)(4) of this section.

(i) *Simple leachate collection.* This system consists of a gravity flow drainfield installed above the waste disposal unit liner. This design is recommended for use when semi-solid or leachable solid wastes are placed in a lined pit excavated into a relatively thick, unsaturated, homogenous layer of low permeability soil.

(ii) *Compound leachate collection.* This system consists of a gravity flow drainfield installed above the waste disposal unit liner and above a secondary installed liner. This design is recommended for use when semi-liquid or leachable solid wastes are placed in a lined pit excavated into relatively permeable soil.

(iii) *Suction lysimeters.* This system consists of a network of porous ceramic cups connected by hoses/tubing to a vacuum pump. The porous ceramic cups or suction lysimeters are installed along the sides and under the bottom of the waste disposal unit liner. This type of system works best when installed in a relatively permeable unsaturated soil immediately adjacent to the bottom and/or sides of the disposal facility.

(8) *Chemical waste landfill operations.* (i) PCBs and PCB Items shall be placed in a landfill in a manner that will prevent damage to containers or articles. Other wastes placed in the landfill that are not chemically compatible with PCBs and PCB Items including organic solvents shall be segregated from the PCBs throughout the waste handling and disposal process.

(ii) An operation plan shall be developed and submitted to the Regional Administrator for approval as required in paragraph (c) of this section. This plan shall include detailed explanations of the procedures to be used for recordkeeping, surface water handling procedures, excavation and backfilling, waste segregation burial coordinates, vehicle and equipment movement, use of roadways, leachate collection systems, sampling and monitoring procedures, monitoring wells, environmental emergency contingency plans, and security measures to protect against vandalism and unauthorized waste placements. EPA guidelines entitled "Thermal Processing and Land Disposal of Solid Waste" (39 FR 29337, Aug. 14, 1974) are a useful reference in preparation of this plan. If the facility is to be used to dispose of liquid wastes containing between 50 ppm and 500 ppm PCB, the operations plan must include procedures to determine that liquid PCBs to be disposed of at the landfill do not exceed 500 ppm PCB and measures to prevent the migration of PCBs from the landfill. Bulk liquids not exceeding 500 ppm PCBs may be disposed of provided such waste is pretreated and/or stabilized (e.g., chemically fixed, evaporated, mixed with dry inert absorbant) to reduce its liquid content or increase its solid content so that a non-flowing consistency is achieved to eliminate the presence of free liquids prior to final disposal in a landfill. PCB Container of liquid PCBs with a concentration between 50 and 500 ppm PCB may be disposed of if each container is surrounded by an amount of inert sorbant material capable of absorbing all of the liquid contents of the container.

(iii) Ignitable wastes shall not be disposed of in chemical waste landfills. Liquid ignitable wastes are wastes that have a flash point less than 60 degrees C (140 degrees F) as determined by the following method or an equivalent method: Flash point of liquids shall be determined by a Pensky-Martens Closed Cup Tester, using the protocol specified in ASTM D 93-90, or the Setaflash Closed Tester using the protocol specified in ASTM Standard D-3278-89.

(iv) Records shall be maintained for all PCB disposal operations and shall include information on the PCB concentration in liquid wastes and the three dimensional burial coordinates for PCBs and PCB Items. Additional records shall be developed and maintained as required in §761.180.

(9) *Supporting facilities.* (i) A six foot woven mesh fence, wall, or similar device shall be placed around the site to prevent unauthorized persons and animals from entering.

(ii) Roads shall be maintained to and within the site which are adequate to support the operation and maintenance of the site

without causing safety or nuisance problems or hazardous conditions.

(iii) The site shall be operated and maintained in a manner to prevent safety problems or hazardous conditions resulting from spilled liquids and windblown materials.

(c) *Approval of chemical waste landfills.* Prior to the disposal of any PCBs and PCB Items in a chemical waste landfill, the owner or operator of the landfill shall receive written approval of the Agency Regional Administrator for the Region in which the landfill is located. The approval shall be obtained in the following manner:

(1) *Initial report.* The owner or operator shall submit to the Regional Administrator an initial report which contains:

(i) The location of the landfill;

(ii) A detailed description of the landfill including general site plans and design drawings;

(iii) An engineering report describing the manner in which the landfill complies with the requirements for chemical waste landfills specified in paragraph (b) of this section;

(iv) Sampling and monitoring equipment and facilities available;

(v) Expected waste volumes of PCBs;

(vi) General description of waste materials other than PCBs that are expected to be disposed of in the landfill;

(vii) Landfill operations plan as required in paragraph (b) of this section;

(viii) Any local, State, or Federal permits or approvals; and

(ix) Any schedules or plans for complying with the approval requirements of these regulations.

(2) *Other information.* In addition to the information contained in the report described in paragraph (c)(1) of this section, the Regional Administrator may require the owner or operator to submit any other information that the Regional Administrator finds to be reasonably necessary to determine whether a chemical waste landfill should be approved. Such other information shall be restricted to the types of information required in paragraphs (c)(1) (i) through (ix) of this section.

(3) *Contents of approval.* (i) Except as provided in paragraph (c)(4) of this section the Regional Administrator may not approve a chemical waste landfill for the disposal of PCBs and PCB Items, unless he finds that the landfill meets all of the requirements of paragraph (b) of this section.

(ii) In addition to the requirements of paragraph (b) of this section, the Regional Administrator may include in an approval any other requirements or provisions that the Regional Administrator finds are necessary to ensure that operation of the chemical waste landfill does not present an unreasonable risk of injury to health or the environment from PCBs. Such provisions may include a fixed period of time for which the approval is valid.

The approval may also include a stipulation that the operator of the chemical waste landfill report to the Regional Administrator any instance when PCBs are detectable during monitoring activities conducted pursuant to paragraph (b)(6) of this section.

(4) *Waivers.* An owner or operator of a chemical waste landfill may submit evidence to the Regional Administrator that operation of the landfill will not present an unreasonable risk of injury to health or the environment from PCBs when one or more of the requirements of paragraph (b) of this section are not met. On the basis of such evidence and any other available information, the Regional Administrator may in his discretion find that one or more of the requirements of paragraph (b) of this section is not necessary to protect against such a risk and may waive the requirements in any approval for that landfill. Any finding and waiver under this paragraph will be stated in writing and included as part of the approval.

(5) *Persons approved.* Any approval will designate the persons who own and who are authorized to operate the chemical waste landfill, and will apply only to such persons, except as provided by paragraph (c)(7) of this section.

(6) *Final approval.* Approval of a chemical waste landfill will be in writing and will be signed by the Regional Administrator. The approval will state all requirements applicable to the approved landfill.

(7) *Transfer of property.* Any person who owns or operates an approved chemical waste landfill must notify EPA at least 30 days before transferring ownership in the property or transferring the right to conduct the chemical waste landfill operation. The transferor must also submit to EPA, at least 30 days before such transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's EPA chemical waste landfill approval. Within 30 days of receiving such notification and affidavit, EPA will issue an amended approval substituting the transferee's name for the transferor's name, or EPA may require the transferee to apply for a new chemical waste landfill approval. In the latter case, the transferee must abide by the transferor's EPA approval until EPA issues the new approval to the transferee.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605))

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 48 FR 5730, Feb. 8, 1983; 49 FR

28191, July 10, 1984; 53 FR 12524, Apr. 15, 1988; 53 FR 21641, June 9, 1988; 57 FR 13323, Apr. 16, 1992; 63 FR 35456, June 29, 1998]

§ 761.77 Coordinated approval.



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(a) *General requirements.* Notwithstanding any other provision of this part, the EPA Regional Administrator for the Region in which a PCB disposal or PCB commercial storage facility described in paragraphs (b) and (c) of this section is located may issue a TSCA PCB Coordinated Approval to the persons described in those paragraphs if the conditions listed in this section are met. A TSCA PCB Coordinated Approval will designate the persons who own and who are authorized to operate the facilities described in paragraphs (b) and (c) of this section and will apply only to such persons. All requirements, conditions, and limitations of any other permit or waste management document cited or described in paragraphs (b) and (c) of this section, as the technical or legal basis on which the TSCA PCB Coordinated Approval is issued, are conditions of the TSCA PCB Coordinated Approval.

(1) Persons seeking a TSCA PCB Coordinated Approval shall submit a request for approval by certified mail, to the EPA Regional Administrator for the Region in which the activity will take place. Persons seeking a TSCA PCB Coordinated Approval for a new PCB activity shall submit the request for approval at the same time they seek a permit, approval, or other action for a PCB waste management activity under any other Federal or State authority.

(i) The request for a TSCA PCB Coordinated Approval shall include a copy of the letter from EPA announcing or confirming the EPA identification number issued to the facility for conducting PCB activities; the name, organization, and telephone number of the person who is the contact point for the non-TSCA Federal or State waste management authority; a copy of the relevant permit or waste management document specified in paragraphs (b) and (c) of this section, including all requirements, conditions, and limitations, if the EPA Regional Administrator does not have a copy of the document, or a description of the waste management activities to be conducted if a permit or other relevant waste management document has not been issued; and a certification that the person who owns or operates the facility is aware of and will adhere to the TSCA PCB reporting and recordkeeping requirements at subparts J and K of this part.

(ii) The EPA Regional Administrator shall review the request for completeness, for compliance with the requirements of paragraphs (b) and (c) of this section, and to ensure that the PCB activity for which approval is requested will not present an unreasonable risk of injury to health or the environment. The EPA Regional Administrator shall either:

(A) Issue a written notice of deficiency explaining why the request for approval is deficient. If appropriate, the EPA Regional Administrator may either:

(1) Request additional information to cure the deficiency.

(2) Deny the request for a TSCA PCB Coordinated Approval.

(B) Issue a letter granting or denying the TSCA PCB Coordinated Approval. If the EPA Regional Administrator grants the TSCA PCB Coordinated Approval, he or she may acknowledge the non-TSCA approval meets the regulatory requirements under TSCA as written, or require additional conditions the EPA Regional Administrator has determined are necessary to prevent unreasonable risk of injury to health or the environment.

(C) If the EPA Regional Administrator denies a request for a Coordinated Approval under paragraphs (a)(1)(ii)(A) or (a)(1)(ii)(B) of this section, the person who requested the TSCA PCB Coordinated Approval may submit an application for a TSCA Disposal Approval.

(2) The EPA Regional Administrator may issue a notice of deficiency, revoke the TSCA PCB Coordinated Approval, require the person to whom the TSCA PCB Coordinated Approval was issued to submit an application for a TSCA PCB approval, or bring an enforcement action under TSCA if he or she determines that:

(i) Conditions of the approval relating to PCB waste management activities are not met.

(ii) The PCB waste management process is being operated in a manner which may result in an unreasonable risk of injury to health or the environment.

(iii) The non-TSCA approval expires, is revoked, is suspended, or otherwise ceases to be in full effect.

(3) Any person with a TSCA PCB Coordinated Approval must notify the EPA Regional Administrator in writing within 5 calendar days of changes relating to PCB waste requirements in the non-TSCA waste management document which serves as the basis for a TSCA PCB Coordinated Approval. Changes in the ownership of a commercial storage facility which holds a TSCA PCB Coordinated Approval shall be handled pursuant to §761.65(j).

(b) Any person who owns or operates a facility that he or she intends to use to landfill PCB wastes; incinerate PCB wastes; dispose of PCB wastes using an alternative disposal method that is equivalent to disposal in an incinerator approved under §761.70 or a high efficiency boiler operating in compliance with §761.71; or stores PCB wastes may apply for a TSCA PCB Coordinated Approval. The EPA Regional Administrator may approve the request if the EPA Regional Administrator determines that the activity

will not pose an unreasonable risk of injury to health or the environment and the person:

(1)(i) Has a waste management permit or other decision or enforcement document which exercises control over PCB wastes, issued by EPA or an authorized State Director for a State program that has been approved by EPA and is no less stringent in protection of health or the environment than the applicable TSCA requirements found in this part; or

(ii) Has a PCB waste management permit or other decision or enforcement document issued by a State Director pursuant to a State PCB waste management program no less stringent in protection of health or the environment than the applicable TSCA requirements found in this part; or

(iii) Is subject to a waste management permit or other decision or enforcement document which is applicable to the disposal of PCBs and which was issued through the promulgation of a regulation published in Title 40 of the Code of Federal Regulations.

(2) Complies with the terms and conditions of the permit or other decision or enforcement document described in paragraph (b)(1) of this section.

(3) Unless otherwise waived or modified in writing by the EPA Regional Administrator, complies with §761.75(b); §761.70(a)(1) through (a)(9), (b)(1) and (b)(2), and (c); or the PCB storage requirements at §§761.65(a), (c), and (d)(2), as appropriate.

(4) Complies with the reporting and recordkeeping requirements in subparts J and K of this part.

(c) A person conducting research and development (R&D) into PCB disposal methods (regardless of PCB concentration), or conducting PCB remediation activities may apply for a TSCA PCB Coordinated Approval. The EPA Regional Administrator may approve the request if the EPA Regional Administrator determines that the activity will not pose an unreasonable risk of injury to health or the environment and the person:

(1)(i) Has a permit or other decision and enforcement document issued or otherwise agreed to by EPA, or permit or other decision and enforcement document issued by an authorized State Director for a State program that has been approved by EPA, which exercises control over the management of PCB wastes, and that person is in compliance with all terms and conditions of that document; or

(ii) Has a permit, which exercises control over the management of PCB wastes, issued by a State Director pursuant to a State PCB disposal program no less stringent than the requirements in this part.

(2) Complies with the terms and conditions of that permit or other decision and enforcement document.

(3) Complies with the reporting and recordkeeping requirements in subparts J and K of this part.

[63 FR 35456, June 29, 1998]

§ 761.79 Decontamination standards and procedures.



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(a) *Applicability.* This section establishes decontamination standards and procedures for removing PCBs, which are regulated for disposal, from water, organic liquids, non-porous surfaces (including scrap metal from disassembled electrical equipment), concrete, and non-porous surfaces covered with a porous surface, such as paint or coating on metal.

(1) Decontamination in accordance with this section does not require a disposal approval under subpart D of this part.

(2) Materials from which PCBs have been removed by decontamination in accordance with this section may be distributed in commerce in accordance with §761.20(c)(5).

(3) Materials from which PCBs have been removed by decontamination in accordance with this section may be used or reused in accordance with §761.30(u).

(4) Materials from which PCBs have been removed by decontamination in accordance with this section, not including decontamination waste and residuals under paragraph (g) of this section, are unregulated for disposal under subpart D of this part.

(5) Any person decontaminating porous surfaces other than concrete under paragraph (b)(4) of this section and non-porous surfaces covered with a porous surface, such as paint or coating on metal, under paragraph (b)(3) or (c)(6) of this section must obtain an alternative decontamination approval in accordance with paragraph (h) of this section.

(6) Any person engaging in decontamination under this section is responsible for determining and complying with all other applicable Federal, State, and local laws and regulations.

(b) *Decontamination standards.* Chopping (including wire chopping), distilling, filtering, oil/water separation, spraying, soaking, wiping, stripping of insulation, scraping, scarification or the use of abrasives or solvents may be used to remove or separate PCBs, to the following standards, from liquids, concrete, or non-porous surfaces.

(1) The decontamination standard for water containing PCBs is:

- (i) Less than 200 µg/L (i.e., <200 ppb PCBs) for non-contact use in a closed system where there are no releases;
- (ii) For water discharged to a treatment works (as defined in §503.9(aa) of this chapter) or to navigable waters, <3 µg/L (approximately <3 ppb) or a PCB discharge limit included in a permit issued under section 307(b) or 402 of the Clean Water Act; or
- (iii) Less than or equal to 0.5 µg/L (i.e., approximately ≤0.5 ppb PCBs) for unrestricted use.

(2) The decontamination standard for organic liquids and non-aqueous inorganic liquids containing PCBs is <2 milligrams per kilogram (i.e., <2 ppm PCBs).

(3) The decontamination standard for non-porous surfaces in contact with liquid and non-liquid PCBs is:

(i) For unrestricted use:

(A) For non-porous surfaces previously in contact with liquid PCBs at any concentration, where no free-flowing liquids are currently present, ≤10 micrograms PCBs per 100 square centimeters (≤10 µg/100 cm²) as measured by a standard wipe test (§761.123) at locations selected in accordance with subpart P of this part.

(B) For non-porous surfaces in contact with non-liquid PCBs (including non-porous surfaces covered with a porous surface, such as paint or coating on metal), cleaning to Visual Standard No. 2, Near-White Blast Cleaned Surface Finish, of the National Association of Corrosion Engineers (NACE). A person shall verify compliance with standard No. 2 by visually inspecting all cleaned areas.

(ii) For disposal in a smelter operating in accordance with §761.72(b):

(A) For non-porous surfaces previously in contact with liquid PCBs at any concentration, where no free-flowing liquids are currently present, <100 µg/100 cm² as measured by a standard wipe test (§761.123) at locations selected in accordance with subpart P of this part.

(B) For non-porous surfaces in contact with non-liquid PCBs (including non-porous surfaces covered with a porous surface, such as paint or coating on metal), cleaning to Visual Standard No. 3, Commercial Blast Cleaned Surface Finish, of the National Association of Corrosion Engineers (NACE). A person shall verify compliance with standard No. 3 by visually inspecting all cleaned areas.

(4) The decontamination standard for concrete is ≤10 µg/100 cm² as measured by a standard wipe test (§761.123) if the decontamination procedure is commenced within 72 hours of the initial spill of PCBs to the concrete or portion thereof being decontaminated.

(c) *Self-implementing decontamination procedures.* The following self-implementing decontamination procedures are available as an alternative to the measurement-based decontamination methods specified in paragraph (b) of this section. Any person performing self-implementing decontamination must comply with one of the following procedures.

(1) Any person decontaminating a PCB Container must do so by flushing the internal surfaces of the container three times with a solvent containing <50 ppm PCBs. Each rinse shall use a volume of the flushing solvent equal to approximately 10 percent of the PCB Container capacity.

(2) Any person decontaminating movable equipment contaminated by PCBs, tools, and sampling equipment may do so by:

- (i) Swabbing surfaces that have contacted PCBs with a solvent;
- (ii) A double wash/rinse as defined in subpart S of this part; or
- (iii) Another applicable decontamination procedure in this section.

(3) Any person decontaminating a non-porous surface in contact with free-flowing mineral oil dielectric fluid (MODEF) at levels ≤10,000 ppm PCBs must do so as follows:

- (i) Drain the free-flowing MODEF and allow the residual surfaces to drain for an additional 15 hours.
- (ii) Dispose of drained MODEF according to paragraph (g) of this section.

(iii) Soak the surfaces to be decontaminated in a sufficient amount of clean (containing <2 ppm PCBs) performance-based organic decontamination fluid (PODF) such that there is a minimum of 800 ml of PODF for each 100 cm² of contaminated or potentially contaminated surface for at least 15 hours at ≥20 °C.

(iv) Approved PODFs include:

(A) Kerosene.

- (B) Diesel fuel.
 - (C) Terpene hydrocarbons.
 - (D) Mixtures of terpene hydrocarbons and terpene alcohols.
 - (v) Drain the PODF from the surfaces.
 - (vi) Dispose of the drained PODF in accordance with paragraph (g) of this section.
- (4) Any person decontaminating a non-porous surface in contact with free-flowing MODEF containing >10,000 ppm PCB in MODEF or askarel PCB (up to 70 percent PCB in a mixture of trichlorobenzenes and tetrachlorobenzenes) must do so as follows:
- (i) Drain the free-flowing MODEF or askarel and allow the residual surfaces to drain for an additional 15 hours.
 - (ii) Dispose of drained MODEF or askarel according to paragraph (g) of this section.
 - (iii) Soak the surfaces to be decontaminated in a sufficient amount of clean PODF (containing <2 ppm PCBs) such that there is a minimum of 800 ml of PODF for each 100 cm² of contaminated or potentially contaminated surface for at least 15 hours at ≥20 °C.
 - (iv) Approved PODFs include:
 - (A) Kerosene.
 - (B) Diesel fuel.
 - (C) Terpene hydrocarbons.
 - (D) Mixtures of terpene hydrocarbons and terpene alcohols.
 - (v) Drain the PODF from the surfaces.
 - (vi) Dispose of the drained PODF in accordance with paragraph (g) of this section.
 - (vii) Resoak the surfaces to be decontaminated, pursuant to paragraph (c)(3)(iii) of this section, in a sufficient amount of clean PODF (containing <2 ppm PCBs) such that there is a minimum of 800 ml of PODF for each 100 cm² of surface for at least 15 hours at ≥20 °C.
 - (viii) Drain the PODF from the surfaces.
 - (ix) Dispose of the drained PODF in accordance with paragraph (g) of this section.
- (5) Any person decontaminating piping and air lines in an air compressor system must do so as follows:
- (i) Before decontamination proceeds, disconnect or bypass the air compressors and air dryers from the piping and air lines and decontaminate the air compressors and air dryers separately in accordance with paragraphs (b), (c)(1) through (c)(4), or (c)(6) of this section. Dispose of filter media and desiccant in the air dryers based on their existing PCB concentration.
 - (ii) Test the connecting line and appurtenances of the system to assure that there is no leakage. Test by introducing air into the closed system at from 90 to 100 pounds per square inch (psi). Only if there is a pressure drop of <5 psi in 30 minutes may decontamination take place.
 - (iii) When there is no leakage, fill the piping and air lines with clean (containing <2 ppm PCBs) solvent. Solvents include PODF, aqueous potassium hydroxide at a pH between 9 and 12, or water containing 5 percent sodium hydroxide by weight.
 - (iv) Circulate the solvent to achieve turbulent flow through the piping and air lines in the air compressor system until the total volume of solvent circulated equals 10 times the total volume of the particular article being decontaminated, then drain the solvent. Calculate the total volume of solvent circulated by multiplying the pump rate by the time of pumping. Turbulent flow means a Reynolds number range from 20,000 to 43,000. Refill the system with clean solvent and repeat the circulation and drain process.
- (6) Any person using thermal processes to decontaminate metal surfaces in contact with PCBs, as required by §761.62(a)(6), must use one of the following options:
- (i) Surfaces in contact with liquid and non-liquid PCBs at concentrations <500 ppm may be decontaminated in a scrap metal recovery oven or smelter for purposes of disposal in accordance with §761.72.
 - (ii) Surfaces in contact with liquid or non-liquid PCBs at concentrations ≥500 ppm may be smelted in a smelter operating in accordance with §761.72(b), but must first be decontaminated in accordance with §761.72(a) or to a surface concentration of <100 µg/100 cm².
- (d) *Decontamination solvents.* (1) Unless otherwise provided in paragraphs (c)(3) through (c)(5) of this section, the solubility of

PCBs in any solvent used for purposes of decontamination under this section must be 5 percent or more by weight.

