

**DISTRIBUTION  
PROJECT MANAGERS' MEETING,  
200 AREA GROUNDWATER SOURCE OPERABLE UNITS  
January 23, 2014**

DOE/RL

(No hard copy distribution)

EPA

Emerald Laija

B1-46

Ecology

Nina Menard

H0-57

CHPRC

Lorna Dittmer (original)

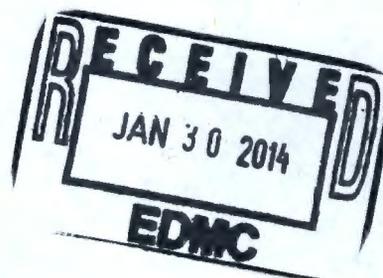
H8-45

Administrative Record (2)

H6-08

Correspondence Control

A3-01



Meeting Minutes Transmittal/Approval  
Project Managers' Meeting  
200 Area Groundwater and Source Operable Units  
January 23, 2013

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APPROVAL: John's Name for DATE: 1/23/14  
Briant Charboneau, 200 Area Unit Manager, DOE/RL

APPROVAL: Craig Cameron for DATE: 1/23/14  
Emerald Latta, 200 Area Project Manager, EPA

APPROVAL: Ken W. Smith for DATE: 1/23/14  
Nina Menard, 200 Area Project Manager, Ecology

HFFACO Action Plan Section 4.1 requires signature of agreements and commitments made during the Project Manager Meeting. Approval of these minutes documents approval of agreements and commitments documented in Attachment 4 to these minutes. Approval does not apply to any other attachments, which are included in these minutes for informational purposes.

**Minutes of the 200 Area Project Managers' Meeting of January 23, 2014 are attached.  
Minutes are comprised of the following:**

<b>Attachment 1</b>	<b>Attendance Record</b>
<b>Attachment 2</b>	<b>Agreements and Issues List</b>
<b>Attachment 3</b>	<b>Action Item List</b>
<b>Attachment 4</b>	<b>Operable Units and Facilities Status</b>
<b>Attachment 5</b>	<b>2013 Annual Sitewide Institutional Control Assessment CH2M HILL Plateau Remediation Company</b>



**200 Area Project Managers' Meeting  
Agreements and Issues List  
January 23, 2014**

**Agreement:** None

**Issue:** None

**Announcements:** None

**Delegations for January 23, 2014 PMM meeting:**

DOE/RL	John Morse for Briant Charboneau
EPA	Craig Cameron for Emerald Laija
Ecology	Kim Welsch for Nina Menard

200 Area Project Managers' Meeting  
January 23, 2014

CHPRC-1400012  
Attachment 3

OPEN ACTION ITEM TRACKING

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Status
138	Meeting between Ecology, EPA and DOE to discuss Central Plateau risk assessment strategy and how they will relate to 200-IS-1	DOE/D. Hildebrand	EPA, Ecology	6/21/12	7/31/13	2/28/2014	Open; TBD
146	TPA Change Notice to add pipelines to IS-1	RL/Doug Hildebrand	Ecology/Kim Welsch	5/16/13	7/15/13	2/28/2014	Open;
147	Adjust frequency of PMM meetings.	Lorna Dittmer	Everyone	11/21/13	12/10/13		Closed
148	Roll out meeting between Ecology, EPA and DOE to discuss Inner Area Principles	DOE/ B. Charboneau	EPA, Ecology	11/21/13	1/9/14		Closed: Meeting scheduled for early Feb. 2014
149	Provide a draft of the Inner Area Principles to be incorporated into the WA-1 work plan	DOE/ B. Charboneau	EPA, Ecology	11/21/13	1/16/14	3/31/2014	Open
150	Reformat meeting minute document	Lorna Dittmer/Gayelyn Gibson	EPA, Ecology, DOE	11/21/13	1/16/14	3/20/2014	Open

