



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

January 12, 2022

ENVIRONMENTAL COMPLIANCE &

Mr. Brian T. Hennessey
SRS Remedial Project Manager
Infrastructure and Area Completion Division
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

JAN 14 2022

AREA COMPLETION PROJECTS

Dear Mr. Hennessey,

EPA has generated these additional comments on the Revision 0 Engineering Evaluation/Cost Estimate for the Removal Action for the 235-F Building. Please develop responses to these comments and submit them with redline version of the document.

Comments

1. Executive Summary, p. ES-2. The text states that "a risk evaluation for polychlorinated biphenyls and lead, based on maximum detected concentrations in building paint, was conducted to demonstrate the negligible risk contribution from these hazardous inventories when compared to the primary radiological risk drivers." Please specify the types of PCB bulk product or PCB remediation waste present.
2. Executive Summary, p. ES-2, ES-3. The text identifies the following removal action objectives for Building 235-F: (1) Prevent exposure of the hypothetical future industrial worker to radiological contaminants present in Building 235-F that exceed 1E-06 risk thresholds (including principal threat source material); and (2) Prevent the migration of radionuclide contamination from Building 235-F to groundwater at concentrations that exceed maximum contaminant levels at the 360-meter (1,181-foot) point of assessment in less than 10,000 years to the extent practicable. Per EPA groundwater policy and the NCP, EPA would expect a point of compliance for attaining MCLs beginning at the boundary of the waste management area and throughout the plume if determined to be a source to groundwater contamination. The RAO should does not need the information used in the modeling to be included and should be simplified. Please revise the RAO language to be consistent with EPA policy/guidance. [See, "Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration," OSWER Directive 9283.1-33, June 26, 2009].

3. Site Description and Background, p. 4. The text states “the Sand Filter Fan House (292-2F), Sand Filter (294-2F), and the Exhaust Stack (291-2F) have not been assayed. However, the Sand Filter (294-2F) has been surveyed per the SRS Radiological Controls Program. Based on historical operations, the radiological inventories in all three buildings are significantly less than the estimate of radiological holdup (i.e., residual radiological contamination) within Building 235-F. Other buildings located within the Building 235-F perimeter fence that are designated for eventual deactivation and decommissioning in accordance with FFA Appendix K.1: D&D Facilities to be Decommissioned are shown in Figure 5.” Please clarify whether these three (294-2F, 291-2F, 292-2F) present an unacceptable risk to human health and the environment and whether they are designated for eventual deactivation/decommissioning per FFA App. K.1. The text states “other buildings” but does not state plan for these three structures.
4. Nature and Extent, p. 10. The text states that “inspection identified 9,643 m² (103,791 ft²) of asbestos transite-containing material (ACM) in the building [and] there is no intent to remove ACM during deactivation unless it is determined to be friable or is disturbed by deactivation activities.” EPA ORC has provided additional applicable or relevant and appropriate requirements (ARARs) for ACM to be added to Appendix C- Potential ARARs and TBC Criteria for Building 235-F. These requirements need to be complied with for any ACM removal as part of the NTCRA. See attached Asbestos ARARs table. If the NTCRA will address any ACM removal these ARARs are needed in the EE/CA.
5. Nature and Extent, p. 11. The text states: “PCBs may be present in paint, joint compounds, insulation, capacitors, hydraulic oil, and light ballasts. Accessible PCB ballasts will be removed during deactivation. PCBs in paint on the first and second levels, assuming two surface coats of paint applied, was conservatively estimated at 2.38 kg (7.44 lbs). Paint samples were taken with the highest concentration of PCBs of 3,900 mg/kg (SRNS 2020). PCBs in building components, paint, etc., will remain in place and be addressed by the NTC removal action alternative.” Any liquids such as hydraulic fluid, items/articles containing PCBs that might leach such as light ballasts containing PCBs should be removed from the buildings prior to grouting and disposed of in compliance with identified TSCA ARARs. Removal of these PCB fluids and other items/articles can support the risk-based disposal wherein mostly PCB bulk product waste (i.e., painted surfaces) remain in the buildings that are grouted. EPA ORC has provided additional ARARs for PCB articles, bulk wastes, capacitors, hydraulic fluids, etc., to be removed and disposed, PCB risk-based disposal regulations, and deed notice requirements to be added to Appendix C- Potential ARARs and TBC Criteria for Building 235-F. See attached PCB ARARs table. Additionally, the preferred alternative A-2, ISD of First and Second Process Areas/Engineered Roof, will leave PCB waste in place (i.e., in situ disposal) and thus must meet the risk-based disposal regulation 40 CFR 761.61(c), which states “may sample, cleanup or dispose of PCB remediation waste in a manner other than prescribed in 40 CFR 761.61(a) or (b) or store remediation waste in a manner other than prescribed in 40 CFR 761.65 *if application approved in writing by EPA Regional Administrator and EPA finds that the method will not pose an unreasonable risk of injury to [sic] human health or the environment.*” Each application

must include information described in 40 CFR 761.61(a)(3). The risk-based disposal of PCB bulk product waste under 40 CFR 761.62(c) is also an ARAR and similar information must be provided. The appropriate information required in an application can be provided in CERCLA documents (e.g. EE/CA and Action Memo) that is reviewed and approved by EPA. However, since EPA does not jointly select the NTCRA, a separate approval from the Director of SEMD would be issued provided that the EE/CA and Action Memo contain information that supports the protectiveness finding under these TSCA risk-based disposal provisions as well as demonstrates the removal action is protective of human health the environment under CERCLA.

