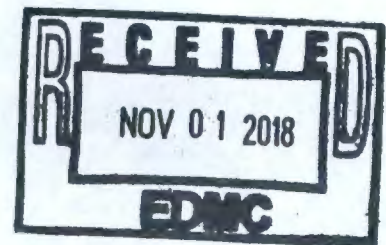


HANFORD MISSION SUPPORT CONTRACT

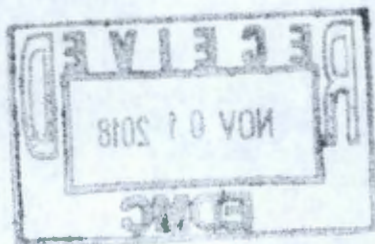


LONG-TERM STEWARDSHIP SURVEILLANCE AND MAINTENANCE PLAN

HNF-54166, REV. 4



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Revision History HNF-54166

Revision Number	Date Revised	Description
1	December 2013	Updated Table 1 to add new procedures and provide additional information.
		Added a paragraph to Section 5.2 to address maintenance of non-institutional control signs and fences.
		Added a new Section 5.4.2 to address assessment of fences and signs around the bat habitats.
		Added a new Section 5.7 to address waste management.
		Added a paragraph on Nuclear Safety in Section 7. Added a new section 7.3.1 to address MSA procedures applicable to S&M activities.
		Added rows listing monthly monitoring for temperature and water at the reactors and change management process to Table 2.
		Combined Sections 5.4 and 5.4.1 to eliminate duplication.
		Tables A-1, A-2, and A-6 were revised to address reactors 105-C, 105-DR, 105-D, 105-H, and 105-N/109-N.
		Deleted waste site 118-F-8:2, listed in Table A-3 because it does not require institutional controls.
		Deleted waste sites that met the 25% native canopy criteria after 5 years of monitoring from Table A-6.
		Revised Reference Section 9.0 to add Closure Verification Packages and Waste Site Reclassification Form identified in Table A-3.
2	April 2014	Changed Rev. 1 to Rev. 2 throughout the document.
		Deleted all entries from Table A5.0 and noted the table as "reserved". Revised text related to WIDS sites with residual activity above background in Table 1, Section 5.3 and the text above Table A5.0
3	September 2014	Changed Rev. 2 to Rev. 3 throughout the document.
		Added Figure 1 to show River Corridor Geographic Areas. Changed the title of current figure 1 to Figure 2: River Corridor Segments
		Added HNF-57108, Rev. 0, 100-K Area TTP to the list of TTP Box in Section 2.0.
		Added 100-K Area to the scope in Section 4.0
		Added three 100-K Area waste sites requiring institutional controls to Table A3.0.
		Minor editorial changes.

4	TBD	Changed Rev. 3 to Rev. 4 throughout the document.
		Made editorial changes throughout the document.
		Revised Figure 2 to show 100-IU-2 and Segment 4A Areas
		Added HNF-57376, Rev. 0, 100-IU-2 and Segment 4A Areas TTP to the list of TTP Box in Section 2.0.
		Added 100-IU-2 and Segment 4A Areas to the scope in Section 4.0
		Listed 100-F Reactor work package and updated the organization name in Table 1.
		Added a paragraph on 300 Area fire station institutional controls in Section 5.2.
		Revised Section 5.3 to keep the text current.
		Added a new section 5.4.1.1, "Vegetation Control."
		Addressed waste generated during the Reactor five-year surveillances.
		Updated reference to Final Hazard Categorization in the 100 Area in Section 7.2.
		Updated the Section 9, "References."
		Added the site form number to the Records column in Table A-1.
		Changed the Source Requirement in Table A-3 to 100-FR-1, 100-FR-1, 100-FR-3, 100-IU-2, and 100-IU-6 Record of Decision as appropriate.
		Added site form numbers to the Records column in Table A-3.
		Added waste sites and associated information in Table A-3 Based on 100-FR-1, 100-FR-1, 100-FR-3, 100-IU-2, and 100-IU-6 Record of Decision.
		Changed Table A-4 to one row marked "Reserved." The header row was maintained.
		Changed Table A-5 to one row marked "Reserved." The header row was maintained.
		Updated the information in Table A-6.