(2) The solvent may be reused for decontamination so long as its PCB concentration is <50 ppm.

(3) Solvent shall be disposed of under paragraph (g) of this section.

(4) Other than as allowed in paragraphs (c)(3) and (c)(4) of this section, solvents may be tested and validated for performance-based decontamination of non-porous surfaces contaminated with MODEF or other PCB liquids, in accordance with the self-implementing procedures found in subpart T of this part. Specific conditions for the performance-based testing from this validation are determined in the validation study.

(e) *Limitation of exposure and control of releases.* (1) Any person conducting decontamination activities under this section shall take necessary measures to protect against direct release of PCBs to the environment from the decontamination area.

(2) Persons participating in decontamination activities shall wear or use protective clothing or equipment to protect against dermal contact or inhalation of PCBs or materials containing PCBs.

(f) *Sampling and recordkeeping.* (1) Confirmatory sampling is required under paragraph (b) of this section. For liquids described in paragraphs (b)(1) and (b)(2) of this section, sample in accordance with §§761.269 and 761.272. For non-porous surfaces and concrete described in paragraphs (b)(3) and (b)(4) of this section, sample in accordance with subpart P of this part. A written record of such sampling must be established and maintained for 3 years from the date of any decontamination under this section. The record must show sampling locations and analytical results and must be retained at the site of the decontamination or a copy of the record must be made available to EPA in a timely manner, if requested. In addition, recordkeeping is required in accordance with §761.180(a) for all wastes generated by a decontamination process and regulated for disposal under this subpart.

(2) Confirmatory sampling is not required for self-implementing decontamination procedures under paragraph (c) of this section. Any person using these procedures must retain a written record documenting compliance with the procedures for 3 years after completion of the decontamination procedures (e.g., video recordings, photographs).

(g) *Decontamination waste and residues.* Decontamination waste and residues shall be disposed of at their existing PCB concentration unless otherwise specified.

(1) Distillation bottoms or residues and filter media are regulated for disposal as PCB remediation waste.

(2) PCBs physically separated from regulated waste during decontamination (such as by chopping, shredding, scraping, abrading or oil/water separation, as opposed to solvent rinsing and soaking), other than wastes described in paragraph (g)(1) of this section, are regulated for disposal at their original concentration.

(3) Hydrocarbon solvent used or reused for decontamination under this section that contains <50 ppm PCB must be burned and marketed in accordance with the requirements for used oil in §761.20(e), disposed of in accordance with §761.60(a) or (e), or decontaminated pursuant to this section.

(4) Chlorinated solvent at any PCB concentration used for decontamination under this section shall be disposed of in an incinerator operating in compliance with §761.70, or decontaminated pursuant to this section.

(5) Solvents ≥50 ppm other than those described in paragraphs (g)(3) and (g)(4) of this section shall be disposed of in accordance with §761.60(a) or decontaminated pursuant to this section.

(6) Non-liquid cleaning materials and personal protective equipment waste at any concentration, including non-porous surfaces and other non-liquid materials such as rags, gloves, booties, other disposable personal protective equipment, and similar materials resulting from decontamination shall be disposed of in accordance with §761.61(a)(5)(v).

(h) *Alternative decontamination or sampling approval.* (1) Any person wishing to decontaminate material described in paragraph (a) of this section in a manner other than prescribed in paragraph (b) of this section must apply in writing to the Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or to the Director, Office of Solid Waste, for decontamination activity occurring in more than one EPA Region. Each application must describe the material to be decontaminated and the proposed decontamination method, and must demonstrate that the proposed method is capable of decontaminating the material to the applicable level set out in paragraphs (b)(1) through (b)(4) of this section.

(2) Any person wishing to decontaminate material described in paragraph (a) of this section using a self-implementing procedure other than prescribed in paragraph (c) of this section must apply in writing to the Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or to the Director, Office of Solid Waste, for decontamination activity occurring in more than one EPA Region. Each application must describe the material to be decontaminated and the proposed self-implementing decontamination method and must include a proposed validation study to confirm performance of the method.

(3) Any person wishing to sample decontaminated material in a manner other than prescribed in paragraph (f) of this section must apply in writing to the Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or to the Director, Office of Solid Waste, for decontamination activity occurring in more than one EPA Region. Each application must contain a description of the material to be decontaminated, the nature and PCB concentration

of the contaminating material (if known), the decontamination method, the proposed sampling procedure, and a justification for how the proposed sampling is equivalent to or more comprehensive than the sampling procedure required under paragraph (f) of this section.

(4) EPA may request additional information that it believes necessary to evaluate the application.

(5) EPA will issue a written decision on each application for risk-based decontamination or sampling. No person may conduct decontamination or sampling under this paragraph prior to obtaining written approval from EPA. EPA will approve an application if it finds that the proposed decontamination or sampling method will not pose an unreasonable risk of injury to health or the environment.

[63 FR 35457, June 29, 1998, as amended at 64 FR 33761, June 24, 1999; 72 FR 57240, Oct. 9, 2007]

Subpart E—Exemptions



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§ 761.80 Manufacturing, processing and distribution in commerce exemptions.



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(a) The Administrator grants the following petitioner(s) an exemption for 1 year to process and distribute in commerce PCBs for use as a mounting medium in microscopy:

(1) McCrone Accessories Components, Division of Walter C. McCrone Associates, Inc., 2820 South Michigan Avenue, Chicago, IL. 60616.

(2) [Reserved]

(b) The Administrator grants the following petitioner(s) an exemption for 1 year to process and distribute in commerce PCBs for use as a mounting medium in microscopy, an immersion oil in low fluorescence microscopy and an optical liquid:

(1) R.P. Cargille Laboratories, Inc., 55 Commerce Road, Cedar Grove, N.J. 07009.

(2) [Reserved]

(c) The Administrator grants the following petitioner(s) an exemption for 1 year to export PCBs for use in small quantities for research and development:

(1) Accu-Standard, New Haven, CT. 06503.

(2) ManTech, Research Triangle Park, NC 27709.

(d) The Administrator grants the following petitioner(s) an exemption for 1 year to import (manufacture) into the United States, small quantities of existing PCB fluids from electrical equipment for analysis:

(1) Unison Transformer Services, Inc., Tarrytown, N.Y. 10591, provided each of the following conditions are met:

(i) The samples must be shipped in 5.0 ml or less, hermetically sealed vials.

(ii) The exemption is limited to no more than 250 total samples per year.

(iii) Unison makes quarterly inspections of its laboratories to ensure that proper safety procedures are being followed.

(iv) Unison annually notifies and describes to EPA its attempts to have samples analyzed abroad.

(2) [Reserved]

(e) The Administrator grants a class exemption to all research and development (R&D) facilities for a period of 1 year to manufacture or import PCBs for use solely in the manufacturer or importer's own research for the development of PCB disposal technologies. Each person that wishes to be part of the exemption must meet the following conditions:

(1) A petition for an exemption from the PCB prohibition on manufacturing PCBs must be received by EPA 60 days prior to engaging in these activities.

(2) Requests for renewal must be filed pursuant to §750.11 of this chapter. EPA will deem any properly filed request for the renewal of the exemption by any member of the class as a renewal request for the entire class.

(3) The quantity of the PCBs manufactured annually must not exceed 500 grams by total weight of pure PCBs. Any person who

wishes to manufacture or import more than 500 grams of PCBs in 1 year must receive written approval from the Director, National Program Chemicals Division to exceed the limitations established by this provision. The Director, National Program Chemicals Division may grant approval without further rulemaking. Any increase granted will be in writing and will extend only for a maximum of the time remaining in a specific exemption year.

(4) The owner or operator of the facility must notify the EPA Regional Administrator in writing 30 days prior to the commencement of R&D activities that include the manufacture or import of PCBs under the exemption, unless the facility has obtained a PCB R&D approval from EPA pursuant to §761.60(e), §761.60(i)(2), §761.70(a), or §761.70(b) and the approval contains a provision allowing the manufacture of PCBs.

(5) Records are maintained of their PCB activities for a period of 3 years after ceasing operations. The records must include the sources and the annual amounts of PCBs received if imported and the type and annual amount of PCBs that were manufactured.

(6) All PCBs and materials containing PCBs, regardless of concentration, remaining from the disposal-related studies must be disposed of according to §761.60(j)(1)(vi), or decontaminated pursuant to §761.79, based on the original PCB concentration.

(f) The Administrator grants the following petitioner(s) an exemption for 1 year to manufacture PCBs for use in small quantities for research and development:

(1) California Bionuclear Corp., Sun Valley, CA 91352 (ME-13).

(2) Foxboro Co., North Haven, CT 06473 (ME-6).

(3) ULTRA-Scientific, Inc., Hope, RI 02831 (ME-99.1).

(4) Midwest Research Institute, Kansas City, MO 64110 (ME-70.1).

(5) Pathfinder Laboratories, St. Louis, MO 63146 (A division of Sigma Aldridge Corporation, St. Louis, MO, 63178 (ME-76).

(6) Radian Corp., Austin, TX 78766 (ME-81.2).

(7) Wellington Sciences USA, College Station, TX 77840 (ME-104.1).

(8) Accu-Standard, 25 Science Park, New Haven, CT. 06503.

(g) The Administrator grants a class exemption to all processors and distributors of PCBs in small quantities for research and development provided that the following conditions are met:

(1) All processors and distributors must maintain records of their PCB activities for a period of 5 years.

(2) Any person or company which expects to process or distribute in commerce 100 grams (.22 lb) or more PCBs in 1 year must report to EPA identifying the sites of PCB activities and the quantity of PCBs to be processed or distributed in commerce.

(h) The Administrator grants the following petitioners an exemption for 1 year to process and distribute in commerce PCBs for analytical reference samples derived from actual waste materials:

(1) R.T. Corporation, Laramie, WY 82070.

(2) [Reserved]

(i) The Administrator grants a class exemption to all persons who manufacture, import, process, distribute in commerce, or export PCBs, or analytical reference samples derived from PCB waste material, provided the PCBs are manufactured, imported, processed, distributed in commerce, or exported solely for the purpose of R&D and the following conditions are met:

(1) Notification in the form of a petition for an exemption from the PCB prohibitions on manufacture, import, processing, distribution in commerce, or export is received by EPA 60 days prior to engaging in these activities.

(2) Requests for renewal are filed pursuant to §§750.11 and 750.31 of this chapter. EPA will deem any properly filed request for the renewal of the exemption by any member of the class as a renewal request for the entire class.

(3) The PCBs are packaged in one or more hermetically sealed containers of a volume of no more than 5.0 ml each. Analytical reference samples derived from PCB waste material may be packaged in a container larger than 5.0 ml when packaged pursuant to applicable DOT performance standards.

(4) The quantity of PCBs manufactured, imported, processed, distributed in commerce, or exported annually must not exceed 500 grams by total weight of pure PCBs. Any person who expects to manufacture, import, process, distribute in commerce, or export more than 500 grams of PCBs in 1 year or to exceed the 5.0 ml packaging requirement must obtain a written approval from the Director, National Program Chemicals Division and must identify the sites of PCB activities and the quantity of PCBs to be manufactured, imported, processed, distributed in commerce, or exported. Each request must include a justification. The Director, National Program Chemicals Division, may grant approval without further rulemaking. Any increase granted will be in writing and will extend only for a maximum of the time remaining in a specific exemption year.

(5) All treated and untreated PCB regulated material and material coming into contact with regulated material must be stored and disposed of according to subpart D of this part, or decontaminated pursuant to §761.79.

(6) All PCB materials must be distributed in DOT-authorized packaging.

(7) Records are maintained of their PCB activities for a period of 3 years after ceasing operations. The records must include the sources and the annual amounts of PCBs received if imported, the annual amount of PCBs that were manufactured, the annual amount of PCBs that were processed and/or distributed in commerce (to include export), and the persons to whom the PCBs were shipped.

(j) The Administrator grants the United States Defense Logistics Agency's July 21, 2005 petition for an exemption for 1 year to import 1,328,482 pounds of PCBs and PCB items stored or in use in Japan as identified in its petition, as amended, for disposal.

(k)–(l) [Reserved]

(m) The Administrator grants the following petitioner(s) an exemption for 1 year to process and export small quantities of PCBs for research and development:

(1) Chem Service, Inc., West Chester, PA 19380 (PDE–41).

(2) Foxboro Co., North Haven, CT 06473 (ME–6).

(3) PolyScience Corp., Niles, IL 60648 (PDE–178).

(4) ULTRA-Scientific, Inc., Hope, RI 02831 (PDE–282.1).

(5) Supelco, Inc., Bellefonte, PA 16823–0048 (PDE–41.2).

(6) Radian Corp., Austin, TX 78766 (PDE–182.1).

(7) Restek Corporation, Bellefonte, PA

(n) The 1–year exemption granted to petitioners in paragraphs (a) through (c)(1), (d), (f), and (m)(1) through (m)(6) of this section shall be renewed automatically as long as there is no increase in the amount of PCBs to be processed and distributed, imported (manufactured), or exported, nor any change in the manner of processing and distributing, importing (manufacturing), or exporting of PCBs. If there is such a change, a new exemption petition must be submitted to EPA and it will be addressed through an exemption rulemaking. In such a case, the activities granted under the existing exemption may continue until the new petition is addressed by rulemaking, but must conform to the terms of the existing exemption approved by EPA. The 1–year exemption granted to petitioners in paragraphs (c)(2), (h) and (m)(7) of this section may be extended pursuant to 40 CFR 750.11(e) or 750.31(e).

(o) The 1–year class exemption granted to all processors and distributors of PCBs in small quantities for research and development in paragraph (g) of this section shall be renewed automatically unless information is submitted affecting EPA's conclusion that the class exemption, or the activities of any individual or company included in the exemption, will not pose an unreasonable risk of injury to health or the environment. EPA will evaluate the information, issue a proposed rule for public comment, and issue a final rule affecting the class exemption or individuals or companies included in the class exemption. Until EPA issues a final rule, individuals and companies included in the class exemption will be allowed to continue processing and distributing PCBs in small quantities for research and development.

[55 FR 38999, Sept. 24, 1990, as amended at 59 FR 16998, Apr. 11, 1994; 63 FR 35460, June 29, 1998; 68 FR 4941, Jan. 31, 2003; 72 FR 53158, Sept. 18, 2007]

Subpart F—Transboundary Shipments of PCBs for Disposal



[top](#)

Source: 61 FR 11107, Mar. 18, 1996, unless otherwise noted.

§ 761.91 Applicability.



[top](#)

This subpart establishes requirements under section 6 of TSCA applicable to the transboundary shipments of PCBs and PCB items into and out of the United States for disposal. Nothing in this subpart is intended to obviate or otherwise alter obligations applicable to imported or exported PCBs and PCB items under foreign laws, international agreements or arrangements, other United States statutes and regulations, other sections of TSCA (e.g., sections 13 and 14), or laws of the various States of the United States. No provision of this section shall be construed to affect or limit the applicability of any requirement applicable to transporters of PCB waste under regulations issued by the U.S. Department of Transportation (DOT) and set forth at 49 CFR parts

171-180.

§ 761.93 Import for disposal.



(a) *General provisions.* No person may import PCBs or PCB Items for disposal without an exemption issued under the authority of TSCA section 6(e)(3).

(b) [Reserved]

[63 FR 35460, June 29, 1998]

§ 761.97 Export for disposal.



(a) General provisions. No person may export PCBs or PCB Items for disposal without an exemption, except that:

(1) PCBs and PCB Items at concentrations <50 ppm (or <10 µg PCB/100 cm² if no free-flowing liquids are present) may be exported for disposal.

(2) For the purposes of this section, PCBs and PCB Items of unknown concentrations shall be treated as if they contain ≥50 ppm.

(b) [Reserved]

[61 FR 11107, Mar. 18, 1996, as amended at 63 FR 35460, June 29, 1998]

§ 761.99 Other transboundary shipments.



For purposes of this subpart, the following transboundary shipments are not considered exports or imports:

(a) PCB waste generated in the United States, transported outside the Customs Territory of the United States (including any residuals resulting from cleanup of spills of such wastes in transit) through another country or its territorial waters, or through international waters, and returned to the United States for disposal.

(b) PCB waste in transit, including any residuals resulting from cleanup of spills during transit, through the United States (e.g., from Mexico to Canada, from Canada to Mexico).

(c) PCB waste transported from any State to any other State for disposal, regardless of whether the waste enters or leaves the customs territory of the United States, provided that the PCB waste or the PCBs from which the waste was derived were present in the United States on January 1, 1979, and have remained within the United States since that date.

[63 FR 35461, June 29, 1998, as amended at 66 FR 17478, Mar. 30, 2001]

Subpart G—PCB Spill Cleanup Policy



Source: 52 FR 10705, Apr. 2, 1987, unless otherwise noted.

§ 761.120 Scope.



(a) *General.* This policy establishes criteria EPA will use to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater. The policy applies to spills which occur after May 4, 1987.

(1) Existing spills (spills which occurred prior to May 4, 1987, are excluded from the scope of this policy for two reasons:

(i) For old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill in accordance with requirements imposed by EPA through its regional offices, nor is this policy intended to

interfere with ongoing litigation of enforcement actions which bring into issue PCB spills cleanup.

(ii) EPA recognizes that old spills which are discovered after the effective date of this policy will require site-by-site evaluation because of the likelihood that the site involves more pervasive PCB contamination than fresh spills and because old spills are generally more difficult to clean up than fresh spills (particularly on porous surfaces such as concrete). Therefore, spills which occurred before the effective date of this policy are to be decontaminated to requirements established at the discretion of EPA, usually through its regional offices.

(2) EPA expects most PCB spills subject to the TSCA PCB regulations to conform to the typical spill situations considered in developing this policy. This policy does, however, exclude from application of the final numerical cleanup standards certain spill situations from its scope: Spills directly into surface waters, drinking water, sewers, grazing lands, and vegetable gardens. These types of spills are subject to final cleanup standards to be established at the discretion of the regional office. These spills are, however, subject to the immediate notification requirements and measures to minimize further environmental contamination.

(3) For all other spills, EPA generally expects the decontamination standards of this policy to apply. Occasionally, some small percentage of spills covered by this policy may warrant more stringent cleanup requirements because of additional routes of exposure or significantly greater exposures than those assumed in developing the final cleanup standards of this policy. While the EPA regional offices have the authority to require additional cleanup in these circumstances, the Regional Administrator must first make a finding based on the specific facts of a spill that additional cleanup must occur to prevent unreasonable risk. In addition, before a final decision is made to require additional cleanup, the Regional Administrator must notify the Director, Office of Solid Waste of his/her finding and the basis for the finding.

(4) There may also be exceptional spill situations that requires less stringent cleanup or a different approach to cleanup because of factors associated with the particular spill. These factors may mitigate expected exposures and risks or make cleanup to these requirements impracticable.

(b) *Spills that may require more stringent cleanup levels.* For spills within the scope of this policy, EPA generally retains, under §761.135, the authority to require additional cleanup upon finding that, despite good faith efforts by the responsible party, the numerical decontamination levels in the policy have not been met. In addition, EPA foresees the possibility of exceptional spill situations in which site-specific risk factors may warrant additional cleanup to more stringent numerical decontamination levels than are required by the policy. In these situations, the Regional Administrator has the authority to require cleanup to levels lower than those included in this policy upon finding that further cleanup must occur to prevent unreasonable risk. The Regional Administrator will consult with the Director, Office of Solid Waste, prior to making such a finding.

(1) For example, site-specific characteristics, such as short depth to ground water, type of soil, or the presence of a shallow well, may pose exceptionally high potential for ground water contamination by PCBs remaining after cleanup to the standards specified in this policy. Spills that pose such a high degree of potential for ground water contamination have not been excluded from the policy under paragraph (d) of this section because the presence of such potential may not be readily apparent. EPA feels that automatically excluding such spills from the scope of the policy could result in the delay of cleanup—a particularly undesirable outcome if potential ground water contamination is, in fact, a significant concern.

(2) In those situations, the Regional Administrator may require cleanup in addition to that required under §761.125 (b) and (c). However, the Regional Administrator must first make a finding, based on the specific facts of a spill, that additional cleanup is necessary to prevent unreasonable risk. In addition, before making a final decision on additional cleanup, the Regional Administrator must notify the Director, Office of Solid Waste of his finding and the basis for the finding.

(c) *Flexibility to allow less stringent or alternative requirements.* EPA retains the flexibility to allow less stringent or alternative decontamination measures based upon site-specific considerations. EPA will exercise this flexibility if the responsible party demonstrates that cleanup to the numerical decontamination levels is clearly unwarranted because of risk-mitigating factors, that compliance with the procedural requirements or numerical standards in the policy is impracticable at a particular site, or that site-specific characteristics make the costs of cleanup prohibitive. The Regional Administrator will notify the Director, Office of Solid Waste of any decision and the basis for the decision to allow less stringent cleanup. The purpose of this notification is to enable the Director, Office of Solid Waste to ensure consistency of spill cleanup standards under special circumstances across the regions.

(d) *Excluded spills.* (1) Although the spill situations in paragraphs (d)(2) (i) through (vi) of this section are excluded from the automatic application of final decontamination standards under §761.125 (b) and (c), the general requirements under §761.125(a) do apply to these spills. In addition, all of these excluded situations require practicable, immediate actions to contain the area of contamination. While these situations may not always require more stringent cleanup measures, the Agency is excluding these scenarios because they will always involve significant factors that may not be adequately addressed by cleanup standards based upon typical spill characteristics.

(2) For the spill situations in paragraphs (d)(2)(i) through (vi) of this section, the responsible party shall decontaminate the spill in accordance with site-specific requirements established by the EPA regional offices.

(i) Spills that result in the direct contamination of surface waters (surface waters include, but are not limited to, "waters of the United States" as defined in part 122 of this chapter, ponds, lagoons, wetlands, and storage reservoirs).

(ii) Spills that result in the direct contamination of sewers or sewage treatment systems.