6. Removal Action Objectives, p. 17. The second RAO states: "Prevent the migration of radionuclide contamination from Building 235-F to groundwater at concentrations that exceed MCLs at the 360-m (1,181-ft) POA in less than 10,000 years to the extent practicable." See previous comments. Per EPA groundwater policy and the NCP, EPA would expect a point of compliance for attaining MCLs beginning at the boundary of the waste management and throughout the plume if determined to be a source to groundwater contamination. The RAO should does not need the information used in the modeling to be included and should be simplified. Please revise the RAO language to be consistent with EPA policy/guidance. [See, "Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration," OSWER Directive 9283.1-33, June 26, 2009].
7. Preferred Alternative, p. 42. The EE/CA contains the following regarding presence of PCBs in the building: "PCBs may be present in paint, joint compounds, insulation, capacitors, hydraulic oil, and light ballasts. Accessible PCB ballasts will be removed during deactivation. PCBs in paint on the first and second levels, assuming two surface coats of paint applied, was conservatively estimated at 2.38 kg (7.44 lbs). Paint samples were taken with the highest concentration of PCBs of 3,900 mg/kg (SRNS 2020). PCBs in building components, paint, etc., will remain in place and be addressed by the NTC removal action alternative." Any liquids such as hydraulic fluid, items/articles containing PCBs that might leach such as light ballasts containing PCBs should be removed from the buildings prior to grouting and disposed of in compliance with identified TSCA ARARs. Removal of these PCB fluids and other items/articles can support the risk-based disposal wherein mostly PCB bulk product waste (i.e., painted surfaces) remain in the grouted building. See comment #5 above. The preferred alternative A-2, ISD of First and Second Process Areas/Engineered Roof, will leave PCB waste in place (i.e., in situ disposal) and thus must meet the risk-based disposal regulation 40 CFR 761.61(c), which states "may sample, cleanup or dispose of PCB remediation waste in a manner other than prescribed in 40 CFR 761.61(a) or (b) or store remediation waste in a manner other than prescribed in 40 CFR 761.65 *if application approved in writing by EPA Regional Administrator and EPA finds that the method will not pose an unreasonable risk of injury to [sic] human health or the environment.*" Each application must include information described in 40 CFR 761.61(a)(3). The risk-based disposal of PCB bulk product waste under 40 CFR 761.62(c) is also an ARAR and similar information must be provided. The appropriate information required in an application can be provided in CERCLA documents (e.g. EE/CA and Action Memo) that is reviewed and approved by EPA. However, since EPA does not jointly select the NTCRA, a separate approval from the Director of SEMD

would be issued provided that the EE/CA and Action Memo contain information that supports the protectiveness finding under these TSCA risk-based disposal provisions as well as demonstrates the removal action is protective of human health the environment under CERCLA.

8. 5.2 Identification of Applicable or Relevant and Appropriate Requirements, p. 31. EPA ORC has provided additional applicable or relevant and appropriate requirements (ARARs) for hazardous debris disposal, universal waste storage and disposal, ACM and for PCB articles, capacitors, hydraulic fluids, etc., to be removed and disposed, and PCB risk-based disposal regulations to be added to Appendix C- Potential ARARs and TBC Criteria for Building 235-F. See attached RCRA Hazardous Debris, Asbestos, and PCB ARARs tables prepared by ORC. The narrative in 5.2 should provide a short summary of the identified ARARs. For example: "Potential Action-specific ARARs include RCRA waste characterization, storage, treatment and disposal requirements; Asbestos abatement and disposal requirements; and TSCA standards for PCB waste at 40 C.F.R. § 761 et. seq. and in particular those at § 761.61 for the cleanup, capping, storing, and disposing of PCB remediation waste. Also, DOE must include a summary of how the actions undertaken as part of the NTCRA along with any relevant exposure information demonstrate that PCB bulk product and PCB remediation wastes that remain in the grouted building does not *pose an unreasonable risk of injury to [sic] human health or the environment* as required by 40 CFR 761.61(c) and 761.62(c). As indicated in the preamble to the PCB Disposal Amendments Final Rule, EPA expects that CERCLA cleanups would comply with the substantive requirements of one (or all), of three options (self-implementing, performance- based and risk-based) provided in § 761.61 upon completion of the cleanups. See 63 Fed. Reg. 35,384, 35,407 (June 29, 1998)."
9. General Comment: The EE/CA describes waste removal such as certain PCB waste, RCRA universal waste, and asbestos waste. Assuming these wastes are also radioactive wastes, and thus mixed waste, these radionuclides are typically identified as transuranics not LLW. Please provide DOE's explanation on how DOE is considering these mixed wastes (whether left in place or removed) as not transuranic waste for clarification in the document.

EPA looks forward to continuing to work with DOE and SCDHEC to implement the removal action for the 235-F building. If you have any questions or require additional information, please contact me at (404) 562-8506.

Sincerely,

ROBERT POPE Digitally signed by ROBERT POPE
Date: 2022.01.13 17:19:59 -05'00'

Robert H. Pope, GS-14
Senior Remedial Project Manager
Superfund and Emergency
Management Division

cc: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDHEC

Attachments:

Table – Additional Asbestos ARARs

Table – Additional PCB ARARs

Table – Additional RCRA Hazardous Debris and Universal Waste ARARs

EPA ORC Comment: Add the following Asbestos ARARs to "Appendix C -Potential ARARs and TBC Criteria for Building 235-F"

Action	Requirements	Prerequisite	Citation(s)
<i>General Standards—Asbestos Demolition, Collection, Packaging and Disposal</i>			
Activities potentially causing asbestos emissions	Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging and transporting of any asbestos-containing material generated by the source, or use one of the emission control and waste treatment methods specified in paragraphs (a)(1) through (4) of this section.	Owner or operator of any source covered under the provisions of § 61.145 <i>Standard for demolition and renovation – applicable</i>	40 CFR § 61.150(a)

EPA ORC Comment: Add the following Asbestos ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation(s)
Emission control methods	<p>Adequately wet asbestos-containing waste material as follows:</p> <ul style="list-style-type: none"> • Mix control device asbestos waste to form a slurry; adequately wet other asbestos-containing waste material; and • Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations, or use the methods specified by § 61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and • After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; or, for materials that will not fit into containers without additional breaking, put materials into leak-tight wrapping; and • Label the containers or wrapped materials specified in paragraph (a)(1)(iii) of this section using warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001(j)(4) or 1926.1101(k)(8). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible. • For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated. 	Owner or operator of any source covered under the provisions of § 61.145 <i>Standard for demolition and renovation</i> – applicable	40 CFR § 61.150(a)(1)(i) – (v)

EPA ORC Comment: Add the following Asbestos ARARs to "Appendix C -Potential ARARs and TBC Criteria for Building 235-F"