200 AREA PROJECT MANAGERS MEETING  
PROJECT STATUS UPDATES

January 23, 2014  
AGENDA

**INSTITUTIONAL CONTROLS ON THE CENTRAL PLATEAU – STATUS**

Attachment: Annual Status Report for Central Plateau Institutional Controls

**CENTRAL PLATEAU INNER AREA**

**Inner Area: Central Plateau Soil Waste Sites**

200-WA-1  
200-BC-1  
200-EA-1  
200-PW-1/3/6 and CW-5

**Inner Area: Central Plateau Burial Grounds**

200-SW-2

**Inner Area: Central Plateau Deep Vadose Zone**

200-DV-1  
200-BC-1/200-WA-1 Tc-99 Desiccation Test

**Inner Area: Canyon Facilities**

**INNER & OUTER AREAS**

200-IS-1

**CENTRAL PLATEAU OUTER AREA**

200-CW-1, 200-CW-3, 200-OA-1  
200-SW-1  
TSD Units

**CENTRAL PLATEAU GROUNDWATER**

200-ZP-1/200 West Area GW Treatment Facility  
200-PW-1 SVE Operations  
200-UP-1  
200-BP-5 TTP  
200-BP-5/200-PO-1

**FUTURE SCOPE (out-year TPA milestones and projects)**

200-UP-1  
200-EA-1/200-IS-1  
U Plant Canyon  
TSD Units  
200 Area GW Plumes  
Canyon Facilities

200 AREA PROJECT MANAGERS MEETING  
PROJECT STATUS UPDATES

January 23, 2014

**INSTITUTIONAL CONTROLS ON THE CENTRAL PLATEAU – STATUS** (RL- Al Farabee/Briant Charboneau, CHPRC – Fred Ruck)

**CENTRAL PLATEAU INNER AREA**

**Inner Area: Central Plateau Soil Waste Sites**

**200-WA-1 EPA Lead**

- **M-015-91A: Submit a RI/FS work plan for the 200-WA-1 OU (200 West Inner Area) to EPA, 12/31/2011** (RL- John Sands, CHPRC – Phil Burke)
  - The Draft A 200-WA-1 OU Work Plan was transmitted to EPA on December 27, 2011, meeting the milestone.
  - EPA's comments on the Draft A 200-WA-1 OU Work Plan were received on May 15, 2012.

**Schedule Status:** Milestone complete. Rev. 0 currently on hold pending discussion between the agencies on inner area cleanup principles.

**Regulatory Agency Comments:** N/A

**200-BC-1 and 200-WA-1 EPA Lead** (RL- John Sands, CHPRC – Phil Burke)

- **M-015-91B: Submit Feasibility Study Report(s) and Proposed Plan(s) for the 200-BC-1/200-WA-1 operable units (200 West Inner Area) to EPA, 12/31/2015**

**Schedule Status:** On Schedule.

**Regulatory Agency Comments:** N/A

**200-EA-1 Ecology Lead** (RL- Doug Hildebrand, CHPRC – Phil Burke)

- **M-015-92A, Submit a RFI/CMS & RI/FS work plan for the 200-EA-1 OU (200 East Inner Area) to Ecology, 6/30/2015**

**Schedule Status:** On Schedule.

**Regulatory Agency Comments:** N/A

**200-PW-1/3/6 and CW-5 ROD Implementation EPA Lead** (RL- Greg Sinton, CHPRC – Phil Burke)

- **M-016-125: Submit a Remedial Design/Remedial Action Work Plan for 200-CW-5 and 200-PW-1/3/6 to EPA as described in Section 12.4 of the associated ROD, 9/30/2015**

**Schedule Status:** On Schedule.

**Regulatory Agency Comments:** N/A

**Inner Area: Central Plateau Burial Grounds**

**200-SW-2 Ecology Lead (RL- Doug Hildebrand, CHPRC – Phil Burke)**

- **M-015-113: Submit Draft B, 200-SW-2 Radioactive Landfills Group RFI/CMS/RI/FS Work Plan to Ecology, including a schedule of completion dates for major tasks and deliverables, 2/28/2014**

**Schedule Status:** Dispute Resolution. On November 15, 2013 a draft TPA change package was provided to Ecology to adjust the milestone due date to the end of fiscal year 2014. On December 3, 2013 Ecology responded and disapproved the milestone extension citing lack of good cause. On December 10, 2013, RL invoked TPA dispute resolution and requested an extension to resolve issues at the project manager level. On January 3, 2014 Ecology agreed to extend the dispute period to February 14, 2014. The parties have scheduled a workshop for early February to discuss Central Plateau Inner Area principles and finalization of the IS-1, SW-2, and WA-1 work plans.

