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PART 761 - POLYCHLORINATED BIPHENYLS (PCBs)

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AUTHORITY: Secs. 6(e) of the Toxic Substances Control Act (Pub.L. 94-469, 90 Stat. 2003 (15 U.S.C. 2501 et seq.))

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Subpart A - General

Sec. 761.1 Applicability

- (a) This subpart establishes procedures, methods, and other requirements for the disposal, marking, and control of polychlorinated biphenyls (PCBs).
- (b) This subpart applies to all persons who manufacture PCBs, who process PCBs, who use or distribute in commerce PCBs or manufactured articles containing PCBs, and who dispose of PCBs and PCB equipment.
- (c) Departments, agencies, and instrumentalities of the Federal Government are subject to these regulations to the same extent as any person, except for the provisions of subpart E.
- (d) Words in the singular form shall be deemed to impart the plural, and vice versa, as the context requires.

Sec. 761.2 Definitions

For the purpose of this part:

- (a) "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.
- (b) "Agency" means the United States Environmental Protection Agency.
- (c) "Capacitor" means a device for accumulating and holding a charge of electricity consisting of conducting surfaces separated by a dielectric. Types of capacitors are as follows:

- (1) "HID Capacitor" means a capacitor which is used as part of the ballast of a high intensity discharge lighting fixture (e.g. sodium vapor and mercury vapor arc lights).
 - (2) "Large High Voltage Capacitor" means a capacitor which contains 1.36 Kg (3 lbs.) or more of dielectric and operates at 2000 volts A.C. or above.
 - (3) "Large Low Voltage Capacitor" means a capacitor which contains 1.36 Kg (3 lbs.) of dielectric except for those capacitors which are defined as "HID Capacitors" and "Fluorescent Light Ballasts".
 - (4) "Small Capacitor" means a capacitor which contains less than 1.36 Kg (3 lbs.) of dielectric except for those capacitors which are defined as "HID Capacitors" and "Fluorescent Light Ballasts".
- (d)(1) Except as provided in subparagraph (2), the term "chemical substance" means any organic or inorganic substance of a particular molecular identity, including:
- (A) any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and
 - (B) any element or uncombined radical.
- (2) Such term does not include:
- (A) any mixture,
 - (B) any pesticide (as defined in the Federal Insecticide, Fungicide, and Rodenticide Act) when manufactured, processed, or distributed in commerce for use as a pesticide,

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- (C) tobacco or any tobacco product,
- (D) 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),
- (E) 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 4221 or any other provisions of such Code), and
- (F) 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.

The term "food" as used in clause (F) of this subparagraph includes poultry and poultry products (as defined in Sections 4(e) and 4(f) of the Poultry Products Inspection Act), meat and meat food products (as defined in Section 1(j) of the Federal Meat Inspection Act), and eggs and egg products (as defined in Section 4 of the Egg Products Inspection Act).

- (e) "Chemical Waste Landfill" means a landfill at which protection is provided from PCBs deposited therein against hazard to public health and the environment by locating, operating, and engineering such landfills so as to prevent migration of PCBs to land, water, or the atmosphere.

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- (f) "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 clause (1).
- (g) "Decontaminate" means to reduce the amount of PCB chemical substances and mixtures in containers and articles sufficiently so that the containers and articles no longer have to be defined as "PCBs".
- (h) "Disposal" means to incinerate, place in a chemical waste landfill, or place in a municipal solid waste system in accordance with the requirements of this part.
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- (i) "Distribute in Commerce" and "Distribution in Commerce" means to sell, or the sale of, PCBs; to introduce or deliver for introduction into commerce, or the introduction or delivery for introduction into commerce of PCBs; or to hold, or the holding of, PCBs after its introduction into commerce.
- (j) "Fluorescent Light Ballast" means a device which electrically controls fluorescent light fixtures and includes a capacitor containing 0.1 kg or less of dielectric.
- (k) "Incinerator" means any installation operated so as to cause the controlled combustion of PCB chemical substances and inorganic gases and inorganic solids.
- (l) "Manufacture" means to import into the customs territory of the United States (as defined in general headnote 2 of the Tariff Schedules of the United States), produce, or manufacture.
- (m) "Mark" means the descriptive name, instructions, cautions, and other information in the format required by subpart C.

