



EPA-305-X-04-002

Polychlorinated Biphenyl Inspection Manual

August 2004

Office of Compliance
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW (MC 2224-A)
Washington, D.C. 20460

<http://www.epa.gov/compliance/resources/publications/monitoring/manuals.html>

Appendix M

Scrap Metal Recovery Ovens and Smelters

Scrap metal recovery ovens and smelters may burn PCB-contaminated articles regulated for disposal such as transformer cores and metal surfaces contaminated with PCBs less than 500 ppm from which all free-flowing liquids have been removed. The scrap metal recovery ovens and smelters burn off the PCB contamination so the scrap metal can be recovered.

The following tables provide an overview of the regulatory requirements and inspection procedures related to scrap metal recovery ovens and smelters used to remove PCB contamination from metals.

| Regulatory Requirements | Inspection Procedures |
|---|--|
| <p>Scrap metal recovery ovens or smelters being used for the disposal of PCBs must meet specific requirements. §761.72</p> <p>(NOTE: 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: in a scrap metal recovery oven or a smelter meeting the requirements specified in this table.)</p> | <p>Verify that the scrap metal recovery oven meets the following:</p> <ul style="list-style-type: none"> -it has at least 2 enclosed (i.e., negative draft, no fugitive emissions) interconnected chambers -equipment with all free-flowing liquid removed is first placed in the primary chamber at room temperature -the primary chamber operates at a temperature between 537 °C and 650 °C for a minimum of 2.5 h and reaches a minimum temperature of 650 °C (1,202 °F) once during each heating cycle or batch treatment of unheated, liquid-free equipment -heated gases from the primary chamber feed directly into the secondary chamber (i.e., afterburner) which operates at a minimum temperature of 1,200 °C (2,192 °F) with at least a 3% excess oxygen and a retention time of 2.0 s with a minimum combustion efficiency of 99.9%. -heating of the primary chamber does not commence until the secondary chamber has reached a temperature of 1,200 +/- 100 °C (2,192 +/- 180 °F) |

| Regulatory Requirements | Inspection Procedures |
|--|--|
| <p>Scrap metal recovery ovens or smelters being used for the disposal of PCBs must meet specific requirements. §761.72 (Continued)</p> | <p>Verify that the scrap metal recovery oven meets the following:</p> <ul style="list-style-type: none"> -continuous emissions monitors and recorders for CO₂, CO, and excess oxygen in the secondary chamber and continuous temperature recorders in the primary and secondary chambers are installed and operated while the primary and secondary chambers are in operation to assure that the 2 chambers are within the specified operating parameters -emissions from the secondary chamber are vented through an exhaust gas stack in accordance with either of the following: <ul style="list-style-type: none"> --valid state and local air regulations and permits --particulates < 0.015 grains/dscf, sulfur dioxide < 35 ppmv, nitrogen oxide < 150 ppmv, carbon monoxide < 35 ppmv, and hydrogen chloride < 35 ppmv -exhaust gas stack emissions are: particulates < 0.015 grains/dscf, sulfur dioxide < 35 ppmv, nitrogen oxide < 150 ppmv, carbon monoxide < 35 ppmv, and hydrogen chloride < 35 ppmv -a measurement of the temperature in the secondary chamber at the time the primary chamber starts heating is taken, recorded, and retained at the facility for 3 yr from the date each charge is introduced into the primary chamber. -the operating temperature of the hearth is at least 1,000 °C at the time it is charged with any PCB-Contaminated non-porous surface -each charge containing a PCB-Contaminated item is added into molten metal or a hearth at ≥ 1,000 °C |

| Regulatory Requirements | Inspection Procedures |
|--|--|
| <p>Scrap metal recovery ovens or smelters being used for the disposal of PCBs must meet specific requirements. §761.72 (Continued)</p> <p>(NOTE: Scrap metal recovery ovens and smelters are not required to submit annual reports.)</p> | <p>Verify that the smelter meets the following:</p> <ul style="list-style-type: none"> -successive charges are not introduced into the hearth in less than 15-min intervals. -the smelter operates in compliance with any applicable emissions standards in the Clean Air Act standards of performance for new stationary sources in 40 CFR 60 -the smelter has an operational device which accurately measures directly or indirectly, the temperature in the hearth -takes, records and retains at the disposal facility for 3 yr from the date each charge is introduced, a reading of the temperature in the hearth at the time it is charged with a non-porous surface item. <p>Verify that scrap metal recovery ovens and smelters either have a final permit under RCRA or are operating under a valid state air emissions permit which includes a standard for PCBs.</p> <p>Verify that scrap metal recovery ovens and smelters disposing of PCBs provide notification as disposers of PCBs and otherwise comply with all applicable provisions of 40 CFR 761, Subparts J and K, as well as other applicable federal, state, and local laws and regulations.</p> |

Blank Page