

## Chapter NR 157

## MANAGEMENT OF PCBs AND PRODUCTS CONTAINING PCBs

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## FOREWARD

Concern for the disposition of polychlorinated biphenyls (PCBs) is due to the chronic toxicity of these chlorinated aromatic organic compounds, the pervasiveness and persistence in the environment, and the tendency to accumulate in food chains and man. It is the intent of these rules to provide for comprehensive management (handling, storage, transportation, processing, and disposal) of PCBs and products containing PCBs taken out of service for disposal to eliminate or minimize discharge of PCBs into the environment, and further, to establish procedures for methods and manner of sampling, preparing samples and analyzing PCBs to be used in determining the applicability of this chapter to various wastes, substances or products. These rules are adopted by the department pursuant to s. 144.79, Stats.

**NR 157.01 Applicability.** The provisions of ss. NR 157.02 through 157.07 establish procedures for the storage, collection, transportation, processing and final disposal of PCBs and products containing PCBs taken out of service for disposal. These provisions do not affect PCBs and products containing PCBs in use. The provisions of ss. NR 157.20 and 157.21 establish procedures for methods and manner of sampling, preparing samples and analyzing PCBs or products containing PCBs manufactured or purchased for use within the state subject to the provisions of s. 144.79, Stats., as well as PCBs or products containing PCBs which require disposal.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. Register, July, 1981, No. 307, eff. 8-1-81.

**NR 157.02 Definitions.** For the purpose of these regulations:

(1) "Department" means the department of natural resources.

(2) "Full service contractor" means any person who accepts ownership and responsibility from a generator for delivery of PCBs or products containing PCBs for disposal to a service, incineration or landfill facility and who meets the requirements of s. NR 157.05 (1).

(3) "Generator" means any person who possesses for disposal PCBs or products containing PCBs.

(4) "PCBs" is defined in s. 144.79 (1) (a), Stats., as follows: PCB's means the class of organic compounds generally known as polychlorinated biphenyls and includes any of several compounds produced by replacing 2 or more hydrogen atoms on the biphenyl molecule with chlorine atoms.

(5) "Product containing PCBs" is defined in s. 144.79 (1) (c), Stats., as follows: Product containing PCBs means any item, device or material to which PCBs are intentionally added during or after manufacture as plasticizers, heat

transfer media, hydraulic fluids, dielectric fluids, solvents, surfactants, insulators or coating, adhesive, printing or encapsulating materials or for other uses related to the function of such item, device or material. (For the purposes of this chapter, PCBs and products containing PCBs excludes materials specified in s. 144.79 (3) (b), (c) or (7), Stats.)

(6) "Person" is defined in s. 147.015 (1), Stats., as follows: "Person means . . . an individual, owner or operator, corporation, partnership, association, municipality, interstate agency or state agency."

(7) "Service facility" means any business which contracts with a generator or full-service contractor for servicing, dismantling and salvaging products containing PCBs preceding disposal or salvaging PCBs preceding disposal.

(8) "Transporter" means any person who transports PCBs or products containing PCBs for disposal.

(9) "Waste tracking form" is a form provided or approved by the department for use in recording all movement of PCBs or products containing PCBs for disposal or shipment to a service facility, and includes the Wisconsin hazardous waste manifest form.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. Register, July, 1981, No. 307, eff. 8-1-81; am. (9), Register, January, 1991, No. 421, eff. 2-1-91.

**NR 157.03 Generator responsibilities.** (1) **HANDLING AND STORAGE.** The generator shall handle and store PCBs and products containing PCBs for disposal in a manner which will prevent losses to the environment. Except for transformers, containers used for the transportation or storage of PCBs or products containing PCBs may not be used for the storage or transportation of any other material. The department may require written handling and storage plans when it is determined by the department that the generator disposes of more than 500 pounds of PCBs annually, either in liquid form or incorporated in products. The department may also require written handling and storage plans when the department determines that the handling and storage practices of the generator are inadequate to prevent losses to the environment. The department's preliminary determination and the bases thereof shall be set forth in writing and transmitted to the generator, and the generator shall be allowed 10 business days to comment thereon. After receipt and consideration of the generator's comments, the department shall make its final determination. When the department determines that written handling and storage plans are required, the de-

partment shall review and approve, deny or deem the plans incomplete within 65 business days of receipt. Written handling and storage plans may include but are not limited to:

(a) An inspection program for detecting leaks in equipment tanks or other containers and a program addressing remedial measures to collect escaped or escaping PCBs.

(b) A spill containment program to prevent spillage of PCBs in handling, storage and processing areas which would include provisions for impervious floors, curbs, and sumps. Drains in these areas shall not be connected to a sanitary or storm sewer.