- (iii) Spills that result in the direct contamination of any private or public drinking water sources or distribution systems.
- (iv) Spills which migrate to and contaminate surface waters, sewers, or drinking water supplies before cleanup has been completed in accordance with this policy.
- (v) Spills that contaminate animal grazing lands.
- (vi) Spills that contaminate vegetable gardens.
- (e) *Relationship of policy to other statutes.* (1) This policy does not affect cleanup standards or requirements for the reporting of spills imposed, or to be imposed, under other Federal statutory authorities, including but not limited to, the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA). Where more than one requirement applies, the stricter standard must be met.

(2) The Agency recognizes that the existence of this policy will inevitably result in attempts to apply the standards to situations within the scope of other statutory authorities. However, other statutes require the Agency to consider different or alternative factors in determining appropriate corrective actions. In addition, the types and magnitudes of exposures associated with sites requiring corrective action under other statutes often involve important differences from those expected of the typical, electrical equipment-type spills considered in developing this policy. Thus, cleanups under other statutes, such as RCRA corrective actions or remedial and response actions under SARA may result in different outcomes.

[52 FR 10705, Apr. 2, 1987, as amended at 72 FR 57241, Oct. 9, 2007]

§ 761.123 Definitions.



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For purposes of this policy, certain words and phrases are used to denote specific materials, procedures, or circumstances. The following definitions are provided for purposes of clarity and are not to be taken as exhaustive lists of situations and materials covered by the policy.

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

High-concentration PCBs means PCBs that contain 500 ppm or greater PCBs, or those materials which EPA requires to be assumed to contain 500 ppm or greater PCBs in the absence of testing.

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

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

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

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

Nonimpervious solid surfaces means solid surfaces which are porous and are more likely to absorb spilled PCBs prior to completion of the cleanup requirements prescribed in this policy. Nonimpervious solid surfaces include, but are not limited to, wood, concrete, asphalt, and plasterboard.

Nonrestricted access areas means any area other than restricted access, outdoor electrical substations, and other restricted access locations, as defined in this section. In addition to residential/commercial areas, these areas include unrestricted access

rural areas (areas of low density development and population where access is uncontrolled by either man-made barriers or naturally occurring barriers, such as rough terrain, mountains, or cliffs).

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

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

PCBs means polychlorinated biphenyls as defined under §761.3. As specified under §761.1(b), no requirements may be avoided through dilution of the PCB concentration.

Requirements and standards means:

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

(2) "Standards" refers to the numerical decontamination levels set forth in this policy.

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

Responsible party means the owner of the PCB equipment, facility, or other source of PCBs or his/her designated agent (e.g., a facility manager or foreman).

Soil means all vegetation, soils and other ground media, including but not limited to, sand, grass, gravel, and oyster shells. It does not include concrete and asphalt.

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

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

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

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

[52 FR 10705, Apr. 2, 1987; 52 FR 23397, June 19, 1987]

§ 761.125 Requirements for PCB spill cleanup.



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(a) *General.* Unless expressly limited, the reporting, disposal, and precleanup sampling requirements in paragraphs (a) (1) through (3) of this section apply to all spills of PCBs at concentrations of 50 ppm or greater which are subject to decontamination requirements under TSCA, including those spills listed under §761.120(b) which are excluded from the cleanup standards at paragraphs (b) and (c) of this section.

(1) *Reporting requirements.* The reporting in paragraphs (a)(1) (i) through (iv) of this section is required in addition to applicable reporting requirements under the Clean Water Act (CWA) or the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA). For example, under the National Contingency Plan all spills involving 1 pound or more by weight of PCBs must currently be reported to the National Response Center (1-800-424-8802). The requirements in paragraphs (a)(1) (i) through (iv) of this section are designed to be consistent with existing reporting requirements to the extent possible so as to minimize reporting burdens on governments as well as the regulated community.

(i) Where a spill directly contaminates surface water, sewers, or drinking water supplies, as discussed under §761.120(d), the responsible party shall notify the appropriate EPA regional office and obtain guidance for appropriate cleanup measures in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

(ii) Where a spill directly contaminates grazing lands or vegetable gardens, as discussed under §761.120(d), the responsible party shall notify the appropriate EPA regional office and proceed with the immediate requirements specified under paragraph (b) or (c) of this section, depending on the source of the spill, in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

(iii) Where a spill exceeds 10 pounds of PCBs by weight and is not addressed in paragraph (a)(1) (i) or (ii) of this section, the responsible party will notify the appropriate EPA regional office and proceed to decontaminate the spill area in accordance with this TSCA policy in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

(iv) Spills of 10 pounds or less, which are not addressed in paragraph (a)(1) (i) or (ii) of this section, must be cleaned up in accordance with this policy (in order to avoid EPA enforcement liability), but notification of EPA is not required.

(2) *Disposal of cleanup debris and materials.* All concentrated soils, solvents, rags, and other materials resulting from the cleanup of PCBs under this policy shall be properly stored, labeled, and disposed of in accordance with the provisions of subpart D of this part.

(3) *Determination of spill boundaries in the absence of visible traces.* For spills where there are insufficient visible traces yet there is evidence of a leak or spill, the boundaries of the spill are to be determined by using a statistically based sampling scheme.

(b) *Requirements for cleanup of low-concentration spills which involve less than 1 pound of PCBs by weight (less than 270 gallons of untested mineral oil)*—(1) *Decontamination requirements.* Spills of less than 270 gallons of untested mineral oil, low-concentration PCBs, as defined under §761.123, which involve less than 1 pound of PCBs by weight (e.g., less than 270 gallons of untested mineral oil containing less than 500 ppm PCBs) shall be cleaned in the following manner:

(i) Solid surfaces must be double washed/rinsed (as defined under §761.123); except that all indoor, residential surfaces other than vault areas must be cleaned to 10 micrograms per 100 square centimeters (10 $\mu\text{g}/100\text{ cm}^2$) by standard commercial wipe tests.

(ii) All soil within the spill area (i.e., visible traces of soil and a buffer of 1 lateral foot around the visible traces) must be excavated, and the ground be restored to its original configuration by back-filling with clean soil (i.e., containing less than 1 ppm PCBs).

(iii) Requirements of paragraphs (b)(1) (i) and (ii) of this section must be completed within 48 hours after the responsible party was notified or became aware of the spill.

(2) *Effect of emergency or adverse weather.* Completion of cleanup may be delayed beyond 48 hours in case of circumstances including but not limited to, civil emergency, adverse weather conditions, lack of access to the site, and emergency operating conditions. The occurrence of a spill on a weekend or overtime costs are not acceptable reasons to delay response. Completion of cleanup may be delayed only for the duration of the adverse conditions. If the adverse weather conditions, or time lapse due to other emergency, has left insufficient visible traces, the responsible party must use a statistically based sampling scheme to determine the spill boundaries as required under paragraph (a)(3) of this section.

(3) *Records and certification.* At the completion of cleanup, the responsible party shall document the cleanup with records and certification of decontamination. The records and certification must be maintained for a period of 5 years. The records and certification shall consist of the following:

(i) Identification of the source of the spill (e.g., type of equipment).

(ii) Estimated or actual date and time of the spill occurrence.

(iii) The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

(iv) A brief description of the spill location.

(v) Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces, and a brief

description of the sampling methodology used to establish the spill boundaries.

(vi) A brief description of the solid surfaces cleaned and of the double wash/rinse method used.

(vii) Approximate depth of soil excavation and the amount of soil removed.

(viii) A certification statement signed by the responsible party stating that the cleanup requirements have been met and that the information contained in the record is true to the best of his/her knowledge.

(ix) While not required for compliance with this policy, the following information would be useful if maintained in the records:

(A) Additional pre- or post-cleanup sampling.

(B) The estimated cost of the cleanup by man-hours, dollars, or both.

(c) *Requirements for cleanup of high-concentration spills and low-concentration spills involving 1 pound or more PCBs by weight (270 gallons or more of untested mineral oil).* Cleanup of low-concentration spills involving 1 lb or more PCBs by weight and of all spills of materials other than low-concentration materials shall be considered complete if all of the immediate requirements, cleanup standards, sampling, and recordkeeping requirements of paragraphs (c) (1) through (5) of this section are met.

(1) *Immediate requirements.* The four actions in paragraphs (c)(1) (i) through (iv) of this section must be taken as quickly as possible and within no more than 24 hours (or within 48 hours for PCB Transformers) after the responsible party was notified or became aware of the spill, except that actions described in paragraphs (c)(1) (ii) through (iv) of this section can be delayed beyond 24 hours if circumstances (e.g., civil emergency, hurricane, tornado, or other similar adverse weather conditions, lack of access due to physical impossibility, or emergency operating conditions) so require for the duration of the adverse conditions. The occurrence of a spill on a weekend or overtime costs are not acceptable reasons to delay response. Owners of spilled PCBs who have delayed cleanup because of these types of circumstances must keep records documenting the fact that circumstances precluded rapid response.

(i) The responsible party shall notify the EPA regional office and the NRC as required by §761.125(a)(1) or by other applicable statutes.

(ii) The responsible party shall effectively cordon off or otherwise delineate and restrict an area encompassing any visible traces plus a 3-foot buffer and place clearly visible signs advising persons to avoid the area to minimize the spread of contamination as well as the potential for human exposure.

(iii) The responsible party shall record and document the area of visible contamination, noting the extent of the visible trace areas and the center of the visible trace area. If there are no visible traces, the responsible party shall record this fact and contact the regional office of the EPA for guidance in completing statistical sampling of the spill area to establish spill boundaries.

(iv) The responsible party shall initiate cleanup of all visible traces of the fluid on hard surfaces and initiate removal of all visible traces of the spill on soil and other media, such as gravel, sand, oyster shells, etc.

(v) If there has been a delay in reaching the site and there are insufficient visible traces of PCBs remaining at the spill site, the responsible party must estimate (based on the amount of material missing from the equipment or container) the area of the spill and immediately cordon off the area of suspect contamination. The responsible party must then utilize a statistically based sampling scheme to identify the boundaries of the spill area as soon as practicable.

(vi) Although this policy requires certain immediate actions, as described in paragraphs (c)(1)(i) through (iv) of this section, EPA is not placing a time limit on completion of the cleanup effort since the time required for completion will vary from case to case. However, EPA expects that decontamination will be achieved promptly in all cases and will consider promptness of completion in determining whether the responsible party made good faith efforts to clean up in accordance with this policy.

(2) *Requirements for decontaminating spills in outdoor electrical substations.* Spills which occur in outdoor electrical substations, as defined under §761.123, shall be decontaminated in accordance with paragraphs (c)(2) (i) and (ii) of this section. Conformance to the cleanup standards under paragraphs (c)(2) (i) and (ii) of this section shall be verified by post-cleanup sampling as specified under §761.130. At such times as outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the nonrestricted access requirements under paragraph (c)(4) of this section.

(i) Contaminated solid surfaces (both impervious and non-impervious) shall be cleaned to a PCB concentration of 100 micrograms (μg)/100 square centimeters (cm^2) (as measured by standard wipe tests).

(ii) At the option of the responsible party, soil contaminated by the spill will be cleaned either to 25 ppm PCBs by weight, or to 50 ppm PCBs by weight provided that a label or notice is visibly placed in the area. Upon demonstration by the responsible party that cleanup to 25 ppm or 50 ppm will jeopardize the integrity of the electrical equipment at the substation, the EPA regional office may establish an alternative cleanup method or level and place the responsible party on a reasonably timely schedule for completion of cleanup.

(3) *Requirements for decontaminating spills in other restricted access areas.* Spills which occur in restricted access locations other than outdoor electrical substations, as defined under §761.123, shall be decontaminated in accordance with paragraphs (c)(3) (i)

through (v) of this section. Conformance to the cleanup standards in paragraphs (c)(3) (i) through (v) of this section shall be verified by postcleanup sampling as specified under §761.130. At such times as restricted access areas other than outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the nonrestricted access area requirements of paragraph (c)(4) of this section.

(i) High-contact solid surfaces, as defined under §761.163 shall be cleaned to $10 \mu\text{g}/100 \text{ cm}^2$ (as measured by standard wipe tests).

(ii) Low-contact, indoor, impervious solid surfaces will be decontaminated to $10 \mu\text{g}/100 \text{ cm}^2$.

(iii) At the option of the responsible party, low-contact, indoor, nonimpervious surfaces will be cleaned either to $10 \mu\text{g}/100 \text{ cm}^2$ or to $100 \mu\text{g}/100 \text{ cm}^2$ and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if he/she determined that if the encapsulation failed the failure would create an imminent hazard at the site.

(iv) Low-contact, outdoor surfaces (both impervious and nonimpervious) shall be cleaned to $100 \mu\text{g}/100 \text{ cm}^2$.

(v) Soil contaminated by the spill will be cleaned to 25 ppm PCBs by weight.

(4) *Requirements for decontaminating spills in nonrestricted access areas.* Spills which occur in nonrestricted access locations, as defined under §761.123, shall be decontaminated in accordance with paragraphs (c)(4) (i) through (v) of this section. Conformance to the cleanup standards at paragraphs (c)(4) (i) through (v) of this section shall be verified by postcleanup sampling as specified under §761.130.

(i) Furnishings, toys, and other easily replaceable household items shall be disposed of in accordance with the provisions of subpart D of this part and replaced by the responsible party.

(ii) Indoor solid surfaces and high-contact outdoor solid surfaces, defined as high contact residential/commercial surfaces under §761.123, shall be cleaned to $10 \mu\text{g}/100 \text{ cm}^2$ (as measured by standard wipe tests).

(iii) Indoor vault areas and low-contact, outdoor, impervious solid surfaces shall be decontaminated to $10 \mu\text{g}/100 \text{ cm}^2$.

(iv) At the option of the responsible party, low-contact, outdoor, nonimpervious solid surfaces shall be either cleaned to $10 \mu\text{g}/100 \text{ cm}^2$ or cleaned to $100 \mu\text{g}/100 \text{ cm}^2$ and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if he/she determined that if the encapsulation failed the failure would create an imminent hazard at the site.

(v) Soil contaminated by the spill will be decontaminated to 10 ppm PCBs by weight provided that soil is excavated to a minimum depth of 10 inches. The excavated soil will be replaced with clean soil, i.e., containing less than 1 ppm PCBs, and the spill site will be restored (e.g., replacement of turf).

(5) *Records.* The responsible party shall document the cleanup with records of decontamination. The records must be maintained for a period of 5 years. The records and certification shall consist of the following:

(i) Identification of the source of the spill, e.g., type of equipment.

(ii) Estimated or actual date and time of the spill occurrence.

(iii) The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

(iv) A brief description of the spill location and the nature of the materials contaminated. This information should include whether the spill occurred in an outdoor electrical substation, other restricted access location, or in a nonrestricted access area.

(v) Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces and a brief description of the sampling methodology used to establish the spill boundaries.

(vi) A brief description of the solid surfaces cleaned.

(vii) Approximate depth of soil excavation and the amount of soil removed.

(viii) Postcleanup verification sampling data and, if not otherwise apparent from the documentation, a brief description of the sampling methodology and analytical technique used.

(ix) While not required for compliance with this policy, information on the estimated cost of cleanup (by man-hours, dollars, or both) would be useful if maintained in the records.

[52 FR 10705, Apr. 2, 1987, as amended at 53 FR 40884, Oct. 19, 1988; 63 FR 35461, June 29, 1998; 72 FR 57241, Oct. 9, 2007]

§ 761.130 Sampling requirements.



[top](#)

Postcleanup sampling is required to verify the level of cleanup under §761.125(c)(2) through (4). The responsible party may use any statistically valid, reproducible, sampling scheme (either random samples or grid samples) provided that the requirements of paragraphs (a) and (b) of this section are satisfied.

(a) The sampling area is the greater of (1) an area equal to the area cleaned plus an additional 1-foot boundary, or (2) an area 20 percent larger than the original area of contamination.

(b) The sampling scheme must ensure 95 percent confidence against false positives.

(c) The number of samples must be sufficient to ensure that areas of contamination of a radius of 2 feet or more within the sampling area will be detected, except that the minimum number of samples is 3 and the maximum number of samples is 40.

(d) The sampling scheme must include calculation for expected variability due to analytical error.

(e) EPA recommends the use of a sampling scheme developed by the Midwest Research Institute (MRI) for use in EPA enforcement inspections: "Verification of PCB Spill Cleanup by Sampling and Analysis." Guidance for the use of this sampling scheme is available in the MRI report "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup." Both the MRI sampling scheme and the guidance document are available on EPA's PCB Web site at <http://www.epa.gov/pcb>, or from the Communications, Information and Resource Management Division, Office of Solid Waste (5305P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001. The major advantage of this sampling scheme is that it is designed to characterize the degree of contamination within the entire sampling area with a high degree of confidence while using fewer samples than any other grid or random sampling scheme. This sampling scheme also allows some sites to be characterized on the basis of composite samples.

(f) EPA may, at its discretion, take samples from any spill site. If EPA's sampling indicates that the remaining concentration level exceeds the required level, EPA will require further cleanup. For this purpose, the numerical level of cleanup required for spills cleaned in accordance with §761.125(b) is deemed to be the equivalent of numerical cleanup requirements required for cleanups under §761.125(c)(2) through (4). Using its best engineering judgment, EPA may sample a statistically valid random or grid sampling technique, or both. When using engineering judgment or random "grab" samples, EPA will take into account that there are limits on the power of a grab sample to dispute statistically based sampling of the type required of the responsible party. EPA headquarters will provide guidance to the EPA regions on the degree of certainty associated with various grab sample results.

[52 FR 10705, Apr. 2, 1987, as amended at 60 FR 34465, July 3, 1995; 72 FR 57241, Oct. 9, 2007]

§ 761.135 Effect of compliance with this policy and enforcement.



[top](#)

(a) Although a spill of material containing 50 ppm or greater PCBs is considered improper PCB disposal, this policy establishes requirements that EPA considers to be adequate cleanup of the spilled PCBs. Cleanup in accordance with this policy means compliance with the procedural as well as the numerical requirements of this policy. Compliance with this policy creates a presumption against both enforcement action for penalties and the need for further cleanup under TSCA. The Agency reserves the right, however, to initiate appropriate action to compel cleanup where, upon review of the records of cleanup or EPA sampling following cleanup, EPA finds that the decontamination levels in the policy have not been achieved. The Agency also reserves the right to seek penalties where the Agency believes that the responsible party has not made a good faith effort to comply with all provisions of this policy, such as prompt notification of EPA of a spill, recordkeeping, etc.

(b) EPA's exercise of enforcement discretion does not preclude enforcement action under other provisions of TSCA or any other Federal statute. This includes, even in cases where the numerical decontamination levels set forth in this policy have been met, civil or criminal action for penalties where EPA believes the spill to have been the result of gross negligence or knowing violation.

Subparts H-I [Reserved]



[top](#)

Subpart J—General Records and Reports



[top](#)

§ 761.180 Records and monitoring.

This section contains recordkeeping and reporting requirements that apply to PCBs, PCB Items, and PCB storage and disposal facilities that are subject to the requirements of the part.

(a) *PCBs and PCB Items in service or projected for disposal.* Beginning February 5, 1990, each owner or operator of a facility, other than a commercial storer or a disposer of PCB waste, using or storing at any one time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB Container(s), or one or more PCB Transformers, or 50 or more PCB Large High or Low Voltage Capacitors shall develop and maintain at the facility, or a central facility provided they are maintained at that facility, all annual records and the written annual document log of the disposition of PCBs and PCB Items. The written annual document log must be prepared for each facility by July 1 covering the previous calendar year (January through December). The annual document log shall be maintained for at least 3 years after the facility ceases using or storing PCBs and PCB Items in the quantities prescribed in this paragraph. Annual records (manifests and certificates of disposal) shall be maintained for the same period. The annual records and the annual document log shall be available for inspection at the facility where they are maintained by authorized representatives of EPA during normal business hours, and each owner or operator of a facility subject to these requirements shall know the location of these records. All records and annual documents required to be prepared and maintained by this section prior to February 5, 1990 shall continue to be maintained at the facility for the same time as the annual records and the annual document log. The annual document required for 1989 shall cover the period from January 1, 1989 to February 5, 1990.

(1) The annual records shall include the following:

- (i) All signed manifests generated by the facility during the calendar year.
- (ii) All Certificates of Disposal that have been received by the facility during the calendar year.
- (iii) Records of inspections and cleanups performed in accordance with §761.65(c)(5).

(2) The written annual document log shall include the following:

(i) The name, address, and EPA identification number of the facility covered by the annual document log and the calendar year covered by the annual document log.

(ii) The unique manifest number of every manifest generated by the facility during the calendar year, and from each manifest and for unmanifested waste that may be stored at the facility, the following information:

(A) For bulk PCB waste (e.g., in a tanker or truck), its weight in kilograms, the first date it was removed from service for disposal, the date it was placed into transport for off-site storage or disposal, and the date of disposal, if known.

(B) The serial number (if available) or other means of identifying each PCB Article (e.g., transformer or capacitor), the weight in kilograms of the PCB waste in each transformer or capacitor, the date it was removed from service for disposal, the date it was placed in transport for off-site storage or disposal, and the date of disposal, if known.

(C) A unique number identifying each PCB Container, a description of the contents of each PCB Container, such as liquid, soil, cleanup debris, etc., including the total weight of the material in kilograms in each PCB Container, the first date material placed in each PCB Container was removed from service for disposal, and the date each PCB Container was placed in transport for off-site storage or disposal, and the date of disposal (if known).

(D) A unique number identifying each PCB Article Container, a description of the contents of each PCB Article Container, such as pipes, capacitors, electric motors, pumps, etc., including the total weight in kilograms of the content of each PCB Article Container, the first date a PCB Article placed in each PCB Article Container was removed from service for disposal, and the date the PCB Article Container was placed in transport for off-site storage or disposal, and the date of disposal (if known.)

(iii) The total number by specific type of PCB Articles and the total weight in kilograms of PCBs in PCB Articles, the total number of PCB Article Containers and total weight in kilograms of the contents of PCB Article Containers, the total number of PCB Containers and the total weight in kilograms of the contents of PCB Containers, and the total weight in kilograms of bulk PCB waste that was placed into storage for disposal or disposed during the calendar year.

(iv) The total number of PCB Transformers and total weight in kilograms of PCBs contained in the transformers remaining in service at the end of the calendar year.

