

**SYNOPSIS**  
**PRO:FCWM:GWS:03-00635**

**ORIGINATOR:**

Gary Schuetz, RFFO / Projects / FCWM

**ISSUE:**

The Building 776/777 Closure Project is submitting a Minor Modification #10 to the Decommissioning Operation Plan (DOP) to the Colorado Department of Public Health and Environment for approval.

**BACKGROUND:**

- This Minor Modification is being progressed with a high priority to support a stakeholder request to see the additional administrative changes to be approved in the Minor Mod while they conduct their review of the Major Modification for Demolition of the structure.
- The stakeholder review "public comment period" is currently targeted to complete 11 June 2003.
- This submittal has been discussed previously with DOE and CDPHE.
- Comments received from DOE and CDPHE have been satisfactorily resolved prior to preparing this transmittal letter to CDPHE.
- There are no issues identified that are expected to affect approval by CDPHE.

**RECOMMENDATION:**

Concur with the submittal of Minor Modification #10 to the Building 776/777 Closure Project DOP and transmit the proposals to CDPHE for approval.

**RECORD NOTES:**

None

*BCC*

*CERCLA*

bcc:  
Deputy Manager's Reading File

~~\_\_\_\_\_~~

Copy to Reading Room  yes  no

(please initial) *RD* - *cc: Admin Record file*

Rev 04/08/02

FCWM  
Schuetz /s/  
05/30/03

*[Signature]*  
AMP  
Schneider  
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**Department of Energy**

ROCKY FLATS FIELD OFFICE  
10808 HIGHWAY 93, UNIT A  
GOLDEN, COLORADO 80403-8200

**MAY 30 2003**

03-DOE-00635

Mr. Steve Gunderson  
Rocky Flats Cleanup Agreement Project Coordinator  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, CO 80222-1530

Dear Mr. Gunderson:

This letter submits Minor Modification #10 to the Building 776/777 Decommissioning Operations Plan (DOP) for your approval. This request is made in accordance with Section 4.5.2. of the DOP and Paragraph 127 of the Rocky Flats Cleanup Agreement. The changes in this Minor Modification accompany the Major Modification, which is currently being reviewed by the stakeholders, to include the Demolition Plan as Appendix I to the DOP. The changes are summarized as follows:

1. Correct and/or clarify all references to the Demolition Plan that was not available when the DOP was approved.
2. Correct and clarify that the buried metal and concrete associated with Set #84 is addressed in the Appendix I Demolition Plan.
3. Clarify that the scope of Building 730 tanks and structure removal (a portion of Workset #76) will be transferred to Environmental Restoration for removal.
4. Identifies that the Documented Safety Analysis (DSA) will replace the Basis for Interim Operations (BIO) to support demolition activities.
5. Updated list of Applicable and Relevant and Appropriate Requirements (ARARs) in Appendix F to be consistent with the latest RFCA Implementation Guidance Document (IDG) Appendix 3 ARARs list.

Enclosed, are the text changes to the pages and additional materials included in this request, which have been discussed with your staff. If you have questions or need any additional information, please call me at (303) 966-4765 or contact Gary Schuetz at (303) 966-3016.

Sincerely,

Richard DiSalvo

Acting Assistant Manager  
for Environment and Stewardship

Enclosure  
cc w/Enc:  
E. Kray, CDPHE  
S. Tarlton, CDPHE

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## Requested Changes to Building 776/777 DOP

Modification #10 is being submitted as a minor modification to the Building 776/777 DOP. This minor modification includes administrative changes, and accompanies the major modification to include the demolition plan for Building 776/777 as Appendix I to the DOP. All references in the DOP to a future modification for the demolition plan have been replaced by references to Appendix I.

Proposed changes to the DOP are identified by section and page number. Additions are shown in bold italics and deletions shown in strikethrough. Upon approval of the major modification for the Demolition Plan and this minor modification, the entire 776/777 DOP will be reissued as Revision 1.

- 1) Executive Summary, page 12: Please revise the second paragraph on page 12 as follows.

~~The RFCA definition of decommissioning includes the demolition of building structures and disposition of building slabs. At this time, demolition methods and techniques are still being identified for the Building 776/777 Cluster, along with associated controls and performance specifications necessary to protect worker safety, public health, and the environment. As a result, the demolition stage of decommissioning is not included in Revision 0 of the DOP. This information will be provided in a subsequent decision document(s), which will constitute a major modification to this DOP. In addition to the routine requirements for major modifications, this information on Building 776/777 demolition will be submitted for a public comment period equivalent to that for the initial Building 776/777 DOP. The demolition plan for Building 776/777 is provided in Appendix I through a major modification as defined in ¶127 of RFCA.~~

- 2) Section 1.0, Introduction, page 13: Please revise the last paragraph on page 13 as follows.