Action	Requirements	Prerequisite	Citation(s)
Emission control for processing	<p>Process asbestos-containing waste material into nonfriable forms as follows:</p> <ul style="list-style-type: none"> (i) Form all asbestos-containing waste material into nonfriable pellets or other shapes; (ii) Discharge no visible emissions to the outside air from collection and processing operations, including incineration, or use other method specified in § 61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented, the outside air. 	Owner or operator of any source covered under the provisions of § 61.145 <i>Standard for demolition and renovation</i> – applicable	40 CFR § 61.150(a)(2)(i) and (ii)
Emission control for asbestos-containing waste after demolition	<p>Adequately wet the asbestos-containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site.</p> <p>Asbestos-containing waste materials covered by this paragraph do not have to be sealed in leak-tight containers or wrapping but may be transported and disposed of in bulk.</p>	Facilities demolished where RACM (as defined in 40 CFR § 61.141), is not removed prior to demolition according to §61.145(c)(1)(i)-(iv) <u>or</u> for facilities demolished according to § 61.145(c)(9) – applicable	40 CFR § 61.150(a)(3)
Disposal of asbestos-containing waste material	<p>All asbestos-containing waste material shall be deposited as soon as practicable by the waste generator at:</p> <ul style="list-style-type: none"> • A waste disposal site operated in accordance with the provisions of § 61.154, or • An EPA-approved site that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material according to the provisions of § 61.155. • The requirements of paragraph (b) of this section do not apply to Category I nonfriable ACM that is not RACM. 	Owner or operator of any source covered under the provisions of § 61.145 <i>Standard for demolition and renovation</i> – applicable	40 CFR § 61.150(b)(1)-(3)
Pre-transport of asbestos-containing waste material	<p>Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of waste so that the signs are visible.</p> <p>The markings must conform to the requirements of §§ 61.149(d)(1)(i), (ii), and (iii).</p>	Owner or operator of any source covered under the provisions of § 61.145 <i>Standard for demolition and renovation</i> – applicable	40 CFR § 61.150(c)
<i>Standards for Demolition and Renovation Activity</i>			

EPA ORC Comment: Add the following Asbestos ARARs to "Appendix C -Potential ARARs and TBC Criteria for Building 235-F"

Action	Requirements	Prerequisite	Citation(s)
<p>Inspection of facility for asbestos</p>	<p>Prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM.</p> <p>The requirements of paragraphs (b) and (c) of § 61.145 apply to each owner or operator of a demolition or renovation activity, including the removal of RACM.</p> <p>NOTE: The <i>Notification requirements</i> of paragraph (b) of § 61.145 are considered "administrative" and therefore not identified as ARARs. However, some of the information included in the notice, for example a description of work to be performed and methods to be employed, work practices and engineering controls used to comply with the requirements of Subpart M, including asbestos removal and waste-handling emission control procedures should be included in the CERCLA decision document (e.g., ROD, Action Memorandum) and/or a subsequent Remedial Action or Removal Action Work Plan.</p>	<p>Demolition or renovation of a facility which may cause a disturbance of friable asbestos material and exceed the thresholds in 40 CFR 61.145(a)(1) – applicable</p>	<p>40 CFR § 61.145(a)</p>
<p>RACM Thresholds</p>	<p>In a facility being demolished, all the requirements of paragraphs (b) and (c) of § 61.145 apply, except as provided in paragraph (a) of § 61.145, if the combined amount of RACM is</p> <ul style="list-style-type: none"> (i) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components, or (ii) At least 1 cubic meter (35 cubic feet) of facility components where the length or area could not be measured previously. <p>NOTE: The <i>Notification requirements</i> of paragraph (b) of § 61.145 are considered "administrative" and therefore not identified as ARARs.</p>	<p>Demolition of a facility which may cause a disturbance of friable asbestos material – applicable</p>	<p>40 CFR § 61.145(a)(1)</p>

EPA ORC Comment: Add the following Asbestos ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation(s)
Procedures for asbestos emission control	<p>Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal.</p> <p>RACM need not be removed before demolition if:</p> <ul style="list-style-type: none"> (i) It is Category I nonfriable ACM that is not in poor condition and is not friable. (ii) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; or (iii) It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos-contaminated debris must be treated as asbestos-containing waste material and adequately wet at all times until disposed of. (iv) They are Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition. 	Demolition or renovation of a facility which may cause a disturbance of friable asbestos material and exceed the thresholds in 40 CFR 61.145(a)(1) – applicable	40 CFR § 61.145(c)(1)(i)-(iv)
	<p>When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections:</p> <ul style="list-style-type: none"> (i) Adequately wet all RACM exposed during cutting or disjoining operations; and (ii) Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing the RACM. 	Demolition or renovation of a facility which may cause a disturbance of friable asbestos material and exceed the thresholds in 40 CFR 61.145(a)(1) – applicable	40 CFR § 61.145(c)(2)
	When RACM is stripped from a facility component while it remains in place in the facility, adequately wet the RACM during the stripping operation.		40 CFR § 61.145(c)(3)

EPA ORC Comment: Add the following Asbestos ARARs to "Appendix C -Potential ARARs and TBC Criteria for Building 235-F"

Action	Requirements	Prerequisite	Citation(s)
Procedures for asbestos emission control <i>con't</i>	<p>Component shall be stripped <u>or</u> contained in leak-tight wrapping, except as described in § 61.145(c)(5). If stripped, either:</p> <ul style="list-style-type: none"> (i) Adequately wet the RACM during stripping; or (ii) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in § 61.152. 	A facility component covered with, coated with RACM (as defined in 40 CFR § 61.141), taken out of the facility as a unit or in sections pursuant to 40 CFR § 61.145(c)(2) – applicable	40 CFR § 61.145(c)(4)(i) and (ii)
	<p>The RACM is not required to be stripped if the following requirements are met:</p> <ul style="list-style-type: none"> (i) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM. (ii) The component is encased in a leak-tight wrapping. (iii) The leak-tight wrapping is labeled according to § 61.149(d)(1)(i), (ii), and (iii) during all loading and unloading operations and during storage. 	Large facility components such as reactor vessels, large tanks, and steam generators, but not beams containing RACM (as defined in 40 CFR § 61.141) – applicable	40 CFR § 61.145(c)(5)(i)-(iii)
Requirements for RACM (i.e., removed or stripped)	<p>For all RACM, including material that has been removed or stripped:</p> <ul style="list-style-type: none"> (i) Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with § 61.150; and (ii) Carefully lower the material to the ground and floor, not dropping, throwing, sliding, or otherwise damaging or disturbing the material. (iii) Transport the material to the ground via leak-tight chutes or containers if it has been removed or stripped more than 50 feet above ground level and was not removed as units or in sections. (iv) RACM contained in leak-tight wrapping that has been removed in accordance with paragraphs (c)(4) and (c)(3)(i)(B)(3) of § 61.145 need not be wetted. 	Generation of RACM (as defined in 40 CFR § 61.141), from demolition or renovation of a facility – applicable	40 CFR § 61.145(c)(6)(i)-(iv)

EPA ORC Comment: Add the following Asbestos ARARs to "Appendix C -Potential ARARs and TBC Criteria for Building 235-F"