**Regulatory Agency Comments:** N/A

**Inner Area: Central Plateau Deep Vadose Zone**

**200-DV-1 RI/FS Ecology Lead (RL – John Morse, CHPRC – Mark Byrnes)**

- **M-015-110A: Submit RFI/CMS & RI/FS work plan for the 200-DV-1 OU to Ecology. The work plan shall include technology screening that identifies technologies applicable for characterization, treatment, and monitoring of Deep Vadose Zone contaminants, 3/31/2015**
  - The B Area perched water removal system continued operations, removing approximately 1,700 gallons of effluent water per week. As of the end of December 2013, 174,540 gallons of effluent have been removed since system startup.
  - The drilling of two additional perched water extraction wells is scheduled to begin in January 2014.
  - Regulator comments on the perched water EE/CA were incorporated and the document is in the process of being issued.

**Schedule Status:** Preparation of the draft A RI/FS work plan is on schedule to meet the TPA milestone.

**Regulatory Agency Comments:** N/A

**200-DV-1 Ecology Lead (RL – John Morse, CHPRC – Mark Byrnes)**

- **M-015-110B: Submit CMS & FS and PP/PCAD for the 200-DV-1 OU to Ecology, 9/30/2015**

**Schedule Status:** On Schedule.

**Regulatory Agency Comments:** N/A

**200-BC-1/200-WA-1 Tc-99 Desiccation Test EPA Lead (RL – John Morse, CHPRC – Glen Chronister)**

- **M-015-110D: Submit technetium-99 pilot scale treatability study test report(s) as an element of the RI for the 200-BC-1/200-WA-1 OUs to EPA, 6/30/2012 (Complete)**
  - The active/operations portion of the Desiccation Pilot Test was completed on June 30, 2011. The project is now in a five year rebound monitoring process. An interim report of the operation and rebound testing was prepared at the end of FY2013.

**Schedule Status:** Milestone complete, rebound monitoring ongoing.

**Regulatory Agency Comments:** N/A

### Inner Area: Canyon Facilities

**Canyon Facilities EPA/Ecology Lead** (RL – Ray Corey, CHPRC – Moses Jaraysi)

- **M-085-02, Submit Change Package to Establish Schedule for Submittal of RI/FS Work Plans for Canyons and RAWPs for 224B & 224T, 9/30/2015**

**Schedule Status:** On Schedule.

**Regulatory Agency Comments:** N/A

### INNER & OUTER AREAS

**200-IS-1 Ecology Lead** (RL- Doug Hildebrand, CHPRC – Phil Burke)

- **M-015-112: Submit Draft B 200-IS-1 OU Pipeline System Waste Sites RFI/CMS/RI/FS WP to Ecology, including a schedule of completion dates for major tasks and deliverables, 2/28/2014.**
  - The Draft A 200-IS-1 OU Work Plan was transmitted to Ecology on November 14, 2011, meeting the milestone M-015-90.
  - Ecology comments on the Draft A 200-IS-1 OU Work Plan were received on April 2, 2012.

**Schedule Status:** Dispute Resolution. On November 15, 2013 a draft TPA change package was provided to Ecology to adjust the milestone due date to the end of fiscal year 2014. On December 3, 2013 Ecology responded and disapproved the milestone extension citing lack of good cause. On December 10, 2013, RL invoked TPA dispute resolution and requested an extension to resolve issues at the project manager level. On January 3, 2014 Ecology agreed to extend the dispute period to February 14, 2014. The parties have scheduled a workshop for early February to discuss Central Plateau Inner Area principles and finalization of the IS-1, SW-2, and WA-1 work plans.