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- (n) "Marked" means the permanent application of a legible mark by painting, fixation of an adhesive label, or other method.
- (o) "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.
- (p) "Municipal Solid Wastes" means garbage, refuse, sludges, and other discarded materials resulting from residential and commercial operations and from community activities.
- (q) "PCB and PCBs" means one or more of the following: "PCB Chemical Substance", "PCB Mixture", "PCB Article", and "PCB Container".
- (r) "PCB Article" means any manufactured item other than PCB containers whose surfaces have been in contact with PCB chemical substances or PCB mixtures.
- (s) "PCB Article Container" means any package, can, bottle, bag, barrel, drum, tank or other device used to contain PCB articles.
- (t) "PCB Chemical Substance" means any chemical substance which is limited to the biphenyl molecule which has been chlorinated to varying degrees.
- (u) "PCB Container" means any package, can, bottle, bag, barrel, drum, tank, or other device used to contain PCB chemical substances, PCB mixtures, or leaking PCB articles.

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- (v) "PCB Equipment" means a manufactured item, other than PCB containers or PCB article containers, which contain PCB articles.
- (w) "PCB Mixture" means any mixture which contains 0.05 percent (by weight) or greater of a PCB Chemical Substance.
- (x) "Person" means an individual, corporation, partnership, association, state, municipality, or other political subdivision of a State, any interstate body and departments, agencies, and instrumentalities of the Federal government.
- (y) "Process" means the preparation or use of PCBs 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 PCBs.
- (z) "Semi-Enclosed Manner" means the use of PCB chemical substances and PCB mixtures as heat transfer media except in transformers, as hydraulic fluids, and as electric motor coolants in mining machinery.
- (aa) "Sewage Treatment Sludges" means the solid residues resulting from the treatment of sewage.
- (bb) "Spill" means any release of PCB mixtures or materials to the land or water in a manner that is contrary to the provisions of subpart B of this regulation and any other legislative authority such as the Federal Water Pollution Control Act, as amended (Pub.L. 92-500).
- (cc) "Storage" means to temporarily store PCBs that have been designated for disposal.

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

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Subpart B - Disposal of PCBs

Sec. 761.10 Incineration

(a) Incinerators for PCB chemical substances and PCB mixtures in the liquid phase shall meet the following minimum criteria:

(1) Combustion criteria -

- (A) Maintenance of the introduced liquids for a 2-second dwell time at 1100°C (2000°F) and 3 percent excess oxygen in the stack gas, or
- (B) Maintenance of the introduced liquids for a 1 1/2 second dwell time at 1500°C (2700°F) and 2 percent excess oxygen in the stack gas.
- (C) Combustion efficiency shall be at least _____ percent based on:

$$\text{Combustion Efficiency} = \frac{C_{CO_2} - C_{CO}}{C_{CO_2}} \times 100$$

where:

C_{CO_2} = concentration of carbon dioxide

C_{CO} = concentration of carbon monoxide

- (D) Destruction efficiency of PCBs shall be at least 99.999 percent based on:

$$\text{Destruction Efficiency of PCBs} = 1 - \frac{\text{PCBs emitted}}{\text{PCB introduced}} \times 100$$

where PCB emitted = quantity in grams of PCB chemical substance collected in stack over at least one hour period.

PCB introduced = quantity in grams of PCB chemical substance introduced into the combustion chamber.

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- (2) The rate and quantity of PCBs which is fed to the combustion system shall be measured and recorded at regular intervals of not less than (15 minutes) and the data maintained as a permanent and accessible record, or as required in subpart E.
- (3) The temperatures of the incineration process shall be continuously measured and recorded and the data shall be maintained as a permanent and accessible record, or as required in subpart E. The combustion temperature of the incineration process should be based on direct (pyrometer) or indirect (wall thermocouple-pyrometer correlation) temperature readings.
- (4) Provision shall be made, by installation of suitable equipment, to shut down automatically the flow of PCBs to the system if the combustion drops below temperatures specified in 761.10(a)(1).
- (5) Continuous monitoring of stack emission products and incineration operations shall include as a minimum.
 - (A) O₂
 - (B) CO
 - (C) CO₂
- (6) Periodic monitoring of stack emission products shall include as a minimum.
 - (A) Oxides of Nitrogen (NO_x)
 - (B) Total Hydrocarbon Content (THC)
 - (C) Total Chlorinated Organic Content (RCI)
 - (D) O₂
 - (E) CO

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(F) CO₂

(G) HCl

Monitoring frequency shall be at least weekly or at least one time for PCB incineration operations of less than one week.