(c) Provisions for the availability and use of container drums solely for handling all PCBs from such things as sumps, scrapped units, drip pans, and sample jars.

(d) Provisions for availability and use of containers for supplies of material for absorbing small PCB spills or clean-up of larger spills and open-head drums with suitable closures, solely for handling PCB contaminated materials such as cellulose insulation, rags, paper pressboard, wood gaskets, and sawdust.

(e) Provisions for the clean-up and disposal of PCBs or solvents containing PCBs which result from the maintenance, drainage, cleaning or spillage of products containing PCBs.

(f) Provisions for the adequacy of all containers used to store PCBs or products containing PCBs destined for disposal to prevent escape of PCBs via spillage, leakage, or vaporization.

(2) **TRANSPORTATION AND DISPOSAL.** (a) The generator shall make provisions with a service or disposal facility to accept the PCBs or products containing PCBs before permitting shipment for disposal. Shipment to service or disposal facilities in the state of Wisconsin shall be limited to those facilities which meet the requirements of ss. NR 157.06 and 157.07. If for any reason, delivery of the shipment is rejected by the service or disposal facility, the generator shall make provisions for immediate return of the shipment or delivery to another service or disposal facility.

(b) Except as provided in s. NR 157.05, the generator shall transport PCBs or products containing PCBs for disposal in self-owned and operated vehicles or by contract with a transporter licensed as a transporter of hazardous wastes pursuant to chs. NR 620 and 680.

(c) The generator shall make provisions with the transporter and service or disposal facility to aid the generator in completing waste tracking forms. The waste tracking forms, provided or approved by the department shall be completed in accordance with the following steps:

1. The generator shall initiate the form by supplying the required information and by signing all copies before the waste is transported.

2. The generator shall obtain the signature of the transporter on all copies of the form.

3. The generator shall retain one copy and give the remaining copies to the transporter to be delivered with  
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the PCBs or products containing PCBs to the service or disposal facility.

4. The generator shall maintain records of all waste tracking forms for the inspection of the department.

5. When the generator transports for disposal PCBs or products containing PCBs in self-owned and operated vehicles, waste tracking forms must be completed as though the generator had contracted with a transporter.

(d) Prior to shipment of PCBs or products containing PCBs for disposal, the generator shall ascertain that the PCBs or products containing PCBs are packaged or stored in sturdy and secure containers in a manner to prevent leakage or spillage. The generator shall also ascertain that the transporter is licensed pursuant to chs. NR 620 and 680, as a transporter of hazardous wastes. In the event of spillage of PCBs or products containing PCBs, the generator, as owner of the spilled substances, shall take whatever actions are necessary to prevent or minimize damages to the environment or will assist the transporter to prevent or minimize damages to the environment.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. (2) (b) and (d), Register, July, 1981, No. 307, eff. 8-1-81; am. (1) (intro.), Register, May, 1985, No. 353, eff. 6-1-85; am. (2) (b) and (d), Register, January, 1991, No. 421, eff. 2-1-91.

**NR 157.04 Transporter responsibilities.** (1) No person shall transport PCBs or products containing PCBs for disposal unless licensed pursuant to chs. NR 620 and 680 as a transporter of hazardous wastes. This requirement shall not apply to the transportation of PCBs or products containing PCBs by the generator.

(2) The transporter of PCBs or products containing PCBs shall complete the applicable portions of the waste tracking forms and deliver the remaining copies to the operator of the service or disposal facility.

(3) The transporter of PCBs or products containing PCBs for disposal shall take measures to insure that:

(a) All PCBs which are transported are stored in sturdy and secure containers in a manner to prevent leakage or spillage. Except for transformers, containers used for the transportation or storage of PCBs or products containing PCBs shall not be used for the storage or transportation of any other material.

(b) A supply of absorbents or other materials or equipment is carried to be used to contain and clean up the PCBs should spillage occur.

(c) Provisions are adopted for the repackaging of the PCBs and continuation of the shipment to the service or disposal facility and for noting the amount spilled and disposition of spilled waste on the waste tracking forms on resumption of the trip.

(4) If spillage does occur, the transporter shall implement the procedures required in sub. (3) and shall promptly notify the division of emergency government at (608) 266-3232.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. (1), Register, July, 1981, No. 307, eff. 8-1-81; am. (1), Register, January, 1991, No. 421, eff. 2-1-91.