Action	Requirements	Prerequisite	Citation(s)
Removal of RACM in freezing temperatures	<p>The owner or operator need not comply with paragraph § 61.145(c)(2)(i) and the wetting provisions of § 61.145(c)(3).</p> <p>Shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.</p> <p>NOTE: Under § 61.145(c)(7)(iii), must record the temperature in the area containing the facility components at the beginning, middle and end of each workday and keep daily temperature records available for inspection. Recordkeeping requirements are generally considered "administrative" and therefore not identified as ARARs.</p>	Removal of RACM (as defined in 40 CFR § 61.141), when the temperature at the point of wetting is below 0°C (32°F) – applicable	of § 61.145(c)(7)(i)-(ii)
<i>Institutional Controls</i>			
Warning signs for disposal site	Display warning signs at all entrances and at intervals of 100m (328 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited.	Closure of an area that received asbestos-containing waste materials that does not include a natural barrier to adequately deter access by the general public – relevant and appropriate	40 CFR § 61.151(b)(1)
Warning signs for disposal site <i>con't</i>	<p>The warning signs must:</p> <ul style="list-style-type: none"> (i) Be posted in such a manner and location that a person can easily read the legend; and (ii) Conform to the requirements for (20"x14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and (iii) Display the legend as prescribed in § 61.151(b)(1)(iii) located in the lower panel with letter sizes and styles of visibility at least equal to those specified in § 61.151(b)(1)(iii). 	Closure of an area that received asbestos-containing waste materials that does not include a natural barrier to adequately deter access by the general public – relevant and appropriate	40 CFR § 61.151(b)(1)(i)-(iii)
Fence for disposal site.	Fence the perimeter of the site in a manner adequate to deter access by the general public.		40 CFR § 61.151(b)(2)

EPA ORC Comment: Add the following Asbestos ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation(s)
Deed notice for asbestos waste disposal site	<p>Record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:</p> <ul style="list-style-type: none"> • The land has been used for disposal of asbestos-containing waste material; and • The survey plat and record of the location and quantity of asbestos containing waste disposed of within the disposal site required in § 61.154(f) have been filed with the Administrator; and • The site is subject to 40 CFR part 61, Subpart M. <p>NOTE: Recordation of deed notice that informs potential purchaser on the waste disposal site is considered a substantive requirement for post-closure.</p>	Closure of an inactive disposal area that received asbestos containing waste materials – relevant and appropriate	40 CFR § 61.151(e)(1)-(3)

ARAR = applicable or relevant and appropriate requirement

CFR = Code of Federal Regulations

RACM = regulated asbestos-containing material

Subpart M = National Emission Standard for Asbestos located at 40 CFR 61.140 *et seq.*

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
<i>Waste Generation and Management</i>			
Management of PCB waste (e.g., contaminated PPE, equipment, wastewater)	Any person storing or disposing of PCB waste must do so in accordance with 40 CFR 761, Subpart D.	Generation of waste containing PCBs at concentrations \geq 50 ppm – applicable	40 CFR 761.50(a)
	Any person cleaning up and disposing of PCBs shall do so based on the concentration at which the PCBs are found.	Generation of PCB remediation waste as defined in 40 CFR 761.3 – applicable	40 CFR 761.61
Management of PCB Items	Must dispose of in accordance with 40 CFR 761.60(b) or decontaminate in accordance with 40 CFR 761.79.	Removal from use of a PCB Item containing intact, non-leaking PCB Article – applicable	40 CFR 761.50(b)(2)
	Must dispose of as bulk product waste in accordance with 40 CFR 761.62(a) or (c).	Removal from use of a PCB Item where PCB Article is no longer intact and non-leaking – applicable	40 CFR 761.50(b)(2)
Management of PCB/Radioactive waste	Any person storing such waste \geq 50 ppm PCBs must do so taking into account both its PCB concentration and radioactive properties, except as provided in 40 CFR 761.65(a)(1), (b)(1)(ii) and (c)(6)(i).	Generation of PCB/ Radioactive waste for a disposal – applicable	40 CFR 761.50(b)(7)(i)
	Any person disposing of such waste must do so taking into account both its PCB concentration and its radioactive properties.		40 CFR 761.50(b)(7)(ii)
	If, after taking into account only the PCB properties in the waste, the waste meets the requirements for disposal in a facility permitted, licensed, or registered by a state as a municipal or non-municipal non-hazardous waste landfill, e.g., PCB bulk product waste under 40 CFR 761.62(b)(1), then the person may dispose of such waste without regard to the PCBs, based on its radioactive properties alone in accordance with applicable requirements.		