- (7) Initial monitoring of stack emission products shall be performed whenever an incinerator is used for the disposal of PCBs for the first time under the provisions of this regulation or the first time an incineration is used for the disposal of PCBs after modifications to the incinerator that could affect the characteristics of the stack emission products. This initial monitoring shall include as a minimum:

(A) O₂

(B) CO

(C) CO₂

(D) Oxides of Nitrogen (NO_x)

(E) Total Hydrocarbon Content (THC)

(F) Total Chlorinated Organic Content (RCI)

(G) PCB chemical substance measured by Gas Chromatographic Mass Spectra Analysis

(H) Total particulate Matter, including analysis of all elements present.

- (8) The stack emission data from (7) above shall be correlated with combustion criteria in (1) above and data from (2) and (3) above to develop correlations between PCB emissions and parameters monitored in (5) and (6) above. These correlations could be used to provide criteria for mandatory shutdown of the waste feed and

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possible termination of the incineration process until necessary corrections are made.

(9) The sampling locations in the stack gas stream should be selected to give a representative sample of the total stack gas emission. If single point wall measurements are used, a correlation of integrated traverse gas sampling to any proposed single point wall measurement shall be made. All sampling points except for HCl shall be upstream of the water scrubber.

(10) Incinerator operations shall be suspended when the following conditions occur:

(A) Failure of critical monitoring operations, i.e., continuous measurements of temperature, O_2 , CO_2 and CO ,

(B) Failure of PCB rate and quantity metering and monitoring equipment, or

(C) Combustion temperature, dwell time, and excess oxygen drop below those specified in (1) above.

(11) Water scrubbers shall be used during PCB incineration and meet any performance requirements specified in the approval process of (c) below. Scrubber effluent shall comply with applicable water quality standards, EPA Water Quality Criteria, and any other State and Federal laws and regulations.

(b) Specific combustion and operation criteria for incinerators used for the disposal of PCB articles, PCB containers, and PCB mixtures containing high solid levels are not currently available. The use of incinerators for these PCBs must be approved as specified in (c) below and any approvals shall consider the following factors:

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- (1) Destruction efficiency of PCB chemical substances shall be at least 99.999 percent based on:

Destruction Efficiency of PCBs =

$$1 - \frac{\text{PCB emitted}}{\text{PCB introduced}} \times 100$$

where: PCB emitted = quantity in grams of PCB chemical substance collected in stack over at least one hour period

PCB introduced = quantity in grams of PCB chemical substance introduced into the combustion chamber.

- (2) To the maximum extent possible, the provisions of Section 761.10(a)(2) through 761.10(a)(7) and Section 761.10(a)(9) through Section 761.10(a)(11) shall be incorporated.
- (3) The stack emission data from Section 761.10(a)(7) shall be correlated with destruction efficiency and combustion efficiency as calculated from the formulae in Section 761.10(a)(1)(C) and (D) and data from Section 761.10(a)(2) and (3) to develop correlations between PCB emissions and parameters monitored in Section 761.10(a)(5) and (6). These correlations could be used to provide criteria for mandatory shutdown of the waste feed and possible termination of the incineration process until necessary corrections were made.
- (c) All incinerators used for the disposal of PCBs shall be approved by the Agency Regional Administrator of the Agency region in which the incinerator is located as acceptable for the disposal of PCBs. In approving incinerators the Agency Regional Administrator shall use the criteria

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Section 761.10 and any variances he determines will provide adequate environmental protection. All reports on the incinerator provided by the State to the owners or operators and all reports provided to the State by the owners or operators shall be made available to the Administrator as provided in subpart E.

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Sec. 761.11 Chemical Waste Landfills

(a) Chemical waste landfills used for the disposal of PCBs shall meet the following minimum criteria:

- (1) Soils - Landfill sites shall be located in thick, relatively impermeable formations such as massive clay beds. Where this is not possible, then soils with a high clay and silt content shall be sought, having the following parameters:

Parameter

In-place soil thickness or	4'
Compacted soil liner thickness	3'
Permeability (cm/sec)	1×10^{-7}
% Passing No. 200 Sieve	30
Liquid Limit	30
Plasticity Index	15
Artificial Liner Thickness*	30 mil

* In the event that an artificial liner is being considered for use at a landfill site, special precautions shall be taken to insure that its integrity is maintained. Soil underlining shall be provided as well as a soil cover.