~~The RFCA (Ref. 1) definition of decommissioning includes the demolition of building structures. At this time, demolition methods and techniques are still being identified for the Building 776/777 Cluster, along with associated controls and performance specifications necessary to protect worker safety, public health, and the environment. As a result, the demolition stage of decommissioning is not included in Revision 0 of the DOP. This information will be provided in a subsequent decision document(s), which will constitute a major modification to this DOP. In addition to the routine requirements for major modifications, this information on Building 776/777 demolition will be submitted for a public comment period equivalent to that for the initial Building 776/777~~

~~DOP. The demolition plan for Building 776/777 is provided in Appendix I through a major modification as defined in ¶127 of RFCA.~~

- 3) Section 2.2, footnote 1, page 19: Please revise footnote 1 as follows.

~~<sup>1</sup> Information Details regarding roof decontamination and removal are provided in the Demolition Plan in Appendix I. will be provided in the demolition modification to this DOP, which will be added as a major modification in compliance with ¶127 of RFCA prior to the initiation of demolition activities. The demolition modification will be submitted for a public comment period equivalent to that for the initial Building 776/777 DOP.~~

- 4) Section 4.0, Project Approach, page 23: Please revise the second paragraph as follows.

~~The RFCA definition of decommissioning includes the demolition of building structures and disposition of building slabs. At this time, demolition methods and techniques are still being identified for the Building 776/777 Cluster, along with associated controls and performance specifications necessary to protect worker safety, public health, and the environment. As a result, the demolition stage of decommissioning is not included in Revision 0 of the DOP. This information will be provided in a subsequent decision document(s), which will constitute a major modification to this DOP. In addition to the routine requirements for major modifications, this information on Building 776/777 demolition will be submitted for a public comment period equivalent to that for the initial Building 776/777 DOP. The demolition plan for Building 776/777 is provided in Appendix I through a major modification as defined in ¶127 of RFCA.~~

- 5) Section 4.3.2.1, Equipment Buried Under Building 776/777, Page 29: Please revise the first paragraph as follows.

In February 1998, ground-penetrating radar was used in designated areas of Building 776/777 to confirm the presence of material cemented in original stairwells, under GBs, and buried under the floors after the 1969 fire. The radar images are on file with the Project Record. These areas are included in SET 84. Planning and engineering for this SET will be completed prior to decommissioning the SET. In-process characterization will be performed during the planning and engineering effort and ~~detailed information concerning the methods that will be used to plan the disposition of the areas of suspected buried equipment remove the buried equipment before the building is demolished will be identified.~~ Due to the sensitivity of this work, in-process characterization of buried equipment within the Building 776/777 structure will be provided to the LRA for review. Work packages, currently undeveloped, for removal of equipment buried or cemented within the building structure will be shared with the regulators per the consultative process. Under-building contamination will be addressed

during environmental restoration. The decommissioning of this SET is not scheduled to begin until FY03.

6) Section 4.4.1, Radionuclides, page 35: Please revise this paragraph as follows:

When radiological contamination is identified, 10 CFR 835 (Ref. 12) and DOE Order 5400.5 (Ref. 13) will be followed to ensure protection of workers, the public, and the environment. Radiological characterization measurements *for free release* will be collected and interpreted in accordance with the DDCP and associated Pre-Demolition Survey Plan (Ref. 14). If all radiological characterization measurements are below the Allowable Total Residual Surface Contamination (ATRSC) thresholds provided in Figure IV-1 of DOE Order 5400.5 (and summarized in Table 5), the related area or volume of material is considered sanitary waste and may be free-released.

7) Section 4.5, Closure of RCRA-Regulated Units, page 37: Please delete the last sentence of this section as shown:

RCRA-regulated units located within the Building 776/777 Cluster will be closed in compliance with the closure performance standards described in this section. Table 6 presents a list of the RCRA-regulated units in the Building 776/777 Cluster, including unit number and associated SET number, location, permit status, and the type of closure currently planned for each unit. Closure activities for RCRA-regulated units located in the basement of Building 776/777 will begin during deactivation and continue through decommissioning. ~~Details concerning the disposition of the basement foundation/slab(s) will be provided in the demolition modification to this DOP, which will be submitted for a public comment period equivalent to that for the initial Building 776/777 DOP.~~

8) Section 4.6, Pre-Demolition Survey, page 41: Please revise this section as follows.

**4.6 Pre-Demolition Survey Characterization Plans**

~~A pre-demolition survey~~ *In-process characterization* will be conducted to identify areas requiring additional decontamination before the building is demolished. The ~~pre-demolition survey~~ *final characterization* will be performed ~~on an on-going basis~~ in areas that have been stripped out ~~and released for final survey~~ to verify the waste disposal path for building rubble. Per ¶60(a) of RFCA, the LRA may take samples and obtain duplicate, split, or sub-samples of any DOE samples.