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TERMS

AJHA	Automated Job Hazard Analysis
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
CHPRC	CH2M HILL Plateau Remediation Company
DOE	U.S. Department of Energy
DOE-RL	U.S. Department of Energy-Richland Operations Office
EMS	Environmental Management System
FHC	Final Hazard Categorization
FY	Fiscal Year
HC	Hazard Category
IC	institutional control
IDMS	Integrated Document Management System
ISMS	Integrated Safety Management System
LTS	long-term stewardship
MSA	Mission Support Alliance, LLC
MSC	Mission Support Contract
NFPA	National Fire Protection Association
OU	operable unit
QE	Qualified Evaluator
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RI/FS	remedial investigation/feasibility study
RM	Responsible Manager
RMP	Resource Management Plan
ROD	record of decision
S&M	surveillance and maintenance
TBD	to be determined
TPA	Tri-Party Agreement
TTP	transition and turnover package
WCH	Washington Closure Hanford
WIDS	Waste Information Data System

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1.0 INTRODUCTION

This *Long-Term Stewardship Surveillance and Maintenance Plan* describes how the Mission Support Alliance, LLC (MSA) Long-Term Stewardship (LTS) Program will conduct surveillance and maintenance (S&M) activities to protect human health and the environment within the Hanford LTS Program.

The LTS Program provides a process to transition land and facilities from the cleanup contractors to MSA and for the subsequent management of those lands and facilities including closed or interim-closed waste sites.

In 2007, the River Corridor was divided into six geographic areas, commonly referred to as geographic decision areas, to organize the remedial investigation/feasibility study (RI/FS) process and support development of six final action records of decision (RODs) (DOE/RL-2009-10, *Hanford Site Cleanup Completion Framework*). The six geographic decision areas encompass both the sites from the 100 Area and 300 Area "National Priorities List" (40 *Code of Federal Regulations* [CFR] 300, Appendix B) and include the following areas:

- 100-B/C Area
- 100-D/H Areas
- 100-F Area combined with IU-2/IU-6 Areas
- 100-K Area
- 100-N Area
- 300 Area (including 400 Area waste sites and nearby 600 Area waste sites).

Each geographic decision area includes its associated source and groundwater operable units (OUs). In the 100 Area, each geographic decision area also includes a reactor. The 100-F/IU-2/IU-6 Area includes the 100-F, 100-IU-2, and 100-IU-6 OUs and separate subareas known as "segments." This division facilitates planning and implementation due to the large size of this geographic decision area. Figure 1 shows the geographic decision areas and Figure 2 shows the segments of the River Corridor. Land segments or parcels that have been cleaned in accordance with the *Resource Conservation and Recovery Act of 1976* (RCRA) (42 USC 6901), and *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) (42 USC 9601) decision documents are transitioned to the LTS Program.

The LTS Program is managed in the following three elements:

- **Project Management** involves developing the overall LTS strategy, cost control and schedule elements to include integration/interface activities and information management.
- **Segment Transition** activities include those elements associated with transitioning the land parcels from the cleanup contractor to MSA. An example is developing the transition and turnover package (TTP) and associated contract modifications. The TTP is a collaborative effort by the Hanford Site cleanup contractors: Washington Closure Hanford (WCH) and CH2M HILL Plateau Remediation Company (CHPRC); and the Hanford Site Services contractor, MSA. The TTP is prepared in accordance with the "Hanford Long-Term Stewardship Program Transition and Turnover Package Checklist" provided in Appendix A of the *Hanford Long-Term Stewardship Program Plan* (DOE/RL-2010-35).

Figure 1. Geographic Decision Areas.

