

CHAPTER 118
DISCARDED APPLIANCE DEMANUFACTURING

Chapter rescission date pursuant to Iowa Code section 17A.7: 1/1/28

567—118.1(455B,455D) Purpose. The purpose of this chapter is to implement Iowa Code chapter 455B, division IV, part 1, and section 455D.6(6) to ensure the proper removal and disposal of electrical parts containing polychlorinated biphenyls (PCBs), components containing mercury, and refrigerants (e.g., CFCs and HCFCs) from discarded appliances.

567—118.2(455B,455D) Applicability and compliance.

118.2(1) All discarded appliances must be demanufactured before being disposed of or recycled. This chapter does not apply to the service, repair, reuse or rebuilding of appliances or components for their original purpose. These rules do not apply to the removal of capacitors, refrigerants or components containing mercury during the maintenance or service of equipment containing such items.

118.2(2) A person must obtain an appliance demanufacturing permit (ADP) from the department of natural resources (DNR) before conducting any demanufacturing activities.

118.2(3) Any person engaged in demanufacturing must be in compliance with all federal and state laws relating to the management and disposition of all hazardous wastes, hazardous materials, universal wastes, PCBs and refrigerants.

567—118.3(455B,455D) Definitions.

“Appliances” means household and commercial devices such as refrigerators, freezers, kitchen ranges, air-conditioning units, dehumidifiers, gas water heaters, furnaces, clothes washers, clothes dryers, dishwashers, microwave ovens and commercial coolers with components containing mercury, refrigerants, or PCB-containing capacitors.

“Ballast” means an electrical device containing capacitors for the purpose of triggering high-level electrical components. A ballast provides electrical balance within the high-level electrical component circuitry.

“Capacitor” means a device for accumulating and holding a charge of electricity that consists of conducting surfaces separated by a dielectric fluid.

“CFC” or *“CFCs”* means chlorofluorocarbons, including any of several compounds used as refrigerants.

“CFR” means Code of Federal Regulations.

“Demanufacturing” means the removal of components, including but not limited to PCB-containing capacitors, ballasts, mercury-containing components, fluorescent tubes, and refrigerants, from discarded appliances.

“Discarded” means no longer to be used for the original intended purpose.

“DOT-approved container” means those containers approved by the U.S. Department of Transportation, the agency responsible for shipping regulations for hazardous materials in the United States.

“Facility” means any landfill, transfer station, material recovery facility, salvage business, appliance service or repair shop, appliance demanufacturer, shredder operation or other party which may accept appliances for demanufacturing. A demanufacturing facility may occupy a portion of a material recovery facility, salvage business, landfill, transfer station or other site.

“Fixed facility” means a permitted appliance demanufacturer operating at a permanent location.

“Fluff” means the residual waste from the shredding operation after metals recovery.

“Hazardous condition” means any situation involving an actual, imminent or probable spillage, leakage, or release of a hazardous substance onto the land, into a water of the state or into the atmosphere which, because of the quantity, strength and toxicity of the hazardous substance, its mobility in the environment and its persistence, creates an immediate or potential danger to the public health or safety or to the environment.

“*HCFC*” or “*HCFCs*” means hydrochlorofluorocarbons, including any of several compounds used as refrigerants.

“*Mercury-containing components*” means devices containing mercury. Examples include, but are not limited to, thermostats, thermocouples, mercury switches and fluorescent tubes.

“*Mobile operation*” means a permitted appliance demanufacturer that has equipment capable of operating in an area away from a fixed, permitted location.

“*PCB*” or “*PCBs*” means polychlorinated biphenyl, which is a chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees, or any combination of substances that contain polychlorinated biphenyl.

“*Point of demanufacturing*” means the actual location of demanufacturing for fixed facilities and mobile operations.

“*Reclaim*” means to reprocess refrigerant to an EPA ARI-700-88 standard.

“*Recovery*” means to remove all refrigerants to EPA standards.

“*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 kg (3 lbs) of dielectric fluid, and a capacitor whose 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).

567—118.4(455B,455D) Storage and handling of appliances prior to demanufacturing.

118.4(1) Any person collecting and storing discarded appliances must store the appliances so as to prevent electrical capacitors, refrigerant lines and compressors, and mercury-containing components from being damaged and allowing a release into the environment.

118.4(2) No method of handling discarded appliances may be used which in any way damages, cuts or breaks refrigerant lines or crushes compressors, capacitors, or mercury-containing components, or may cause a release of refrigerant, PCBs or mercury into the environment.

118.4(3) No more than 1,000 discarded appliances may be stored at a location prior to demanufacturing.

118.4(4) Discarded appliances may not be stored for more than 270 days before being demanufactured.

567—118.5(455B,455D) Appliance demanufacturing permits.

118.5(1) *Permit required.* A person must obtain an appliance demanufacturing permit (ADP) from the department before conducting any demanufacturing activities.