The ~~pre-demolition survey~~ *final building characterization* will be conducted in accordance with the *Project-Specific Characterization Plans for Building 776/777 Pre-Demolition Survey Plan*, which will be prepared in conformance with the DDCP (Ref. 3) prior to the initiation of demolition activities. The ~~Pre-Demolition Survey~~ *Characterization Plans* will be submitted to the LRA for review and approval. A ~~Pre-Demolition Survey~~ *Final Project-Specific Characterization Report(s)* will be prepared to document the results of the pre-demolition ~~survey~~ *characterization* and included in the Project's administrative record (AR). Per Sections 3.3.10 through 3.3.13 of the DPP, the ~~Pre-Demolition Survey~~ *Project-Specific Characterization Report(s)* will be forwarded to the LRA for review.

- 9) Section 4.7, Independent Verification, page 41: Please revise this paragraph as follows:

An independent party, selected by DOE, will perform a verification assessment of the final survey methodology. This assessment will include a review of survey procedures, survey instrument calibration and operation procedures, and the ~~Pre-Demolition Survey~~ *Final Project-Specific Characterization Plans*. Also, the independent party may obtain additional survey measurements for comparison with the RFETS measurements to ensure proper correlation of survey data.

- 10) Section 4.11, Building 776/777 Decommissioning, page 48: Please revise this paragraph as follows.

Building 776/777 will be decommissioned using a phased approach. The following paragraphs summarize the decommissioning activities that will be conducted to prepare the building for demolition. Demolition will proceed in accordance with a subsequent decision document(s), which may include a modification to this DOP. *the Demolition Plan provided in Appendix I.*

- 11) Section 4.11.2, Building 776/777 Decommissioning Sequence, page 48: Please revise this section as follows.

In general, the decommissioning sequence of the SETs in Building 776/777 will be as follows: GBs and B-boxes will be removed first so that Zone I ventilation can be removed. Process tanks will be removed during the same time frame as the GBs and used as "fill-in" work. After the GBs, B-boxes, process tanks, and Zone I ventilation systems have been removed, the remaining room decommissioning activities will take place. These include removal of interior walls, piping, ventilation, and electrical systems

to approximately the eight-foot level or to the first tie point. At that time, samples may be taken beneath the paint on the floors and walls, between corrugated wall panels, and on the concrete decking on the first floor ceiling to identify the magnitude of fixed contamination. Depending on the sample results, additional decontamination may be required. Once the rooms have been emptied and sampling and/or decontamination has been completed, final radiological surveys will be performed on the floors and walls in preparation for building demolition. Engineering and administrative controls will be used to prevent the spread of contamination to uncontaminated and/or decontaminated areas. ~~At this time, demolition methods and techniques are still being identified for the Building 776/777 Cluster, along with associated controls and performance specifications necessary to protect worker safety, public health, and the environment. This information will be provided in a major modification to this DOP, which will be subjected to a 45-day public comment period. The demolition plan for Building 776/777 is provided in Appendix I through a major modification as defined in ¶127 of RFCA, with a 30 day public comment period. A 30 day public comment period was considered adequate because there was a 14-day informal public comment period, and several informal information exchanges with the stakeholders prior to the formal public comment period.~~

12) Section 4.11.6, Equipment Buried Under Building 776/777, Page 50: Please revise this section as follows.

Buried equipment (SET 84) will be *characterized* ~~removed~~ prior to demolition of the building structure. Planning and engineering for this SET will be completed prior to decommissioning the SET. The individual IWCP work package(s) will describe additional confirmation methods and removal methods. This SET is not scheduled for decommissioning until FY03. *Additional information on the disposition of the areas associated with Set 84, including buried metal and concrete, is discussed in the Demolition Plan in Appendix I.*

13) Section 4.12, Building 730 Decommissioning, page 50: Please revise this paragraph as follows:

Building 730 is an underground process waste pit containing four Zone II plenum deluge tanks. Two of the four tanks have been filled with foam. These tanks were previously used to store solvents. ~~During decommissioning, it may be necessary to remove one of the tanks and install a temporary tank to support closure activities.~~ When the pit is no longer needed to support the Building 776/777 ventilation system, *the mechanical and electrical systems will be removed, the tanks decontaminated, and fixative applied. At the completion of these activities the tanks and structure will be transferred to ER for removal.* ~~all four tanks and entryway to the pit will be removed.~~

14) Section 4.16, Authorization Basis, page 50: Please revise this paragraph as follows:

The Building 776/777 BIO (Ref. 20) will be the AB for closure activities. Specific operations to be covered by the BIO are decontamination of equipment and surfaces, dismantling and size reduction, demolition, and waste management. The BIO contains accident analyses and facility controls for deactivation activities. ~~that will be expanded in the next revision of the BIO. Revision 1 of the BIO is currently being implemented; Revision 2 (July 1999) will incorporate administrative control requirements; and Revision 3 or appropriate page changes (September 1999) will incorporate decommissioning activities. Future revisions will incorporate size reduction technologies, including robotics.~~ *The BIO will be replaced with the Documented Safety Analysis (DSA) (expected to be approved in June 2003). The DSA will cover decommissioning and demolition activities.*

15) Section 8.0, Environmental Consequences of Action, page 89: Please change the last sentence of this paragraph as follows.