**NR 157.05 Full-service contractors.** (1) In lieu of meeting the requirements appearing in ss. NR 157.03 (2) and

157.04, the generator may contract with a full-service contractor for transportation, servicing or processing of PCBs or products containing PCBs for disposal. A full-service contractor shall be licensed as a transporter of hazardous wastes pursuant to chs. NR 620 and 680 and shall have a minimum of \$300,000 in liability insurance. This insurance shall provide coverage for damage resulting from spillage of PCBs and products containing PCBs or from disposal at any facility which is not approved for acceptance of PCBs by the applicable state or federal agency for the disposal of PCBs.

(2) The full-service contractor shall be responsible for contracting with a facility to accept the PCBs or products containing PCBs. Shipment to service or disposal facilities in the state of Wisconsin shall be limited to those facilities which meet the requirements of ss. NR 157.06 and 157.07. If, for any reason, delivery of the shipment is rejected by the service or disposal facility, the contractor shall immediately make provisions for delivery to another service or disposal facility or shall make provisions for storage of the rejected shipment not to exceed 60 days. The department may extend the 60 day period upon a showing by the full service contractor that a service or disposal facility capable of accepting for disposal PCBs or products containing PCBs is not available. Any handling or storage by the contractor shall be done in a manner which will prevent losses to the environment.

(3) The full-service contractor shall take measures to insure that:

(a) All PCBs which are transported are stored in sturdy and secure containers in a manner to prevent leakage or spillage. Except for transformers, containers used for the transportation or storage of PCBs or products containing PCBs shall not be used for the storage or transportation of any other material.

(b) A supply of absorbents or other materials or equipment is carried to be used to contain and pick up the PCBs should spillage occur during transport.

(c) Provisions are adopted for the repackaging of the PCBs and continuation of the shipment to the service or disposal facility and for noting the amount spilled and disposition of spilled waste on the waste tracking forms on resumption of the trip.

(d) If spillage does occur, the full-service contractor shall implement the procedures required in sub. (3) and shall promptly notify the division of emergency government at (608) 266-3232.

(4) The full-service contractor shall make provisions with generators and service or disposal facilities to complete waste tracking forms provided or approved by the department. These forms shall be retained by the contractor for the inspection of the department.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. (1), Register, July, 1981, No. 307, eff. 8-1-81, am. (1), Register, January, 1991, No. 421, eff. 2-1-91.

**NR 157.06 Service facility responsibilities.** (1) Existing facilities for repair or salvaging of PCBs or products containing PCBs in amounts greater than 2 pounds per unit shall register with the department by January 1, 1978. Any such facility which has failed to register by the required date may not accept for repair or salvaging PCBs

or products containing PCBs until such registration has been accomplished.

(2) Any facility governed by this subsection shall institute procedures for the safe handling, storage, draining and packaging of PCBs or products containing PCBs for disposal. Except for transformers, containers used for transportation or storage of PCBs or products containing PCBs shall not be used for the storage or transportation of any other material.

(3) (a) The service facility shall make provisions with a disposal facility to accept PCBs or products containing PCBs before permitting shipment for disposal. Shipment to a disposal facility in the state of Wisconsin shall be limited to those facilities which meet the requirements of s. NR 157.07. If, for any reason, delivery of the shipment is rejected by the disposal facility, the service facility shall make provisions for immediate return of the shipment or delivery to another disposal facility.

(b) The service facility shall make provisions with approved transporters and disposal facilities to complete waste tracking forms provided or approved by the department. A copy of the form shall be retained by the service facility operator for the inspection of the department, and a copy shall be delivered with the PCBs or products containing PCBs to the disposal facility.

(4) In lieu of the requirements of sub. (3), the service facility operator may contract with a full service contractor for transport of PCBs or products containing PCBs to the disposal facility.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. (3) (a), Register, May, 1995, No. 473, eff. 6-1-95.

**NR 157.07 Disposal methods and facilities.** (1) **METHODS.** PCBs or products containing PCBs (liquids, semi-solids) for which a technically and economically feasible incineration method is available for destruction shall be incinerated unless approval for an alternative method of disposal is obtained in writing from the department. Solid or semi-solid products containing PCBs for which a technically and economically feasible incineration method is unavailable shall be disposed of at a landfill facility unless approval for an alternative method of disposal is obtained in writing from the department.

(2) **INCINERATION FACILITIES.** Facilities for incineration of PCBs or products containing PCBs shall not be established or operated in the state of Wisconsin until written approval of the department is obtained.

(a) Complete plans and specifications for an incineration facility shall be submitted to the department in accordance with all applicable provisions of chs. NR 400 to 499 and 600 to 699.