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
<i>Storage</i>			
Temporary storage of PCB waste (e.g., PPE, rags) in a container(s)	Container(s) shall be marked as illustrated in 40 CFR 761.45(a).	Storage of PCBs and PCB Items at concentrations \geq 50 ppm for disposal – applicable	40 CFR 761.40(a)(1)
	Storage area must be properly marked as required by 40 CFR 761.40(a)(10).		40 CFR 761.65(c)(3)
	Any leaking PCB Items and their contents shall be transferred immediately to a properly marked non-leaking container(s).		40 CFR 761.65(c)(5)
	Container(s) shall be in accordance with requirements set forth in DOT HMR at 49 CFR 171-180.		40 CFR 761.65(c)(6)
Storage of PCB waste and/or PCB/radioactive waste in non-RCRA regulated unit	Storage facility must have or be: <ul style="list-style-type: none"> • Adequate roof and walls to prevent rainwater from reaching stored PCBs and PCB items; 	Storage of PCBs and PCB Items at concentrations \geq 50 ppm for disposal – applicable	40 CFR 761.65(b)(1) 40 CFR 761.65(b)(1)(i)
	<ul style="list-style-type: none"> • Adequate floor that has continuous curbing with a minimum 6-inch high curb. Floor and curb must provide a containment volume equal to at least two times the internal volume of the largest PCB article or container or 25% of the internal volume of all articles or containers stored there, whichever is greater. <p><i>Note:</i> 6 inch minimum curbing not required for area storing PCB/radioactive waste;</p>	Storage of PCB/radioactive waste as defined in 40 CFR 761.3 – applicable	40 CFR 761.65(b)(1)(ii)
	<ul style="list-style-type: none"> • No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from curbed area; 		40 CFR 761.65(b)(1)(iii)
	<ul style="list-style-type: none"> • Floors and curbing constructed of Portland cement, concrete, or a continuous, smooth, non-porous surface that prevents or minimizes penetration of PCBs; and 		40 CFR 761.65(b)(1)(iv)
	<ul style="list-style-type: none"> • Not located at a site that is below the 100-year flood water elevation. 		40 CFR 761.65(b)(1)(v)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
	Storage area must be properly marked as required by 40 CFR 761.40(a)(10).		40 CFR 761.65(c)(3)
Storage of PCB waste and/or PCB/radioactive waste in a RCRA-regulated container storage area	<p>Does not have to meet storage unit requirements in 40 CFR 761.65(b)(1) provided unit:</p> <ul style="list-style-type: none"> • is permitted by EPA under RCRA §3004, or • qualifies for interim status under RCRA §3005; or • is permitted by an authorized state under RCRA §3006 and, • PCB spills cleaned up in accordance with Subpart G of 40 CFR 761. 	Storage of PCBs and PCB Items designated for disposal – applicable	40 CFR 761.65(b)(2)(i)-(iv)
Storage of PCB/radioactive waste in containers	<p>For liquid wastes, containers must be nonleaking.</p> <p>For non-liquid wastes, containers must be designed to prevent buildup of liquids if such containers are stored in an area meeting the containment requirements of 40 CFR 761.65(b)(1)(ii); and</p>	Storage of PCB/radioactive waste in containers other than those meeting DOT HMR performance standards – applicable	<p>40 CFR 761.65(c)(6)(i)(A)</p> <p>40 CFR 761.65(c)(6)(i)(B)</p>
	For both liquid and non-liquid wastes, containers must meet all regulations and requirements pertaining to nuclear criticality safety.		40 CFR 761.65(c)(6)(i)(C)
Storage of liquid PCBs in stationary containers (e.g., leachate in storage tank)	<p>Storage containers can be larger than the containers specified in paragraph (c)(6) of 40 CFR 761.65 provided that:</p> <ul style="list-style-type: none"> • The containers are designed, constructed, and operated in compliance OSHA standards, 29 CFR 1910.106 <i>Flammable and combustible liquids</i>. Before using these containers for storing PCBs, the design of the containers must be reviewed to determine the effect on the structural safety of the containers that will result from placing liquids with the specific gravity of PCBs into the containers. • Owner/operator shall prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan as described in part 112 of this title. <p><i>NOTE:</i> Substantive requirements of an SPCC Plan will be contained in the CERCLA Work Plan.</p>	Storage of liquid PCB in <i>stationary containers</i> other than those meeting DOT HMR performance standards at 49 CFR parts 171 through 180 – applicable	40 CFR 761.65(c)(7)(i) and (ii)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
<i>Treatment and Disposal</i>			
Disposal of PCB Capacitor(s)	Shall comply with all requirements of 40 CFR 761.60 unless it is known from label or nameplate information, manufacturer’s literature, or chemical analysis that the capacitor does not contain PCBs.	Generation of PCB Capacitors with ≥ 500 ppm PCBs for disposal – applicable	40 CFR 761.60(b)(2)(i)
	Any person must assume that a capacitor manufactured prior to July 2, 1979, whose PCB concentration is not established, contains ≥ 500 ppm PCBs. If the date of manufacture is unknown, any person must assume the capacitor contains ≥ 500 ppm PCBs.		40 CFR 761.2(a)(4)
	May dispose of in a municipal solid waste landfill unless that person is subject to requirements of 40 CFR 761.60(b)(2)(iv).	Generation of PCB Small Capacitors (as defined in 40 CFR 761.3) for disposal – applicable	40 CFR 761.60(b)(2)(ii)
	Shall dispose of in accordance with either of the following: <ul style="list-style-type: none"> • disposal in an incinerator that complies with 40 CFR 761.70; or • until March 1, 1981, disposal in a chemical waste landfill that complies with 40 CFR 761.75. 	PCB Large Capacitor which contains 500 ppm or greater PCBs – applicable	40 CFR 761.60(b)(2)(iii)
Disposal of fluorescent light ballasts	Must be disposed of in a TSCA-approved disposal facility, as bulk product waste under 40 CFR 761.62, or in accordance with the decontamination provisions of 40 CFR 761.79.	Generation of fluorescent light ballasts containing PCBs in the potting material for disposal – applicable	40 CFR 761.60(b)(6)(iii)
Disposal of PCB-Contaminated Articles	Must remove all free-flowing liquid from the Article, disposing of the liquid in compliance with the requirements of 40 CFR 761.60(a)(2) or (a)(3); and	Generation of PCB-Contaminated Articles (as defined in 40 CFR 761.3) for disposal – applicable	40 CFR 761.60(b)(6)(ii)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
Disposal of PCB-Contaminated Articles <i>con't</i>	Dispose by one of the following methods: <ul style="list-style-type: none"> • in accordance with the decontamination provisions at 40 CFR 761.79; • in a facility permitted, licensed, or registered by a State to manage municipal solid waste or non-municipal non-hazardous waste; • in an industrial furnace operating in compliance with 40 CFR 761.72; or • in a disposal facility approved under this part. 	Disposal of PCB-Contaminated Articles with no free-flowing liquid – applicable	40 CFR 761.60(b)(6)(ii) 40 CFR 761.60(b)(6)(ii)(A)-(D)
Disposal of PCB hydraulic machine	Shall dispose of by one of the following methods: <ul style="list-style-type: none"> • in accordance with the decontamination provisions at 40 CFR 761.79; • in a facility permitted, licensed, or registered by a State to manage municipal solid waste or non-municipal non-hazardous waste; • in an industrial furnace operating in compliance with 40 CFR 761.72; or • in a disposal facility approved under this part. 	Generation of a PCB hydraulic machine containing PCBs \geq 50 ppm for disposal – applicable	40 CFR 761.60(b)(3)(i) 40 CFR 761.60(b)(3)(i)(A)-(D)
	Must remove all free-flowing liquid from the machine, and dispose of the liquid in accordance with the provisions of 40 CFR 761.60(a);		40 CFR 761.60(b)(3)(ii)
	If the PCB liquid contains \geq 1000 ppm PCB, then the hydraulic machine must be decontaminated in accordance with 40 CFR 761.79 or flushed prior to disposal with a solvent listed at 40 CFR 761.61(b)(1)(i)(B) which contains $<$ 50 ppm PCB.		
Disposal of PCB-Contaminated Electrical Equipment (except capacitors)	Shall dispose in accordance with 40 CFR 761.60(b)(6)(ii)(A).	Generation of PCB Contaminated Electrical Equipment (as defined in 40 CFR 761.3) for disposal – applicable	40 CFR 761.60(b)(4)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
Disposal of PCB-Contaminated Electrical Equipment (except capacitors) <i>con't</i>	<p>Must remove all free-flowing liquid from the electrical equipment and dispose of the removed liquid in accordance with 40 CFR 760.61(a).</p> <p>Dispose of by one of the following methods:</p> <ul style="list-style-type: none"> • in accordance with 761.79; • in a facility permitted, licensed, or registered by a State to manage municipal solid waste or non-municipal non-hazardous waste subject to 40 CFR 257.5 thru 257.30, as applicable (excluding thermal treatment units), • in a scrap metal recovery oven or smelter operated in compliance with 40 CFR 761.72, or • in a disposal facility approved under this part. 	Drained PCB-Contaminated Electrical Equipment (including any residual liquids) – applicable	40 CFR 761.60(b)(6)(ii)(A)
	<p>Shall dispose of in one of the following disposal facilities approved under this part;</p> <ul style="list-style-type: none"> • incinerator under 40 CFR 761.70; • chemical waste landfill under 40 CFR 761.75; • high efficiency boiler under 40 CFR 761.71; or • scrap metal recovery oven or smelter under 40 CFR 761.72. 	Disposal of Large Capacitors that contain ≥ 50 ppm but < 500 ppm PCBs – applicable	40 CFR 761.60(b)(4)(ii)
Disposal of decontamination waste and residues	Such waste shall be disposed of at their existing PCB concentration unless otherwise specified in 40 CFR 761.79(g)(1 - 6).	Decontamination waste and residues – applicable	40 CFR 761.79(g)
	Are regulated for disposal as PCB remediation waste.	Distillation bottoms or residues and filter media – applicable	40 CFR 761.79(g)(1)
	Are regulated for disposal at their original concentration.	PCBs physically separated from regulated waste during decontamination, other than distillation bottoms and filter media – applicable	40 CFR 761.79(g)(2)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
Disposal of decontamination waste and residues <i>con't</i>	Must be burned and marketed in accordance with used oil requirements in 40 CFR 761.20(e), or disposed of in accordance with 40 CFR 761.60(a) or (e), or decontaminated pursuant to the section.	Hydrocarbon solvent used or reused for decontamination that contains < 50 ppm PCBs – applicable	40 CFR 761.79(g)(3)
	Shall be disposed of in an incinerator operating in compliance with 40 CFR 761.70, or decontaminated pursuant to this section.	Chlorinated solvent at any concentration PCBs used for decontamination – applicable	40 CFR 761.79(g)(4)
	Shall be disposed of in accordance with 40 CFR 761.60(a), or decontaminated pursuant to this section.	Solvents ≥ 50 ppm PCBs [other than those described in 40 CFR 761.79(g)(3) and (g)(4)] – applicable	40 CFR 761.79(g)(5)
	Shall be disposed of in accordance with provisions for wastes from cleanup of PCB remediation waste at 40 CFR 761.61(a)(5)(v).	Non-liquid cleaning materials and PPE at any concentration PCBs, including non-porous surfaces and other non-liquid materials (e.g., rags, gloves, booties) resulting from decontamination – applicable	40 CFR 761.79(g)(6)
Disposal of PCB contaminated porous surfaces (<i>self-implementing option</i>)	Shall be disposed on-site or off-site as bulk PCB remediation waste according to 40 CFR 761.61(a)(5)(i) or decontaminated for use according to 40 CFR 761.79(b)(4).	PCB remediation waste porous surfaces (as defined in 40 CFR 761.3) – applicable	40 CFR 761.61(a)(5)(iii)
Disposal liquid PCB remediation waste (<i>self-implementing option</i>)	Shall either: <ul style="list-style-type: none"> • decontaminate the waste to the levels specified in 40 CFR 761.79(b)(1) or (2); or • dispose of the waste in accordance with 40 CFR 761.61(b) or a risk-based approval under 40 CFR 761.61(c). 	Liquid PCB remediation waste (as defined in 40 CFR 761.3) – applicable	40 CFR 761.61(a)(5)(iv) 40 CFR 761.61(a)(5)(iv)(A) and (B)
Disposal of PCB contaminated non-porous surfaces on-site (<i>self-implementing option</i>)	Shall be cleaned on-site or off-site to levels in 40 CFR 761.61(a)(4)(ii) using: <ul style="list-style-type: none"> • decontamination procedures under 40 CFR 761.79; • technologies approved under 40 CFR 761.60(e); or • risk-based procedures/technologies under 40 CFR 761.61(c). 	PCB remediation waste <i>non-porous surfaces</i> (as defined in 40 CFR 761.3) – applicable	40 CFR 761.61(a)(5)(ii)(A)(1)-(3)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
Disposal of PCB contaminated non-porous surfaces off-site (<i>self-implementing option</i>)	<p>Shall be disposed of in accordance with 40 CFR 761.61(a)(5)(i)(B)(3)(ii) [sic] 40 CFR 761.61 (a)(5)(i)(B)(2)(ii).</p> <p>Metal surfaces may be thermally decontaminated in accordance with 40 CFR 761.79(c)(6)(i).</p>	<p>PCB remediation waste non-porous surfaces (as defined in 40 CFR 761.3) having surface concentrations < 100 µg/cm² – relevant and appropriate</p>	<p>40 CFR 761.61 (a)(5)(ii)(B)(1)</p>
	<p>Shall be disposed of in accordance with 40 CFR 761.61(a)(5)(i)(B)(3)(iii)[sic] 40 CFR 761.61(a)(5)(i)(B)(2)(iii).</p> <p>Metal surfaces may be thermally decontaminated in accordance with 40 CFR 761.79(c)(6)(ii).</p>	<p>PCB remediation waste non-porous surfaces having surface concentrations ≥ 100 µg/cm² – relevant and appropriate</p>	<p>40 CFR 761.61(a)(5)(ii)(B)(2)</p>
Disposal of PCB bulk product waste (e.g., building demolition debris) in solid waste landfill	<p>May dispose of in a facility permitted, licensed, or registered by a State as a municipal solid waste or non-municipal non-hazardous waste landfill.</p> <p>Includes Plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts; or furniture laminates); preformed or molded rubber parts and components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; Galbestos; non-liquid building demolition debris; or non-liquid PCB bulk product waste from the shredding of automobiles or household appliances from which PCB small capacitors have been removed (shredder fluff).</p>	<p>PCB bulk product waste listed in 40 CFR 761.62(b)(1)(i) including non-liquid building debris –applicable</p>	<p>40 CFR 761.62(b)(1)</p>
	<p>May dispose of in a facility permitted, licensed, or registered by a State as a municipal solid waste or non-municipal non-hazardous waste landfill.</p>	<p>Other PCB bulk product waste, sampled in accordance with the protocols set out in subpart R of this part, that leaches PCBs at <10 µg/L of water measured using a procedure used to simulate leachate generation – applicable</p>	<p>40 CFR 761.62(b)(1)(ii)</p>