**Regulatory Agency Comments:** N/A

### CENTRAL PLATEAU OUTER AREA

**200-CW-1, 200-CW-3, 200-OA-1 EPA Lead** (RL –Greg Sinton, CHPRC – Phil Burke)

- **M-015-38B, Submit a revised FS Report and revised PP(s) for 200-CW-1, 200-CW-3, and 200-OA-1 OUs for Waste Sites in the Outer Area of the Central Plateau to EPA, 10/30/2014**
  - Milestone status reported as “to be missed” at the TPA Quarterly Milestone Review January 16, 2014. This activity has not been funded, and preparation of a revised FS Report and PP(s) has not been initiated.

**Schedule Status:** To Be Missed.

**Regulatory Agency Comments:** N/A

**200-SW-1 Ecology Lead** (RL- Doug Hildebrand, CHPRC – Marty Doornbos)

- EA released for public review August 29, 2011. The last of the public comments were received on November 17, 2011.

**Schedule Status:** EA has not been issued.

**Regulatory Agency Comments:** N/A

**TSD Units Ecology Lead (RL – John Sands, CHPRC – Phil Burke)**

- **M-037-03: Submit Revised Closure Plans to support TSD closure for two (2) TSD Units: 216-B-3 Main Pond system, and 216-S-10 Pond and Ditch, 4/30/13**
  - The two closure plans were submitted to Ecology on April 23, 2013.
  - Ecology issued a letter on July 12, 2013 (Notice of Deficiencies for the 216-B-3 Main Pond Closure- DOE/RL-2013-24, Draft A and the 216-S-10 Pond and Ditch Closure Plan- DOE/RL-2006-12, Draft B), requesting DOE to revise and resubmit the closure plans correcting the deficiencies as part of Rev. 9 or as a permit modification.
  - DOE NOD responses extended to December 9, 2013 to enable coordination with Ecology guidance documents in support of the Hanford RCRA permit.
  - Transmitted NOD responses on December 3, 2013.

**Schedule Status:** Milestone complete; plans undergoing NOD process

**Regulatory Agency Comments:** N/A

**TSD Units Ecology Lead (RL – Joe Axtell, CHPRC – Phil Burke)**

- **M-037-02, submit Revised Closure Plans to support TSD closure for five (5) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, and 216-B-63 Trench, 06/30/2014**

**Schedule Status:** On Schedule

**Regulatory Agency Comments:** N/A

**CENTRAL PLATEAU GROUNDWATER**

**200-ZP-1/200 West Area GW Treatment Facility EPA Lead (RL – John Morse, CHPRC – Mark Byrnes)**

- During the month of December 2013, the pumping rates at the 200 West P&T ranged from ~1,450 gpm to 1,484 gpm. The two ion exchange resin trains were run between 403 gpm and 516 gpm combined capacity, removing technetium-99 from groundwater from wells near the TX-TY Tank Farm, T Tank Farm, as well as S-SX Tank Farm.
- On December 6, 2013 the level transmitter for the recycle tank began to fail which resulted in the shut down of the FBR feed pumps. The plant was shut down to prevent overflowing the MBRs/Splitter structure. The plant was re-started 3 hours later after repairs were made.
- On December 25, 2013 injection well 299-W18-39 and ITB-3 shut down the plant due to radio failure. The plant was re-started late in the day December 26, 2013 after repairs were made.
- On December 29, 2013 the plant shutdown for 4 hours due to a failure of a data switch in the RAD building that caused the loss of communications with ETB-2, ETB-3 and ITB-2.
- 246 kg of carbon tetrachloride and 4,631 kg of nitrate as N (or 20,509 kg nitrate as NO<sub>3</sub>) were recovered during December 2013.
- The average concentration of contaminants of concern in the effluent water remains below the cleanup levels specified in the record of decision.

**Regulatory Agency Comments:** N/A

**200-PW-1 Soil Vapor Extraction Operations** *EPA Lead (RL – John Morse, CHPRC – Mark Byrnes)*

- A rebound study is currently in process. In late March 2014, soil vapor concentrations in wells will be measured and a decision made whether or not to perform active SVE operations in FY2014.
- A plan is currently being prepared that identifies the steps that need to be completed prior to terminating all future SVE operations in the 200-PW-1 OU.