118.5(2) *Types of permits.*

a. A person may request a permit that excludes appliances that contain a particular type of material (e.g., refrigerants, sodium chromate, PCBs, or mercury switches). Persons may not demanufacture or place their unique mark on an appliance that once contained a material that is excluded from their permit. An appliance demanufacturing facility must clearly post the types of appliances the facility does not accept.

b. Permits may be issued for both fixed facilities and mobile operations.

118.5(3) *Transfer of title and permit.* If title to an appliance demanufacturing facility is transferred to another party, the department shall transfer the permit within 60 days if the department determines that the following requirements have been met:

a. The title transferee has applied in writing to the department within 30 days of the transfer of title to request a transfer of the permit.

b. The permitted facility and title transferee are in compliance with Iowa Code chapters 455B and 455D, this chapter, and the conditions of the permit.

118.5(4) *Permit conditions.* A permit may be issued with conditions, specified in writing by the department, that are necessary to ensure the appliance demanufacturing facility can be operated in a safe and effective manner and in compliance with Iowa Code chapters 455B and 455D and this chapter.

118.5(5) *Inspection of site and operation.* The department shall inspect facilities prior to issuing an appliance demanufacturing permit. The permit will not be issued until the facility is in compliance with these rules. Appliance demanufacturing facilities may be inspected by the department throughout the permit period and prior to permit renewal.

118.5(6) *Duration of permits.* Appliance demanufacturing permits shall be issued and may be renewed for a five-year term.

118.5(7) *Request for permit renewal.* Applications for permit renewal must address any changes to the information previously submitted pursuant to subrule 118.5(1). If there has been no change in an item, the applicant shall so indicate on the application form. The renewal application, Form 542-8005, must be submitted to the solid waste section of the DNR central office in Des Moines a minimum of 60 days before permit expiration.

118.5(8) *Request for permit modification.* An application for permit amendment must be submitted and the amendment must be issued by the department before significant changes may be made by the permit holder to the process or facility. The applicant shall provide a revised plan of operations, a contingency plan, and any other documentation required in rule 118.6(455B,455D) that will change.

118.5(9) *Factors in permit issuance decisions.* The department may request that additional information be submitted for review to make a permit issuance decision. The department may review and inspect the facility, its agents and operators, and compliance history. The department may review whether a good-faith effort to maintain compliance and protect human health and the environment is being made and whether a compliance schedule is being followed. The department may issue a permit on a trial basis.

567—118.6(455B,455D) Appliance demanufacturing permit application requirements. The permit application for appliance demanufacturing must contain the following information to be submitted on Form 542-8005.

1. Facility name.
2. Office address.
3. Location of demanufacturing facility if different from office address.
4. Contact person or official responsible for the operation of the facility.
5. Type, source and expected number or weight of appliances to be handled per year.
6. Schematic site plans of a fixed facility, including the schematic floor plans of any buildings showing where activities will take place and where waste is stored.
7. For mobile operations: schematic plans, or a description and photographs, of the mobile van or trailer.
8. A copy of the EPA Refrigerant Recovery or Recycling Device Acquisition Certification Form 2060-0256.
9. Operation plan: a detailed summary of the activities that will be performed on each type of appliance considered for demanufacturing. This summary must include step-by-step activities of the demanufacturing process.
10. A contingency plan detailing specific procedures to be used in case of equipment breakdown or fire, including methods to be used to remove or dispose of accumulated waste.
11. A copy of the Authorization to Discharge (Stormwater) Permit number, where applicable.
12. A copy of EPA Notification of PCB Activity Form 7710-53 and a return response from EPA. Facilities storing PCB-containing articles longer than 30 days must register with EPA. This form may be obtained by contacting the Fibers and Organics Branch, Office of Pollution Prevention and Toxics, United States Environmental Protection Agency, Ariel Rios Building (7404), 1200 Pennsylvania Avenue NW, Washington, DC 20460.
13. Documentation showing compliance with rule 118.8(455B,455D).
14. A copy of the unique marking system to be applied to each discarded appliance after demanufacturing.
15. Documentation that a permanent facility meets local zoning requirements.

567—118.7(455B,455D) Fixed facilities and mobile operations. The following removal and disposal requirements must be met by both fixed facilities and mobile operations.

118.7(1) Demanufacturing of appliances must take place on an impervious floor (including but not limited to concrete, ceramic tile, or metal, but not wood). Any spills must be contained and picked up with proper equipment and procedures and be disposed of properly.

118.7(2) The point of demanufacturing must be located at least 50 feet from a well and any water of the state.

118.7(3) The facility must be located above the 100-year floodwater elevation.

118.7(4) A permanent facility must meet local zoning requirements.

118.7(5) An applicant must establish a unique marking system, to be submitted with the permit application for department approval, signifying that all refrigerants, PCB-containing articles, and mercury-containing components have been removed. The unique marking system must be a minimum of nine inches by nine inches and must be applied to the appliances after demanufacturing.