(v) The total number of Large High or Low Voltage PCB Capacitors remaining in service at the end of the calendar year.

(vi) The total weight in kilograms of any PCBs and PCB Items in PCB Containers, including the identification of container contents, remaining in service at the facility at the end of the calendar year.

(vii) For any PCBs or PCB item received from or shipped to another facility owned or operated by the same generator, the information required under paragraph (a)(2)(ii)(A) through (a)(2)(ii)(D) of this section.

(viii) A record of each telephone call, or other means of verification agreed upon by both parties, made to each designated commercial storer or designated disposer to confirm receipt of PCB waste transported by an independent transporter, as required by §761.208.

(ix) Whenever a PCB Item, excluding small capacitors, with a concentration of ≥ 50 ppm is distributed in commerce for reuse pursuant to §761.20(c)(1), 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 the internal identification number, if a serial number is not available, must be recorded in the annual document log. The serial number or internal identification number shall be permanently marked on the equipment.

(3) [Reserved]

(4) For purposes of this paragraph, PCB Voltage Regulators shall be recorded as PCB Transformers.

(b) *Disposers and commercial storers of PCB waste.* Beginning February 5, 1990, each owner or operator of a facility (including high efficiency boiler operations) used for the commercial storage or disposal of PCBs and PCB Items shall maintain annual records on the disposition of all PCBs and PCB items at the facility and prepare and maintain a written annual document log that includes the information required by paragraphs (b)(2) of this section for PCBs and PCB Items that were handled as PCB waste at the facility. The written annual document log shall be prepared by July 1 for the previous calendar year (January through December). The written annual document log shall be maintained at each facility for at least 3 years after the facility is no longer used for the storage or disposal of PCBs and PCB Items except that, in the case of chemical waste landfills, the annual document log shall be maintained at least 20 years after the chemical waste landfill is no longer used for the disposal of PCBs and PCB Items. The annual records shall be maintained for the same period. The annual records and written annual document log shall be available at the facility for inspection by authorized representatives of the EPA. All records and annual documents required to be prepared and maintained by this section prior to February 5, 1990 shall continue to be maintained at the facility for the same time as the annual records and the annual document log. The annual document for 1989 shall cover the period from January 1, 1989 to February 5, 1990. From the written annual document log the owner or operator of a facility must prepare the annual report containing the information required by paragraphs (b)(3)(i) through (b)(3)(vi) of this section for PCBs and PCB Items that were handled as PCB waste at the facility during the previous calendar year (January through December). The annual report must be submitted by July 15 of each year for the preceding calendar year. If the facility ceases commercial PCB storage or disposal operations, the owner or operator of the facility shall provide at least 60 days advance written notice to the Regional Administrator for the region in which the facility is located of the date the facility intends to begin closure. d

(1) The annual records shall include the following:

(i) All signed manifests generated or received at the facility during the calendar year.

(ii) All Certificates of Disposal that have been generated or received by the facility during the calendar year.

(iii) Records of inspections and cleanups performed in accordance with §761.65(c)(5).

(2) The written annual document log shall include the following:

(i) The name, address, and EPA identification number of the storage or disposal facility covered by the annual document log and the calendar year covered by the annual document log.

(ii) For each manifest generated or received by the facility during the calendar year, the unique manifest number and the name and address of the facility that generated the manifest and the following information:

(A) For bulk PCB waste (e.g., in a tanker or truck), its weight in kilograms, the first date PCB waste placed in the tanker or truck was removed from service for disposal, the date it was received at the facility, the date it was placed in transport for off-site disposal (if applicable), and the date of disposal, (if known).

(B) The serial number or other means of identifying each PCB Article, not in a PCB Container or PCB Article Container, the weight in kilograms of the PCB waste in the PCB Article, the date it was removed from service for disposal, the date it was received at the facility, the date it was placed in transport for off-site disposal (if applicable), and the date of disposal (if known).

(C) The unique number assigned by the generator identifying each PCB Container, a description of the contents of each PCB Container, such as liquid, soil, cleanup debris, etc., including the total weight of the PCB waste in kilograms in each PCB Container, the first date PCB waste placed in each PCB Container was removed from service for disposal, the date it was received at the facility, the date each PCB Container was placed in transport for off-site storage or disposal (as applicable), and the date the PCB Container was disposed of (if known).

(D) The unique number assigned by the generator identifying each PCB Article Container, a description of the contents of each PCB Article Container, such as pipes, capacitors, electric motors, pumps, etc., including the total weight in kilograms of the PCB waste in each PCB Article Container, the first date a PCB Article placed in each PCB Article Container was removed from service for disposal, the date it was received at the facility, the date each PCB Article Container was placed in transport for off-site storage or disposal (as applicable), and the date the PCB Article Container was disposed of (if known).

(E) Disposers of PCB waste shall include the confirmed date of disposal for items in paragraphs (b)(2)(ii)(A) through (b)(2)(ii)(D) of this section.

(iii) For any PCB waste disposed at a facility that generated the PCB waste or any PCB waste that was not manifested to the facility, the information required under paragraph (b)(2)(ii)(A) through (b)(2)(ii)(E) of this section.

(3) The owner or operator of a PCB disposal facility (including an owner or operator who disposes of his/her own waste and does not receive or generate manifests) or a commercial storage facility shall submit an annual report, which briefly summarizes the records and annual document log required to be maintained and prepared under paragraphs (b)(1) and (b)(2) of this section to the EPA Regional Administrator of the Region in which the facility is located by July 15 of each year, beginning with July 15, 1991. The first annual report submitted on July 15, 1991, shall be for the period starting February 5, 1990, and ending December 31, 1990. The annual report shall contain no confidential business information. The annual report shall consist of the information listed in paragraphs (b)(3)(i) through (b)(3)(vi) of this section.

(i) The name, address, and EPA identification number of the facility covered by the annual report for the calendar year.

(ii) A list of the numbers of all signed manifests of PCB waste initiated or received by the facility during that year.

(iii) The total weight in kilograms of bulk PCB waste, PCB waste in PCB Transformers, PCB waste in PCB Large High or Low Voltage Capacitors, PCB waste in PCB Article Containers, and PCB waste in PCB Containers in storage at the facility at the beginning of the calendar year, received or generated at the facility, transferred to another facility, or disposed of at the facility during the calendar year. The information must be provided for each of these categories, as appropriate.

(iv) The total number of PCB Transformers, the total number of PCB Large High or Low Voltage Capacitors, the total number of PCB Article Containers, and the total number of PCB Containers in storage at the facility at the beginning of the calendar year, received or generated at the facility, transferred to another facility, or disposed of at the facility during the calendar year. The information must be provided for each of these categories, as appropriate.

(v) The total weight in kilograms of each of the following PCB categories: bulk PCB waste, PCB waste in PCB Transformers, PCB waste in PCB Large High or Low Voltage Capacitors, PCB waste in PCB Article Containers, and PCB waste in PCB Containers remaining in storage for disposal at the facility at the end of the calendar year.

(vi) The total number of PCB Transformers, the total number of PCB Large High or Low Voltage Capacitors, the total number of PCB Article Containers, and the total number of PCB Containers remaining in storage for disposal at the facility at the end of the calendar year.

(vii) The requirement to submit annual reports to the Regional Administrator continues until the submission of the annual report for the calendar year during which the facility ceases PCB storage or disposal operations. Storage operations have not ceased until all PCB waste, including any PCB waste generated during closure, has been removed from the facility.

(4) Whenever a commercial storer of PCB waste accepts PCBs or PCB Items at his storage facility and transfers the PCB waste off-site to another facility for storage or disposal, the commercial storer of PCB waste shall initiate a manifest under subpart K of this part for the transfer of PCBs or PCB Items to the next storage or disposal facility.

Note: Any requirements for weights in kilograms of PCBs may be calculated values if the internal volume of PCBs in containers and transformers is known and included in the reports, together with any assumptions on the density of the PCBs contained in the containers or transformers. If the internal volume of PCBs is not known, a best estimate may be used.

(5) For purposes of this paragraph, PCB Voltage Regulators shall be recorded and reported as PCB Transformers.

(c) *Incineration facilities.* Each owner or operator of a PCB incinerator facility shall collect and maintain for a period of 5 years from the date of collection the following information, in addition to the information required in paragraph (b) of this section:

(1) When PCBs are being incinerated, the following continuous and short-interval data:

(i) Rate and quantity of PCBs fed to the combustion system as required in §761.70(a)(3);

(ii) Temperature of the combustion process as required in §761.70(a)(4); and

(iii) Stack emission product to include O₂, CO, and CO₂ as required in §761.70(a)(7).

(2) When PCBs are being incinerated, data and records on the monitoring of stack emissions as required in §761.70(a)(6).

(3) Total weight in kilograms of any solid residues generated by the incineration of PCBs and PCB Items during the calendar year, the total weight in kilograms of any solid residues disposed of by the facility in chemical waste landfills, and the total weight in kilograms of any solid residues remaining on the facility site.

(4) When PCBs and PCB Items are being incinerated, additional periodic data shall be collected and maintained as specified by the Regional Administrator pursuant to §761.70(d)(4).

(5) Upon any suspension of the operation of any incinerator pursuant to §761.70(a)(8), the owner or operator of such an incinerator shall prepare a document. The document shall, at a minimum, include the date and time of the suspension and an explanation of

the circumstances causing the suspension of operation. The document shall be sent to the appropriate Regional Administrator within 30 days of any such suspension.

(d) *Chemical waste landfill facilities.* Each owner or operator of a PCB chemical waste landfill facility shall collect and maintain until at least 20 years after the chemical waste landfill is no longer used for the disposal of PCBs the following information in addition to the information required in paragraph (b) of this section:

(1) Any water analysis obtained in compliance with §761.75(b)(6)(iii); and

(2) Any operations records including burial coordinates of wastes obtained in compliance with §761.75(b)(8)(ii).

(e) *High efficiency boiler facilities.* Each owner or operator of a high efficiency boiler used for the disposal of liquids between 50 and 500 ppm PCB shall collect and maintain for a period of 5 years the following information, in addition to the information required in paragraph (b) of this section:

(1) For each month PCBs are burned in the boiler the carbon monoxide and excess oxygen data required in §761.71(a)(1)(viii) and §761.71(b)(1)(viii);

(2) The quantity of PCBs burned each month as required in §761.71(a)(1)(vii) and §761.71(b)(1)(vii); and

(3) For each month PCBs (other than mineral oil dielectric fluid) are burned, chemical analysis data of the waste as required in §761.71(b)(2)(vi).

(f) *Retention of special records by storage and disposal facilities.* In addition to the information required to be maintained under paragraphs (b), (c), (d) and (e) of this section, each owner or operator of a PCB storage or disposal facility (including high efficiency boiler operations) shall collect and maintain for the time period specified in paragraph (b) of this section the following data:

(1) All documents, correspondence, and data that have been provided to the owner or operator of the facility by any State or local government agency and that pertain to the storage or disposal of PCBs and PCB items at the facility.

(2) All documents, correspondence, and data that have been provided by the owner or operator of the facility to any State or local government agency and that pertain to the storage or disposal of PCBs and PCB items at the facility.

(3) Any applications and related correspondence sent by the owner or operator of the facility to any local, State, or Federal authorities in regard to waste water discharge permits, solid waste permits, building permits, or other permits or authorizations such as those required by §§761.70(d) and 761.75(c).

(g) *Reclassification records.* If you reclassify electrical equipment using the procedures in §761.30(a)(2)(v) or §761.30(h)(2)(v), you must keep records showing that you followed the required reclassification procedures. Where these procedures require testing, the records must include copies of pre- and post-reclassification PCB concentration measurements from a laboratory using quality control and quality assurance procedures. You must make these records available promptly to EPA or to any party possessing the equipment through sale, loan, lease, or for servicing. You must retain the records for at least 3 years after you sell or dispose of the equipment.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and further redesignated at 47 FR 37360, Aug. 25, 1982; 49 FR 28191, July 10, 1984; 53 FR 12524, Apr. 15, 1988; 54 FR 52750, Dec. 21, 1989; 55 FR 26205, June 27, 1990; 58 FR 34205, June 23, 1993; 63 FR 35461, June 29, 1998; 66 FR 17619, Apr. 2, 2001]

§ 761.185 Certification program and retention of records by importers and persons generating PCBs in excluded manufacturing processes.



[top](#)

(a) In addition to meeting the basic requirements of §761.1(f) and the definition of excluded manufacturing processes at §761.3, manufacturers with processes inadvertently generating PCBs and importers of products containing inadvertently generated PCBs must report to EPA any excluded manufacturing process or imports for which the concentration of PCBs in products leaving the manufacturing site or imported is greater than 2 micrograms per gram (2 µg/g, roughly 2 ppm) for any resolvable gas chromatographic peak. Such reports must be filed by October 1, 1984 or, if no processes or imports require reports at the time, within 90 days of having processes or imports for which such reports are required.

(b) Manufacturers required to report by paragraph (a) of this section must transmit a letter notifying EPA of the number, the type, and the location of excluded manufacturing processes in which PCBs are generated when the PCB level in products leaving any manufacturing site is greater than 2 µg/g for any resolvable gas chromatographic peak. Importers required to report by paragraph (a) of this section must transmit a letter notifying EPA of the concentration of PCBs in imported products when the PCB concentration of products being imported is greater than 2 µg/g for any resolvable gas chromatographic peak. Persons must also certify the following:

(1) Their compliance with all applicable requirements of §761.1(f), including any applicable requirements for air and water releases

and process waste disposal.

(2) Whether determinations of compliance are based on actual monitoring of PCB levels or on theoretical assessments.

(3) That such determinations of compliance are being maintained.

(4) If the determination of compliance is based on a theoretical assessment, the letter must also notify EPA of the estimated PCB concentration levels generated and released.

(c) Any person who reports pursuant to paragraph (a) of this section:

(1) Must have performed either a theoretical analysis or actual monitoring of PCB concentrations.

(2) Must maintain for a period of three years after ceasing process operations or importation, or for seven years, whichever is shorter, records containing the following information:

(i) *Theoretical analysis.* Manufacturers records must include: the reaction or reactions believed to be generating PCBs; the levels of PCBs generated; and the levels of PCBs released. Importers records must include: the reaction or reactions believed to be generating PCBs and the levels of PCBs generated; the basis for all estimations of PCB concentrations; and the name and qualifications of the person or persons performing the theoretical analysis; or

(ii) *Actual monitoring.* (A) The method of analysis.

(B) The results of the analysis, including data from the Quality Assurance Plan.

(C) Description of the sample matrix.

(D) The name of the analyst or analysts.

(E) The date and time of the analysis.

(F) Numbers for the lots from which the samples are taken.

(d) The certification required by paragraph (b) of this section must be signed by a responsible corporate officer. This certification must be maintained by each facility or importer for a period of three years after ceasing process operation or importation, or for seven years, whichever is shorter, and must be made available to EPA upon request. For the purpose of this section, a responsible corporate officer means:

(1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.

(2) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(e) Any person signing a document under paragraph (d) of this section shall also make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information. Based on my inquiry of the person or persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for falsifying information, including the possibility of fines and imprisonment for knowing violations.

Dated: _____

Signature: _____

(f) This report must be submitted to the Document Control Office (DCO) (7407M), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001, ATTN: PCB Notification. This report must be submitted by October 1, 1984 or within 90 days of starting up processes or commencing importation of PCBs.

(g) This certification process must be repeated whenever process conditions are significantly modified to make the previous certification no longer valid.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605))

[49 FR 28191, July 10, 1984; 49 FR 33019, Aug. 20, 1984, as amended at 53 FR 12524, Apr. 15, 1988; 58 FR 34205, June 23, 1993; 59 FR 33697, June 30, 1994; 60 FR 34465, July 3, 1995; 71 FR 33642, June 12, 2006]

§ 761.187 Reporting importers and by persons generating PCBs in excluded manufacturing processes.

In addition to meeting the basic requirements of §761.1(f) and the definition of excluded manufacturing process at §761.3, PCB-generating manufacturing processes or importers of PCB-containing products shall be considered “excluded manufacturing processes” only when the following conditions are met:

(a) Data are reported to the EPA by the owner/operator or importer concerning the total quantity of PCBs in product from excluded manufacturing processes leaving any manufacturing site in any calendar year when such quantity exceeds 0.0025 percent of that site's rated capacity for such manufacturing processes as of October 1, 1984; or the total quantity of PCBs imported in any calendar year when such quantity exceeds 0.0025 percent of the average total quantity of such product containing PCBs imported by such importer during the years 1978, 1979, 1980, 1981 and 1982.

(b) Data are reported to the EPA by the owner/operator concerning the total quantity of inadvertently generated PCBs released to the air from excluded manufacturing processes at any manufacturing site in any calendar year when such quantity exceeds 10 pounds.

(c) Data are reported to the EPA by the owner/operator concerning the total quantity of inadvertently generated PCBs released to water from excluded manufacturing processes from any manufacturing site in any calendar year when such quantity exceeds 10 pounds.

(d) These reports must be submitted to the Document Control Office (DCO) (7407M), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001, ATTN: PCB Notification.

(Sec. 6, Pub. L. 94–469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 28192, July 10, 1984, as amended at 53 FR 12524, Apr. 15, 1988; 58 FR 34205, June 23, 1993; 59 FR 33697, June 30, 1994; 60 FR 34465, July 3, 1995; 71 FR 33642, June 12, 2006]

§ 761.193 Maintenance of monitoring records by persons who import, manufacture, process, distribute in commerce, or use chemicals containing inadvertently generated PCBs.

(a) Persons who import, manufacture, process, distribute in commerce, or use chemicals containing PCBs present as a result of inadvertent generation or recycling who perform any actual monitoring of PCB concentrations must maintain records of any such monitoring for a period of three years after a process ceases operation or importing ceases, or for seven years, whichever is shorter.

(b) Monitoring records maintained pursuant to paragraph (a) of this section must contain:

- (1) The method of analysis.
- (2) The results of the analysis, including data from the Quality Assurance Plan.
- (3) Description of the sample matrix.
- (4) The name of the analyst or analysts.
- (5) The date and time of the analysis.
- (6) Numbers for the lots from which the samples are taken.

(Sec. 6, Pub. L. 94–469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 28193, July 10, 1984, as amended at 58 FR 34205, June 23, 1993]

Subpart K—PCB Waste Disposal Records and Reports

Source: 54 FR 52752, Dec. 21, 1989, unless otherwise noted.

§ 761.202 EPA identification numbers.

(a) *General.* Any generator, commercial storer, transporter, or disposer of PCB waste who is required to have an EPA identification number under this subpart must notify EPA of his/her PCB waste handling activities, using the notification procedures and form described in §761.205. EPA will confirm the EPA identification number of facilities already assigned one, and will assign an EPA identification number to facilities that do not have one.

(b) *Prohibitions.* After June 4, 1990:

(1) A generator of PCB waste shall not:

(i) Process, store, dispose of, transport, or offer for transportation PCB waste without having received an EPA identification number from the Agency. A generator of PCB waste who is exempted from notification under §761.205(c)(1) or who notifies EPA in a timely manner under §761.205(c)(2)(i), but has not yet received a unique identification number, shall be regarded as having received from EPA the identification number "40 CFR PART 761."

(ii) Offer the PCB waste to transporters, disposers, or commercial storers of PCB waste who have not received an EPA identification number.

(2) A transporter of PCB waste shall not:

(i) Transport PCB waste without having received an EPA identification number from EPA.

(ii) Deliver PCB waste to transporters, disposers, or commercial storers of PCB waste that have not received an EPA identification number.

(3) A commercial storer of PCB waste shall not accept any PCB waste for storage without having received an EPA identification number from EPA.

(4) A disposer of PCB waste shall not accept any PCB waste for disposal without having received an EPA identification number from EPA. A disposer of PCB waste who owns more than one disposal facility or mobile treatment unit shall not accept waste unless the disposer has received an EPA identification number for each facility or mobile unit.

(c) *PCB waste handled prior to effective date of this subpart.* Generators (other than generators exempt from notification under §761.205(c)(1)), commercial storers, transporters, and disposers of PCB waste who are required to have EPA identification numbers under this subpart, and who were engaged in PCB waste handling activities on or prior to February 5, 1990, are not subject to the prohibitions of paragraph (b) of this section if they have applied for an EPA identification number in accordance with the applicable notification procedures of §761.205. Such persons shall use the EPA identification number "40 CFR PART 761," or a number assigned to the persons by EPA or a State under RCRA, until EPA issues to such persons a specific identification number under §761.205(a), (b), or (c).

(d) *PCB waste first handled after effective date of this subpart.* Generators (other than generators exempt from notification under §761.205(c)(1)), commercial storers, transporters, and disposers of PCB waste who are required to have EPA identification numbers under this subpart, and who first engage in PCB waste activities after February 5, 1990, are subject to the prohibitions in paragraph (b) of this section.

§ 761.205 Notification of PCB waste activity (EPA Form 7710-53).



top

(a)(1) All commercial storers, transporters, and disposers of PCB waste who were engaged in PCB waste handling activities on or prior to February 5, 1990 shall notify EPA of their PCB waste activities by filing EPA Form 7710-53 with EPA by no later than April 4, 1990. Upon receiving the notification form, EPA will assign an EPA identification number to each entity that notifies.

(2) All generators (other than generators exempt from notification under paragraph (c)(1) of this section), commercial storers, transporters, and disposers of PCB waste who first engage in PCB waste handling activities after February 5, 1990, shall notify EPA of their PCB waste activities by filing EPA Form 7710-53 with EPA prior to engaging in PCB waste handling activities.

(3) Any person required to notify EPA under this section shall file with EPA Form 7710-53. Copies of EPA Form 7710-53 are available on EPA's PCB Web site at <http://www.epa.gov/pcb>, or from the Communications, Information and Resource Management Division, Office of Solid Waste (5305P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001. Descriptive information and instructions for filling in the form are included in paragraphs (a)(4) (i) through (vii) of this section.

(4) All of the following information shall be provided to EPA on Form 7710-53:

(i) The name of the facility, and the name of the owner or operator of the facility.

(ii) EPA identification number, if any, previously issued to the facility.

(iii) The facility's mailing address.