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
	<p>May dispose of in a facility permitted, licensed, or registered by a State to manage as a municipal solid waste subject to 40 CFR 258 or non-municipal non-hazardous waste subject to 40 CFR 257.5 thru 257.30 if:</p> <ul style="list-style-type: none"> the PCB bulk product waste is segregated from organic liquids disposed of in the landfill; and leachate is collected from the landfill and monitored for PCBs. 	<p>Other PCB bulk product waste not meeting conditions of 40 CFR 761.62(b)(1) (e.g., paper/felt gaskets contaminated by liquid PCBs) – applicable</p>	<p>40 CFR 761.62(b)(2)</p> <p>40 CFR 761.62(b)(2)(i) and (ii)</p>
<p>Disposal of PCB bulk product waste in an off-site solid waste landfill</p>	<p>Must provide written notice to the facility 15 days in advance of the first shipment from the same disposal waste stream.</p>	<p>Disposal of PCB bulk product waste regulated under 40 CFR 761.62(b)(1) at a facility without PCB approval – applicable</p>	<p>40 CFR 761.62(b)(4)(i)</p>
	<p>The notice shall state that the PCB bulk product waste may include components containing PCBs at ≥ 50 ppm based on analysis of the waste in the shipment or general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and the waste is known or presumed to leach < 10 $\mu\text{g/L}$ PCBs.</p>		
	<p>Must provide written notice to the facility 15 days in advance of the first shipment from the same disposal waste stream and with each shipment thereafter.</p>	<p>Disposal of PCB bulk product waste regulated under 40 CFR 761.62(b)(2) at a facility without PCB approval – applicable</p>	<p>40 CFR 761.62(b)(4)(ii)</p>
	<p>The notice shall state that the PCB bulk product waste may include components containing PCBs at ≥ 50 ppm based on analysis of the waste in the shipment or general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and the waste is known or presumed to leach < 10 $\mu\text{g/L}$ PCBs.</p>		