The following paragraphs summarize the results of the environmental impact analysis, which was performed for the full scope of the Building 776/777 Closure Project. The environmental consequences of the entire project are considered from the beginning to ensure the cumulative impacts resulting from each stage of the project are acceptable. ~~This analysis will be revised, as necessary, in the demolition modification to this DOP, which will address the disposition of building slabs.~~ *ES&H controls and monitoring for demolition are discussed in the Demolition Plan in Appendix I.*

16) Section 8.3, Geology and Soils, page 90: Please revise the this paragraph as follows:

Decommissioning activities in the Building 776/777 Closure Project will disturb minor land acreage, most of which has been previously disturbed. There will be a short-term increase in soil erosion and siltation surrounding building drainage pathways. Small, temporary losses of soil productivity may occur from construction activities and vehicle movement. Volatile organic compounds and radionuclide contamination already exist in the Building 776/777 footprint and adjacent areas. Additional contamination of soil from closure activities ~~will be kept as low as reasonably achievable is not expected~~ because building structures will be decontaminated or contamination will be fixed before the structures are demolished. *Potential soil contamination is discussed in the Demolition Plan in Appendix I, and will be included in the project-specific characterization plans and report.*

- 17) Appendix F, Building 776/777 Closure Project ARARs, page 235: Please revise the list of ARARs, which has been updated in accordance with the latest revision of the RFCA IGD Appendix 3 list , as shown in the attached table.

Appendix F - Building 776/777 Closure Project ARARs

REQUIREMENT	CITATION	COMMENT
<p><b>CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM</b></p> <ul style="list-style-type: none"> <li>• Definitions</li> <li>• Release criteria</li> <li>• Waste disposal</li> <li>• Warning labels</li> </ul>	<p>10 CFR 850</p> <p>.3</p> <p>.31</p> <p>.32</p> <p>.38 (b-c)</p>	<p>The cited sections are followed in relation to determinations of beryllium contamination and release to the public.</p>
<p><b>RADIATION CONTROL</b></p>		
<p>Decommissioning Plan Contents – must include a description of methods used to ensure protection of workers and the environment against radiation hazards during decommissioning.</p>	<p>RH 3.16.4.3.3</p>	<p>Planned implementation of Site approved procedures to meet 10 CFR 835, “Occupational Radiation Protection” and the Site’s IWCP process will be described for proposed actions.</p>
<p>Decommissioning Plan Contents – must include a description of the planned final radiation survey.</p>	<p>RH 3.16.4.3.4</p>	<p>Planned implementation of the Decommissioning Characterization Protocols or any final sampling and analysis plan for environmental media will be described.</p>
<p>Decommissioning Plan will be approved by CDPHE if information therein meets RH 3.16, and RH 4.61, decommissioning is completed as soon as practicable, and health and safety of the public is adequately protected.</p>	<p>RH 3.16.4.6</p>	<p>Planned implementation of Site approved procedures to meet 10 CFR 835 and the Site’s IWCP process, which includes Lead Regulatory Agency involvement, will be described for proposed actions. The Closure Project Baseline is focused on achieving decommissioning as soon as practicable.</p>
<p>Site radiation survey to establish residual contamination levels and/or confirm absence of contamination. As appropriate, survey building/outdoor areas that contain residual radioactivity.</p>	<p>RH 3.16.6.2</p>	<p>Requirements for radiation surveys are met through the Building-Specific Characterization Plans for facility decommissioning.</p>
<p>Submittal of final survey report, units and other information – specifies, as appropriate, that gamma levels be reported at 1 meter from surface in microrem/hr, removable and fixed contamination in DPM/100 cm<sup>2</sup>, and radioactive concentrations in pCi/L or per gram; identify instruments used and certify proper calibration/testing.</p>	<p>RH 3.16.6.3</p>	<p>Same as RH 3.16.6.2 above</p>