**Regulatory Agency Comments:** N/A

**200-UP-1 Remedy Implementation** *EPA Lead (RL – Naomi Jaschke, CHPRC – Curt Wittreich)*

- **M-016-190: Complete the installation of extraction and injection wells for the U Plant area pump & treat system for uranium and technetium-99, and the iodine-129 hydraulic containment system as defined in the 200-UP-1 RD/RAWP, 9/30/2015**
  - The remedial design process for the U Plant area uranium plume was initiated.
  - Feasibility study for uranium extraction and treatment at 200 West P&T to be completed in January.

**Schedule Status:** On Schedule.

**Regulatory Agency Comments:** N/A

**200-BP-5 TTP** *Ecology Lead (RL – John Morse, CHPRC – Curt Wittreich)*

- **M-015-82A: Submit Treatability Test Plan as Amendment of 200-BP-5 WP, 12/31/2010**
- **M-015-82B: Initiate 200-BP-5 Aquifer Tests Within 6 months of TTP Approval, approval of TPP + 6 months**
  - Treatability Test construction was completed, but due to FY12 funding constraints, performance of the test was delayed. The scope of the treatability test plan is being reevaluated.

**Schedule Status:** Milestones complete; treatability test not funded in FY2014.

**Regulatory Agency Comments:** N/A

**200-BP-5, PO-1 FS** *Ecology Lead (RL – John Morse, CHPRC – Curt Wittreich)*

- **M-015-21A, Submit a 200-BP-5 and 200-PO-1 OU FS Report and PP(s) to Ecology, 6/30/2015**
  - Work on the 200-BP-5 RI Report was reinitiated. The most current groundwater data set is being compiled for both 200-BP-5 and 200-PO-1 to prepare a 200-BP-5 baseline risk assessment and to prepare a supplemental analysis for 200-PO-1 (the 200-PO-1 RI Report was issued October 2012). The goal is to have a current and integrated database for both OUs in support of the combined OU FS.

**Schedule Status:** Preparation of the draft 200-BP-5 RI Report is funded in FY2014. The FS Report is not funded in FY2014.

**Regulatory Agency Comments:** Ecology has requested a meeting to discuss schedule for the RI.

**FUTURE SCOPE (TPA milestones and projects scheduled for CY 16 and later)**

**200-UP-1 Remedy Implementation EPA Lead (RL – Naomi Jaschke, CHPRC – Curt Wittreich)**

- **M-016-191: Complete acceptance test procedures and operational test procedures and initiate startup operations for the U Plan area P&T for uranium and tech-99, and Iodine-129 hydraulic containment system, 3/30/2016**
- **M-016-192: Submit I-129 Technology Evaluation Plan Draft A to EPA as defined in the UP-1 RD/RA WP, 6/17/2016**

**200-EA-1 & 200-IS-1 Ecology Lead (RL- Doug Hildebrand, CHPRC – Phil Burke)**

- **M-015-92B: Submit CMS & FS Report(s) & Proposed CA Decision(s)/PP(s) for the 200-EA-1 and 200- IS-1 OUs (Central Plateau 200 East Inner Area) to Ecology, 12/31/2016**

**200-UP-1 Remedy Implementation EPA Lead (RL – Naomi Jaschke, CHPRC – Curt Wittreich)**

- **M-016-193: Complete the remedial design investigation of the SE chromium plume, including the installation of new wells and evaluation of the GW monitoring data and install monitoring wells needed for remedy performance monitoring as defined in the UP-1 RD/RA WP, 9/30/2017**

**U Plant Canyon EPA Lead (RL – Wade Woolery, CHPRC – TBD)**

- **M-016-200A, Complete U Plant Canyon (221-U) demolition in accordance with the RD/RAWP, 9/30/2017**
- **M-016-200B, Complete U Plant Canyon (221-U) barrier construction in accordance with the RD/RAWP, 9/30/2021**

**TSD Units**

- **M-037-11, Complete unit-specific closure requirements for two (2) TSD Units; 216-B-3 Main and Pond system and 216-S-10 Pond and Ditch, 9/30/2016**
- **M-037-10, Complete Unit-Specific Closure Requirements According To The Closure Plan(s) For seven (7) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A36B Crib, 216-A-37-1 Crib, 216-B-63 Trench, Hexone Storage and Treatment Facility (276-S-141/142), and 241-CX Tank System (241-CX-70/71/72), 9/30/2020**