- (2) Hydrology The bottom of the landfill shall be well above the historical high groundwater table. Floodplains, shorelands, and groundwater recharge areas shall be avoided. Significant hydraulic connection between site and standing or flowing surface water shall be absent. The sites should be evaluated individually, but as a rule should have the following suggested parameters:

Monitoring Well	Yes
Leachate Collection	Yes
Depth to Water	50' (if massively impermeable area, this number can be reduced to 5')

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(3) Flood Protection

(A) If site is below 50-year floodwater elevation, the operator shall provide surface water diversion dikes with a minimum height equal to two (2) feet above the 50-year floodwater elevation around the perimeter of the site.

(B) If the site is above the 50-year floodwater elevation, the operator shall provide diversion structures capable of diverting all of the surface water runoff from a 24-hour, 25-year storm.

(4) Topography - The landfill site shall be located in an area of low relief to minimize erosion and help prevent landslides or slumping. Fills shall not be placed in swales, draws, gullies, valleys, or arroyos, unless precautions are taken to contain any leachate produced. Broad upland flats or divides away from major or tributary drainages are preferred.

(5) Monitoring Systems

(A) Water Sampling

(i) Obtain ground and surface water samples from the disposal site area prior to the beginning of disposal operations to use as baseline data.

(ii) Sample defined sources at least monthly (i.e., monitoring wells, leachate collection drainfield, upstream and downstream of adjacent creek, etc.) during the course of disposal operations.

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- (iii) sample defined sources semi-annually indefinitely after final closure of disposal area.

(B) Groundwater Monitor Wells

- (i) Under ideal conditions, where underlying earth materials are homogeneous, 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 lowest water table elevation on the property.
- (ii) All monitor wells shall be cased and the annular space between the "monitor zone" (zone of saturation) and the surface shall be completely backfilled or plugged with cement or packed clay 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. Well casing of sufficient diameter to permit use of a submersible pump for obtaining samples for analysis is desirable, but portable pumps may be used to obtain samples. When practical, the well shall be pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis.

(C) Water Analysis

All samples shall be analyzed for the following parameters and permanent and accessible records maintained as required in subpart 1

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- (i) PCBs
- (ii) pH
- (iii) Chlorides
- (iv) Hexachlorobenzene

(6) A leachate collection monitoring system shall be installed beneath the chemical waste landfill receiving PCBs. Acceptable leachate collection monitoring/collection systems include, but are not limited to the following basic designs:

(A) "Simple Leachate Collection" - This system consists of a gravity flow drainfield installed under the waste disposal facility liner. This design is recommended for use under the following circumstances:

- (i) When liquid, semi-solid, or leachable solid wastes are placed in a lined pit excavated into a relatively thick, unsaturated, homogeneous layer of low permeability soil; and
- (ii) When a minimum of six feet of relatively impermeable soil separates the bottom of the disposal facility from the groundwater table at its highest seasonal fluctuation.

(B) "Compound Leachate Collection" - This system consists of a gravity flow drainfield installed under the waste disposal facility liner and above a secondary installed liner. This design is recommended for use under the following circumstances:

- (i) When liquid, semi-liquid, or leachable solid wastes are placed in a lined pit excavated into relatively permeable soils; and

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(ii) When less than six feet of relatively impermeable soil separates the bottom of the disposal facility from the groundwater table at its highest seasonal fluctuation.

(C) "Suction Manometers" - This system consists of a network of porous "stones" connected by hoses/tubing to a vacuum pump. The porous "stones" or suction manometers are normally installed along the sides and under the bottom of the waste disposal facility liner. This type of system can be used in a variety of situations but works best when installed in relatively permeable unsaturated soil immediately adjacent to the disposal facility's bottom and/or sides. The suction manometer system functions primarily as a leak detection device and is generally superior to monitor wells for early detection of leachates escaping from a disposal facility. One drawback to this type of system is that it is somewhat limited with respect to the volume of leachate that could actually be collected for treatment or return to the disposal facility in the event of a leak of significant volume.

(D) Leachate collection systems shall be monitored monthly for quantity and quality of leachate produced. The leachate should be either treated to acceptable limits for discharge in accordance with a State or Federal permit, disposed of by another approved method, or recycled to the facility producing the leachate. Water analysis shall be as provided in 761.11(a) (5) (C).

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(7) Chemical Waste Landfill Operations

- (A) PCBs shall be placed in the landfill in a manner that will prevent damage to containers or articles. Any wastes placed in the landfill that are not compatible with PCBs will be segregated from the PCBs throughout the waste handling and disposal process.
- (B) Records shall be maintained for all PCB disposal operations and the records shall indicate quantities of PCBs disposed of, the dates those quantities were disposed of, and three dimensional burial coordinates for PCBs that could be used in the retrieval of any PCBs in the landfill with minimum disruption of the landfill. These records will be collected and maintained as provided in Subpart E.