- (iv) The location of the facility.
- (v) The facility's installation contact and telephone number.
- (vi) The type of PCB waste activity engaged in at the facility.
- (vii) Signature of the signer of the certification statement, typed or printed name and official title of signer, and date signed.
- (viii) EPA has determined that the information in paragraphs (a)(4)(i) through (a)(4)(vii) of this section shall not be treated as confidential business information. This information will be disclosed to the public without further notice to the submitter unless the submitter provides a written justification (submitted with the notification form) which demonstrates extraordinary reasons why the information should be entitled to confidential treatment.

(b) Generators (other than those generators exempt from notification under paragraph (c)(1) of this section), commercial storers, transporters, and disposers of PCB waste who have previously notified EPA or a State of hazardous waste activities under RCRA shall notify EPA of their PCB waste activities under this part by filing EPA Form 7710-53 with EPA by no later than April 4, 1990. The notification shall include the EPA identification number previously issued by EPA or the State and upon receipt of the notification, EPA shall verify and authorize the use of the previously issued identification number for PCB waste activities.

(c)(1) Generators of PCB waste need not notify EPA and receive unique EPA identification numbers under this section, unless their PCB waste activities are described in paragraph (c)(2) of this section. Generators exempted from notifying EPA under this paragraph shall use the generic identification number "40 CFR PART 761" on the manifests, records, and reports which they shall prepare under this subpart, unless such generators elect to use a unique EPA identification number previously assigned to them under RCRA by EPA or a State.

(2) Generators of PCB waste who use, own, service, or process PCBs or PCB Items shall notify EPA of their PCB waste activities only if they own or operate PCB storage facilities subject to the storage requirements of §761.65 (b) or (c)(7). Such generators shall notify EPA in the following manner:

(i) Generators storing PCB waste subject to the storage requirements of §761.65 (b) or (c)(7) shall notify EPA by filing EPA Form 7710-53 with EPA by no later than April 4, 1990.

(ii) Generators who desire to commence storage of PCB waste after February 5, 1990 shall notify EPA and receive an EPA identification number before they may commence storage of PCBs at their facilities established under §761.65 (b) or (c)(7).

(iii) A separate notification shall be submitted to EPA for each PCB storage facility owned or operated by generators of PCB waste. Upon receiving these notifications, EPA will assign generators unique EPA identification numbers for each storage facility notifying EPA under this section.

(d) Persons required to notify under this section shall file EPA Form 7710-53 with EPA by mailing the form to the following address: Document Control Officer, Office of Solid Waste (5305P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001.

(e) The requirements under this section to notify EPA and obtain EPA identification numbers shall in no case excuse compliance by any person subject to the 1-year limit on storage prior to disposal under §761.65(a).

(f) When a facility has previously notified EPA 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).

[54 FR 52752, Dec. 21, 1989, as amended at 58 FR 15809, Mar. 24, 1993; 58 FR 34205, June 23, 1993; 59 FR 33697, June 30, 1994; 63 FR 35461, June 29, 1998; 72 FR 57241, Oct. 9, 2007]

§ 761.207 The manifest—general requirements.



[top](#)

(a) A generator who relinquishes control over PCB wastes by transporting, or offering for transport by his own vehicle or by a vehicle owned by another person, PCB waste for commercial off-site storage or off-site disposal shall prepare a manifest on EPA Form 8700-22, and if necessary, a continuation sheet. The generator shall specify:

(1) For each bulk load of PCBs, the identity of the PCB waste, the earliest date of removal from service for disposal, and the weight in kilograms of the PCB waste.

(2) For each PCB Article Container or PCB Container, the unique identifying number, type of PCB waste (e.g., soil, debris, small capacitors), earliest date of removal from service for disposal, and weight in kilograms of the PCB waste contained.

(3) For each PCB Article not in a PCB Container or PCB Article Container, the serial number if available, or other identification if there is no serial number, the date of removal from service for disposal, and weight in kilograms of the PCB waste in each PCB Article.

(b) EPA does not maintain supplies of printed copies of Form 8700-22 for public use, although printed copies of the manifest may be available from State offices. Camera-ready copies of the form are available for printing purposes from State offices, EPA Regional Offices, and EPA Headquarters.

(c) If the State to which the shipment is manifested (i.e., consignment State) supplies the manifest and requires its use, then the generator must use that manifest.

(d) If the consignment State does not supply the manifest, but the State in which the generator is located (i.e., generator State) supplies the manifest and requires its use, then the generator must use that State's manifest.

(e) If both the consignment State and the generator State supply manifests and require their use, the generator must use the consignment State's manifest.

(f) If neither the generator State nor the consignment State supplies the manifest, the generator may obtain the manifest from any source.

(g) A generator shall designate on the manifest one off-site commercial storage or disposal facility approved under this part for the commercial storage or disposal of the PCBs and PCB Items described on the manifest.

(h) If the transporter is unable to deliver the PCB waste to the designated disposer or commercial storer, the transporter must contact the generator of the PCB waste for instructions. The generator shall either designate another approved disposer or commercial storer, or instruct the transporter to return the PCB waste back to the generator.

(i) The manifest which accompanies the PCB waste shall consist of at a minimum the number of copies required to provide the generator, the initial transporter, each subsequent transporter, and the owner or operator of the designated commercial storage or disposal facility with one legible copy each for their records, and one additional copy to be returned to the generator by the owner or operator of the first designated commercial storage or disposal facility.

(j) The requirements of this section apply only to PCB wastes as defined in §761.3. This includes PCB wastes with PCB concentrations below 50 ppm where the PCB concentration below 50 ppm was the result of dilution; these PCB wastes are required under §761.1(b) to be managed as if they contained PCB concentrations of 50 ppm and above. An example of such a PCB waste is spill cleanup material containing <50 ppm PCBs when the spill involved material containing PCBs at a concentration of ≥50 ppm. However, there is no manifest requirement for material currently below 50 ppm which derives from pre-April 18, 1978, spills of any concentration, pre-July 2, 1979, spills of < 500 ppm PCBs, or materials decontaminated in accordance with §761.79.

[54 FR 52752, Dec. 21, 1989, as amended at 63 FR 35461, June 29, 1998]

§ 761.208 Use of the manifest.



[top](#)

(a)(1) The generator of PCB waste shall:

(i) Sign the manifest certification by hand.

(ii) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest.

(iii) Retain one copy among its records in accordance with §761.209(a).

(iv) Give to the transporter the remaining copies of the manifest that will accompany the shipment of PCB waste.

(2) For bulk shipments of PCB waste within the United States transported solely by water, the generator shall send three copies of the manifest dated and signed in accordance with this section directly to the owner or operator of the designated commercial storage or disposal facility. Copies of the manifest are not required for each transporter.

(3) For rail shipments of PCB waste within the United States which originate at the site of generation, the generator shall send at least three copies of the manifest dated and signed in accordance with this section to:

(i) The next non-rail transporter, if any.

(ii) The designated commercial storage or disposal facility if transported solely by rail.

(4) When a generator has employed an independent transporter to transport the PCB waste to a commercial storer or disposer, the generator shall confirm by telephone, or by other means of confirmation agreed to by both parties, that the commercial storer or disposer actually received the manifested waste. The generator shall confirm receipt of the waste by close of business the day after

he receives the manifest hand-signed by the commercial storer or disposer, in accordance with paragraph (c)(1)(iv) of this section. If the generator has not received the hand-signed manifest within 35 days after the independent transporter accepted the PCB waste, the generator shall telephone, or communicate with by some other agreed-upon means, the disposer or commercial storer to determine whether the PCB waste has actually been received. If the PCB waste has not been received, the generator shall contact the independent transporter to determine the disposition of the PCB waste. If the generator has not received a hand-signed manifest from an EPA-approved facility within 10 days from the date of the telephone call or other agreed upon means of communication, to the independent transporter, the generator shall submit an exception report to the EPA Regional Administrator for the Region in which the generator is located, as specified in §761.215. The generator shall retain a written record of all telephone or other confirmations to be included in the annual document log, in accordance with §761.180.

(b)(1) A transporter shall not accept PCB waste from a generator unless it is accompanied by a manifest signed by the generator in accordance with paragraph (a)(1) of this section, except that a manifest is not required if any one of the following conditions exists:

(i) The shipment of PCB waste consists solely of PCB wastes with PCB concentrations below 50 ppm, unless the PCB concentration below 50 ppm was the result of dilution, in which case §761.1(b) requires that the waste be managed as if it contained PCBs at the concentration prior to dilution.

(ii) The PCB waste is accepted by the transporter for transport only to a storage or disposal facility owned or operated by the generator of the PCB waste.

(2) Before transporting the PCB waste, the transporter shall sign and date the manifest acknowledging acceptance of the PCB waste from the generator. The transporter shall return a signed copy to the generator before leaving the generator's facility.

(3) The transporter shall ensure that the manifest accompanies the PCB waste.

(4) A transporter who delivers PCB waste to another transporter, or to the designated commercial storer or disposer of PCB waste, shall:

(i) Obtain the date of delivery and the handwritten signature of the subsequent transporter of PCB waste, or of the owner or operator of the designated commercial storage or disposal facility on the manifest.

(ii) Retain one copy of the manifest in accordance with §761.209(b).

(iii) Give the remaining copies of the manifest to the accepting transporter of PCB waste, or to the designated commercial storage or disposal facility.

(5) The requirements of paragraphs (b) (3) and (4) of this section shall not apply to transporters of bulk shipments by water if all of the following conditions are met:

(i) The PCB waste is delivered by water (bulk shipment) to the designated commercial storage or disposal facility.

(ii) A shipping paper containing all the information required on the manifest (excluding EPA identification number, generator certification, and signatures) accompanies the PCB waste.

(iii) The transporter delivering the PCB waste obtains the date of delivery and handwritten signature of the owner or operator of the designated commercial storage or disposal facility on either the manifest or the shipping paper.

(iv) The person delivering the PCB waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility.

(v) A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with §761.209(b).

(6) For shipments involving rail transportation, the requirements of paragraphs (b)(3) and (b)(4) of this section shall not apply. Instead, the requirements described at §263.20(f) of this chapter for the rail transportation of hazardous waste apply to such shipments. The rail transporter shall retain one copy of the manifest or rail shipping paper in accordance with §761.209(b).

(7) The transporter shall deliver the entire quantity of PCB waste accepted from a generator or transporter to either of the following destinations:

(i) The designated commercial storage or disposal facility listed on the manifest.

(ii) The next designated transporter of PCB waste.

(8) If the PCB waste cannot be delivered in accordance with paragraph (b)(7) of this section, the transporter shall contact the generator for further directions and shall revise the manifest and/or return the PCB waste according to the generator's instructions.

(9) No provision of this section shall be construed to affect or limit the applicability of any requirement applicable to transporters of PCB waste under regulations issued by the Department of Transportation (DOT) and set forth at 49 CFR part 171.

(c)(1) If a commercial storage or disposal facility receives an off-site shipment of PCB waste accompanied by a manifest, the owner or operator, or his agent, shall:

- (i) Sign and date each copy of the manifest to certify that the PCB waste covered by the manifest was received.
 - (ii) Note any significant discrepancies in the manifest (as defined in §761.210(a)(1)) on each copy of the manifest.
 - (iii) Immediately give the transporter at least one copy of the signed manifest.
 - (iv) Within 30 days after the delivery, send a copy of the manifest to the generator.
 - (v) Retain a copy of each manifest among the facility's records in accordance with §761.209(d).
- (2) If a commercial storage or disposal facility receives PCB waste from a rail or water (bulk shipment) transporter accompanied by a shipping paper containing all the information required on the manifest except the EPA identification numbers, generator's certification, and signatures, the owner or operator, or his agent, shall:
- (i) Sign and date each copy of the manifest or shipping paper to certify that the PCB waste covered by the manifest or shipping paper was received.
 - (ii) Note any significant discrepancies in the manifest or shipping paper on each copy of the manifest or shipping paper.
 - (iii) Immediately give the rail or water transporter at least one copy of the manifest or shipping paper, if applicable.
 - (iv) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator shall send a copy of the shipping paper signed and dated to the generator.
 - (v) Retain at the commercial storage or disposal facility a copy of the manifest and shipping paper, if signed in lieu of the manifest, in accordance with §761.209(d).
- (3) Whenever an off-site shipment of PCB waste is initiated from a commercial storage or disposal facility, the owner or operator of the commercial storage or disposal facility shall comply with the manifest requirements that apply to generators of PCB waste.

§ 761.209 Retention of manifest records.



[top](#)

- (a) A generator of PCB waste shall keep a copy of each manifest signed in accordance with §761.208(a)(1) until the generator receives a signed copy from the designated commercial storage or disposal facility which received the PCB waste. The copy signed by the commercial storer or disposer shall be retained for at least 3 years from the date the PCB waste was accepted by the initial transporter. A generator subject to annual document requirements under §761.180 shall retain copies of each manifest for the period required by §761.180(a).
- (b)(1) A transporter of PCB waste shall keep a copy of the manifest signed by the generator, transporter, and the next designated transporter, if applicable, or the owner or operator of the designated commercial storage or disposal facility. This copy shall be retained for a period of at least 3 years from the date the PCB waste was accepted by the initial transporter.
- (2) For shipments of PCB waste delivered to the designated commercial storage or disposal facility by water (bulk shipment), each water (bulk shipment) transporter shall retain a copy of the shipping paper described in §761.208(b)(5)(ii) for a period of at least 3 years from the date the PCB waste was accepted by the initial transporter.
- (3) For shipments of PCB waste by rail within the United States:
- (i) The initial rail transporter shall keep a copy of the manifest and the shipping paper required to accompany the PCB waste for a period of at least 3 years from the date the PCB waste was accepted by the initial transporter.
 - (ii) The final rail transporter shall keep a copy of the signed manifest, or the required shipping paper if signed by the designated facility in lieu of the manifest, for a period of at least 3 years from the date the PCB waste was accepted by the initial transporter.
- (c) The owner or operator of a PCB commercial storage or disposal facility that receives off-site shipments of PCB waste shall retain at the facility for at least 3 years a copy of each manifest or shipping paper that the owner or operator signs in accordance with §761.208 (c)(1) or (c)(3).
- (d) The periods of record retention required by this section shall be extended automatically during the course of any outstanding enforcement action regarding the regulated activity.

[54 FR 52752, Dec. 21, 1989, as amended at 58 FR 34205, June 23, 1993]

§ 761.210 Manifest discrepancies.



[top](#)

(a) Manifest discrepancies are differences between the quantity or type of PCB waste designated on the manifest or shipping paper and the quantity or type of PCB waste actually delivered to and received by a designated facility.

(1) Significant discrepancies in quantity are:

(i) Variations greater than 10 percent in weight of PCB waste in containers.

(ii) Any variation in piece count, such as a discrepancy of one PCB Transformer or PCB Container or PCB Article Container in a truckload.

(2) Significant discrepancies in type of PCB waste are obvious differences which may be discovered by inspection or waste analysis, such as the substitution of solids for liquids or the substitution of high concentration PCBs (above 500 ppm) with lower concentration materials.

(b) Upon discovering a significant discrepancy, the owner or operator of the designated commercial storage or disposal facility shall attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the PCB waste, such owner or operator shall immediately submit to the Regional Administrator for the Region in which the designated facility is located a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

[54 FR 52752, Dec. 21, 1989, as amended at 58 FR 34205, June 23, 1993]

§ 761.211 Unmanifested waste report.



[top](#)

(a) After April 4, 1990, if a PCB commercial storage or disposal facility receives any shipment of PCB waste from an off-site source without an accompanying manifest or shipping paper (where required in place of a manifest), and any part of the shipment consists of any PCB waste regulated for disposal, then the owner or operator of the commercial storage or disposal facility shall attempt to contact the generator, using information supplied by the transporter, to obtain a manifest or to return the PCB waste.

(b) If the owner or operator of the commercial storage or disposal facility cannot contact the generator of the PCB waste, he shall notify the Regional Administrator of the EPA region in which his facility is located of the unmanifested PCB waste so that the Regional Administrator can determine whether further actions are required before the owner or operator may store or dispose of the unmanifested PCB waste.

(c) Within 15 days after receiving the unmanifested PCB waste, the owner or operator shall prepare and submit a report to the Regional Administrator for the Region in which the commercial storage or disposal facility is located and to the Regional Administrator for the Region in which the PCB waste originated, if known. The report may be submitted on EPA Form 8700-13B, or by a written letter designated "Unmanifested Waste Report." The report shall include the following information:

(1) The EPA identification number, name, and address of the PCB commercial storage or disposal facility.

(2) The date the commercial storage or disposal facility received the unmanifested PCB waste.

(3) The EPA identification number, name, and address of the generator and transporter, if available.

(4) A description of the type and quantity of the unmanifested PCB waste received at the facility.

(5) A brief explanation of why the waste was unmanifested, if known.

(6) The disposition made of the unmanifested waste by the commercial storage or disposal facility, including:

(i) If the waste was stored or disposed by that facility, was the generator identified and was a manifest subsequently supplied.

(ii) If the waste was sent back to the generator, why and when.

[54 FR 52752, Dec. 21, 1989, as amended at 58 FR 34205, June 23, 1993]

§ 761.215 Exception reporting.



[top](#)

(a) A generator of PCB waste, who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated PCB commercial storage or disposal facility within 35 days of the date the waste was accepted by the initial transporter, shall immediately contact the transporter and/or the owner or operator of the designated facility to determine the status of the PCB waste.

(b) A generator of PCB waste subject to the manifesting requirements shall submit an Exception Report to the EPA Regional

Administrator for the Region in which the generator is located if the generator has not received a copy of the manifest with the hand written signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The exception report shall be submitted to EPA no later than 45 days from the date on which the generator should have received the manifest. The Exception Report shall include the following:

- (1) A legible copy of the manifest for which the generator does not have confirmation of delivery.
 - (2) 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.
- (c) A disposer of PCB waste shall submit a One-year Exception Report to the EPA Regional Administrator for the Region in which the disposal facility is located no later than 45 days from the end of the 1-year storage for disposal date when the following occurs:
- (1) The disposal facility receives PCBs or PCB Items on a date more than 9 months from the date the PCBs or PCB Items were removed from service for disposal, as indicated on the manifest or continuation sheet; and
 - (2) Because of contractual commitments or other factors affecting the facility's disposal capacity, the disposer of PCB waste could not dispose of the affected PCBs or PCB Items within 1 year of the date of removal from service for disposal.
- (d) A generator or commercial storer of PCB waste who manifests PCBs or PCB Items to a disposer of PCB waste shall submit a One-year Exception Report to the EPA Regional Administrator for the Region in which the generator or commercial storer is located no later than 45 days from the date the following occurs:
- (1) The generator or commercial storer transferred the PCBs or PCB Items to the disposer of PCB waste on a date within 9 months from the date of removal from service for disposal of the affected PCBs or PCB Items, as indicated on the manifest or continuation sheet; and
 - (2) The generator or commercial storer either has not received within 13 months from the date of removal from service for disposal a Certificate of Disposal confirming the disposal of the affected PCBs or PCB Items, or the generator or commercial storer receives a Certificate of Disposal confirming disposal of the affected PCBs or PCB Items on a date more than 1 year after the date of removal from service.
- (e) The One-year Exception Report shall include:
- (1) A legible copy of any manifest or other written communication relevant to the transfer and disposal of the affected PCBs or PCB Items.
 - (2) A cover letter signed by the submitter or an authorized representative explaining:
 - (i) The date(s) when the PCBs or PCB Items were removed from service for disposal.
 - (ii) The date(s) when the PCBs or PCB Items were received by the submitter of the report, if applicable.
 - (iii) The date(s) when the affected PCBs or PCB Items were transferred to a designated disposal facility.
 - (iv) The identity of the transporters, commercial storers, or disposers known to be involved with the transaction.
 - (v) The reason, if known, for the delay in bringing about the disposal of the affected PCBs or PCB Items within 1 year from the date of removal from service for disposal.
- (f) PCB/radioactive waste that is exempt from the 1-year storage for disposal time limit pursuant to §761.65(a)(1) is also exempt from the exception reporting requirements of paragraphs (c), (d), and (e) of this section.

[54 FR 52752, Dec. 21, 1989, as amended at 55 FR 26205, June 27, 1990; 58 FR 34205, June 23, 1993; 63 FR 35461, June 29, 1998]

§ 761.218 Certificate of disposal.



[top](#)

(a) For each shipment of manifested PCB waste that the owner or operator of a disposal facility accepts by signing the manifest, the owner or operator of the disposal facility shall prepare a Certificate of Disposal for the PCBs and PCB Items disposed of at the facility, which shall include:

- (1) The identity of the disposal facility, by name, address, and EPA identification number.
- (2) The identity of the PCB waste affected by the Certificate of Disposal including reference to the manifest number for the shipment.
- (3) A statement certifying the fact of disposal of the identified PCB waste, including the date(s) of disposal, and identifying the

disposal process used.

(4) A certification as defined in §761.3.

(b) The owner or operator of the disposal facility shall send the Certificate of Disposal to the generator identified on the manifest which accompanied the shipment of PCB waste within 30 days of the date that disposal of each item of PCB waste identified on the manifest was completed unless the generator and the disposer contractually agree to another time frame.

(c) The disposal facility shall keep a copy of each Certificate of Disposal among the records that it retains under §761.180(b).

(d)(1) Generators of PCB waste shall keep a copy of each Certificate of Disposal that they receive from disposers of PCB waste among the records they retain under §761.180(a).

(2) Commercial storers of PCB waste shall keep a copy of each Certificate of Disposal that they receive from disposers of PCB waste among the records they retain under §761.180(b).

[54 FR 52752, Dec. 21, 1984, as amended at 63 FR 35462, June 29, 1998]

Subpart L [Reserved]



Subpart M—Determining a PCB Concentration for Purposes of Abandonment or Disposal of Natural Gas Pipeline: Selecting Sample Sites, Collecting Surface Samples, and Analyzing Standard PCB Wipe Samples



Source: 63 FR 35462, June 29, 1998, unless otherwise noted.

§ 761.240 Scope and definitions.



(a) Use these procedures to select surface sampling sites for natural gas pipe to determine its PCB surface concentration for abandonment-in-place or removal and disposal off-site in accordance with §761.60(b)(5).

(b) “Pipe segment” means a length of natural gas pipe that has been removed from the pipeline system to be disposed of or reused, and that is usually approximately 12.2 meters (40 feet) or shorter in length. Pipe segments are usually linear.