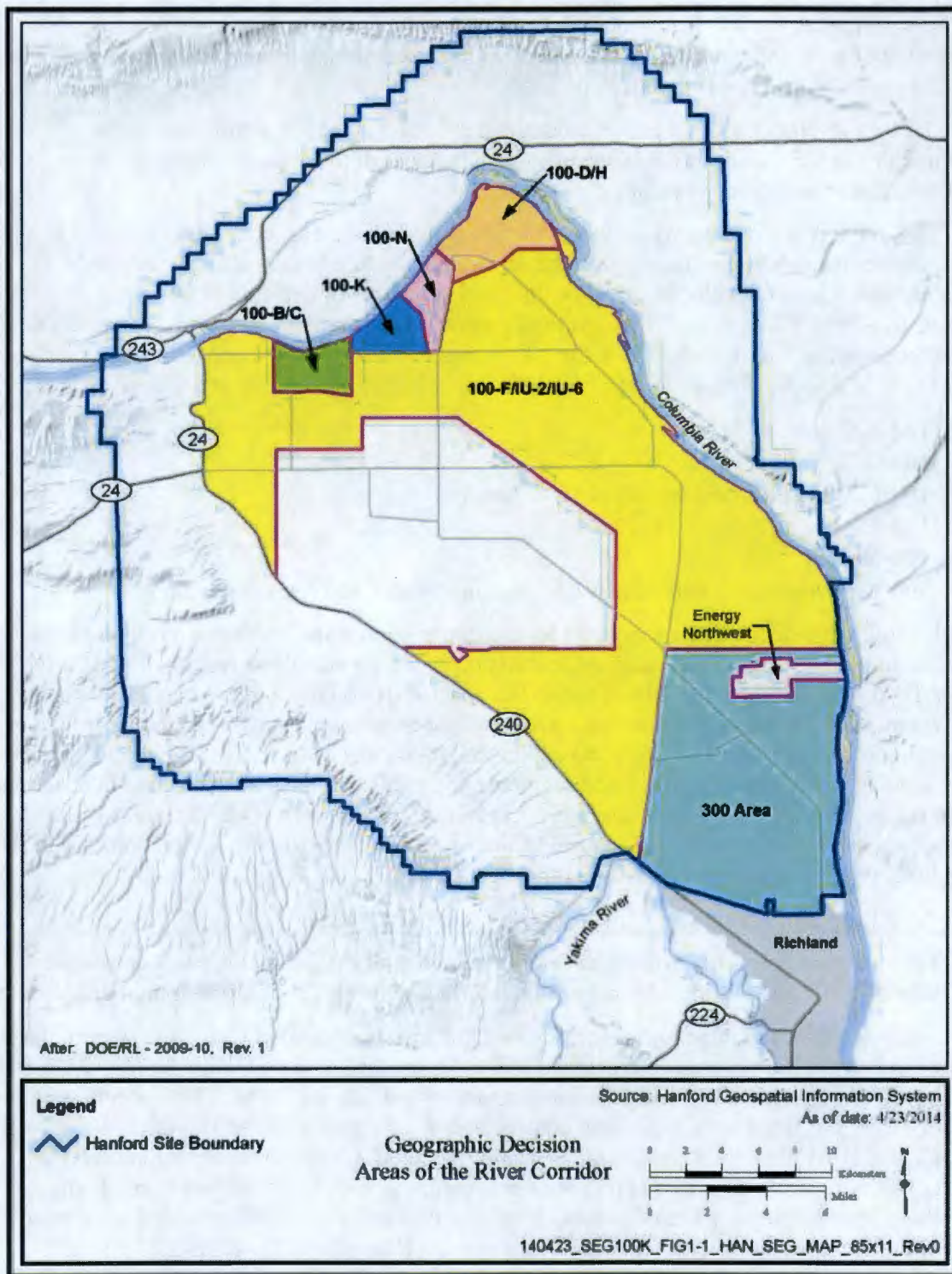


Figure 2. River Corridor Segments.



- **LTS Execution** involves those elements to monitor and maintain waste site remedies and the institutional controls (IC) that protect the remedies. LTS Execution also includes CERCLA five-year reviews and the ultimate transfer of lands out of U.S. Department of Energy-Richland Operations Office (DOE-RL) ownership.

This plan specifically addresses the activities or elements that are completed in LTS Execution. It is complementary to the TTP, which documents the closure of waste sites in specific geographic areas and identifies S&M requirements established in the decision documents for the respective areas. This plan describes the procedures used to complete and document those and other S&M activities not specifically related to waste sites. The activities are reported in an annual LTS report to DOE-RL.

The S&M activities include the following:

- **Maintenance and oversight activities** performed on physical components (e.g., physical remedies, fences, cocooned reactors) to ensure they function as designed;
- **LTS surveillance activities** which include observing real-time activities to verify conformance of the physical remedies and IC requirements with their specific regulatory requirements; and
- **Emergencies** which include responding to unexpected conditions and emergencies. LTS will work with the MSA Emergency Management Program in emergency situations.