567—118.8(455B,455D) Training. Beginning January 1, 2003, at least one owner or employee of an appliance demanufacturing facility must have a training certificate from a department-approved training course. A person who has completed the department-approved training course must be on site at all times when discarded appliances are being demanufactured. The training will, at a minimum, cover the following topics.

1. State and federal regulations for the removal, storage, transportation, and disposal of refrigerant, PCB-containing articles, mercury-containing components, and asbestos from appliances.
2. Record-keeping requirements.
3. Safety precautions for handling appliances and hazardous materials.
4. Spill prevention and cleanup procedures appropriate for appliance demanufacturing.
5. The proper methods of loading and unloading discarded appliances.
6. General demanufacturing procedures.

567—118.9(455B,455D) Refrigerant removal requirements.

118.9(1) All owners of refrigerant recovery and recycling equipment must provide certification to EPA that they have acquired and are using EPA-approved equipment.

118.9(2) Refrigerant in appliances must be recovered to EPA standards using equipment meeting EPA requirements (40 CFR 82.162). Refrigerant may be removed prior to delivery to the appliance demanufacturer if it is removed by an appliance service or repair facility employee certified for the removal of refrigerant.

118.9(3) The removal of refrigerant from refrigeration appliances must take place in an area where the temperature of the surrounding air and of the appliance being demanufactured is 45 degrees Fahrenheit or greater.

118.9(4) Facilities that are not EPA-certified refrigerant reclaimers must ship recovered refrigerant to an EPA-certified reclamation facility or properly dispose of the refrigerant at an EPA-permitted facility. Reclamation may take place on site only if the appliance demanufacturing facility is certified as a reclaimer by the EPA. Any refrigerant that cannot be reclaimed or recycled must be properly disposed of by incineration or other acceptable means.

118.9(5) Compressor oil.

a. Compressor oil from refrigeration unit compressors may be removed during the demanufacturing process, and any oil removed must be stored in accordance with rule 567—119.5(455D,455B).

b. Compressor oil is not hazardous and may be burned in used oil-fired space heaters, provided the heaters have a capacity of 0.5 BTUs (British thermal units) per hour or more.

c. Compressor oil may be sold to a marketer of used oil.

118.9(6) Ammonia gas-operated refrigerators and air conditioners.

a. Ammonia gas must be vented into water.

b. Sodium chromate must be removed from refrigeration equipment containing sodium chromate.

c. Sodium chromate liquid is a hazardous waste and must be disposed of at an EPA-permitted facility.

d. Removal of sodium chromate liquid must take place on an impervious surface. In case of a spill, the spilled liquid and the material used as absorbent must be handled as a hazardous waste and disposed of as a hazardous waste.

e. Sodium chromate must be stored in a DOT-approved container that shows no sign of damage. The container must be labeled with a proper EPA-approved chromium label stating “chromium” or “hazardous waste” as required by 40 CFR 262.32 and 49 CFR 172.304 in both English and the predominant language of any non-English-reading workers.

f. Prior to shipment, sodium chromate must be packaged to prevent leakage, and all containers must be sealed.

g. A person generating sodium chromate waste must maintain records to determine if the person is a conditionally exempt small-quantity generator, small-quantity generator, or large-quantity generator of hazardous waste.

h. Asbestos insulation found within the appliance or on refrigerant lines must be removed. Asbestos must be handled in a manner that complies with Occupational Safety and Health Administration (OSHA) regulations.

i. Asbestos must be moistened and double bagged, in accordance with 567—Chapter 109, prior to disposal at a landfill approved for asbestos disposal for the person’s solid waste comprehensive planning area. A person who needs to dispose of asbestos must contact the landfill and make arrangements for the disposal and any additional packaging and handling procedures.

567—118.10(455B,455D) Mercury-containing component removal and disposal requirements.

118.10(1) All components containing mercury shall be removed from appliances. Precautions shall be taken to prevent breakage of the mercury-containing components and the release of mercury.

118.10(2) All mercury-containing component storage containers must be labeled with the proper EPA-approved mercury label stating “Universal Waste—Mercury Containing Equipment,” “Waste Mercury-Containing Equipment” or “Used Mercury-Containing Equipment” in both English and the predominant language of any non-English-reading workers.

118.10(3) The date when the first mercury-containing component was placed in the container shall be affixed to the container.

118.10(4) Mercury-containing components may be stored for no longer than one year.

118.10(5) Accumulation of mercury-containing components shall not exceed 5,000 kg (11,025 lbs) at any time.

118.10(6) All mercury containers must be sealed prior to shipment.

118.10(7) All components containing mercury must be disposed of at an EPA-approved mercury recycling/recovery facility.

118.10(8) Fluorescent tubes, lamps, bulbs, and similar items must be placed in a container and packaged to prevent breakage for shipment to an EPA-approved recycler or must be processed in a manner that complies with state and federal regulations.

118.10(9) All mercury-containing components must be managed in accordance with 40 CFR 273 and all state and federal regulations.