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
<p><i>Criteria for license termination based on CDPHE determination that (1) radioactive materials have been properly disposed; (2) licensee has demonstrated that regulatory requirements for termination have been met; (3) the licensee has established a long-term care warranty; if required; and (4) institutional controls have been implemented to limit public doses, if required.</i></p>	<p><i>RH 3.16.7</i></p>	<p><i>Although license termination is not relevant to Rocky Flats, CDPHE believes the substantive criteria in this regulation are relevant and appropriate to determining the end point for decommissioning at Rocky Flats.</i></p>
<p><i>Additional cleanup can be required if, based on new or previously unknown information, CDPHE finds that criteria in RH 4.61 not met and residual radioactivity remaining at site could result in significant threat to public health and safety.</i></p>	<p><i>RH 3.16.8</i></p>	<p><i>This standard is generally consistent with the "imminent and substantial endangerment" standard under CERCLA. Present risk of future harm (e.g., a risk of cancer due to long-term exposure) can be an "imminent" threat.</i></p>
<p><i>Radiation Protection Program – To extent practicable, procedures and controls used shall be based on sound radiation protection principles to achieve public doses that are ALARA.</i></p>	<p><i>RH 4.5.2</i></p>	<p><i>Planned implementation of Site approved procedures to meet 10 CFR 835, "Occupational Radiation Protection" and the Site's IWCP process, which includes Lead Regulatory Agency involvement, will be described for proposed actions.</i></p>
<p><i>Radiation Protection Program – Imposes constraint on air emissions of radioactive material to the environment. "Individual member of the public likely to receive the highest dose" will not be expected to receive a TEDE greater than 10 mrem/yr from air emissions. Requires exceedance reporting and corrective action to ensure against recurrence.</i></p>	<p><i>RH 4.5.4</i></p>	<p><i>Listed only for completeness of this table. NESHAPS already identified as ARAR. Radionuclide NESHAPS required monitoring established at site perimeter is used to determine potential for exposure to individual member of the public.</i></p>
<p><i>Surveys shall be made as necessary to evaluate radiation levels, concentrations of radioactive material and potential radiological hazards that could be present.</i></p>	<p><i>RH 4.17.1</i></p>	<p><i>Planned implementation of Site approved procedures to meet 10 CFR 835, "Occupational Radiation Protection" and the Site's IWCP process, which includes Lead Regulatory Agency involvement, will be described for proposed actions. Requirements for radiation surveys are met through the Building-Specific Characterization Plans for facility decommissioning.</i></p>

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
<i>Instruments and equipment used for qualitative radiation measurements must be calibrated at intervals not to exceed 12 months, unless otherwise noted by regulation.</i>	<i>RH 4.17.2</i>	
<b>AIR QUALITY</b>		
Emission Controls for Particulates, Smokes, Carbon Monoxide, and Sulfur	5 CCR 1001-3 Reg. 1	Control of emissions for smoke, particulate, and volatiles of concern. Implemented for construction activities, haul roads, haul trucks, demolition activities.
Emissions of Volatile Organic Compounds	5 CCR 1001-9 Reg.7	
Air Pollution Emission Notice (compliance with National Ambient Air Quality Standards [NAAQS])	5 CCR 1001-3 Reg. 3	Air Pollution Emission Notices are used by the State to help determine State compliance with the NAAQS.
National Emission Standards for Emissions of Radionuclides Other than Radon from DOE Facilities (compliance with NESHAP)	40 CFR 61 Subpart H	Regulated radionuclide emissions from DOE facilities with a limit of ten millirem (mrem) per year. Site Standard.
Ambient Air Quality Standards (compliance with NAAQS)	5 CCR 1001-14	Maintain quality of ambient air for criteria pollutants
Control of Hazardous Air Pollutants (asbestos)	5 CCR 1001-10 Reg. 8	Standards for demolition, storage, and handling of asbestos containing material; emission standards and work place practice requirements; implemented through specific operational directions in IWCPs.
Control of Hazardous Air Pollutants	5 CCR 1001-10 Reg. 8	Implemented if the remedial action involves a specific regulated pollutant (e.g., lead).
Control of Emission Ozone Depleting Compounds	5 CCR 1001-19 Reg. 15	Ensure refrigerants are disposed of properly. Approved vessel recovery method must be used.

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
<b>WATER QUALITY</b>		
EPA Administered Permit Programs: The National Pollutant Discharge Elimination System (NPDES)	40 CFR Part 122  40 CFR Part 125  5 CCR 1002-8	Requirements for discharge of storm water or treated wastewater into surface water bodies.  Criteria and standards for the NPDES.  Identify and protect all connections to the sanitary collection system.
<b>SOLID (SANITARY) WASTE</b>		
Solid Waste Disposal Sites and Facilities  Definitions  Exemptions	6 CCR 1007-2  Section 1.2  Section 1.4.3	“Recyclable materials” means any type of discarded or waste material that is not regulated under Section 25-8-205(1)(e), C.R.S., and can be reused, remanufactured, reclaimed, or recycled.  This is the exemption for recyclable material.
<b>RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)</b>		
<i>Identification and listing of hazardous wastes</i>	<i>6 CCR 1007-3, Part 261 (40 CFR Part 261)</i>	
Generator Standards  Hazardous waste determinations  Hazardous waste accumulation areas	6 CCR 1007-3 Part 262 (40 CFR Part 262)  .11  34 (a)(1)(i),(ii),(iv, excluding A & B); (a)(3); (a)(4); (c)(1)	Persons who generate solid wastes are required to determine if the wastes are hazardous according to 6 CCR 1007-3 Parts 261, 267, 279 [40 CFR Parts 261, 266, and 279]  Persons who accumulate hazardous waste in containers or tanks must manage the waste in a manner that protects human health and the environment.