2.0 BACKGROUND

The MSA LTS Program has contractual responsibility for implementing the key LTS activities identified in DOE/RL-2010-35. Key activities include conducting S&M activities for the portions of the Site in the Hanford LTS Program. As portions of the Site are cleaned to interim action or final RODs, they are transitioned from the cleanup program to the Hanford LTS Program. A TTP is developed for each facility or area of land transitioned (see the list of TTPs for the facilities and areas transitioned to the LTS Program in the box below). The TTP describes the cleanup to the interim action and/or final RODs, documents the current status of the facility or area at transition and identifies the required interim or final S&M activities, which serve as the requirements for this document. The transitioned areas may have waste sites or structures that require S&M activities. Such activities are identified in the TTPs for the transitioned areas. This plan also addresses those activities.

Transition and Turnover Packages Describing Scope of LTS Program

HNF-49462, Long-Term Stewardship Transition and Turnover Package for 100-F/IU-2/IU-6 Area - Segment 1
HNF-51197, Long-Term Stewardship Transition and Turnover Package for 100-F/IU-2/IU-6 Area - Segment 2
HNF-52064, Long-Term Stewardship Transition and Turnover Package for 100-F/IU-2/IU-6 Area - Segment 3
HNF-54308, Long-Term Stewardship Transition and Turnover Package Segment 5
HNF-53764, Long-Term Stewardship Transition and Turnover Package for 100-F Area
HNF-56107, Long-Term Stewardship Transition and Turnover Package for the 105-C, 105-D, 105-DR, 105 F, 105-H, and 105-N/109-N Safe Storage Enclosures
HNF- 57108, Long-Term Stewardship Transition and Turnover Package for the 100-K Area
HNF-53736, Long-Term Stewardship Transition and Turnover Package for the 100-IU-2 and Segment 4A areas

3.0 PURPOSE

The purpose of the LTS S&M Program is to ensure protection of human health and the environment following completion of cleanup of soil and buildings and implementation of remedies at the Hanford Site. S&M of the physical remedies and ICs will enable MSA to verify that the remedies remain effective, the ICs remain in place, and that human health and environment are protected. Additional requirements include the following:

- Identify the S&M activities for the land and facilities within the Hanford LTS Program
- Identify applicable requirements and procedures to perform S&M activities
- Ensure procedures required to perform S&M activities are in place.

4.0 SCOPE

This LTS S&M Plan addresses S&M activities in Segment 1, Segment 2, Segment 3, 100-F Area, Segment 5, the safe storage enclosures (SSE) for reactors (105-C, 105-D, 105-DR, 105-F, 105-H and 105-N/109-N), 100-K Area and 100-F/IU-2/IU-6 Area--100-IU-2 and Segment 4A areas (Figure 2). Not all segments or areas will have site-specific S&M requirements.

The scope of the LTS S&M Program includes:

- Activities required by regulatory cleanup decision documents for the portion of the Hanford Site within the LTS Program
- Monitoring required by occupational and environmental regulations, DOE orders and MSA procedures
- Surveillance requirements associated with the reactors for which a SSE was constructed.

S&M activities include:

- SSE S&M:
 - Annual Assessment
 - Five-Year Assessment
 - Remote Monitoring for temperature and flood level
- CERCLA IC Assessment
- Radiological monitoring of the Waste Information Data System (WIDS) sites as needed
- Revegetation Monitoring
- Annual Review of WIDS Sites with Accepted, Accepted (Proposed) and Active Classification
- CERCLA Five-Year Review.

The purpose of the ICs is to minimize the potential for human exposure to harmful substances. At Hanford, ICs have been determined to include engineered and non-engineered ICs as described below:

- Engineered controls include waste site caps and barriers
- Non-engineered controls include procedural restrictions for access, fencing, warning notices, permits, easements, deed notifications, leases and contracts, and land use controls.

Hanford Resource Management Plans (RMPs), defined in DOE/EIS-0222-SA-01, *Supplement Analysis, Hanford Comprehensive Land-Use Plan Environmental Impact Statement*, outline required monitoring activities at the Hanford Site, including areas managed by LTS.

Table 1 lists the S&M activities performed on the LTS managed areas and the performing organizations.