567—118.11(455B,455D) Capacitor removal requirements.

118.11(1) All capacitors must be removed from discarded appliances unless the appliance manufacturer certifies in writing that no PCBs were used in the manufacture of the appliance.

118.11(2) Capacitors that meet one or more of the following criteria may be disposed of or recycled as solid waste. The capacitor:

a. Is proven to be free of PCBs by an approved laboratory.

b. Is imprinted by the manufacturer with the words “No PCBs” on the body of the capacitor.

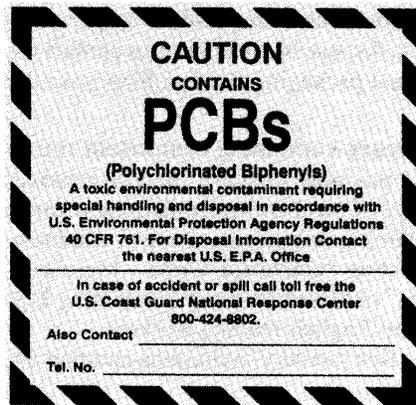
c. Is certified in writing by the manufacturer of the capacitor not to contain PCBs.

d. Does not contain dielectric fluid.

118.11(3) All capacitors not meeting the criteria in subrule 118.11(2) must be disposed of in accordance with subrule 118.11(5).

118.11(4) Containers for storage and disposal of PCB-containing items. PCB-containing items must be stored and transported according to the Toxic Substances Control Act (TSCA) (40 CFR 761) and disposed of at a TSCA-permitted disposal facility. Facilities used for the storage of PCB-containing items designated for disposal must meet the following storage requirements:

- a. Facilities shall register with the US EPA and receive an EPA identification number.
- b. PCB-containing items must be stored in a manner that provides adequate protection from the elements and adequate secondary containment. This storage must take place on an impervious material above the 100-year floodwater elevation.
- c. The point of demanufacturing must be located above the 100-year floodwater elevation.
- d. All capacitors containing or suspected of containing PCBs must be placed in a DOT-approved container that shows no signs of damage. The bottom of the container must be filled to a depth of two inches with absorbent material such as sand, oil-dry, or kitty litter.
- e. All DOT-approved containers must be affixed with the large PCB mark (M_L) as described in 40 CFR 761.45 and shown below.



- f. The date when the first PCB-containing item was placed in the container shall be placed on the container.
- g. Nonleaking small PCB capacitors may be stored for up to 30 days from the date of removal in an area that does not comply with the requirements in 118.11(4)“a” to “f” provided a notation is placed on the PCB capacitor indicating the date the item was removed from the appliance.
- h. PCB-containing items may be stored for no more than 270 days. The storage area must be labeled with the PCB M_L mark. The storage area must be inspected every 30 days, and the inspection must be documented.
- i. If a demanufacturer stores more than 45 kg (99.4 lbs) at any one time, the demanufacturer must maintain annual written records and the annual document log as required by 40 CFR 761.180.

118.11(5) Transportation and disposal.

a. Appliance demanufacturers may dispose of PCB capacitors by one of two means. If the facility is a conditionally exempt small quantity generator (CESQG), the demanufacturer may send the properly marked and dated container of capacitors to a regional collection center (RCC) permitted under 567—Chapter 123 for disposal. If the facility is not a CESQG, the capacitors must be manifested and shipped for disposal in accordance with 40 CFR 761.65.

b. Disposal through an RCC. Shipments from a CESQG to an RCC shall be considered equivalent to disposal as municipal solid waste for the purposes of 40 CFR 761.60(b)(2)(iii); capacitors may not be disposed of in a landfill. An RCC may accept PCB capacitors without having to provide a certificate of disposal. The RCC shall provide the appliance demanufacturer with a receipt specifying the name of the RCC, the appliance demanufacturer from which the capacitors were received, the weight or number of capacitors, and the date the capacitors were received. Copies of this document must be retained for three years at both locations. The date that capacitors are received shall be considered the date the capacitors are

determined to be PCB-containing waste for the purposes of 40 CFR 761.65(a)(1). Capacitors may be consolidated in DOT-approved shipping containers for transport for disposal.

c. Disposal through EPA-approved facility for the disposal of PCB waste. The labeled and dated DOT-approved container must be transported by a transporter with a valid EPA ID number, using an EPA Uniform Hazardous Waste Manifest Form. All containers must be sealed prior to shipment. The demanufacturer has one year from the date the first PCB-containing item is placed in the container to properly dispose of the contents by incineration, recycling, or another approved method pursuant to 40 CFR 761.60(b) or 761.60(c). Disposal must be documented and the record kept by the demanufacturer for three years from the date the PCB-containing waste was accepted by the initial transporter.

d. PCB-containing items shall be properly disposed of within one year of removal from the appliance. The generator shall obtain a certificate of disposal within 30 days of the date that disposal of the PCB-containing items was completed at a PCB disposal facility. If a certificate of disposal is not obtained within 30 days, the EPA regional administrator must be notified pursuant to 40 CFR 761.218(d).