**GW Plumes EPA/Ecology Lead (RL – John Morse)**

- **M-016-119-T01, Remedy in Place to Contain GW Plumes in 200 NPL Area, 12/31/2020**

**Canyon Facilities EPA/Ecology Lead (RL – Ray Corey, CHPRC – Moses Jaraysi)**

- **M-085-01, Submit a Change Package to Establish Date for Major Milestone M-085-00, 9/30/2022**

**2013 ANNUAL SITEWIDE INSTITUTIONAL CONTROL ASSESSMENT  
CH2M HILL PLATEAU REMEDIATION COMPANY**

Table 1. Institutional Controls Requirements Listed in Record of Decision for Interim Remedial Action for Hanford 200 Area, 200-UP-1 Operable Unit (Required through time of completion of the remedy.)

<b>Institutional Controls Category</b>	<b>Institutional Controls Requirement</b>	<b>2013 Status</b>
Entry Restrictions	The DOE shall control access to 200-UP-1 OU Groundwater to prevent unacceptable exposure of humans to contaminants, except as otherwise authorized in lead regulatory agency approved documents.	No findings, access controls still in place.
Land-Use Management	Visitors entering any site areas of the 200-UP-1 OU will be required to be badged and escorted at all times.	No findings, work plans are being/have been submitted for approval.
Land-Use Management	No intrusive work shall be allowed in the 200-UP-1 OU unless the lead regulatory agency has approved the plan for such work and that plan is followed.	No findings, no unauthorized wells have been drilled.
Groundwater-Use Management	The DOE shall prohibit well drilling in the 200-UP-1 OU, except for monitoring, characterization, or remediation wells authorized in EPA approved documents.	No findings, no unauthorized well drilling.
Groundwater-Use Management	Groundwater use at the 221-U Facility site is prohibited, except for limited research purposes and monitoring and treatment authorized in EPA approved documents.	No findings, no unauthorized groundwater use has occurred.
Warning Notices	The DOE shall post and maintain warning signs along pipelines conveying untreated groundwater that caution site visitors and workers of potential hazards from the 200-UP-1 OU.	No findings.
Miscellaneous Provision	In the event of any unauthorized access (e.g. trespassing), DOE shall report such incidents to the Benton County Sheriff's Office for investigation and evaluation of possible prosecution.	No findings, no unauthorized access or trespass.
Land-Use Management	Activities that would disrupt or lessen the performance of the any component of the remedy are to be prohibited, except as otherwise authorized in lead regulatory agency approved documents.	No findings, no activities have been implemented that would disrupt/lessen performance of the interim remedy

Table 1. Institutional Controls Requirements Listed in Record of Decision for Interim Remedial Action for Hanford 200 Area, 200-UP-1 Operable Unit (Required through time of completion of the remedy.)

Institutional Controls Category	Institutional Controls Requirement	2013 Status
Miscellaneous Provision	The DOE shall prohibit activities that would damage the remedy components (e.g. extraction wells, piping, treatment plant, and monitoring wells), except as otherwise authorized in lead regulatory agency approved documents.	No findings.
Land-Use Management	The DOE will prevent the development and use of property above the 200-UP-1 OU for residential housing, elementary and secondary schools, childcare facilities, and playgrounds.	No findings.
Miscellaneous Provision	The DOE shall report on the effectiveness of ICs for the 200-UP-1 OU interim remedy in an annual report, or on an alternative reporting frequency specified by the lead regulatory agency. Such reporting may be for the 200-UP-1 OU alone or may be part of the Hanford Site wide report.	No findings, included in annual report.
Land-Use Provision	Measures that are necessary to ensure continuation of ICs shall be taken before any lease or transfer of any land above the 200-UP-1 OU. DOE will provide notice to Ecology and EPA at least 6 months before any transfer or sale of 200-UP-1 OU or any land above the 200-UP-1 OU so that the lead regulatory agency can be involved in discussions to ensure that appropriate provisions are included in the transfer terms or conveyance documents to maintain effective ICs. If it is not possible for DOE to notify Ecology and EPA at least 6 months before any transfer or sale, DOE will notify Ecology and EPA as soon as possible, but no later than 60 days before the transfer or sale of any property subject to ICs. In addition to the land transfer notice and discussion provisions, DOE further agrees to provide Ecology and EPA with similar notice, within the same time frames, as to federal-to-federal transfer of property. DOE shall provide a copy of the executed deed or transfer assembly to Ecology and EPA.	No findings, no transfer/sale of land has taken place.
Miscellaneous Provision	DOE shall notify EPA and Ecology immediately upon discovery of any activity inconsistent with the OU-specific institutional control objectives for the Site.	No findings, no inconsistent activity discovered.