Table 1. LTS S&M activities, Responsible Organizations, and the Requirements. (2 sheets)

S&M Activity	Performing Organization	Requirement	Procedure/Process	Notes
1. Reactor Safe Storage Enclosure Surveillance and Maintenance	LTS Program	Reactor S&M Plans		Each reactor has a separate S&M Plan. See Section 5.1 for a list of S&M plans
a. Annual Assessment	LTS Program	Reactor S&M Plan	The MSA Condition Assessment Survey Checklist will be used for the annual assessment	
b. Five-Year Assessment	LTS Program	Reactor S&M Plan	Work Package 2M-64026/C was developed for 105-F Reactor. Work Packages will be developed before commencement of the S&M activities for other reactors.	The work package will list the applicable procedures.
c. Remote Monitoring for Temperature and Flood Level	LTS Program	Reactor S&M Plan	SIL-LTS-001, <i>Long-Term Stewardship Safe Storage Enclosure Remote Sensor Monitoring Procedure</i>	
2. Annual Institutional Control Assessment	LTS Program	DOE/RL-2001-41, <i>Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions and RCRA Corrective Actions</i>	The procedure will be completed in FY 2015	The assessment results reported to DOE include assessments by CHPRC and WCH
a. Warning Notices	MSA LTS Program	DOE/RL-2001-41, <i>Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions and RCRA Corrective Actions</i>		Warning notices include DOE yellow "No Trespassing" signs and waste site specific signs. Incidents are reported to LTS personnel.
b. Entry Restrictions	Safeguard & Security	CRD M 470.4-2A, <i>Physical Protection</i> . DOE M 470.4-2A, <i>Physical Protection</i> , Attachment 1, "Contractor Requirements Document."	MSC-RD-11440, <i>Physical Protection of Property and Facilities</i> . MSC-PRO-412, <i>Security Badges</i> . MSC-RD-28974, <i>Security Badge Requirements</i> . MSC-PRO-33222, <i>Denial of Site Access</i> .	Fences, badge checking at barricades are example of entry restrictions. Incidents of breach are reported to LTS personnel.

Table 1. LTS S&M activities, Responsible Organizations, and the Requirements. (2 sheets)

S&M Activity	Performing Organization	Requirement	Procedure/Process	Notes
c. Land Compatibility Issues	Land & Facilities Management	DOE P 430.1, <i>Land and Facility Use Planning</i> . DOE P 580.1, <i>Management Policy for Planning, Programming, Budgeting, Operation, Maintenance and Disposal of Real Property</i> . DOE O 430.1C, <i>Real Property Asset Management</i>	MSC-PRO-46449, <i>Site Evaluation</i>	Land compatibility issues include groundwater use management. LTS personnel are included in the Site Evaluation review process and will review the use requests for compliance with any applicable LTS Program controls identified in this Plan.
d. Excavation Permits	Land & Facilities Management	DOE P 430.1, <i>Land and Facility Use Planning</i> . DOE P 580.1, <i>Management Policy for Planning, Programming, Budgeting, Operation, Maintenance and Disposal of Real Property</i> . DOE O 430.1B, <i>Real Property and Asset Management</i>	DOE-0344, <i>Hanford Site Excavating, Trenching and Shoring Procedure</i>	LTS personnel are included in the review process. The excavation permit process is administered via a web-application. LTS program works with Environmental Compliance Officers to review the permit for compliance with any applicable LTS Program controls identified in this Plan.
3. Radiological Monitoring of WIDS sites as needed	LTS Program	10 CFR 835, "Occupational Radiation Protection"	In process, to be completed in FY 2015, prior to any radiological monitoring activities.	The monitoring will be performed on as needed basis.
4. Resource Management Plan	Public Safety and Resource Protection	DOE/RL-96-32, <i>Hanford Site Biological Resources Management Plan</i>		
a. Revegetation Monitoring	Energy and Environmental Services	DOE/RL-96-32, <i>Hanford Site Biological Resources Management Plan</i>	MSC-RD-36652 <i>Revegetation</i>	
5. Annual Review of WIDS Sites	LTS Program	HNF-48562, <i>Administrative Interface Agreement between CH2M Hill Plateau Remediation Company (CHPRC), and Washington Closure Hanford (WCH), Washington River Protection Solutions (WRPS), Mission Support Alliance (MSA) and Pacific Northwest National Laboratory (PNNL) for Hanford Environmental Data Integration</i> .	MSC-PRO-15333, <i>Environmental Protection Processes</i>	
6. CERCLA Five-Year Review	LTS Program	42 USC 9601, CERCLA 121(C)	MSC-PRO-54102, <i>CERCLA Five-Year Review</i>	Next assessment is due in 2016
<div style="display: flex; justify-content: space-between;"> <div> <p>CERCLA = Comprehensive Environmental Response Compensation and Liability Act of 1980.</p> <p>CHPRC = CH2M HILL Plateau Remediation Company.</p> <p>DOE = U.S. Department of Energy.</p> <p>FY = Fiscal Year</p> <p>LTS = long-term stewardship.</p> </div> <div> <p>MSA = Mission Support Alliance, LLC.</p> <p>S&M = surveillance and maintenance.</p> <p>TPA = Tri-Party Agreement.</p> <p>WCH = Washington Closure Hanford.</p> <p>WIDS = Waste Information Data System.</p> </div> </div>				