(c) “Pipeline section” means a length of natural gas pipe that has been cut or otherwise separated from the active pipeline, usually for purposes of abandonment, and that is usually longer than 12.2 meters in length. Pipeline sections may be branched.

§ 761.243 Standard wipe sample method and size.



(a) Collect a surface sample from a natural gas pipe segment or pipeline section using a standard wipe test as defined in §761.123. Detailed guidance for the entire wipe sampling process appears in the document entitled “Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by the Environmental Protection Agency PCB Spill Cleanup Policy,” dated June 23, 1987 and revised on April 18, 1991. This document is available on EPA's PCB Web site at <http://www.epa.gov/pcb>, or from the Communications, Information and Resource Management Division, Office of Solid Waste (5305P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001.

(b) Collect a surface sample from a minimum surface area of 100 cm² at each sampling site selected. The EPA Regional Administrator may approve, in writing, requests to collect a sample from smaller surface areas, when <100 cm² of surface eligible for sampling is present; e.g., when sampling a small diameter pipe, a small valve, or a small regulator. When smaller surfaces are sampled, convert the measurement to the equivalent measurement for 100 cm² for purposes of comparison to standards based on 100 cm².

[63 FR 35462, June 29, 1998, as amended at 72 FR 57241, Oct. 9, 2007]

§ 761.247 Sample site selection for pipe segment removal.



- (a) *General.* (1) Select the pipe segments to be sampled by following the directions in paragraph (b) of this section.
- (2) Locate the proper position along the length of the pipe segment that you have selected for sampling, by following the directions in paragraph (c) of this section.
- (3) Select the proper sampling position around the circumference of the pipe segment that you have selected for sampling, by following the directions in paragraph (d) of this section.
- (4) Prior to removing pipe from the ground or lifting the pipe from its location during former operations, mark the top side of the pipe.
- (5) Do not sample if there are free-flowing liquids in the pipe segment. Free-flowing liquids must be removed prior to sampling.
- (b) *Selecting pipe segments to sample.* Select the pipe segment(s) that you will sample from a length of pipe or group of pipe segments, as follows:
- (1) Do not sample a pipe segment that is longer than 12.2 meters (40 feet). If a segment is longer than 12.2 meters in length, cut the segment so that all resulting segments are 12.2 meters or less in length.
- (2) Determine which pipe segments to sample as follows:
- (i) When a length of pipe having seven or fewer segments is removed for purposes of disposal, sample each pipe segment.
- (ii) When removing a length of pipe having multiple contiguous segments less than 3 miles in total length, take samples from a total of seven segments.
- (A) Sample the first and last segments removed.
- (B) Select the five additional segments according to one of the two following procedures:
- (1) Assign all segments a unique sequential number. Then select five numbers using a random number table or random number generator. If the random number generator or random number table produces either the first pipe segment, the last pipe segment, or any previously selected segment, select another random number until there are seven different numbers, each corresponding to a different pipe segment.
- (2) Divide the total number of segments by six. Round the resulting quotient off to the nearest whole number. The resulting number is the interval between the segments you will sample. For example, cut a 2.9 mile length of pipeline into 383 segments of approximately 40 feet each. Sample the first (number 1) and last (number 383) segments. To determine which additional five segments to sample, divide the total number of segments, 383, by 6. Round up the resulting number in this example, 63.8, to the next whole number, 64. Add 64 to the number of each preceding pipe segment five separate times to select five additional pipe segments for sampling. In this example, the first pipe segment has the number 1, add 64 to 1 to select segment 65. Next, add 64 to 65 to select segment 129. Continue in this fashion to select all seven segments: 1, 65, 129, 193, 257, 321, and 383.
- (iii) When removing a length of pipe having multiple contiguous segments more than 3 miles in total length for purposes of disposal, take samples of each segment that is 1/2 mile distant from the segment previously sampled. Sample a minimum of seven segments.
- (c) *Selecting the sampling position—length.* Select the sampling position along the length of the pipe segment, as follows:
- (1) Take samples at the end upstream of the former gas flow of each segment removed.
- (2) If the pipe segment is cut with a torch or other high temperature heat source, take the sample at least 15 cm (6 inches) inside the cut end of the pipe segment.
- (3) If the pipe segment is cut with a saw or other mechanical device, take the sample at least 2 cm (1 inch) inside the end of the pipe segment.
- (4) If the sample site location selected in the procedure at paragraph (c)(2) or (c)(3) of this section is a porous surface (for example, there is significant corrosion so that the wipe material will be shredded), then move the sample site further inside the pipe segment (away from the end of the pipe or pipe segment) until there is no such porous surface. For purposes of this subpart, natural gas pipe with a thin porous corrosion preventive coating is a non-porous surface.
- (5) If there is not a non-porous surface accessible by paragraphs (c)(2) and (c)(3) of this section, use one of the following three options:
- (i) Sample the downstream end of the pipe segment using the same sample site location procedure as for the upstream end.
- (ii) Select another pipe segment using the random selection procedure described in paragraph (b) of this section.
- (iii) If there is no other pipe segment in the population to be sampled and both ends of a pipe segment have porous surfaces at all possible sample collection sites, then assume that the pipe segment contains ≥ 50 ppm PCB but < 500 ppm PCB.

(d) *Selecting the sample position—circumference.* Based on the mark on the top of the pipe segment made prior to removing pipe from the ground or lifting the pipe from its location during former operations, sample the inside center of the bottom of the pipe being sampled. Make sure the sample is centered on the bottom of the pipe segment; that is, sample an equal area on both sides of the middle of the bottom of the pipe segment for the entire length of the sample.

[63 FR 35462, June 29, 1998, as amended at 64 FR 33762, June 24, 1999]

§ 761.250 Sample site selection for pipeline section abandonment.



[top](#)

This procedure is for the sample site selection for a pipeline section to be abandoned, in accordance with §761.60(b)(5)(i)(B).

(a) *General.* (1) Select sample collection sites in the pipeline section(s) by following the directions in paragraph (b) of this section.

(2) Select the proper sampling position along the pipe by following the directions in §761.247 (c) and (d).

(3) Assure, by visual inspection, the absence of free-flowing liquids in the pipe by affirming no liquids at all liquid collection points and all ends of the pipeline section to be abandoned.

(b) *Selection sample collection sites.* At a minimum, sample all ends of all pipeline sections to be abandoned in place.

(1) If the pipeline section to be abandoned is between the pressure side of one compressor station and the suction side of the next compressor station downstream of the former gas flow, at a minimum, sample all ends of the abandoned pipe.

(2) If the pipeline section to be abandoned is longer than the distance between the pressure side of one compressor station and the suction side of the next compressor station downstream of the former gas flow, divide the pipeline section, for purposes of sampling, into smaller pipeline sections no longer than the distance from the pressure side of one compressor station to the suction side of the next compressor station downstream of the former gas flow. Consider each of the smaller sections to be a separate abandonment and sample each one, at a minimum, at all ends.

(3) Use the following procedure to locate representative sample collection sites in pipeline sections at points other than the suction and pressure side of compressor stations, or the ends of the pipeline section to be abandoned.

(i) First, assign a unique identifying sequential number to each kilometer or fraction of a kilometer length of pipe within the entire pipeline section.

(ii) Use a random number table or a random number generator to select each representative sample collection site from a complete list of the sequential identification numbers.

(iii) Samples may be collected by removing any covering soil, cutting the pipe to gain access to the sampling location, and collecting the surface sample with the pipe in place, rather than completely removing the pipeline sections to collect the surface sample.

[63 FR 35462, June 29, 1998, as amended at 64 FR 33762, June 24, 1999]

§ 761.253 Chemical analysis.



[top](#)

(a) Extract PCBs from the standard wipe sample collection medium and clean-up the extracted PCBs in accordance with either Method 3500B/3540C or Method 3500B/3550B from EPA's SW-846, Test Methods for Evaluating Solid Waste, or a method validated under subpart Q of this part. Use Method 8082 from SW-846, or a method validated under subpart Q of this part, to analyze these extracts for PCBs.

(b) Report all PCB sample concentrations in $\mu\text{g}/100 \text{ cm}^2$ (16 square inches) of surface sampled. If sampling an area smaller than 100 cm^2 , report converted sample concentrations in accordance with §761.243(b).

§ 761.257 Determining the regulatory status of sampled pipe.



[top](#)

(a) For purposes of removal for disposal of a pipe segment that has been sampled, the sample results for that segment determines its PCB surface concentration. Determine the PCB surface concentration of a segment which was not sampled as follows:

(1) If the unsampled pipe segment is between two pipe segments which have been sampled, assume that the unsampled segment has the same PCB surface concentration as the nearest sampled pipe segment.

(2) If an unsampled pipe segment is equidistant between two pipe segments which have been sampled, assume the PCB surface concentration of the unsampled segment to be the arithmetic mean of the PCB surface concentrations measured in the two equidistant, sampled, pipe segments.

(b) For purposes of abandonment of a pipeline section, assume that the PCB surface concentration for an entire pipeline section is the arithmetic mean of the PCB surface concentrations measured at the ends of the pipeline section. If additional representative samples were taken in a pipeline section, assume that the PCB surface concentration for the entire pipeline section is the arithmetic mean of the concentrations measured in all representative samples taken.

(c) For purposes of removal for disposal under §761.60(b)(5)(ii)(A)(1) or abandonment under §761.60(b)(5)(i)(B), if the surface PCB concentration of a pipe segment, determined by direct measurement or in accordance with paragraph (a) of this section, or of a pipeline section as determined in accordance with paragraph (b) of this section, is $>10 \mu\text{g}/100 \text{ cm}^2$, but $<100 \mu\text{g}/100 \text{ cm}^2$, then that segment or section is PCB-Contaminated.

Subpart N—Cleanup Site Characterization Sampling for PCB Remediation Waste in Accordance with §761.61(a)(2)



[top](#)

Source: 63 FR 35464, June 29, 1998, unless otherwise noted.

§ 761.260 Applicability.



[top](#)

This subpart provides a method for collecting new data for characterizing a PCB remediation waste cleanup site or for assessing the sufficiency of existing site characterization data, as required by §761.61(a)(2).

§ 761.265 Sampling bulk PCB remediation waste and porous surfaces.



[top](#)

(a) Use a grid interval of 3 meters and the procedures in §§761.283 and 761.286 to sample bulk PCB remediation waste that is not in a container and porous surfaces.

(b) Use the following procedures to sample bulk PCB remediation waste that is in a single container.

(1) Use a core sampler to collect a minimum of one core sample for the entire depth of the waste at the center of the container. Collect a minimum of 50 cm^3 of waste for analysis.

(2) If more than one core sample is taken, thoroughly mix all samples into a composite sample. Take a subsample of a minimum of 50 cm^3 from the mixed composite for analysis.

(c) Use the following procedures to sample bulk PCB remediation waste that is in more than one container.

(1) Segregate the containers by type (for example, a 55-gallon drum and a roll-off container are types of containers).

(2) For fewer than three containers of the same type, sample all containers.

(3) For more than three containers of the same type, list the containers and assign each container an unique sequential number. Use a random number generator or table to select a minimum of 10 percent of the containers from the list, or select three containers, whichever is the larger.

(4) Sample the selected container(s) according to paragraph (b) of this section.

§ 761.267 Sampling non-porous surfaces.



[top](#)

(a) Sample large, nearly flat, non-porous surfaces by dividing the surface into roughly square portions approximately 2 meters on each side. Follow the procedures in §761.302(a).

(b) It is not necessary to sample small or irregularly shaped surfaces.

§ 761.269 Sampling liquid PCB remediation waste.



(a) If the liquid is single phase, collect and analyze one sample. There are no required procedures for collecting a sample.

(b) If the liquid is multi-phasic, separate the phases, and collect and analyze a sample from each liquid phase. There are no required procedures for collecting a sample from each single phase liquid.

(c) If the liquid has a non-liquid phase which is >0.5 percent by total weight of the waste, separate the non-liquid phase from the liquid phase and sample it separately as a non-liquid in accordance with §761.265.

§ 761.272 Chemical extraction and analysis of samples.



Use either Method 3500B/3540C or Method 3500B/3550B from EPA's SW-846, Test Methods for Evaluating Solid Waste, or a method validated under subpart Q of this part, for chemical extraction of PCBs from individual and composite samples of PCB remediation waste. Use Method 8082 from SW-846, or a method validated under subpart Q of this part, to analyze these extracts for PCBs.

§ 761.274 Reporting PCB concentrations in samples.



(a) Report all sample concentrations for non-liquid PCBs on a dry weight basis as micrograms of PCBs per gram of sample (ppm by weight). Report surface sampling results as $\mu\text{g}/100\text{ cm}^2$. Divide 100 cm^2 by the surface area and multiply this quotient by the total number of micrograms of PCBs on the surface to obtain the equivalent measurement of micrograms per 100 cm^2 .

(b) Report all sample concentrations for liquid PCBs on a wet weight basis as micrograms of PCBs per gram of sample (ppm by weight).

Subpart O—Sampling To Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance With §761.61(a)(6)



Source: 63 FR 35465, June 29, 1998, unless otherwise noted.

§ 761.280 Application and scope.



Follow the procedures in this subpart when sampling to verify completion of the cleanup for self-implementing, on-site disposal of bulk PCB remediation waste and porous surfaces consistent with the levels of §761.61(a)(4)(i) and (iii). The objective of this subpart is not to search for new contamination. Confirmation of compliance with the cleanup levels in §761.61(a)(4) is only verifiable for the area sampled in accordance with this subpart. Do not make conclusions or extrapolations about PCB concentrations outside of the area which has been cleaned up and verified based on the results of this verification sampling.

§ 761.283 Determination of the number of samples to collect and sample collection locations.



This section addresses how to determine the number of samples to collect and sample collection locations for bulk PCB remediation waste and porous surfaces destined to remain at a cleanup site after cleanup.

(a) *Minimum number of samples.* (1) At each separate cleanup site at a PCB remediation waste location, take a minimum of three samples for each type of bulk PCB remediation waste or porous surface at the cleanup site, regardless of the amount of each type of waste that is present. There is no upper limit to the number of samples required or allowed.

(2) This is an example of how to calculate the minimum number of required samples at a PCB remediation waste location. There are three distinct cleanup sites at this example location: a loading dock, a transformer storage lot, and a disposal pit. The minimum number of samples to take appears in parentheses after each type of waste for each cleanup site. The PCB remediation wastes present at the loading dock are concrete (three samples) and clay soil (three samples). The non-liquid PCB remediation wastes present at the transformer storage lot are oily soil (three samples), clay soil (three samples) and gravel (three samples). The PCB remediation wastes present at the disposal pit are sandy soil (three samples), clay soil (three samples), oily soil (three samples),

industrial sludge (three samples), and gravel (three samples).

(b) *Selection of sample locations—general.* (1)(i) Use a square-based grid system to overlay the entire area to be sampled. Orient the grid axes on a magnetic north-south line centered in the area and an east-west axis perpendicular to the magnetic north-south axis also centered in the area.

(ii) If the site is recleaned based on the results of cleanup verification conducted in accordance with §761.61(a)(6), follow the procedures in paragraph (b) of this section for locating sampling points after the recleaning, but reorient the grid axes established in paragraph (b)(1)(i) of this section by moving the origin one meter in the direction of magnetic north and one meter in the direction east of magnetic north.

(2) Mark out a series of sampling points 1.5 meters apart oriented to the grid axes. The sampling points shall proceed in every direction to the extent sufficient to result in a two-dimensional grid completely overlaying the sampling area.

(3) Collect a sample at each point if the grid falls in the cleanup area. Analyze all samples either individually or according to the compositing schemes provided in the procedures at §761.289. So long as every sample collected at a grid point is analyzed as either an individual sample or as part of a composite sample, there are no other restrictions on how many samples are analyzed.

(c) *Selection of sample locations—small cleanup sites.* When a cleanup site is sufficiently small or irregularly shaped that a square grid with a grid interval of 1.5 meters will not result in a minimum of three sampling points for each type of bulk PCB remediation waste or porous surface at the cleanup site, there are two options.

(1) Use a smaller square grid interval and the procedures in paragraph (b) of this section.

(2) Use the following coordinate-based random sampling scheme. If the site is recleaned based on the results of cleanup verification conducted in accordance with §761.61(a)(6), follow the procedures in this section for locating sampling points after the recleaning, but select three new pairs of sampling coordinates.

(i) Beginning in the southwest corner (lower left when facing magnetic north) of the area to be sampled, measure in centimeters (or inches) the maximum magnetic north-south dimension of the area to be sampled. Next, beginning in the southwest corner, measure in centimeters (or inches) the maximum magnetic east-west dimension of the area to be sampled. Designate the north-south and east-west dimensions (describing the west and south boundaries, respectively, of the area to be sampled), as the reference axes of a square-based grid system.

(ii) Use a random number table or random number generator to select a pair of coordinates that will locate the sample within the area to be sampled. The first coordinate in the pair is the measurement on the north-south axis. The second coordinate in the pair is the measurement on the east-west axis. Collect the sample at the intersection of an east-west line drawn through the measured spot on the north-south axis, and a north-south line drawn through the measured spot on the east-west axis. If the cleanup site is irregularly shaped and this intersection falls outside the cleanup site, select a new pair of sampling coordinates. Continue to select pairs of sampling coordinates until three are selected for each type of bulk PCB remediation waste or porous surface at the cleanup site.

(d) *Area of inference.* Analytical results for an individual sample point apply to the sample point and to an area of inference extending to four imaginary lines parallel to the grid axes and one half grid interval distant from the sample point in four different directions. The area of inference forms a square around the sample point. The sides of the square are parallel to the grid axes and one grid interval in length. The sample point is in the center of the square area of inference. The area of inference from a composite sample is the total of the areas of the individual samples included in the composite.

§ 761.286 Sample size and procedure for collecting a sample.



[top](#)

At each selected sampling location for bulk PCB remediation waste or porous surfaces, collect at least 20 milliliters of waste, or a portion of sufficient weight for the chemical analyst to measure the concentration of PCBs and still have sufficient analytical detection sensitivity to reproducibly measure PCBs at the levels designated in §761.61(a)(4). Use a core sampler having a diameter ≥ 2 cm and ≤ 3 cm. Collect waste to a maximum depth of 7.5 cms.

§ 761.289 Compositing samples.



[top](#)

Compositing is a method of combining several samples of a specific type of bulk PCB remediation waste or porous surface from nearby locations for a single chemical analysis. There are two procedures for compositing bulk PCB remediation waste samples. These procedures are based on the method for selecting sampling site locations in §761.283(b) and (c). The single chemical analysis of a composite sample results in an averaging of the concentrations of its component samples. The area of inference of a composite is determined by the area of inference of each of its component samples as described in §761.283(d). Compositing is not mandatory. However, if compositing is used, it must be performed in accordance with the following procedures.

(a) *Compositing in the field or in a laboratory.* Compositing may occur either in the field or in a laboratory. Prepare composite samples using equal volumes of each constituent or component sample. Compositing samples must be from the same type of bulk PCB remediation waste or porous surface (see the example at §761.283(a)(2)). Mix composite samples thoroughly. From each well-mixed composite sample, take a portion of sufficient weight for the chemical analyst to measure the concentration of PCBs and still have sufficient analytical detection sensitivity to reproducibly measure PCBs at the levels designated in §761.61(a)(4).

(b)(1) *Compositing from samples collected at grid points in accordance with §761.283(b).* There are two kinds of composite sampling procedures depending on the original source of contamination of the site.

(i) The first procedure is for sites with multiple point sources of contamination (such as an old electrical equipment storage area, a scrap yard, or repair shop) or for unknown sources of contamination. Under this compositing scheme, composite a maximum of nine samples for each type of bulk PCB remediation waste or porous surface at the cleanup site. The maximum dimensions of the area enclosing a nine grid point composite is two grid intervals bounded by three collinear grid points (3.0 meters or approximately 10 feet long). Take all samples in the composite at the same depth. Assure that composite sample areas and individually analyzed samples completely overlay the cleanup site.

(ii) The second procedure is for a single point source of contamination, such as discharge into a large containment area (e.g., pit, waste lagoon, or evaporation pond), or a leak onto soil from a single drum or tank. Single point source contamination may be from a one-time or continuous contamination. Composites come from two stages: an initial compositing area centered in the area to be sampled, and subsequent compositing areas forming concentric square zones around the initial compositing area. The center of the initial compositing area and each of the subsequent compositing areas is the origin of the grid axes.

(A) *Definition of the initial compositing area.* The initial compositing area is based on a square that contains nine grid points, is centered on the grid origin, and has sides two grid intervals long. The initial compositing area has the same center as this square and sides one half a grid interval more distant from the center than the square. The initial compositing area has sides three grid intervals long.

(B) *Definition of subsequent compositing areas.* Subsequent composite sampling areas are in concentric square zones one grid interval wide around the initial compositing area and around each successive subsequent compositing area. The inner boundary of the first subsequent compositing area is the outer boundary of the initial compositing area. The outer boundary of the first subsequent compositing area is centered on the grid origin, has sides one grid interval more distant from the grid origin than the inner boundary, and is two grid intervals longer on a side than the inner boundary. The inner boundary of each further subsequent compositing area is the outer boundary of the previous subsequent compositing area. The outer boundary of each further subsequent compositing area is centered on the grid origin, has sides one grid interval more distant from the grid origin than the inner boundary, and is two grid intervals longer on a side than the inner boundary.

(C) *Taking composite samples from the initial and subsequent compositing areas.* (1) Select composite sampling areas from the initial compositing area and subsequent compositing areas such that all grid points in the initial compositing area and subsequent compositing areas are part of a composite or individual sample.

(2) A person may include in a single composite sample a maximum of all nine grid points in the initial compositing area. The maximum number of grid points in a composite sample taken from a subsequent compositing area is eight. These eight grid points must be adjacent to one another in the subsequent compositing area, but need not be collinear.

(2) *Compositing from samples taken at grid points or pairs of coordinates in accordance with §761.283(c).* Samples collected at small sites are based on selecting pairs of coordinates or using the sample site selection procedure for grid sampling with a smaller grid interval.

(i) *Samples collected from a grid having a smaller grid interval.* Use the procedure in paragraph (b)(1)(i) of this section to composite samples and determine the area of inference for composite samples.

(ii) *Samples collected from pairs of coordinates.* All three samples must be composited. The area of inference for the composite is the entire area sampled.

§ 761.292 Chemical extraction and analysis of individual samples and composite samples.