567—118.12(455B,455D) Spills.

118.12(1) Any spills from leaking or cracked capacitors must be handled by placing the capacitor and any contaminated rags, clothing, and soil into a container for shipment to an EPA-approved waste disposal facility. Spills of liquid PCBs which occur outside a DOT-approved container must be cleaned and the cleanup verified by sampling as described at 40 CFR 761.130. Detailed records of such cleanups and sampling must be maintained as described at 40 CFR 761.180.

118.12(2) Mercury spill kits (with a mercury absorbent in the kits) must be on hand and used in the event of a mercury spill. Any waste from the cleanup of a mercury spill must be disposed of as a hazardous waste.

118.12(3) In the event a spill results in a hazardous condition, the facility must notify the department of natural resources at (515)281-8694 and the local police department or sheriff's office of the affected county of the occurrence of a hazardous condition as soon as possible, but no later than six hours after the onset or discovery of a spill pursuant to 567—Chapter 131.

567—118.13(455B,455D) Record keeping and reporting.

118.13(1) Annual reports with the information required in subrule 118.13(2) are:

- a.* To be sent to the solid waste section of the DNR central office in Des Moines;
- b.* Due January 31 each year for the activities of the previous calendar year;
- c.* To be submitted on forms provided by the department, which may be submitted electronically when the electronic format is completed; and
- d.* To be retained by the permit holder for at least three years.

118.13(2) Annual reports shall contain the following information for the previous calendar year.

a. Number of appliances demanufactured in each of the following categories:

- (1) Refrigerators and freezers.
- (2) Commercial coolers.
- (3) Air-conditioning units.
- (4) Dehumidifiers.
- (5) Gas water heaters.
- (6) Furnaces.
- (7) Clothes washers and clothes dryers.
- (8) Dishwashers.
- (9) Microwave ovens.
- (10) Other items containing mercury, refrigerant or PCB-containing articles.

b. Number of mercury switches removed from appliances.

c. Number of mercury thermocouples removed from appliances.

d. Date the first item was placed in the mercury storage drum that is in use on December 31.

e. Number of fluorescent tubes removed from appliances.

f. Number of sodium chromate-containing appliances shipped to another demanufacturer.

g. Amount of refrigerant removed.

- h.* Number of PCB capacitors removed.
- i.* Number of PCB ballasts removed.
- j.* Date the first PCB-containing item was placed in the storage drum that is in use on December 31.

118.13(3) A permitted appliance demanufacturing facility shall retain the following records on site for a minimum of three years.

- a.* All hazardous waste manifests and bills of lading for shipments of refrigerant, mercury switches, PCB-containing materials and any hazardous waste.
- b.* Receipts for any sodium chromate-containing units that were sent to another facility for processing.
- c.* Documentation of destruction or receipt from a regional collection center for all PCB materials shipped.
- d.* Documentation of inspections of the PCB storage area as required by paragraph 118.11(4)“*h.*”
- e.* Annual written records and annual document log if required by paragraph 118.11(4)“*i.*”
- f.* Copy of the annual report as required in subrule 118.13(1).

567—118.14(455B,455D) Appliance demanufacturing facility closure requirements. An appliance demanufacturing facility shall submit to the department central office and department field office with jurisdiction over the appliance demanufacturing facility written notice of intent to permanently close the facility at least 90 days before closure. Closure shall not be official until the department field office has provided written certification of the completion of the following activities:

1. Removal of all appliances that have not been demanufactured.
2. Proper disposal of all refrigerant, PCBs, mercury and all hazardous materials.
3. Submission of an annual report covering January through the last disposal of hazardous materials, PCBs and refrigerant.

567—118.15(455B,455D) Shredding of appliances.

118.15(1) Facilities shredding demanufactured appliances shall sample the fluff from the shredding of demanufactured appliances at least quarterly and analyze the fluff according to Test Methods for Evaluation of Solid Waste, Physical-Chemical Methods SW 846, US EPA, Third Edition 1986, for the presence of PCBs, and according to the toxicity characteristic leaching procedure (TCLP) for heavy metals. The waste shall be sampled once a day for seven consecutive working days to make a composite sample. If the concentrations of heavy metals do not exceed concentrations listed in 40 CFR 261.24, the fluff may be landfilled in Iowa. Results must be retained on site for a minimum of three years and be submitted to the department within 30 days of the end of each quarter.

118.15(2) Fluff from the shredding of demanufactured appliances may be sampled and tested by the department at any time.

118.15(3) A person or facility engaged in demanufacturing in the state may not shred, crush, or bale any appliances that have not been demanufactured. A person or facility located in Iowa that does not engage in demanufacturing but accepts appliances from demanufacturers for recycling or disposal may shred, crush, or bale only appliances that have been demanufactured in accordance with federal regulations and the laws of the state from which the appliances are received.