(8) Supporting Facilities

- (A) Fencing - A six (6) foot woven mesh fence, wall, impassable ditch or similar device shall be provided around the site to prevent unauthorized persons and animals from entering.
- (B) Roads - All sites shall provide roads to and on the site adequate to operate without causing safety or nuisance conditions.
- (C) Litter and spills - All disposal facilities shall have procedures and facilities to avoid nuisance or hazard that would otherwise occur from litter by windblown materials or spill liquid.

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- (b) All chemical waste landfills used for the disposal of PCBs shall be approved by the Agency Regional Administrator of the Agency Region in which the chemical waste landfill is located and approved in writing by the State in which the chemical waste landfill is located as acceptable for the disposal of PCBs. The Agency Regional Administrator may approve variances from the criteria presented in 761.11(a). All reports on the chemical waste landfill provided by the State to the owners or operators and all reports provided to the State by the owners or operators shall be made available to the Administrator as provided in Subpart E.

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Sec. 761.12 Storage for Disposal

(a) Adequate storage shall be provided for all PCBs prior to disposal.

(1) After three (3) months after the effective date of this

regulation, adequate storage shall meet the following requirements:

(A) An adequate roof to prevent rain water from reaching the stored PCBs.

(B) An adequate floor with continuous curbing with a minimum six (6) inch high curb that will provide a containment volume at least equal to two (2) times the internal volume of the largest PCB equipment or PCB container stored or twenty-five (25) percent of the total internal volume of all PCB equipment or containers stored, whichever is greater.

(C) No drain valves, floor drains, sewer lines, or other openings that would permit liquids to flow from the curbed area.

(D) Continuous, smooth impervious construction for floors and curbing such as portland cement concrete.

(2) The storage area shall be marked as required in 761.21(a)(5).

(3) All items of movable equipment used for handling PCBs in the storage area shall not be removed from the areas unless decontaminated.

(4) Containers shall be checked at least monthly for leaks. All leaking containers shall be transferred immediately to properly

marked leak proof containers. Any leaked materials shall be immediately cleaned up using sorbents or other adequate means, and the cleaned materials and residues shall be disposed of as PCB mixtures.

(5) All PCB containers used for storage shall comply with the Department of Transportation Materials Transportation Bureau Hazardous Materials Regulations, 49 CFR 173.346.

- (b) PCB equipment and PCB containers shall be dated when they are placed in storage. The storage shall be managed so that the PCB equipment and PCB containers can be located by the date in which they entered.
- (c) Owners or operators of storage facilities shall establish and maintain records as provided in Subpart E.

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Sec. 761.13 Decontamination

- (a) Decontamination may be achieved by performing the triple rinsing operation described in (b) below for PCB containers.
- (b) The triple rinsing operation requires the flushing of the internal surfaces of PCB containers three times with a solvent containing less than 0.05 percent PCB chemical substance in which the solubility of PCBs is five (5) percent or more by weight, each time using a volume of the normal diluent equal to approximately ten (10) percent of the PCB container's capacity, and disposing of the rinse liquid as a PCB mixture or reusing the rinse liquid as a PCB container rinse liquid if it contains less than 0.05 percent PCB chemical substance.
- (c) Other decontamination procedures may be used for PCB containers and PCB transformers if it can be demonstrated to the satisfaction of the Administrator that an unreasonable risk of injury to health or environment would not result.

Sec. 761.14 Disposal Requirements

(a) PCB Chemical Substances

- (1) PCB chemical substances shall be disposed of by incineration in accordance with Section 761.10.
- (2) Prior to disposal, PCB chemical substances shall be stored in accordance with Section 761.12.

(b) PCB Mixtures

- (1) PCB mixtures shall be disposed of by incineration in accordance with Section 761.10.
- (2) Prior to disposal, PCB mixtures shall be stored in accordance with Section 761.12.

(c) PCB Articles

(1) Transformers

- (A) PCB transformers shall be disposed of in accordance with any of the following:

- (i) Incineration in accordance with the provisions of Section 761.10.
- (ii) Disposal in a chemical waste landfill. Provided, that the transformer shall first be drained, and flushed internally if necessary, so that no more than two percent (2%) of the dielectric liquid volume measured to the fill line remains. PCB chemical substances and PCB mixtures which are removed from any transformer shall be disposed of in accordance with subsection (a) and (b) respectively.