(b) Minimum requirements for incineration of PCBs and products containing PCBs include suitable balance of operational parameters (dwell time, temperature, turbulence, and excess oxygen) and a suitable scrubber to remove hydrochloric acid mist from the exhaust gas. Recommended requirements are 2 second dwell time at 1100°C (2000°F) and 3% excess oxygen in the stack gas or 1½ second dwell time at 1500°C (2700°F) and 2% excess oxygen in the stack gas.

(3) **LANDFILL FACILITIES.** A landfill for disposal of PCBs and products containing PCBs shall not be established or operated in the state of Wisconsin until written approval of the department is obtained for such disposal as provided in s. NR 660.13 (2) (a). The proposed landfill shall be established and licensed in accordance with the requirements of chs. NR 630, 660 and 680 and other requirements applicable to disposal of PCBs and products containing PCBs. Such a landfill must provide complete long-term protection for the quality of surface and subsurface waters from PCBs deposited therein and must prevent hazards to public health and the environment. Such sites must be located or engineered to avoid direct hydraulic continuity with surface and subsurface waters. Generated leachates must be contained and subsurface flow into the disposal area eliminated. Monitoring wells must be established, and a sampling and analysis program conducted as specified in s. NR 660.14 (1).

(4) The operator of the incineration or landfill facility shall upon utilization or final disposal of the PCBs or products containing PCBs sign the remaining copies of the waste tracking form, retain a copy and immediately mail a copy to the generator, full-service contractor, or service facility.

(5) **FACILITIES RECOMMENDED FOR PCB PROCESSING AND DISPOSAL.** (a) The department shall maintain a current listing of incinerators and secured landfill sites which are specifically approved by the various state environmental agencies or which may be suitable for disposing of PCBs or products containing PCBs. This list shall provide the names of organizations offering suitable disposal services, including locations and facilities available to any person upon request. However, specific shipping directions, disposal procedures and costs shall be obtained from the organization.

(b) The department will consider applications for alternate disposal procedures and alternate disposal sites provided the applicant can demonstrate that the alternatives will not result in environmental pollution. Within 90 days of the receipt of an application for an alternate disposal method or disposal site, the department shall notify the applicant of approval or rejection or shall specify the additional information which is required to determine whether to approve the proposed procedures or sites.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; am. (2) (a) and (3) Register, July, 1981, No. 307, eff. 8-1-81; am. (2) (a) and (3), Register, January, 1991, No. 421, eff. 2-1-91.

**NR 157.20 Testing methods for PCBs and products containing PCBs.** (1) For transformer fluids, waste oils, insu-

lating liquids, and other non-polar liquids containing PCBs the procedures and gas chromatographic analysis used shall be as defined in "Standard Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography", ASTM standard D 4059-86, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103; or "The Determination of Polychlorinated Biphenyls in Transformer Fluid and Waste Oils", EPA-600/4-81-045, U.S. EPA Monitoring and Support Laboratory, Cincinnati, OH.

(2) For paper and paperboard containing PCBs extraction procedures and gas chromatographic analysis shall be used as defined in the "Official Methods of Analysis of the AOAC", page 285, 15th edition.

**Note:** This publication may be obtained from the Association of Official Analytical Chemists, 2200 Wilson Blvd., Suite 400-CV, Arlington, VA 22201-3301.

(3) For leachate, non-drinking groundwaters, soils, sediments, and sludges containing PCBs not regulated by a Wisconsin pollution discharge elimination system permit, the extraction procedures and gas chromatographic analysis used shall be as defined in the method 8080A found in "Test Methods for Evaluating Solid Waste", SW-846, U.S. EPA, Update I, November 1990, 3rd edition, November 1986.

**Note:** Available from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.

(4) For wastewater and wastewater treatment sludges containing PCBs, testing methods are defined in ch. NR 219.

(5) For public drinking waters containing PCBs, testing methods are defined in ch. NR 809.

**Note:** Copies of the above publications are available for inspection at the offices of the Department of Natural Resources, the Secretary of State, and Revisor of Statutes.

(6) Laboratory test results submitted to the department under this chapter shall be performed by a laboratory certified or registered under ch. NR 149.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; cr. (6), Register, April, 1986, No. 364, eff. 8-28-86; r. and recr. Register, November, 1992, No. 443, eff. 12-1-92; correction in (5) made under s. 13.93 (2m) (b) 7, Stats., Register, September, 1995, No. 477.

**NR 157.21 Approval of alternate test procedures.** Applications for approval of alternate test procedures for wastewater analysis must be made as directed in s. NR 219.05.

**History:** Cr. Register, August, 1977, No. 260, eff. 9-1-77; r. and recr. Register, November, 1992, No. 443, eff. 12-1-92.