[top](#)

Use either Method 3500B/3540C or Method 3500B/3550B from EPA's SW-846, Test Methods for Evaluating Solid Waste, or a method validated under subpart Q of this part, for chemical extraction of PCBs from individual and composite samples of PCB remediation waste. Use Method 8082 from SW-846, or a method validated under subpart Q of this part, to analyze these extracts for PCBs.

§ 761.295 Reporting and recordkeeping of the PCB concentrations in samples.



[top](#)

(a) Report all sample concentrations for bulk PCB remediation waste and porous surfaces on a dry weight basis and as

micrograms of PCBs per gram of sample (ppm by weight).

(b) Record and keep on file for 3 years the PCB concentration for each sample or composite sample.

§ 761.298 Decisions based on PCB concentration measurements resulting from sampling.



(a) For grid samples which are chemically analyzed individually, the PCB concentration applies to the area of inference as described in §761.283(d).

(b) For grid samples analyzed as part of a composite sample, the PCB concentration applies to the area of inference of the composite sample as described in §761.283(d) (i.e., the area of inference is the total of the areas of the individual samples included in the composite).

(c) For coordinate pair samples analyzed as part of a composite sample, in accordance with §§761.283(c)(2) and 761.289(b)(2)(ii), the PCB concentration applies to the entire cleanup site.

Subpart P—Sampling Non-Porous Surfaces for Measurement-Based Use, Reuse, and On-Site or Off-Site Disposal Under §761.61(a)(6) and Decontamination Under §761.79(b)(3)



Source: 63 FR 35467, June 29, 1998, unless otherwise noted.

§ 761.300 Applicability.



This subpart provides sample site selection procedures for large, nearly flat non-porous surfaces, and for small or irregularly shaped non-porous surfaces. This subpart also provides procedures for analyzing the samples and interpreting the results of the sampling. Any person verifying completion of self-implementing cleanup and on-site disposal of non-porous surfaces under §761.61(a)(6), or verifying that decontamination standards under §761.79(b)(3) are met, must use these procedures.

§ 761.302 Proportion of the total surface area to sample.



(a) *Large nearly flat surfaces.* Divide the entire surface into approximately 1 meter square portions and mark the portions so that they are clearly identified. Determine the sample location in each portion as directed in §761.304.

(1) For large nearly flat surfaces contaminated by a single source of PCBs with a uniform concentration, assign each 1 meter square surface a unique sequential number.

(i) For three or fewer 1 meter square areas, sample all of the areas.

(ii) For four or more 1 meter square areas, use a random number generator or table to select a minimum of 10 percent of the areas from the list, or to select three areas, whichever is more.

(2) For other large nearly flat surfaces, sample all of the one meter square areas.

(b) *Small or irregularly shaped surfaces.* For small surfaces having irregular contours, such as hand tools, natural gas pipeline valves, and most exterior surfaces of machine tools, sample the entire surface. Any person may select sampling locations for small, nearly flat surfaces in accordance with §761.308 with the exception that the maximum area in §761.308(a) is <1 meter square.

(c) *Preparation of surfaces.* Drain all free-flowing liquids from surfaces and brush off dust or loose grit.

§ 761.304 Determining sample location.



(a) For 1 square meter non-porous surface areas having the same size and shape, it is permissible to sample the same 10 cm by 10 cm location or position in each identical 1 square meter area. This location or position is determined in accordance with §761.306 or §761.308.

(b) If some 1 square meter surfaces for a larger non-porous surface area have different sizes and shapes, separately select the 10 cm by 10 cm sampling position for each different 1 square meter surface in accordance with §761.308.

(c) If non-porous surfaces have been cleaned and the cleaned surfaces do not meet the applicable standards or levels, surfaces may be recleaned and resampled. When resampling surfaces previously sampled to verify cleanup levels, use the sampling procedures in §§761.306 through 761.316 to resample the surfaces. If any sample site selected coincides with a previous sampling site, restart the sample selection process until all resampling sites are different from any previous sampling sites.

§ 761.306 Sampling 1 meter square surfaces by random selection of halves.



[top](#)

(a) Divide each 1 meter square portion where it is necessary to collect a surface wipe test sample into two equal (or as nearly equal as possible) halves. For example, divide the area into top and bottom halves or left and right halves. Choose the top/bottom or left/right division that produces halves having as close to the shape of a circle as possible. For example, a square is closer to the shape of a circle than is a rectangle and a rectangle having a length to width ratio of 2:1 is closer to the shape of a circle than a rectangle having a length to width ratio of 3:1.

(b) Assign a unique identifier to each half and then select one of the halves for further sampling with a random number generator or other device (i.e., by flipping a coin).

(c) Continue selecting progressively smaller halves by dividing the previously selected half, in accordance with paragraphs (a) and (b) of this section, until the final selected half is larger than or equal to 100 cm² and smaller than 200 cm².

(d) Perform a standard PCB wipe test on the final selected halves from each 1 meter square portion.

(e) The following is an example of applying sampling by halves. Assume that the area to sample is a 1 meter square surface area (a square that has sides 1 meter long). Assign each half to one face of a coin. After flipping the coin, the half assigned to the face of the coin that is showing is the half selected.

(1) Selecting the first half:

(i) For a square shape the top/bottom halves have the same shape as the left/right halves when compared to a circle, i.e., regardless of which way the surface is divided, each half is 1 half meter wide by 1 meter long. Therefore, divide the area either top/bottom or left/right. For selecting the first half, this example will select from left/right halves.

(ii) A coin flip selects the left half. The dimensions of this selected surface area are 1 meter high and 1/2 meter wide.

(2) Selecting the second half:

(i) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide (1/4 meter wide and 1 meter high). Halves selected from top/bottom would be square (1/2 meter on a side). Therefore, select the next halves top/bottom, because the shape of the top/bottom halves (square) is closer to the shape of a circle than the shape of the left/right halves (long narrow rectangles).

(ii) A coin flip selects the top half. The dimensions of this selected surface area are 1/2 meter high and 1/2 meter wide.

(3) Selecting the third half:

(i) Just as for the selection of the first half, which divided the original square area, both the left/right and the top/bottom halves have the same shape when compared to a circle (both are rectangles having the same dimensions). Therefore, choose either left/right or top/bottom halves. This example will select from left/right halves.

(ii) A coin flip selects the right half. The dimensions of this selected surface area are 1/4 meter by 1/2 meter.

(4) Selecting the fourth half:

(i) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide (1/8 meter wide and 1/2 meter high). Halves selected from top/bottom would be square (1/4 meter on a side). Therefore, select the next halves top/bottom, because the shape of the top/bottom halves (square) are closer to the shape of a circle than the shape of the left/right halves (long narrow rectangles).

(ii) A coin flip selects the bottom half. The dimensions of this selected surface area are 1/4 meter high and 1/4 meter wide.

(5) Selecting the fifth half:

(i) Just as for the selection of the first and third halves, both the left/right and the top/bottom halves have the same shape when compared to a circle (both are rectangles having the same dimensions). Therefore, choose either left/right or top/bottom halves. This example will select from left/right halves.

(ii) A coin flip selects the right half. The dimensions of the selected surface are $1/8$ meter by $1/4$ meter.

(6) Selecting the sixth half:

(i) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide ($1/16$ meter wide and $1/4$ meter high. Halves selected from top/bottom would be square ($1/8$ meter on a side). Therefore, select the next halves top/bottom, because the shape of the top/bottom halves (square) are closer to the shape of a circle than the shape of the left/right halves (long narrow rectangles).

(ii) A coin flip selects the top half. The dimensions of this selected surface are $1/8$ meter high and $1/8$ meter wide or 12.5 cm by 12.5 cm.

(7) Collect a standard wipe test sample in the sixth half. Since the dimensions of half of the sixth half would be 12.5 cm by 6.25 cm, the area (approximately 78 cm^2) would be less than the required 100 cm^2 minimum area for the standard wipe test. Therefore, no further sampling by halves is necessary. Take the standard wipe test samples of the entire selected sixth half.

§ 761.308 Sample selection by random number generation on any two-dimensional square grid.



[top](#)

(a) Divide the surface area of the non-porous surface into rectangular or square areas having a maximum area of 1 square meter and a minimum dimension of 10 centimeters.

(b) Measure the length and width, in centimeters, of each area created in paragraph (a) of this section. Round off the number of centimeters in the length and the width measurements to the nearest centimeter.

(c) For each 1 square meter area created in accordance with paragraph (a) of this section, select two random numbers: one each for the length and width borders measured in paragraph (b) of this section. An eligible random number can be from zero up to the total width, minus 10 centimeters.

(d) Locate the 10 centimeter by 10 centimeter sample.

(1) Orient the 1 square meter surface area so that, when you are facing the area, the length is left to right and the width is top to bottom. The origin, or reference point for measuring selected random numbers of centimeters to the sampling area, is on the lower left corner when facing the surface.

(2) Mark the random number selected for the length distance, in centimeters, from the origin to the right (at the bottom of the area away from the origin).

(3) From the marked length distance on the bottom of the area, move perpendicularly up from the bottom of the area into the area for the distance randomly selected for the width.

(4) Use the point determined in paragraph (d)(3) of this section as the lower left corner of the 10 centimeter by 10 centimeter sample.

§ 761.310 Collecting the sample.



[top](#)

Use the standard wipe test as defined in §761.123 to sample one 10 centimeter by 10 centimeter square (100 cm^2) area to represent surface area PCB concentrations of each square meter or fraction of a square meter of a nearly flat, non-porous surface. For small surfaces, use the same procedure as for the standard wipe test, only sample the entire area, rather than 10 centimeter by 10 centimeter squares.

§ 761.312 Compositing of samples.



[top](#)

For a surface originally contaminated by a single source of PCBs with a uniform concentration, it is permissible to composite surface wipe test samples and to use the composite measurement to represent the PCB concentration of the entire surface. Composite samples consist of more than one sample gauze extracted and chemically analyzed together resulting in a single measurement. The composite measurement represents an arithmetic mean of the composited samples.

(a) *Compositing samples from surfaces to be used or reused.* For small or irregularly shaped surfaces or large nearly flat surfaces, if the surfaces are contaminated by a single source of PCBs with a uniform concentration, composite a maximum of three adjacent samples.

(b) *Compositing samples from surfaces to be disposed of off-site or on-site.* (1) For small or irregularly shaped surfaces, composite a maximum of three adjacent samples.

(2) For large nearly flat surfaces, composite a maximum of 10 adjacent samples.

§ 761.314 Chemical analysis of standard wipe test samples.



Perform the chemical analysis of standard wipe test samples in accordance with §761.272. Report sample results in micrograms per 100 cm².

§ 761.316 Interpreting PCB concentration measurements resulting from this sampling scheme.



(a) For an individual sample taken from an approximately 1 meter square portion of the entire surface area and not composited with other samples, the status of the portion is based on the surface concentration measured in that sample. If the sample surface concentration is not equal to or lower than the cleanup level, by inference the entire 1 meter area, and not just the immediate area where the sample was taken, is not equal to or lower than the cleanup level.

(b) For areas represented by the measurement results from compositing more than one 10 centimeter by 10 centimeter sample, the measurement for the composite is the measurement for the entire area. For example, when there is a composite of 10 standard wipe test samples representing 9.5 square meters of surface area and the result of the analysis of the composite is 20 µg/100 cm², then the entire 9.5 square meters has a PCB surface concentration of 20 µg/100 cm², not just the area in the 10 cm by 10 cm sampled areas.

(c) For small surfaces having irregular contours, where the entire surface was sampled, measure the surface area. Divide 100 cm² by the surface area and multiply this quotient by the total number of micrograms of PCBs on the surface to obtain the equivalent measurement of micrograms per 100 cm².

Subpart Q—Self-Implementing Alternative Extraction and Chemical Analysis Procedures for Non-liquid PCB Remediation Waste Samples



Source: 63 FR 35468, June 29, 1998, unless otherwise noted.

§ 761.320 Applicability.



This subpart describes self-implementing comparison testing requirements for chemical extraction and chemical analysis methods used as an alternative to the methods required in §§761.272 or 761.292. Any person conducting comparison testing under this subpart must comply with the requirements of §761.80(i), including notification. Use alternative methods only after successful completion of these comparison testing requirements and after documentation of the results of the testing.

§ 761.323 Sample preparation.



(a) The comparison study requires analysis of a minimum of 10 samples weighing at least 300 grams each. Samples of PCB remediation waste used in the comparison study must meet the following three requirements.

(1) The samples must either be taken from the PCB remediation waste at the cleanup site, or must be the same kind of material as that waste. For example, if the waste at the cleanup site is sandy soil, you must use the same kind of sandy soil in the comparison study. Do not use unrelated materials such as clay soil or dredged sediments in place of sandy soil.

(2) PCB remediation waste may contain interferences which confound or hamper sample extraction and chemical analysis. These interferences may be from chemicals or other attributes preexisting in the waste material, resulting from the PCB contamination source, or resulting from treatment to remove or destroy PCBs. Comparison study samples must also contain these interfering materials to demonstrate successful analysis in their presence. For example, a PCB remediation waste may have been co-disposed with chlorobenzene solvents or chlorinated pesticides. These chlorinated compounds would have to be present in the comparison study compounds at the same levels found, or at the highest levels expected to be found, in the PCB remediation

waste. As another example, for PCB remediation waste which had been solvent washed with liquid amines to remove PCBs, comparison study samples would have to contain concentrations of these amines at the same levels found, or at the highest levels expected to be found, in the PCB remediation waste.

(b) Prior to initiating the comparison study, confirm the following PCB concentrations in the comparison study samples using the methods specified in §761.292. All samples of non-liquid PCB remediation waste must have PCB concentrations between 0.1 and 150 ppm.

(1) A minimum of three comparison study samples must have PCB concentrations above the cleanup level specified for the site in §761.61(a)(4) and a minimum of three comparison study samples must have PCB concentrations below the specified cleanup level.

(2) At least one comparison study sample must have a PCB concentration ≥ 90 percent and ≤ 100 percent of the cleanup level.

(3) At least one comparison study sample must have a PCB concentration ≥ 100 percent and ≤ 110 percent of the cleanup level.

(c) If the comparison study samples do not have the concentrations or concentration ranges required by paragraph (b) of this section, for purposes of use in this chemical extraction and chemical analysis comparison study, a person may adjust PCB concentrations by dilution. Any excess material resulting from the preparation of these samples, which is not used as an analytical sample, is regulated as the PCB concentration in the component having the highest PCB concentration of the component materials in the sample.

§ 761.326 Conducting the comparison study.



[top](#)

Extract or analyze the comparison study samples using the alternative method. For an alternative extraction method or alternative analytical method to be comparable to the methods required in §761.292, all of the following conditions must be met.

(a) All samples having PCB concentrations greater than or equal to the level of concern, as measured by the methods required in §761.292, are found to be greater than or equal to the level of concern as measured by the alternative method (no false negatives).

(b) Only one sample which contains PCBs at a level less than the level of concern, as measured by the methods required in §761.292, is found to have a PCB concentration greater than the level of concern as measured by the alternative method (false positive); and all other samples which contain PCBs at levels less than the level of concern, as measured by the methods required in §761.292, are found by the alternative method to have PCBs less than the level of concern (there are no additional false positives).

Subpart R—Sampling Non-Liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance With §761.62, and Sampling PCB Remediation Waste Destined for Off-Site Disposal, in Accordance With §761.61



[top](#)

Source: 63 FR 35469, June 29, 1998, unless otherwise noted.

§ 761.340 Applicability.



[top](#)

Use the procedures specified in this subpart to sample the following types of waste when it is necessary to analyze the waste to determine PCB concentration or leaching characteristics for storage or disposal.

(a) Existing accumulations of non-liquid, non-metal PCB bulk product waste.

(b) Non-liquid, non-metal PCB bulk product waste from processes that continuously generate new waste.

(c) Non-liquid PCB remediation waste from processes that continuously generate new waste, that will be sent off-site for disposal.

§ 761.345 Form of the waste to be sampled.



[top](#)

PCB bulk product waste and PCB remediation waste destined for off-site disposal must be in the form of either flattened or roughly conical piles. This subpart also contains a procedure for contemporaneous sampling of waste as it is being generated.

§ 761.346 Three levels of sampling.



To select a sample of the waste and prepare it for chemical extraction and analysis, there are three required levels of random sampling.

(a) First, select a single 19-liter (5 gallon) portion from a composite accumulated either contemporaneously with the generation of the waste or by sampling an existing pile of waste. Collection procedures for the first level of sampling from existing piles of waste are in §761.347. Collection procedures for the first level of sampling from a contemporaneous generation of waste are in §761.348. Compositing requirements and requirements for the subsampling of composite samples to result in a single 19-liter sample are in §761.350. Send the 19-liter sample to the laboratory for the second and third levels of sampling, including particle size reduction for leach testing and drying as required by §761.1(b)(4).

(b) Second, at the laboratory, select one quarter of the 19-liter sample. Procedures the laboratory must use for this second level of sample selection appear in §761.353.

(c) Third, select a 100 gram subsample from the second level subsample. Procedures the laboratory must use for this third level of sample selection appear in §761.355.

§ 761.347 First level sampling—waste from existing piles.



(a) *General.* Sample piles that are either specifically configured for sampling (see paragraph (b) of this section) or that are of conical shape (see paragraph (c) of this section). If sampling from either of these shapes is not possible, conduct contemporaneous sampling, in accordance with the procedures in §761.348, or obtain the approval of the Regional Administrator for an alternate sampling plan in accordance with §761.62(c).

(b) *Specifically configured piles.* A specifically configured pile is a single flattened pile in the shape of a square or rectangle having no restrictions on length or width but restricted to 30 cm (1 foot) in depth. A square shaped pile facilitates sampling site selection for the first level sample. Select eight 19-liter samples from the pile and composite them into one 19-liter sample as follows:

(1) Divide the pile into quarters.

(2) Divide each of the quarter sections into quarters (i.e., into sixteenths of the original pile).

(3) Select two sixteenths from each of the four quarters, according to one of the two following options:

(i) Randomly select the two sixteenths from one quarter and sample the sixteenths occupying the same positions in each of the other three quarters.

(ii) Randomly select two sixteenths from each of the four quarters (i.e., perform a random selection four different times).

(4) At this point the eight selected sixteenths undergo further division and sample selection. Divide each of the eight selected sixteenths into four equal parts. Using a random number generator or random number table, select one of the four equal parts from each of the eight equal areas. If each of the four equal parts has a volume >76 liters when projected downwards 30 cm, continue to divide each selected area into four equal parts, and select one of the parts, until each selected area has a volume of <76 liters but ≥19 liters. When projected to a depth of 30 cm, a square having a 25 cm side or a circle having a diameter of approximately 28.5 cm equals a volume of approximately 19 liters. The volume of 76 liters is equal to the volume enclosed by a square having a side of 50 cm (or other shape having an area of 250 cm²) projected to a depth of 30 cm.

(5) Take one sample of approximately 19 unsorted liters of waste from each of the eight selected areas. Place each sample into a separate 19-liter container, allowing only sufficient space at the top of the container to secure the lid.

(6) Composite the eight 19-liter samples in accordance with §761.350.

(c) *Conical-shaped piles.* If it is necessary to sample a pile which is too large to be spread on the site to a uniform thickness of 1 foot or 30 cm, or if there are too many piles to spread out in the space available, use the following procedure to sample the piles. This procedure assumes that the shape of the piles is analogous to a cone; that is, having a circular base with PCB bulk product waste or PCB remediation waste destined for off-site disposal stacked up uniformly to a peak that is a point centered above the center of the circular base. Collect eight 19-liter samples as follows:

(1) *Collecting samples from more than one pile.* If the PCB bulk product waste or PCB remediation waste consists of more than one pile or container, assign each pile or container an integer number and then generate seven random integer numbers to select the piles from which you will collect samples. It is possible that this random selection procedure will result in selecting the same pile number more than once, even if seven or more piles are present. If so, sample the pile once and restart the sampling collection process to collect additional samples. Do not collect multiple samples from the same location in the pile.

(2) *Collecting samples from a single pile.* If only one pile or container is present, collect all eight samples from the same pile.

(3) *Setting up the sample site selection system from a pile.* Locate a sample in a pile by the use of three parameters: a particular radial direction, "r," from the peak at the center of the pile to the outer edge at the base of the pile; a point, "s," along that radial direction between the peak of the pile and the outer edge of the base of the pile; and a depth, "t," beneath point "s." The top of the sample material will be below depth t , at point s , on radius r . Use a rod, dowel, stake, or broom handle as a marker. Nail or otherwise fasten to the top of the marker two pieces of string or cord of sufficient length and strength to reach from the top of the marker at the top of the pile to the farthest peripheral edge at the bottom of the pile, when the marker is positioned at the top or apex of the pile. Pound or push the marker into the top center (apex) of the pile, downward toward the center of the base. Insert the marker for at least 30 cm or one foot until the marker is rigidly standing on its own, even when the cord is pulled tight to the bottom peripheral edge of the pile. Ensure that the marker protrudes from the top of the pile sufficiently to allow the strings to move easily around the pile when they are pulled tight. Select the three parameters and the sampling location as follows:

(i) Determine the radial component (r) of the location for each sample.

(A) Tie to a stake or otherwise fasten one of the strings at "b," the bottom of the pile, as a reference point for finding r .

(B) Measure the circumference "c," the distance around the bottom of the pile. Determine r from b in one of two ways:

(1) Multiply c by a randomly generated fraction or percentage of one.

(2) Select a random number between one and the total number of centimeters in c .

(C) Locate r by starting at b , the place where the fixed string meets the base of the pile, and travel clockwise around the edge of the pile at the base for the distance you selected in paragraph (c)(3)(i)(B) of this section.

(D) Fasten the second string at the selected distance. The second string marks the first parameter r .

(ii) Determine the second parameter s of the location for each sample.

(A) Measure the distance, l , along the string, positioned in paragraph (c)(3)(i)(D) of this section, from the top to the bottom of the pile at the selected radial distance r . Determine the distance s from l in one of two ways:

(1) Multiply l by a randomly generated fraction or percentage of one.

(2) Select a random number between one and the total number of centimeters in l .

(B) Mark, for example by placing a piece of tape on the string positioned according to paragraph (c)(3)(i)(D) of this section, the distance s , up from the bottom of the pile on the string at r .