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(iii) Decontamination in accordance with procedures developed pursuant to Section 761.13(c).

(B) Prior to disposal, PCB transformers shall be stored in accordance with Section 761.12.

(2) PCB Capacitors and PCB Fluorescent Light Ballasts

(A) The disposal of any capacitor or of any fluorescent light ballast shall comply with all requirements of this subpart unless it is known from label information, manufacturer's literature, or chemical analysis that the capacitor or ballast does not contain PCB chemical substances or PCB mixtures.

(B) Except as provided in (C), PCB capacitors and fluorescent light ballasts shall be disposed of in accordance with either of the following:

(i) Incineration in accordance with the provisions of Section 761.10.

(ii) Until July 1, 1979, disposal in a chemical waste landfill.

(C) Small PCB capacitors and PCB fluorescent light ballasts used in private housing units and disposed of by occupants of those housing units shall be disposed of in accordance with the provisions of (B) or shall be disposed of as municipal solid wastes.

(3) Other PCB Articles -- All other PCB articles shall be disposed of by incineration in accordance with Section 761.10.

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- (4) Prior to disposal, all PCB articles, except those described in (2) (C), shall be stored in accordance with Section 761.12.

(d) PCB Equipment

- (1) PCB equipment containing small PCB capacitors shall be disposed of in accordance with any of the following:
- (A) Disposal as municipal solid wastes.
 - (B) Incineration in accordance with the provisions of Section 761.10.
 - (C) Disposal in a chemical waste landfill.
- (2) Whenever PCB equipment is being serviced in a manner which provides direct access to a PCB article, and during such servicing a decision is made to dispose of the PCB equipment, the PCB article shall be removed from the equipment and disposed of in accordance with (c).

(e) PCB Containers

- (1) PCB containers shall be disposed of in accordance with any of the following:
- (A) Incineration in accordance with the provisions of Section 761.10.
 - (B) Disposal in a chemical waste landfill. Provided, that the container shall first be drained, and flushed internally if necessary, so that remaining PCB chemical substances and PCB mixtures constitute no more than 0.5 percent of the total volume of the container.
 - (C) Decontamination in accordance with the provisions of Section 761.13.

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- (2) Prior to disposal, PCB containers shall be stored in accordance with Section 761.12.

(f) Spills

- (1) All spills and other uncontrolled discharges of PCB chemical substances or PCB mixtures are not proper disposal of PCB chemical substances or PCB mixtures.
 - (2) All PCB chemical substances and all PCB mixtures resulting from spill incidents shall be stored and disposed of in accordance with subsections (b) and (f) respectively.
 - (3) This (subsection) does not exempt owners or operators responsible for a spill from any actions or liability under other statutory authorities, including Section 311 of the Federal Water Pollution Control Act (Pub.L. 92-500).
- (g) Municipal solid wastes containing PCBs shall be disposed of as provided in applicable Federal, State, or local laws, regulations, and policies.
- (h) Sewage treatment sludges containing 0.05 percent (by weight) or greater PCB chemical substances shall be disposed of by incineration in accordance with Section 761.10.

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Subpart C - Marking of PCBs

Section 761.20 Marking Formats

The following formats shall be used for marking:

- (1) Large PCB Mark - M_L : Mark M_L shall be as shown in Figure 1, black letters and striping on a white background, and shall be sufficiently durable to equal or exceed the life of the equipment or container including storage for disposal. The size of the mark shall be at least 15.25 cm (6 inches) on a side unless the 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 a side.
- (2) Small PCB Mark - M_S : Mark M_S shall be as shown in Figure 2, black letters and striping on a white background, and shall be sufficiently durable to equal or exceed the life of the equipment or container including storage for disposal. The size of the mark shall be a rectangle 2.5 by 5 cm (1 inch by 2 inches) unless the 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 inch).