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
<p>General Facility Standards</p> <p>Waste Analysis</p> <p>Security</p> <p>General Inspection Requirements</p> <p>Personnel Training Requirements</p> <p>General Requirements for Ignitable, Reactive or Incompatible Wastes</p>	<p>6 CCR 1007-3 Part 264, Subpart B [40 CFR Part 264, Subpart B]</p> <p>.13 (a)</p> <p>.14</p> <p>.15 (a), (c)</p> <p>.16 (a), (b), (c)</p> <p>.17 (a), (b)</p>	<p>The owner/operator of a facility that stores, treats, or disposes of waste must verify the waste has been characterized adequately.</p> <p>The owner/operator of a facility must prevent unauthorized access.</p> <p>The owner/operator of a facility must inspect for malfunctions, deteriorations, and releases, and must remedy any deficiencies noted.</p> <p>Personnel must be trained to maintain the facility in compliance with the regulations.</p> <p>Wastes will be managed to prevent accidental ignition or reaction of ignitable or reactive waste, or the mixing of incompatible waste.</p>
<p>Preparedness and Prevention</p> <p>Design and Operation of a Facility</p> <p>Required Equipment</p> <p>Testing and Maintenance of Equipment</p> <p>Access to Communications or Alarm System</p> <p>Required Aisle Space</p> <p>Arrangement with Local Authorities</p>	<p>6 CCR 1007-3 Part 264, Subpart C [40 CFR 264, Subpart C]</p> <p>.31</p> <p>.32</p> <p>.33</p> <p>.34</p> <p>.35</p> <p>.37</p>	<p>Design facilities to minimize the potential for fire, explosion or release of hazardous waste.</p> <p>Facilities must be equipped with specified equipment to mitigate incidents, should they occur.</p> <p>Equipment must be maintained.</p> <p>Employees must have access to emergency communications when managing hazardous waste.</p> <p>Aisle space must be maintained to allow unobstructed access to emergency personnel and emergency equipment.</p> <p>The owner/operator must make arrangements with specified local emergency personnel.</p>

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**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
<p>Contingency Plan and Emergency Procedures</p> <p>Purpose and Implementation</p> <p>Emergency Coordinator</p> <p>Emergency Procedures</p>	<p>6 CCR 1007-3 Part 264, Subpart D [40 CFR Part 264, Subpart D]</p> <p>.51 (b)</p> <p>.55</p> <p>.56 (a-i)</p>	<p>Emergencies such as fire, explosion, or release of hazardous waste must be mitigated immediately.</p> <p>A designated employee is responsible for coordinating emergency response actions.</p> <p>The Emergency Coordinator must take action in emergency situations</p>
<p>Ground-Water Monitoring</p>	<p>6 CCR 1007-3 Part 264, Subpart F [40 CFR Part 264, Subpart F]</p>	<p>The substantive portions of the groundwater monitoring ARARs for each CERCLA action will be incorporated into the Integrated Monitoring Plan (IMP)</p>
<p>Closure and Post-Closure</p> <p>Closure Performance Standards</p> <p>Disposal or Decontamination of Equipment, Structures, or Soils</p>	<p>6 CCR 1007-3 Part 264, Subpart G [40 CFR Part 264, Subpart G]</p> <p>.111</p> <p>.114</p>	<p>The owner/operator must close the facility in a manner that protects human health and the environment.</p> <p>All hazardous wastes and residues of hazardous waste must be disposed or decontaminated.</p>

Building 776/777 Closure Project  
Decommissioning Operations Plan

Modification #10  
draft 5-15-03

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
Use and Management of Containers	6 CCR 1007-3 Part 264, Subpart I [40 CFR Part 264, Subpart I]	
Condition of Containers	.171	Containers must be maintained in good condition.
Compatibility of Waste in Containers	.172	Wastes must be compatible with containers.
Management of Containers	.173	Containers must be closed except when adding or removing waste.
Inspections	.174	Containers must be inspected weekly.
Containment System Design and Operation Ignitable and Reactive Wastes Incompatible Wastes	.175 .176 .177	Containment must be designed and operated as specified in these sections.
Closure	.178	Hazardous wastes and residues of hazardous waste must be removed or decontaminated from the unit and soils.
Air Emission Standards	.179	Hazardous wastes must be managed in accordance with AA, BB, CC, as appropriate.