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
Disposal of PCB cleanup wastes (e.g., PPE, rags, non-liquid cleaning materials) <i>(self-implementing option)</i>	Shall be disposed of either: <ul style="list-style-type: none"> • in a facility permitted, licensed or registered by a State to manage municipal solid waste under 40 CFR 258 or non-municipal, non-hazardous waste subject to 40 CFR 257.5 thru 257.30; or • in a RCRA Subtitle C landfill permitted by a State to accept PCB waste; or • in an approved PCB disposal facility; or • through decontamination under 40 CFR 761.79(b) or (c). 	Generation of non-liquid PCBs at any concentration during and from the cleanup of PCB remediation waste – relevant and appropriate	40 CFR 761.61(a)(5)(v)(A)(1)-(4)
Disposal of PCB cleaning solvents, abrasives, and equipment <i>(self-implementing option)</i>	May be reused after decontamination in accordance with 40 CFR 761.79; or For liquids, disposed in accordance with 40 CFR 761.60(a).	Generation of PCB wastes from the cleanup of PCB remediation waste – relevant and appropriate	40 CFR 761.61(a)(5)(v)(B) 40 CFR 761.60(b)(1)(i)(B)
Disposal of PCB liquids (e.g., transformer fluid)	Must be disposed of in an incinerator which complies with 40 CFR 761.70, except:	PCB liquids at concentrations ≥ 50 ppm – applicable	40 CFR 761.60(a)
	For mineral oil dielectric fluid, may be disposed in a high efficiency boiler according to 40 CFR 761.71(a).	PCB liquids at concentrations ≥ 50 ppm and < 500 ppm – applicable	40 CFR 761.60(a)(1)
	For liquids other than mineral oil dielectric fluid, may be disposed in a high efficiency boiler according to 40 CFR 761.71(b).		40 CFR 761.60(a)(2)
Disposal of PCB contaminated precipitation, condensation, leachate, or load separation	May be disposed in a chemical waste landfill which complies with 40 CFR 761.75 if: <ul style="list-style-type: none"> • disposal does not violate 40 CFR 268.32(a) or 268.42(a)(1); • liquids do not exceed 500 ppm PCB and are not an ignitable waste as described in 40 CFR 761.75(b)(8)(iii). 	PCB liquids at concentrations ≥ 50 ppm and < 500 ppm from incidental sources and associated with PCB Articles or non-liquid PCB wastes – applicable	40 CFR 761.60(a)(3) 40 CFR 761.60(a)(3)(i) and (ii)
Disposal of PCB Transformers	Shall be disposed of in either: <ul style="list-style-type: none"> • an incinerator that complies with 40 CFR 761.70; or • a chemical waste landfill approved under 40 CFR 761.75; provided all free flowing liquid and solvent (allowed to stand for 18 hrs to decontaminate transformer) is removed. 	PCB Contaminated Electrical Equipment (including transformers that contain PCBs at concentrations of ≥ 50 ppm and < 500 ppm in the contaminating fluid) as defined in 40 CFR 761.3 – applicable	40 CFR 761.60(b)(1) 40 CFR 761.60(b)(1)(i)(A) 40 CFR 761.60(b)(1)(i)(B)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
Performance-based disposal of PCB bulk product waste	<p>May dispose of by one of the following:</p> <ul style="list-style-type: none"> • in an incinerator approved under 40 CFR 761.70; • in a chemical waste landfill approved under 40 CFR 761.75; • in a hazardous waste landfill permitted by EPA under §3004 of RCRA or by authorized state under §3006 of RCRA; • under alternate disposal approved under 40 CFR 761.60(e); • in accordance with decontamination provisions of 40 CFR 761.79; or • in accordance with thermal decontamination provisions of 40 CFR 761.79(c)(6) for metal surfaces in contact with PCBs. 	Disposal of PCB bulk product waste as defined in 40 CFR 761.3 – applicable	40 CFR 761.62(a) 40 CFR 761.62(a)(1)-(6)
Risk-based sampling, storage and/or disposal of PCB bulk product waste	<p>May sample or dispose of bulk product waste in a manner other than prescribed in 40 CFR 761.62(a) or (b), or store bulk product waste in a manner other than prescribed in 40 CFR 761.65, if receive approval in writing from EPA Regional Administrator and EPA finds that the method will not pose an unreasonable risk of injury to human health or the environment.</p> <p>Each application must contain information indicating that, based on technical, environmental or waste specific characteristics or considerations, the proposed sampling, disposal or storage methods will not pose an unreasonable risk of injury to human health or the environment.</p> <p>NOTE: Appropriate information required in an application can be provided in a CERCLA document (e.g. EE/CA, Action Memo, FS, PP, or ROD) that is approved or issued by EPA.</p>	Sampling, storage and/or disposal of PCB bulk product waste (as defined in 40 CFR 761.3) – applicable	40 CFR 761.62(c)
<i>Institutional Controls</i>			
Deed restrictions for caps, fences and low occupancy areas <i>(self-implementing option)</i>	Must maintain the fence or cap, in perpetuity.	Use of a cap or fence at PCB remediation waste cleanup site – relevant and appropriate	40 CFR 761.61(a)(8)