567—118.16(455B,455D) Appliance demanufacturing facility financial assurance requirements. Unless a facility is exempt from this rule pursuant to subrule 118.16(1), permitted appliance demanufacturing facilities must obtain and submit a financial assurance instrument to the department for storage of appliances in accordance with this rule. The financial assurance instrument shall provide monetary funds to properly dispose of any appliances, refrigerant, PCBs, mercury and any other hazardous materials associated with appliance demanufacturing that may remain at a facility due to the owner’s or operator’s failure to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.

118.16(1) Exemptions. An appliance demanufacturing facility owned and operated in conjunction with a sanitary landfill already required to have financial assurance shall not be required to obtain additional financial assurance in compliance with this chapter.

118.16(2) No permit without financial assurance. The department shall not issue or renew a permit to an owner or operator of an appliance demanufacturing facility until a financial assurance instrument has been submitted to and approved by the department.

118.16(3) Proof of compliance. Proof of the establishment of the financial assurance instrument and compliance with this rule, including a current closure cost estimate, shall be submitted to the department by July 1, 2008, or at the time of application for a permit for a new appliance demanufacturing facility. The owner or operator must provide continuous coverage for closure and submit proof of compliance, including an updated closure cost estimate, with each permit renewal thereafter until released from this requirement by the department.

118.16(4) Use of one financial assurance instrument for multiple permitted activities. Appliance demanufacturing facilities required to maintain financial assurance pursuant to any other provisions of 567—Chapters 100 to 123 may satisfy the requirements of this rule by the use of one financial assurance instrument if the permit holder ensures that the instrument provides financial assurance for an amount at least equal to the current cost estimates for closure of all sanitary disposal project activities covered.

118.16(5) The estimate submitted to the department must be certified by a professional engineer and account for at least the following factors determined by the department to be minimal necessary costs for closure pursuant to rule 118.14(455B,455D):

a. Third-party labor and transportation costs and disposal fees to properly manage any appliances, refrigerant, PCBs, mercury and any other hazardous materials associated with appliance demanufacturing equal to the maximum storage capacity of the facility. If materials are temporarily stored on site in transportation vehicles, waste receptacles or drums, then this estimate shall include disposal costs for the maximum number of transportation vehicles, waste receptacles and drums that can be on site at any one time.

b. The cost of hiring a third party to properly clean and decontaminate all equipment, storage facilities, holding areas and drainage collection systems. This estimate shall include the cost of properly disposing of a one-week volume of washwater from the facility. If the facility utilizes washwater storage tanks, then this estimate shall assume that the storage tanks are full and add that volume to the one-week volume.

c. The costs for maintaining financial assurance pursuant to any other provisions of 567—Chapters 100 to 123, if any, in accordance with subrule 118.16(4).

118.16(6) Acceptable financial assurance instruments. The financial assurance instrument shall be established in an amount equal to the cost estimate prepared in accordance with subrule 118.16(5) and shall not be canceled, revoked, disbursed, released, or allowed to terminate without the approval of the department. Financial assurance may be provided by cash in the form of a secured trust fund or local government dedicated fund, surety bond, letter of credit, or corporate or local government guarantee as follows:

a. Secured trust fund. The owner or operator of an appliance demanufacturing facility or an entity serving as a guarantor may demonstrate financial assurance for closure by establishing a secured trust fund that conforms to the requirements of this paragraph.

(1) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. The fund shall be restricted for the sole purpose of funding closure activities at the facility, and a copy of the trust agreement must be submitted to the department and placed in the facility's official files.

(2) A secured trust fund shall name the department of natural resources as the entity authorized to draw funds from the trust, subject to proper notification to the trust officer of failure by the permittee to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.

(3) Moneys in the fund shall not be assigned for the benefit of creditors with the exception of the state.

(4) Moneys in the fund shall not be used to pay any final judgment against a permit holder arising out of the ownership or operation of the site during its active life or after closure.

(5) The owner or operator or another person authorized to conduct closure activities may request reimbursement from the trustee for closure expenditures as they are incurred. Requests for reimbursement shall be granted by the trustee only if sufficient funds are remaining in the trust fund to cover the remaining

costs of closure and if documentation of the justification for reimbursement has been submitted to the department for prior approval.

(6) If the balance of the trust fund exceeds the current cost estimate for closure at any time, the owner or operator may request withdrawal of the excess funds from the trustee so long as the withdrawal does not cause the balance to be reduced below the amount of the current cost estimate.

b. Local government dedicated fund. The owner or operator of a publicly owned appliance demanufacturing facility or a local government serving as a guarantor may demonstrate financial assurance for closure by establishing a dedicated fund that conforms to the requirements of this paragraph.

(1) The fund shall be dedicated by state constitutional provision or local government statute, charter, ordinance, resolution or order as a restricted fund to pay for closure costs arising from the operation of the facility.

(2) A copy of the document establishing the dedicated fund must be submitted to the department and placed in the facility's official files.