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
Tank Systems	6 CCR 1007-3 Part 264, Subpart J [40 CFR Part 264, Subpart J]	
Design and Installation of New Tank Systems or Components	.192 (a-f)	Tank systems must be designed to maintain their integrity when storing or treating hazardous waste.
Containment and Detection of Releases	.193 (a)(i)(1,2,3,5)	Secondary containment must be designed to contain and detect any releases from the tank system.
General Operating Requirements	.194 (a-c)	Tank systems must be maintained in good condition to prevent releases to the environment.
Inspections	.195 (b,c)	Inspections are conducted to identify any tank system integrity concern.
Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems	.196 (a-c),(e)	Actions must be taken as specified in this section.
Closure and Post-Closure Care	.197 (a,b)	During closure all hazardous waste and hazardous waste residues must be removed from the tank system.
Special Requirements for Ignitable and Reactive Wastes	.198	Ignitable or reactive waste must be managed as specified in this section.
Special Requirements for Incompatible Waste	.199	Incompatible waste must not be introduced into a tank system unless 264.17(b) is complied with.
Air Emission Standards	.200	All hazardous waste shall be managed in accordance with AA, BB, CC
Corrective Action for Solid Waste Management Units	6 CCR 1007-3 Part 264, Subpart S [40 CFR Part 264, Subpart S]	
Temporary Units	.553 (a-c)	Temporary units allow flexibility. Alternative compliance options are included in the waste management section of this CERCLA/RFCA decision document

**Appendix F - Building 776/777 Closure Project ARARs**

REQUIREMENT	CITATION	COMMENT
<p>Miscellaneous Units</p> <p>Environmental Performance Standards</p> <p>Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action</p>	<p>6 CCR 1007-3 Part 264, Subpart X [40 CFR Part 264, Subpart X]</p> <p>.601</p> <p>.602</p>	<p>Miscellaneous units must be designed, constructed, operated and maintained in a manner that protects groundwater, surface water, wetlands, soils, and air.</p> <p>Miscellaneous units must be managed to ensure compliance with 264.15 (inspections), 264.33 (testing and monitoring), 264.101 (corrective action for releases).</p>
<p>Land Disposal Restrictions</p> <p>Dilution Prohibited as a Substitute for Treatment</p> <p>LDR Determination (Determination if Hazardous Waste Meets the LDR Treatment Standards)</p> <p>Special Rules for Wastes that Exhibit a Characteristic</p>	<p>6 CCR 1007-3 Part 268 [40 CFR Part 268]</p> <p>.3</p> <p>.7</p> <p>.9 (a-c)</p>	<p>LDR determinations must be completed for all hazardous wastes generated.</p> <p>Land disposal restrictions apply primarily to the off-site disposal actions proposed as part of the remedial activity. All of the applicable substantive and administrative regulatory requirements apply to off-site actions.</p>

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REQUIREMENT	CITATION	COMMENT
Management of Universal Waste	6 CCR 1007-3 Part 273	Addresses the management of specifically identified batteries, pesticides, and thermostats.
Disposal, Dilution, and Treatment Prohibitions	[40 CFR Part 273] .31	A large quantity handler of universal waste is prohibited from disposing, diluting, or treating universal waste, except during responses to releases.
Waste Management	.33	Management of universal waste must be conducted in accordance with this section.
Labeling and Marking	.34	Universal waste and the associated accumulation areas must be labeled and marked as defined in this section.
Employee Training	.36	Employees who must be trained on waste management requirements and on emergency procedures according to their responsibilities.
Response to Releases	.37	Universal waste handlers must contain releases of universal wastes, and must manage the resulting waste, as appropriate, in accordance with the hazardous waste regulations.

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REQUIREMENT	CITATION	COMMENT
Standards for the Management of Used Oil	6 CCR 1007-3 Part 279 [40 CFR Part 279]	
Used Oil Specifications	.11	Used oil burned for energy recovery must meet the specifications of this section
Prohibitions	.12	Used oil must not be stored in surface impoundments, be used as a dust suppressant, or be burned in unapproved units according to this section.
Hazardous Waste Mixing	.21	Used oil must be characterized and managed in accordance with 269.10 and this section.
Used Oil Storage	.22	Used oil must be managed in containers or tanks in a manner that protects human health and the environment. Releases must be cleaned up and steps must be taken to prevent re-occurrence.
On-Site Burning in Space Heaters	.23	Used oil may be used as fuel for space heaters if the gases are vented to ambient air, and the maximum capacity of the space heater is not more than 0.5 million Btu per hour.
Performance Standards for Above-Ground Tanks (AST)	7 CCR 1101-14 Part 3	ASTs must be designed, maintained, and operated to prevent releases to the environment.
Normal Venting for Aboveground Tanks	AST.31.5	
Emergency Relief Venting for Fire Exposure for Aboveground Tanks	AST.31.6	
Vent Piping for Aboveground Tanks	AST.31.7	
Tank Openings other than Vents for Aboveground Tanks	AST.31.8	
Standards for Piping, Valves, and Fittings	AST.32	