(iii) Determine the third and final parameter t of the location for each sample.

(A) Mark and number 1 cm intervals from one end of a rigid device, for example a rod, dowel, stake, or broom handle, for measuring the distance from the top of the pile to the bottom at the point s selected in paragraph (c)(3)(ii)(B) of this section. The marked and numbered device shall be of sufficient strength to be forced down through the maximum depth of the pile and sufficient length to measure the depth of the waste in the pile at any point.

(B) Take the measuring device, constructed according to paragraph (c)(3)(iii)(A) of this section, and at position s , push the end of the device marked with zero straight down into the pile until it reaches the bottom of the pile or ground level. The vertical distance "v" is the number of centimeters from the surface of the pile at point s on the string to the bottom of the pile or ground level. Read the distance v on the measuring device at the surface of the pile. From the distance v , determine t , in one of two ways:

(1) Randomly generate a fraction of one and multiply the fraction times v .

(2) Select a random number between zero and the total number of centimeters of the vertical distance v .

(iv) Dig a hole straight down into the pile for t centimeters (inches) from the surface of the pile at s .

(v) At depth t , directly under the s mark on the string, outline the top of the sample container and collect (shovel) all waste under the outline in the following order of preference in paragraphs (c)(3)(v)(A) through (c)(3)(v)(C) of this section. It is possible that some of the eight sampling locations will not provide 19 liters of sample.

(A) For a depth of 30 cm.

(B) Until the container is full.

(C) Until the ground level is reached.

(d) *Compositing the samples.* Composite the eight 19-liter samples and subsample in accordance with §761.350. Send the subsample to a laboratory for further sampling as described in §§761.353 and 761.355 and for chemical extraction and analysis. If there is insufficient sample for a 19-liter sample from the composite sample composed of the eight iterations of sample site selection, according to the procedures in paragraphs (c)(3)(i) through (c)(3)(v) of this section, select additional sample sites, collect additional samples and composite the additional waste in the samples until a minimum of 19 liters is in the composite.

[63 FR 35469, June 29, 1998, as amended at 64 FR 33762, June 24, 1999]

§ 761.348 Contemporaneous sampling.



[top](#)

Contemporaneous sampling is possible when there is active generation of waste and it is possible to sample the waste stream as it is generated. Collect eight 19-liter samples as follows.

(a) Collect each sample by filling a 19-liter (5 gallon) container at a location where the PCB bulk product waste is released from the waste generator onto a pile or into a receptacle container before the waste reaches the pile or receptacle container.

(b) Determine a sample collection start time using a random number generator or a random number table to select a number between 1 and 60. Collect the first sample at the randomly selected time in minutes after start up of the waste output, or if the waste is currently being generated, after the random time is selected. For example, if the randomly selected time is 35, begin collection 35 minutes after the start up of waste generation. Similarly, if waste output is ongoing and the random start determination occurred at 8:35 a.m., collect the first sample at 9:10 a.m. (35 minutes after the random start determination).

(c) Collect seven more samples, one every 60 minutes after the initial sample is collected. If the waste output process stops, stop the 60-minute interval time clock. When the process restarts, restart the 60-minute interval time clock and complete the incomplete 60-minute interval.

(d) Composite the eight 19-liter samples and subsample in accordance with §761.350.

§ 761.350 Subsampling from composite samples.



[top](#)

(a) *Preparing the composite.* Composite the samples (eight from a flattened pile; eight or more from a conical pile; eight from waste that is continuously generated) and select a 19-liter subsample for shipment to the chemical extraction and analysis laboratory for further subsampling. There are two options for the preparation of the composite:

(1) *Option one.* Place all of the contents of all 19-liter samples that you collected into a 209 liter (55 gallon) drum or similar sized, cylinder-shaped container. Completely close the container, and roll it 10 or more complete revolutions to mix the contents.

(2) *Option two.* Add the 19-liter samples one at a time to a 209 liter (55 gallon) drum. Between the addition of each 19-liter sample, stir the composite using a broom handle or similar long, narrow, sturdy rod that reaches the bottom of the container. Stir the mixture for a minimum of 10 complete revolutions of the stirring instrument around the container at a distance approximately half way between the outside and center of the container.

(b) *Selecting a 19-liter subsample from the composite.* Once the composite is mixed, pour the mixture of waste out on a plastic sheet and either divide it into 19-liter size piles or make one large pile.

(1) From 19-liter sized piles, use a random number generator or random number table to select one of the piles.

(2) From one large pile, flatten the pile to a depth of 30 cm and divide it into 4 quarters of equal size. Use a random number generator or random number table to select one quarter of the pile. Further divide the selected quarter pile into 19-liter portions and use a random number generator or random number table to select one 19-liter portion. A square having a 25 cm side or a circle having a diameter of approximately 28.5 cm when projected downwards 30 cm equals approximately 19 liters.

(c) *Transferring the sample to the analytical laboratory.* Place the selected 19-liter subsample in a container, approved for shipment of the sample, to the chemical extraction and analysis laboratory, for the next step in sample selection in accordance with §761.353.

§ 761.353 Second level of sample selection.



[top](#)

The second level of sample selection reduces the size of the 19-liter subsample that was collected according to either §761.347 or §761.348 and subsampled according to §761.350. The purpose of the sample size reduction is to limit the amount of time required to manually cut up larger particles of the waste to pass through a 9.5 millimeter (mm) screen.

(a) *Selecting a portion of the subsample for particle size reduction.* At the chemical extraction and analysis laboratory, pour the 19-liter subsample onto a plastic sheet or into a pan and divide the subsample into quarters. Use a random number generator or random number table to select one of these quarters.

(b) *Reduction of the particle size by the use of a 9.5 mm screen.* Collect the contents of the selected quarter of waste resulting from

conducting the procedures in paragraph (a) of this section and shake the waste in a 9.5 mm screen. Separate the waste material which passes through the screen from the waste material which does not pass through the screen. Manually cut or otherwise reduce the size of all parts of the waste portion which did not pass through the 9.5 mm screen, such that each part of the waste shall pass through the 9.5 mm screen by shaking.

(c) **Drying the reduced particle size waste.** Dry all of the waste portion resulting from conducting the procedures in paragraph (b) of this section, from 10 to 15 hours in a drying oven at 100 °C. Allow the dried waste to cool to room temperature.

(d) **Mixing the dried waste.** Place all of the waste resulting from conducting the procedures in paragraph (c) of this section in a 19-liter pail or similarly sized, cylinder-shaped container. Mix the dried material according to one of the two following options:

(1) **First mixing option.** Completely close the container and roll the container a minimum of 10 complete revolutions to mix the contents.

(2) **Second mixing option.** Use a sturdy stirring rod, such as a broom handle or other device that reaches the bottom of the container, to stir the waste for a minimum of 10 complete revolutions around the container at a distance approximately half way between the outside and the center of the container.

§ 761.355 Third level of sample selection.



[top](#)

The third level of sample selection further reduces the size of the subsample to 100 grams which is suitable for the chemical extraction and analysis procedure.

(a) Divide the subsample resulting from conducting the procedures in §761.353 of this part into 100 gram portions.

(b) Use a random number generator or random number table to select one 100 gram size portion as a sample for a procedure used to simulate leachate generation.

(c) Dry the 100 gram sample, selected after conducting the procedure in paragraph (b) of this section, for 10 to 15 hours in a drying oven at 100 °C and cool it to the analytical laboratory room temperature before analysis using a procedure used to simulate leachate generation. This sample was dried previously in the larger quantity sample at the second level of sampling (§761.353(c)) and is dried a second time here (in the third level of sample selection). This dried and cooled sample must weigh at least 50 grams.

(d) If the dried and cooled sample weighs <50 grams, select additional 100 gram portions of sample one at a time by repeating the directions in paragraph (b) and (c) of this section, and add each additional 100 gram portion of sample to the first 100 gram portion until at least 50 grams of dried material is in the sample to be analyzed using a procedure used to simulate leachate generation.

§ 761.356 Conducting a leach test.



[top](#)

No method is specified as a procedure used to simulate leachate generation.

§ 761.357 Reporting the results of the procedure used to simulate leachate generation.



[top](#)

Report the results of the procedure used to simulate leachate generation as micrograms PCBs per liter of extract from a 100 gram sample of dry bulk product waste. Divide 100 grams by the grams in the sample and multiply this quotient by the number of micrograms PCBs per liter of extract to obtain the equivalent measurement from a 100 gram sample.

§ 761.358 Determining the PCB concentration of samples of waste.



[top](#)

Use either Method 3500B/3540C or Method 3500B/3550B from EPA's SW-846, Test Methods for Evaluating Solid Waste, or a method validated under subpart Q of this part, for chemical extraction of PCBs from individual and composite samples of PCB bulk product waste. Use Method 8082 from SW-846, or a method validated under subpart Q of this part, to analyze these extracts for PCBs.

§ 761.359 Reporting the PCB concentrations in samples.



[top](#)

Report all sample concentrations as ppm by weight on a dry weight basis.

Subpart S—Double Wash/Rinse Method for Decontaminating Non-Porous Surfaces



Source: 63 FR 35472, June 29, 1998, unless otherwise noted.

§ 761.360 Background.



The double wash/rinse procedure is used to quickly and effectively remove PCBs on surfaces. It is important to select and use the proper cleanup equipment, to conduct the procedure correctly so as not to redistribute PCBs, and to comply with disposal requirements for all cleanup materials.

§ 761.363 Applicability.



The double wash/rinse procedure includes two washing steps and two rinsing steps. The two washing and rinsing steps are slightly different depending on whether a contaminated surface was relatively clean before the spill (see §761.372), or whether the surface was coated or covered with dust, dirt, grime, grease or another absorbent material (see §761.375).

§ 761.366 Cleanup equipment.



(a) Use scrubbers and absorbent pads that are not dissolved by the solvents or cleaners used, and that do not shred, crumble, or leave visible fragments on the surface. Scrubbers and absorbent pads used to wash contaminated surfaces must not be reused. Scrubbers and absorbent pads for rinsing must not contain ≥ 2 ppm PCBs. Scrubbers and absorbent pads used in the second rinse of contaminated surfaces may be reused to wash contaminated surfaces.

(b) Capture and contain all solvents and cleaners for reuse, decontamination, or disposal. Clean organic solvents contain < 2 ppm PCBs. Clean water contains < 3 ppb PCBs.

§ 761.369 Pre-cleaning the surface.



If visible PCB-containing liquid is present on the surface to be cleaned, thoroughly wipe or mop the entire surface with absorbent paper or cloth until no liquid is visible on the surface.

§ 761.372 Specific requirements for relatively clean surfaces.



For surfaces that do not appear dusty or grimy before a spill, such as glass, automobile surfaces, newly-poured concrete, and desk tops, use the double wash/rinse procedures in this section.

(a) *First wash.* Cover the entire surface with organic solvent in which PCBs are soluble to at least 5 percent by weight. Contain and collect any runoff solvent for disposal. Scrub rough surfaces with a scrub brush or disposable scrubbing pad and solvent such that each 900 cm^2 (1 square foot) of the surface is always very wet for 1 minute. Wipe smooth surfaces with a solvent-soaked, disposable absorbent pad such that each 900 cm^2 (1 square foot) is wiped for 1 minute. Any surface < 1 square foot shall also be wiped for 1 minute. Wipe, mop, and/or sorb the solvent onto absorbent material until no visible traces of the solvent remain.

(b) *First rinse.* Wet the surface with clean rinse solvent such that the entire surface is very wet for 1 minute. Drain and contain the solvent from the surface. Wipe the residual solvent off the drained surface using a clean, disposable absorbent pad until no liquid is visible on the surface.

(c) *Second wash.* Repeat the procedures in paragraph (a) of this section. The rinse solvent from the first rinse (paragraph (b) of this section) may be used.

(d) *Second rinse.* Repeat the procedures in paragraph (b) of this section.

§ 761.375 Specific requirements for surfaces coated or covered with dust, dirt, grime, grease, or another absorbent material.



(a) *First wash.* Cover the entire surface with concentrated or industrial strength detergent or non-ionic surfactant solution. Contain and collect all cleaning solutions for proper disposal. Scrub rough surfaces with a scrub brush or scrubbing pad, adding cleaning solution such that the surface is always very wet, such that each 900 cm² (1 square foot) is washed for 1 minute. Wipe smooth surfaces with a cleaning solution-soaked disposable absorbent pad such that each 900 cm² (1 square foot) is wiped for 1 minute. Wash any surface <1 square foot for 1 minute. Mop up or absorb the residual cleaner solution and suds with a clean, disposable, absorbent pad until the surface appears dry. This cleaning should remove any residual dirt, dust, grime, or other absorbent materials left on the surface during the first wash.

(b) *First rinse.* Rinse off the wash solution with 1 gallon of clean water per square foot and capture the rinse water. Mop up the wet surface with a clean, disposable, absorbent pad until the surface appears dry.

(c) *Second wash.* Follow the procedure in §761.372(a).

(d) *Second rinse.* Follow the procedure in §761.372(b).

§ 761.378 Decontamination, reuse, and disposal of solvents, cleaners, and equipment.



(a) *Decontamination.* Decontaminate solvents and non-porous surfaces on equipment in accordance with the standards and procedures in §761.79(b) and (c).

(b) *Reuse.* A solvent may be reused so long as its PCB concentration is <50 ppm. Decontaminated equipment may be reused in accordance with §761.30(u). Store solvents and equipment for reuse in accordance with §761.35.

(c) *Disposal.* Dispose of all solvents, cleaners, and absorbent materials in accordance with §761.79(g). Dispose of equipment in accordance with §761.61(a)(5)(v)(A), or decontaminate in accordance with §761.79(b) or (c). Store for disposal equipment, solvents, cleaners, and absorbent materials in accordance with §761.65.

Subpart T—Comparison Study for Validating a New Performance-Based Decontamination Solvent Under §761.79(d)(4)



Source: 63 FR 35473, June 29, 1998, unless otherwise noted.

§ 761.380 Background.



This subpart provides self-implementing criteria for validating the conditions for use in performance-based decontamination of solvents other than those listed in §761.79(c)(3) and (c)(4). Any person may use this subpart for validating either a chemical formulation or a product with a trade name whether or not the constituents of the product are proprietary.

§ 761.383 Applicability.



Use the self-implementing decontamination procedure only on smooth, non-porous surfaces that were once in contact with liquid PCBs. Decontamination procedures under this subpart shall exactly parallel §761.79(c)(3) and (c)(4), except that the procedures described in §761.79(c)(3)(iii) and (c)(3)(iv) and (c)(4)(iii), (c)(4)(iv) and (c)(4)(vii) may be revised to contain parameters validated in accordance with this subpart.

§ 761.386 Required experimental conditions for the validation study and subsequent use during decontamination.



The following experimental conditions apply for any solvent:

- (a) *Temperature and pressure.* Conduct the validation study and perform decontamination at room temperature (from ≥ 15 °C to ≤ 30 °C) and at atmospheric pressure.
- (b) *Agitation.* Limit the movement in the solvent to the short-term movement from placing the contaminated surface into the soak solvent and from removing the surface from the soak solvent.
- (c) *Time of soak.* Soak the surface for a minimum of 1 hour.
- (d) *Surface conditions for the validation study.* Prior to beginning the validation study, ensure that there are no free-flowing liquids on surfaces and that surfaces are dry (i.e., there are no liquids visible without magnification). Also ensure that surfaces are virtually free from non-liquid residues, corrosion, and other defects which would prevent the solvent from freely circulating over the surface.
- (e) *Confirmatory sampling for the validation study.* Select surface sample locations using representative sampling or a census. Sample a minimum area of 100 cm² on each individual surface in the validation study. Measure surface concentrations using the standard wipe test, as defined in §761.123, from which a standard wipe sample is generated for chemical analysis. Guidance for wipe sampling appears in the document entitled "Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by the Environmental Protection Agency PCB Spill Cleanup Policy," available on EPA's PCB Web site at <http://www.epa.gov/pcb>, or from the Communications, Information and Resource Management Division, Office of Solid Waste (5305P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001.
- (f) *Concentration of PCBs.* The method validated may be used only to decontaminate surfaces containing PCBs at concentrations on which the validation study was performed and lower concentrations.

[63 FR 35473, June 29, 1998, as amended at 72 FR 57241, Oct. 9, 2007]

§ 761.389 Testing parameter requirements.



[top](#)

There are no restrictions on the variable testing parameters described in this section which may be used in the validation study. The conditions demonstrated in the validation study for these variables shall become the required conditions for decontamination using the solvent being validated and shall replace the comparable conditions in §761.79(b)(3) through (b)(6). There are limited potential options for varying a single requirement in this section. If you change one of these variable requirements, change it only in the way listed in this section and do not change any other validated conditions. If you desire to change more than one of the requirements in this section, you must conduct a new study to validate the decontamination under the desired conditions.

(a) The study apparatus is not standardized. Critical components of the study are the PCB material (for example MODEF or some other spiking solution), the volume of the soaking solvent, and the area of the contaminated surface. The EPA study used beakers and shallow dishes as the experimental vessels to contain the surface and solvent during the soaking process. In order to minimize surface-to-volume ratios, it is convenient to utilize flat contaminated surfaces and shallow solvent containers. During the validation study, use the same ratio of contaminated surface area to soak solvent volume as would be used during actual decontamination. It is also permissible to use a smaller surface area to soaking solvent volume than used in the validation study, so long as all other required parameters are used as validated in the confirmation required in §761.386 (a) through (f), and paragraphs (a) through (c) of this section. Do not use a larger surface-area-to-solvent-volumes ratio or different kind of solvent based on the results of the validation study.

(b) Except for the minimum soak time of 1 hour (as required in §761.386(c)), the length of soak time is not otherwise restricted in the validation study. The soak time used in the validation study, however, is a use requirement for subsequent decontamination using the solvent being validated. It is permissible to use longer soak times for decontamination than the soak time used in the validation study, if all other parameters required in §761.386, and paragraphs (a) and (c) of this section are used.

(c) There is no restriction on the kind of material containing PCBs to use to create the surface contamination for the validation study. There is also no restriction on the level of starting PCB surface concentration. It is permissible to use lower concentrations of PCB than the concentration used in the validation study, if all other parameters required in §761.386 (a) through (f), and paragraphs (a) through (c) of this section are used.

§ 761.392 Preparing validation study samples.



[top](#)

(a)(1) To validate a procedure to decontaminate a surface contaminated with a spill from liquid of a known concentration, contaminate (spike) the surface to be used in the validation study as follows:

- (i) Use a spiking solution made of PCBs mixed with a solvent to contaminate clean surfaces. Clean surfaces are surfaces having PCB surface concentrations $< 1 \mu\text{g}/100 \text{ cm}^2$ before intentionally contaminating the surface.
- (ii) Prior to contaminating a surface for the validation study, mark the surface sampling area to assure that it is completely covered

with the spiking solution.

(iii) Deliver the spiking solution onto the surface, covering all of the sampling area. Contain any liquids which spill or flow off the surface. Allow the spiking solution to drip drain off into a container and then evaporate the spiking solution off the contaminated surface prior to beginning the validation study. Contaminate a minimum of eight surfaces for a complete validation study.

(iv) As a quality control step, test at least one contaminated surface to determine the PCB concentration to verify that there are measurable surface levels of PCBs resulting from the contamination before soaking the surface in the decontamination solvent. The surface levels of PCBs on the contaminated surfaces must be $\geq 20 \mu\text{g}/100 \text{ cm}^2$.

(2) To validate a procedure to decontaminate a specified surface concentrations of PCBs as measured by a standard wipe sample, contaminate a minimum of 10 surfaces. Contaminate all the surfaces identically following the procedures in paragraph (a)(1) of this section and measure the PCB surface concentrations of at least three of the surfaces using a standard wipe test to establish a surface concentration to be included in the standard operating procedure. The surface levels of PCBs on the contaminated surfaces must be $\geq 20 \mu\text{g}/100 \text{ cm}^2$.

(b) [Reserved]

§ 761.395 A validation study.



[top](#)

(a) Decontaminate the following prepared sample surfaces using the selected testing parameters and experimental conditions. Take a standard wipe sample of the decontaminated surface.

(1) At least one uncontaminated surface. The surface levels of PCBs on the uncontaminated surface must be $< 1 \mu\text{g}/100 \text{ cm}^2$.

(2) At least seven contaminated surfaces.

(b)(1) Use SW-846, Test Methods for Evaluating Solid Waste methods for sample extraction and chemical analysis as follows: Use Method 3500B/3540C or Method 3500B/3550B for the extraction and cleanup of the extract and Method 8082 for the chemical analysis, or methods validated under subpart Q of this part.

(2) Report all validation study surface sample concentrations on the basis of micrograms of PCBs per 100 cm^2 of surface sampled.

(c) Following completion of the validation study, measurements from the contaminated surfaces must have an arithmetic mean of $\leq 10 \mu\text{g}/100 \text{ cm}^2$. If the arithmetic mean is $> 10 \mu\text{g}/100 \text{ cm}^2$, then the validation study failed and the solvent may not be used for decontamination under §761.79(d)(4) according to the parameters tested.

§ 761.398 Reporting and recordkeeping.



[top](#)

(a) Submit validation study results to the Director, Office of Solid Waste (5301P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001, prior to the first use of a new solvent for alternate decontamination under §761.79(d)(4). The use of a new solvent is not TSCA Confidential Business Information (CBI). From time to time, EPA will confirm the use of validated new decontamination solvents and publish the new solvents and validated decontamination procedures in the Federal Register.

(b) Any person may begin to use solvent validated in accordance with this subpart at the time results are submitted to EPA.

(c) Record all testing parameters and experimental conditions from the successful validation study into a standard operating procedure (SOP) for reference whenever the decontamination procedure is used. Include in the SOP the identity of the soaking solvent, the length of time of the soak, and the ratio of the soak solvent to contaminated surface area during the soaking process. Also include in the SOP the maximum concentration of PCBs in the spilled material and the identity of the spilled material, and/or the measured maximum surface concentration of the contaminated surface used in the validation study. Record and keep the results of the validation study as an appendix to the SOP. Include in this appendix, the solvent used to make the spiking solution, the PCB concentration of the spiking solution used to contaminate the surfaces in the validation study, and all of the validation study testing parameters and experimental conditions.

[63 FR 35473, June 29, 1998, as amended at 72 FR 57241, Oct. 9, 2007]

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