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Sec. 761.21 Marking Implementation

(a) The following marking requirements shall apply:

- (1) Each PCB article manufactured after January 1, 1978 shall be marked with mark M_L at the time of manufacture.
- (2) Each item of PCB equipment manufactured after January 1, 1978 shall be marked with mark M_L at the time of manufacture.
- (3) Each PCB container, both new and existing, shall be marked with mark M_L by January 1, 1978.
- (4) Each PCB article, except small PCB capacitors, contained in PCB equipment in inventory after January 1, 1978 shall be marked with mark M_L before it is distributed in commerce.
- (5) Each PCB article container used to contain a PCB article that is required to be marked under the provisions of (1) and (4) above shall be marked with mark M_L by January 1, 1978.
- (6) Each storage area used to store PCBs for disposal is to be marked with mark M_L by January 1, 1978.
- (7) Each PCB article when removed from use after January 1, 1978 shall either be marked with mark M_L or placed in a container marked with mark M_L , except for PCBs disposed of as municipal solid waste as provided in Section 761.14(c)(2)(C), Section 761.14(d)(1)(A), and Section 761.14(g).
- (8) Each item of equipment using PCBs in a semi-enclosed manner shall be marked with mark M_L by January 1, 1978.

(b) In addition to (a) above, the following marking requirements shall apply:

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- (1) Each transport vehicle loaded with more than 40 kg of PCB chemical substances or PCB mixtures in the liquid phase or one or more PCB transformers shall be mark M_L after March 31, 1978.
 - (2) Each PCB large low voltage capacitor and each PCB HID capacitor that is in use after March 31, 1978 shall be marked with mark M_L when the capacitor is available for marking due to other servicing of the equipment. A capacitor is available for marking when other servicing operations provide the servicing person direct access to the capacitor.
- (c) In addition to (a) and (b) above, the following marking requirements shall apply:
- (1) Each PCB transformer shall be marked with mark M_L by July 1, 1978.
 - (2) Each large PCB high voltage capacitor shall be identified by at least one of the following two methods by July 1, 1978:
 - (A) Each individual capacitor is to be marked with mark M_L , or
 - (B) If one or more large PCB high voltage capacitors are installed in a protected location as on a power pole or structure or behind a secure fence; the pole, structure, or fence is to be marked with mark M_L and a record or procedure identifying the PCB capacitors is to be maintained by the responsible person.

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- (d) Where mark M_L is specified by Secs. 761.21(a), (b), and (c), and the PCB article or PCB equipment is too small to accommodate the smallest permissible size of mark M_L , mark M_S may be used instead of mark M_L .

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Subpart D - (Reserved)

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CAUTION

CONTAINS

PCBS

(Polychlorinated Biphenyls)

A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 76/

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

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CAUTION - CONTAINS
toxic PCBs
FOR PROPER DISPOSAL
SEE 40 CFR 76/
OR CALL 800-424-8802

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Subpart E - Records and Monitoring

Sec. 761.40 Incineration Facilities

- (a) Each owner or operator of incinerators used for the disposal of PCBs shall maintain records as described herein and the records shall be made available at the site where the incinerator is located for inspection by Agency employees who are authorized by the Administrator. These records shall be maintained for at least three years from the date when the data or information was generated.
- (b) The following data and information shall be collected and maintained by incinerator owners or operators when the incinerator is used for the disposal of PCBs:
 - (1) All PCBs received for disposal shall be logged in and the following information included in the log:
 - (A) Date PCBs received.
 - (B) Source of the PCBs to include, if known, the name and location of the owner and last user of the PCBs. For PCB chemical substances and PCB mixtures in the liquid phase in PCB containers, large PCB high voltage capacitors, and PCB transformers the identity of the owner and last user is required unless a written explanation is available describing why ownership and last user could not be obtained.

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- (C) If the PCBs are stored longer than forty-eight (48) hours before incineration the location of storage facilities.
- (2) When PCBs are being incinerated the following continuous and short interval (15 minutes) data shall be maintained:
- (A) Rate and quantity of PCBs [Section 761.10(a)(2)].
 - (B) Temperature of the combustion process [Section 761.10(a)(3)].
 - (C) Stack emission products to include O_2 , CO, CO_2 [Section 761.10(a)(5)].
- (3) When PCBs are being incinerated the following periodic data shall be maintained: [Section 761.10(a)(6)]
- (A) Oxides of Nitrogen (NO_x)
 - (B) Total Hydrocarbon Content (THC)
 - (C) Total Chlorinated Organic Content (RCI)
- (4) Data and reports resulting from the initial monitoring of stack emissions that is provided in Section 761.10(a)(7) and (8) shall be maintained.
- (5) All data; reports; Federal, State, and local discharge permit applications and related correspondence; discharge permits; and any other information required by approvals issued under the authority of Section 761.10(c).
- (6) Any approvals issued under the authority of Section 761.10(c) by the Agency and the State in which the facility is located and all information, reports and correspondence related to the approvals shall be maintained.