Table 2. Institutional Controls Requirements (Required through the Time of Completion of Remedy Construction) Listed in Record of Decision for 221-U Facility (Canyon Disposition Initiative).

Institutional Controls Category	Institutional Controls Requirement	2013 Status
Entry Restrictions	DOE shall control access to prevent unacceptable exposure of humans to contaminants at the 221-U Facility site addressed in the scope of this ROD until remedy construction is complete. Visitors entering any site areas are required to be badged and escorted at all times. See Figure 7 of the 221-U Facility ROD (US EPA 2005) for a site map showing the extent of the 221-U Facility site and the boundaries of the land-use controls. A more detailed map will be developed and included in the RD/RA work plan to be approved by EPA and Ecology.	No findings, access controls still in place.
Land-Use Management	No intrusive work shall be allowed at the 221-U Facility site unless the EPA and Ecology have approved the plan for such work and that plan is followed.	No findings, work plans are being/have been submitted for approval.
Land-Use Management	DOE shall prohibit well drilling at the 221-U Facility site except for monitoring, characterization, or remediation wells authorized in EPA-and Ecology-approved documents.	No findings, no unauthorized wells have been drilled.
Groundwater-Use Management	Groundwater use at the 221-U Facility site is prohibited, except for limited research purposes and monitoring and treatment authorized in EPA-and Ecology-approved documents. This prohibition applies until drinking water standards are achieved and EPA and Ecology authorize removal of restrictions. Decision documents for the 200-UW-1 Source Operable Unit and 200-UP-1 Groundwater Operable Unit as well as the Sitewide institutional controls plan will contain the institutional controls and implementing details prohibiting well drilling and groundwater use in the U Plant Area and portions of the 200 West Area as defined in those decision documents.	No findings, no unauthorized groundwater use has occurred.
Warning Notices	DOE shall post and maintain warning signs along access roads to caution site visitors and workers of potential hazards from the 221-U Facility site.	No findings, warning signs are in place.
Miscellaneous Provision	In the event of any unauthorized access to the site, such as trespass, DOE shall report such incidents to the Benton County Sheriff's Office for investigation and evaluation of possible prosecution.	No findings, no unauthorized access to the site has occurred.

Table 3. Institutional Controls Requirements Listed in Record of Decision Hanford 200 Area 200-ZP-1 OU Superfund Site Benton County, Washington (2 Sheets).