EPA ORC Comment: Add the following PCB ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation
	<p>Within 60 days of completion of cleanup activity shall record, in accordance with State law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property:</p> <ul style="list-style-type: none"> • that land has been used for PCB remediation waste disposal and is restricted to use as a low occupancy area as defined in 40 CFR 761.3. • of existence of the fence or cap and the requirements to maintain the fence or cap. • the applicable cleanup levels left at the site, inside the fence, and/or under the cap. 	<p>Use of a cap or fence at low occupancy PCB remediation waste cleanup site – relevant and appropriate</p>	<p>40 CFR 761.61(a)(8)(i)(A)(1)-(3)</p>
Transportation			
<p>Transportation of PCB wastes off-site</p>	<p>Must comply with the manifesting provisions at 40 CFR 761.207 through 218.</p>	<p>Relinquishment of control over PCB wastes by transporting, or offering for transport –applicable</p>	<p>40 CFR 761.207(a)</p>
<p>Transportation of hazardous materials</p>	<p>Shall be subject to and must comply with all applicable provisions of the HMTA and DOT HMR at 49 CFR 171-180.</p>	<p>Any person who, under contract with an department or agency of the federal government, transports “in commerce,” or causes to be transported or shipped, a hazardous material – applicable</p>	<p>49 CFR 171.1(c)</p>

ARAR = applicable or relevant and appropriate requirement
 CFR = Code of Federal Regulations
 DOT = U.S. Department of Transportation
 > = greater than
 < = less than
 ≥ = greater than or equal to
 ≤ = less than or equal to
 HMR = Hazardous Materials Regulations

HMTA = Hazardous Materials Transportation Act
 PCB = polychlorinated biphenyl
 PPE = personal protective equipment
 RCRA = Resource Conservation and Recovery Act of 1976
 TSCA = Toxic Substances Control Act of 1976

EPA ORC Comment: Add the following RCRA Hazardous Debris and Universal Waste ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation(s)
<i>Waste Treatment and Disposal</i>			
Disposal of RCRA-hazardous waste debris in a land-based unit (i.e., landfill)	Must be treated prior to land disposal as provided in 40 CFR 268.45(a)(1)-(5) unless EPA determines under 40 CFR 261.3(f)(2) that the debris no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in 40 CFR 268.40 for the waste contaminating the debris.	Land disposal, as defined in 40 CFR 268.2, of restricted RCRA-hazardous debris - applicable	40 CFR 268.45(a)
Disposal of treated hazardous debris	Debris treated by one of the specified extraction or destruction technologies on Table 1 of 40 CFR 268.45 and which no longer exhibits a characteristic is not a hazardous waste and need not be managed in RCRA Subtitle C facility. Hazardous debris contaminated with listed waste that is treated by immobilization technology must be managed in a RCRA Subtitle C facility.	Treated debris contaminated with RCRA-listed or characteristic waste - applicable	40 CFR 268.45(c)
Disposal of hazardous debris treatment residues	Except as provided in 268.45(d)(2) and (d)(4), must be separated from debris by simple physical or mechanical means, and such residues are subject to the waste-specific treatment standards for the waste contaminating the debris	Residue from treatment of hazardous debris - applicable	40 CFR 268.45(d)(1)
<i>Temporary Storage of Universal Waste</i>			
Temporary Storage of RCRA lamps (e.g., fluorescent, mercury vapor)	Must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps.	Management of “universal waste lamp” as defined in 40 CFR 273.9 and 273.5 that are RCRA characteristic hazardous waste - applicable	40 CFR 273.13(d)(1) Waste management
	Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage, or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.		40 CFR 273.13(d)(2) Waste management
	Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: “Universal Waste-Lamp(s),” or “Waste Lamps”, or “Used Lamps”.		40 CFR 273.14(e) Labeling/markings

EPA ORC Comment: Add the following RCRA Hazardous Debris and Universal Waste ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation(s)
<p>Temporary Storage of RCRA lamps (e.g., fluorescent, mercury vapor)</p>	<p>May accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of <u>paragraph (b)</u> of this section are met.</p> <p>NOTE: Under CERCLA § 121(e)(1) an on-site response action does not require a permit or compliance with administrative requirements. The limitations on accumulation of waste on-site for one year or greater are considered substantive requirements.</p>	<p>A small quantity handler of universal waste who accumulates universal waste - applicable</p>	<p>40 CFR 273.15(a)</p>
	<p>May accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.</p> <p>NOTE: Under CERCLA § 121(e)(1) an on-site response action does not require a permit or compliance with administrative requirements. The limitations on accumulation of waste on-site for one year or greater are considered substantive requirements.</p>		<p>40 CFR 273.15(b) Accumulation time limits</p>

EPA ORC Comment: Add the following RCRA Hazardous Debris and Universal Waste ARARs to “Appendix C -Potential ARARs and TBC Criteria for Building 235-F”

Action	Requirements	Prerequisite	Citation(s)
Temporary Storage of RCRA lamps (e.g., fluorescent, mercury vapor)	Must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by: <ul style="list-style-type: none"> • Mark or label the individual item with the date the lamp(s) became a waste; • Mark or label the container or package with date wastes received; • Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received; • Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received; • Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or • Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. 	A small quantity handler of universal waste who accumulates universal waste - applicable	40 CFR 273.15(c)(1)-(6) Accumulation time limits

ARAR = applicable or relevant and appropriate requirement

CFR = Code of Federal Regulations

EPA = U.S. Environmental Protection Agency

RCRA = Resource Conservation and Recovery Act of 1976