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Sec. 761.41 Chemical Waste Landfill Facilities

- (a) Each owner or operator of chemical waste landfills used for the disposal of PCBs shall maintain records as described herein and the records shall be made available at the site where the chemical waste landfill is located for inspection by Agency employees who are authorized by the Administrator. These records shall be maintained for at least twenty years from the date when the landfill is no longer used for the disposal of chemical wastes.
- (b) The following data and information shall be collected and maintained by chemical waste landfill owners or operators when the chemical waste landfill is used for the disposal of PCBs.
 - (1) All PCBs received for disposal shall be logged in and the following information included in the log:
 - (A) Date PCBs received.
 - (B) Source of the PCBs to include, if known, the name and location of the owner and last user of the PCBs. For large PCB high voltage capacitors and PCB transformers the identity of the owner and last user is required unless a written explanation is available describing why ownership and last user could not be obtained.
 - (C) If the PCBs are stored longer than forty-eight (48) hours before being placed in a chemical waste landfill, the location of storage facilities.
 - (D) When the PCBs are placed in the landfill, the three dimensional burial coordinates of the PCBs will be recorded.

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- (2) The results from all water sampling and analyses required in Section 761.11(a)(5)(A), (B), and (C) and leachate quantity data required by Section 761.11(a)(5)(D) shall be recorded and maintained.
- (3) All data; reports; Federal, State, and local discharge permit applications and related correspondence; discharge permits; and any other information required by approvals issued under the authority of Section 761.11(b).
- (4) Any approvals issued under the authority of Section 761.11(c) by the Agency and the State in which the facility is located and all information, reports and correspondence related to the approvals shall be maintained.

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Sec. 761.42 Storage Facilities

- (a) Each owner or operator of storage facilities used for the storage of PCBs prior to disposal of PCBs shall maintain records as described herein and the records shall be made available at the site where the storage facility is located for inspection by Agency employees who are authorized by the Administrator. These records for any PCBs shall be maintained for at least three years from the date when the PCBs were placed into storage.
- (b) The following data and information shall be collected and maintained by incinerator owners or operators when the incinerator is used for the disposal of PCBs.
 - (1) All PCBs received for disposal shall be logged in and the following information included in the log:
 - (A) Date PCBs received.
 - (B) Source of the PCBs to include, if known, the name and location of the owner and last user of the PCBs. For PCB chemical substances and PCB mixtures in the liquid phase in PCB containers, large PCB high voltage capacitors, and PCB transformers the identity of the owner and last user is required unless a written explanation is available describing why ownership and last user could not be obtained.
 - (C) For each PCB container, PCB transformer, and free-standing PCB article removed from storage the following information

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will be provided on the intended destination of the PCB:

- (i) Name of owner or operator of receiving facility.
 - (ii) Address of receiving facility.
 - (iii) Date removed from storage.
 - (iv) Type of disposal available at receiving facility,
if any.
 - (v) Estimated timetable for disposal.
- (2) All data, ~~ex~~ reports, and correspondence supplied to local, state, and federal authorities on the construction and operation of the storage facilities; all correspondence and reports from local, state, and federal authorities on the construction and operation of the storage facilities; and all approvals and permits provided by local, state, and federal authorities.

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Sec. 761.43 PCB Users

- (a) By January 1, 1978, each owner or operator of facilities with an aggregate total of forty (40) Kg of PCB chemical substances or PCB mixtures in the liquid phase, one or more PCB transformers, or fifty (50) or more PCB large high voltage capacitors shall develop and maintain records on the location and disposition of the PCBs in a manner prescribed below. Owners or operators with more than one facility containing PCBs shall maintain a record at a single accessible location and the identity of this location shall be available at each facility containing PCBs that is normally manned for eight (8) hours a day or a full working shift. These records shall be made available at the record keeping location for inspection by Agency employees who are authorized by the Administrator. These records shall be maintained for at least three (3) years from the date when the owner or operator no longer uses PCBs or stores PCBs for disposal.
- (b) The following data and information shall be collected and maintained by PCB users as described in (a) above:
- (1) Location of PCB chemical substances and PCB mixtures in PCB containers, PCB transformers, and facilities with ten (10) or more PCB large high voltage capacitors.
 - (2) Estimated date when PCBs are to be removed from service for disposal.
 - (3) Date when PCBs located in (1) above are removed from use or are placed into storage or transport for disposal.

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(4) For PCBs being disposed of indicate the location of the initial disposal or storage facility.

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