Institutional Controls Category	Institutional Controls Requirement	2013 Status
Entry Restrictions	The DOE shall control access to prevent unacceptable exposure of humans to contaminants in the 200-ZP-1 OU groundwater addressed in the scope of this ROD until the remedy is complete. Visitors entering any site areas of the 200-ZP-1 OU will be required to be badged and escorted at all times.	No findings, access controls are in place.
Land-Use Management	No intrusive work shall be allowed in the 200-ZP-1 OU unless EPA has approved the plan for such work and that plan is followed.	No findings, work plans are being/have been submitted for approval.
Land-Use Management	The DOE shall prohibit well drilling in the 200-ZP-1 OU, except for monitoring, characterization or remediation wells authorized in EPA approved documents.	No findings, no unauthorized wells have been drilled.
Groundwater-Use Management	Groundwater use in the 200-ZP-1 OU is prohibited, except for limited research purposes, monitoring, and treatment authorized in EPA approved documents. The <i>Sitewide Institutional Controls Plan</i> will contain the institutional controls and implementing details prohibiting well drilling and groundwater use in the 200-ZP-1 OU, as defined in the Decision document for the 200-ZP-1 OU.	No findings, no unauthorized groundwater use has occurred.
Warning Notices	The DOE shall post and maintain warning signs along pipelines conveying untreated groundwater that caution site visitors and workers of potential hazards from the 200-ZP-1 OU groundwater.	No findings, signs have been/will be installed along pipelines.
Miscellaneous Provision	In the event of any unauthorized access to the site (e.g., trespassing), DOE shall report such incidents to the Benton County Sheriff's Office for investigation and evaluation of possible prosecution.	No findings, no unauthorized access to the site has occurred.
Land-Use Management	Activities that would disrupt or lessen the performance of the pump-and-treat, MNA (Monitored Natural Attenuation), and flow-path control components of the remedy are to be prohibited.	No findings, no activities have been implemented that would disrupt/lessen performance of remedy.
Land-Use Management	The DOE shall prohibit activities that would damage the pump-and-treat, MNA, and flow-path control components (e.g., extraction wells, injection wells, piping, treatment plant, or monitoring wells).	No findings, no activities have been implemented that would damage the remedy components.

Table 3. Institutional Controls Requirements Listed in Record of Decision Hanford 200 Area 200-ZP-1 OU Superfund Site Benton County, Washington (2 Sheets).

<b>Institutional Controls Category</b>	<b>Institutional Controls Requirement</b>	<b>2013 Status</b>
Miscellaneous Provision	The DOE shall report on the effectiveness of institutional controls for the 200-ZP-1 OU remedy in an annual report, or on an alternative reporting frequency specified by EPA. Such reporting may be for this OU alone or may be part of a Hanford sitewide report.	No findings.
Land-Use Management	The DOE will provide notice to EPA at least six months prior to any transfer or sale of the any land above the 200-ZP-1 OU so EPA can be involved in discussions to ensure that appropriate provisions are included in the transfer terms or conveyance documents to maintain effective institutional controls. If it is not possible for DOE to notify EPA at least six months prior to any transfer or sale, then the DOE will notify EPA as soon as possible but no later than 60 days prior to the transfer or sale of any property subject to institutional controls. In addition to the land transfer notice and discussion provisions above, the DOE further agrees to provide EPA with similar notice, within the same time frames, as to federal-to-federal transfer of property. The DOE shall provide a copy of executed deed or transfer assembly to EPA.	No findings, no transfer/sale of land has taken place.
Land -Use Management	The DOE will prevent the development and use of property above the 200-ZP-1 groundwater OU for residential housing, elementary and secondary schools, childcare facilities and playgrounds.	No findings, no property development has taken place.
Land -Use Management	Land use controls will be maintained until cleanup levels are achieved and the concentrations of hazardous substances in groundwater are at such levels to allow for unrestricted use and exposure and EPA authorizes the removal of restrictions.	No findings, land use controls are still in place.

Table 4. Institutional Controls Requirements Listed in EPA/ROD/R10-93/063 1993 Record of Decision 1100-EM-1, 1100-EM2, 1100-EM-3, and 1100-IU-1 Operable Units, Explanation of Significant Differences, Horn Rapids Landfill.

Institutional Controls Category	Institutional Controls Requirement	2013 Status
Land-Use Management Entry Restrictions	Institutional controls are required to prevent human exposure to the landfill soil. DOE is responsible for establishing and maintaining land-use and access restrictions through fencing and signs.	No findings, land use access restriction still in place.
Land-Use management	Use of the landfill property or residential housing, elementary and secondary schools, or childcare facilities is prohibited the remedial activity without the lead agency's concurrence.	No findings, no activities have occurred.
Land-Use Management	In addition, measures necessary to ensure the continuation of this restriction will be taken in the event of any transfer or lease of the property before the final remedy is selected. A copy of the notification in a land-use plan will be given to any prospective purchaser/transfer before any transfer or lease. DOE will provide the Washington State Department of Ecology and U.S. Environmental Protection Agency notification at least six months prior to any transfer, sale or lease of the landfill property.	No findings.