(3) If the balance of the dedicated fund exceeds the current cost estimate for closure at any time, the owner or operator may withdraw excess funds so long as the withdrawal does not cause the balance to be reduced below the amount of the current cost estimate.

c. Surety bond. A surety bond must be written by a company authorized by the commissioner of insurance to do business in the state, and the surety bond shall comply with the following:

(1) The bond shall be in a form approved by the commissioner of insurance and shall be payable to the department of natural resources.

(2) The bond shall be specific to a particular facility for the purpose of properly disposing of any appliances, refrigerant, PCBs, mercury and any other hazardous materials associated with appliance demanufacturing that may remain on site due to the owner's or operator's failure to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.

(3) The owner or operator shall provide the department with a statement from the surety with each permit application renewal, noting that the bond is paid and current for the permit period for which the owner or operator has applied for renewal.

d. Letter of credit. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(1) The owner or operator must submit to the department a copy of the letter of credit and place a copy in the facility's official files.

(2) A letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the name and address of the facility and the amount of funds assured, must be included with the letter of credit submitted to the department and placed in the facility's files.

(3) The letter of credit must be irrevocable and must be issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless the issuing institution has canceled the letter of credit by sending notice of cancellation by certified mail to the owner or operator and to the department 90 days in advance of cancellation. When such notice is provided, the owner or operator shall, within 60 days, provide to the department adequate proof of alternative financial assurance, notice of withdrawal of cancellation, or proof of a deposit of a sum equal to the amount of the letter of credit into a secured trust fund that meets the requirements of paragraph 118.16(6) "a." If the owner or operator has not complied with this subrule within the 60-day time period, the issuer of the letter of credit shall deposit a sum equal to the amount of the letter of credit into the secured trust fund established by the owner or operator. The provision of funds by the issuer of the letter of credit shall be considered an issuance of a loan to the owner or operator, and the terms of that loan shall be governed by the letter of credit or subsequent agreement between those parties. The state shall not be considered a party to this credit transaction.

e. Corporate guarantee. An owner or operator may meet the requirements of this rule by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, an owner or operator whose parent corporation is also the parent corporation of the owner or operator, or an owner or operator with a "substantial business relationship" with the owner or operator.

(1) The terms of the written guarantee must provide that within 30 days of the owner's or operator's failure to perform closure of a facility covered by the guarantee, the guarantor will:

1. Perform closure or pay a third party to perform closure as required (performance guarantee);
2. Establish a fully funded secured trust fund as specified in paragraph 118.16(6) "a" in the name of the owner or operator (payment guarantee); or
3. Establish an alternative financial assurance instrument in the name of the owner or operator as required by this rule.

(2) The guarantor must satisfy one of the following three conditions:

1. A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard & Poor's or Aaa, Aa, A, or Baa as issued by Moody's; or
2. A ratio of less than 1.5 comparing total liabilities to net worth; or
3. A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities.

(3) The tangible net worth of the guarantor must be greater than the sum of the current closure cost estimate and any other environmental obligations, including other financial assurance guarantees.

(4) The guarantor must have assets amounting to at least the sum of the current closure cost estimate and any other environmental obligations, including other financial assurance guarantees.

(5) Record-keeping and reporting requirements. The guarantor must submit the following records to the department and place a copy in the facility's official files:

1. A copy of the written guarantee between the owner or operator and the guarantor.
2. A letter signed by a certified public accountant and based upon a certified audit that:
 - Lists all the current cost estimates covered by a guarantee including, but not limited to, cost estimates required by subrule 118.16(5); cost estimates required for municipal solid waste management facilities pursuant to 40 CFR Part 258; cost estimates required for UIC facilities under 40 CFR Part 144, if applicable; cost estimates required for petroleum underground storage tank facilities under 40 CFR Part 280, if applicable; cost estimates required for PCB storage facilities under 40 CFR Part 761, if applicable; and cost estimates required for hazardous waste treatment, storage, and disposal facilities under 40 CFR Parts 264 and 265, if applicable; and
 - Provides evidence demonstrating that the guarantor meets the conditions of subparagraphs 118.16(6) "e"(2), (3) and (4).

3. A copy of the independent certified public accountant's unqualified opinion of the guarantor's financial statements for the latest completed fiscal year. In order for the guarantor to be eligible to use the guarantee, the guarantor's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion or disclaimer of opinion shall be cause for disallowance of this instrument. A qualified opinion related to the demonstration of financial assurance may, at the discretion of the department, be cause for disallowance. If the department does not allow use of the corporate guarantee, the owner or operator must provide alternative financial assurance that meets the requirements of this rule.

f. Local government guarantee. An owner or operator may demonstrate financial assurance for closure by obtaining a written guarantee provided by a local government or jointly provided by the members of an agency established pursuant to Iowa Code chapter 28E.