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REQUIREMENT	CITATION	COMMENT
Operating Requirements for Above-Ground Tanks	7 CCR 1101-14 Part 4	
Collision Protection	AST.40	
Spill and Overfill Control (excluding reporting requirements), Remote Impounding, Secondary Containment	AST.41 (excluding reporting part of AST.41.1(e))	
Operation and Maintenance of Corrosion Protection	AST.42	
Compatibility Requirements for all Tanks	AST.43	
Static Protection for all Tanks	AST.44	
Repairs Allowed (excluding requirement for approvals and inspections by State Oil Inspector)	AST.45 (excluding AST.45(b)(4))	
Out-of-Service, Closure or Change-in-Service	AST.46(c)(1-5)	
Release Detection	7 CCR 1101-14 Part 5 AST.5	
Release Response and Corrective Action  Initial Response  Initial Abatement Measures  Repair or Closure Required	7 CCR 1101-14 Part 7  AST.72(b), (c)  AST.73  AST.74	Under Site operating procedures, responses to leaks or spills is immediate, resulting in cessation of the release and an evaluation of the remediation that will be conducted immediately. Surface spills will be cleaned up and actions will be taken to prevent a release to surface water. Releases that impact soils or groundwater will be identified as a PAC, will be added to the ER Ranking List, and will be incorporated into the integrated Site remediation program.
Oil Pollution Prevention	7 CCR 1101-14 Part 11	
Oil Pollution Prevention: Oil Pollution Prevention SPCC Plan Requirements	AST.112.7(c), (d), (e), 1-2, 4-5)	An SPCC plan is not required as an ARAR; however, the substantive requirements that are incorporated into and implemented as part of the SPCC plan are an ARAR. (e.g., Prediction of the direction, rate and flow of a release from an AST system will be known by the facility and will be available to emergency responders at the facility.)

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REQUIREMENT	CITATION	COMMENT
<b>TOXIC SUBSTANCES CONTROL ACT (TSCA) FOR PCBs</b>		
PCB Use Authorizations	40 CFR 761.30	Lists authorized uses and use restrictions for PCBs
Marking Requirements	40 CFR 761.40 and .45	Labeling of PCBs and PCB storage Areas
Disposal Requirements Applicability Disposal Requirements PCB Remediation Waste PCB Bulk Product Waste Disposal of R&D and Chemical Analyses wastes	40 CFR 761.50  40 CFR 761.60 40 CFR 761.61 40 CFR 761.62 40 CFR 761.64	
Storage Requirements <del>Time limits</del> Facility Criteria Temporary Storage Inspections Container Specifications PCB radioactive waste Marking Laboratory Sample Exemption from Manifesting	40 CFR 761.65	
TSCA Coordinated Approval	40 CFR 761.77	Institutionalizes EPA approval of PCB activities under TSCA when activities are being conducted under another waste management permit, or other decision document issued by EPA or pursuant to a State PCB waste management program
Decontamination Standards and Procedures  Self-Implementing Decontamination Measurement-Based Decontamination	40 CFR 761.79	
PCB Spill Cleanup  Requirements for PCB Spill Cleanup	40 CFR Subpart G	40 CFR 761 Subpart G is entitled PCB Spill Cleanup Policy and thus many of the sections, specifically for spills after May 4, 1987 are "To Be Considered"
Cleanup Site Characterization Sampling for PCB Remediation Waste	40 CFR Subpart N	Characterization requirements for cleanup of PCB remediation waste
Sampling Non-Porous Surfaces for Measurement-Based Use, Reuse, and On-Site Or Off-Site Disposal Under 761361(a)(6) and Determination Under 761.79(b)(3)	40 CFR Subpart P	

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<b>REQUIREMENT</b>	<b>CITATION</b>	<b>COMMENT</b>
Self-Implementing Alternative Extraction and Chemical Analysis Procedures for Non-Liquid PCB Remediation Waste Samples	40 CFR Subpart Q	Applicable procedures when using alternatives to required analytical methodology
Sampling Non-Liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance with 761.62, and Sampling PCB Remediation Waste Destined for Off-Site Disposal, in Accordance with 761.61	40 CFR Subpart R	Characterization requirements for PCB bulk product waste and PCB remediation waste when characterization for disposal is required
Double Wash/Rinse Method for Decontaminating Non-Porous Surfaces	40 CFR Subpart S	Referenced procedure from 761.79
<b>MIGRATORY BIRDS</b>		
Protection of migratory birds through compliance with the Migratory Bird Treaty Act and Wildlife & Fisheries Act	50 CFR 10	Pincipally focuses on the taking and possession of birds and bird nests protected under this regulation. Enforcement is predicated on location of the project and time of year. Current list of protected birds is maintained by the Ecology Group.

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