(1) The terms of the written guarantee must provide that within 30 days of the owner's or operator's failure to perform closure of a facility covered by the guarantee, the guarantor will:

1. Perform closure or pay a third party to perform closure as required (performance guarantee);
2. Establish a fully funded secured trust fund as specified in paragraph 118.16(6) "a" in the name of the owner or operator (payment guarantee); or
3. Establish an alternative financial assurance instrument in the name of the owner or operator as required by this rule.

(2) The guarantor must satisfy one of the following requirements:

1. If the guarantor has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, the guarantor must have a current rating of Aaa, Aa, A, or

Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued by Standard & Poor's, on all such general obligation bonds; or

2. The guarantor must satisfy each of the following financial ratios based on the guarantor's most recent audited annual financial statement: a ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05, and a ratio of annual debt service to total expenditures less than or equal to 0.20.

(3) The guarantor must prepare its financial statements in conformity with generally accepted accounting principles or other comprehensive basis of accounting and have its financial statements audited by an independent certified public accountant or the office of the auditor of the state of Iowa. The financial statement shall be in the form prescribed by the office of the auditor of the state of Iowa.

(4) A guarantor is not eligible to assure its obligations if:

1. The guarantor is currently in default on any outstanding general obligation bonds; or
2. The guarantor has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard & Poor's; or

3. The guarantor operated at a deficit equal to 5 percent or more of total annual revenue in each of the past two fiscal years; or

4. The guarantor receives an adverse opinion or disclaimer of opinion from the independent certified public accountant or office of the auditor of the state of Iowa auditing its financial statement. A qualified opinion that is related to the demonstration of financial assurance may, at the discretion of the department, be cause for disallowance of this mechanism; or

5. The closure costs to be assured are greater than 43 percent of the guarantor's total annual revenue.

(5) The local government guarantor must include disclosure of the closure costs assured through the guarantee in its next annual audit report prior to the initial receipt of appliances at the facility or prior to cancellation of an alternative financial assurance instrument, whichever is later. For the first year the guarantee is used to assure costs at a particular facility, the reference may instead be placed in the guarantor's official files until issuance of the next available annual audit report if timing does not permit the reference to be incorporated into the most recently issued annual audit report or budget. For closure costs, conformance with Governmental Accounting Standards Board Statement 18 ensures compliance with this public notice component.

(6) The local government owner or operator must submit to the department the following items:

1. A copy of the written guarantee between the owner or operator and the local government serving as guarantor for the closure costs at the facility.

2. A copy of the guarantor's most recent annual financial audit report indicating compliance with the financial ratios required by numbered paragraph 118.16(6) "f"(2)"2," if applicable, and the requirements of subparagraphs 118.16(6) "f"(3) and (4).

3. A letter signed by the local government's chief financial officer that lists all the current cost estimates covered by the guarantor, as described in subrule 118.16(5); and that provides evidence and certifies that the local government meets the conditions of subparagraphs 118.16(6) "f"(2), (3), (4) and (5).

118.16(7) Financial assurance cancellation and permit suspension.

a. A financial assurance instrument may be terminated by the owner or operator only if the owner or operator substitutes alternate financial assurance prior to cancellation, as specified in this rule, or if the owner or operator is no longer required to demonstrate financial responsibility in accordance with this rule.

b. A financial assurance instrument shall be continuous in nature until canceled by the financial assurance provider or until the department gives written notification to the owner, operator, and financial assurance provider that the covered site has been properly closed. The financial assurance provider shall give at least 90 days' notice in writing to the owner or operator and the department in the event of any intent to cancel the instrument.

c. Within 60 days of receipt of a written notice of cancellation of financial assurance by the financial assurance provider, the owner or operator must provide the department an alternative financial assurance instrument. If a means of continued financial assurance is not provided within that 60 days, the department shall suspend the permit.

d. The owner or operator shall perform proper closure within 30 days of the permit suspension. For the purpose of this rule, “proper closure” means completion of all items pursuant to rule 118.14(455B,455D) and subrule 118.16(5).

e. If the owner or operator does not properly close the site within the 30-day period allowed, the department shall file a claim with the financial assurance instrument provider to collect the amount of funds necessary to properly close the site.

f. An owner or operator who elects to terminate a permitted activity, whose renewal application has been denied, or whose permit has been suspended or revoked for cause must submit within 30 days of the termination of the permit a schedule for completing proper closure of the terminated activity. Closure completion cannot exceed 60 days from the date of termination of the permit.

g. The director may also request payment from any financial assurance provider for the purpose of completing closure when the following circumstances exist:

(1) The owner or operator is more than 15 days late in providing a schedule for closure or for meeting any date in the schedule for closure.

(2) The owner or operator declares an economic inability to comply with this rule, either by sending written notification to the director or through an action such as, but not limited to, filing for bankruptcy.

These rules are intended to implement Iowa Code sections 455B.304 and 455D.6(6).

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¹ At its meeting held January 8, 2002, the Administrative Rules Review Committee voted to delay the effective date of Chapter 118 70 days.