5.0 LONG-TERM STEWARDSHIP EXECUTION

The execution phase of the LTS Program consists of the S&M activities identified in this plan. The specific execution activities shown in Table 1 are described in the following sections. The tables in Appendix A identify specific activities associated with each S&M activity described below.

5.1 5.1 Reactor Safe Storage Enclosure Surveillance and Maintenance

The LTS Program will have eight reactors after the River Corridor area is transitioned to the LTS Program. Six reactors have been transitioned to LTS and the two remaining reactors (KE and KW) will be transitioned around the year 2021. Each of the six currently cocooned reactors has a specific S&M Plan that will be followed. These plans are listed below:

1. DOE/RL-98-44, *Surveillance and Maintenance Plan for the 105-C Reactor Safe Storage Enclosure.*
2. DOE/RL-2002-28, *Surveillance and Maintenance Plan for the 105-DR Reactor Safe Storage Enclosure.*
3. DOE/RL-2003-45, *Surveillance and Maintenance Plan for the 105-F Reactor Safe Storage Enclosure.*
4. DOE/RL-2004-59, *Surveillance and Maintenance Plan for the 105-D Reactor Safe Storage Enclosure.*
5. DOE/RL-2005-67, *Surveillance and Maintenance Plan for the 105-H Reactor Safe Storage Enclosure.*
6. DOE/RL-2011-106, *Surveillance and Maintenance Plan for the 105-N/109-N Reactor Safe Storage Enclosure.*

Assessments of reactors are conducted to ensure that the reactor is maintained in a safe, environmentally secure posture until final disposition. The reactors will be assessed according to the S&M Plan for each reactor SSE. The assessment requirements include performing an inspection of the external areas annually, performing an inspection of the internal areas every five years, and remotely monitoring temperature and flood levels inside the reactors.

Reactor S&M activities include the following:

1. Annual assessment includes a visual inspection conducted to evaluate obvious deterioration of the roof or exterior walls and general exterior housekeeping items, including observation of the locks on the doors. The annual assessment also includes a radiological survey of the reactor exterior.
2. Five-Year Assessment includes the following activities:
 - Determine the integrity of the structural components including the roof area and the weather protection systems
 - Determine if repairs are needed to correct deficiencies
 - Determine the integrity of barriers and posting
 - Conduct radiological surveys along a prescribed route to assess changed conditions
 - Removal of hazardous substances

- Required maintenance of monitoring for temperature and water level monitoring instrumentation.
3. Remote monitoring involves monthly monitoring of temperature and flood level inside the SSE at various elevations.

WCH has been performing these assessments since 2003. As land transitions from WCH to MSA, MSA will blue sheet WCH's procedures as appropriate, and convert them into MSA procedures.

5.2 Annual Institutional Control Assessment

The ICs generally include non-engineered restrictions on activities and access to land, groundwater, and surface water that contain hazardous substances to minimize the potential for human exposure. Common types of ICs include procedural restrictions for access, fencing, warning notices, permits, easements, deed notifications, leases and contracts, and land-use controls. The requirements for ICs for the Hanford Site are recorded in CERCLA decision documents (also listed in the Appendix A of DOE/RL-2001-41, *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions and RCRA Corrective Actions*). The ICs are also specified individually on a waste site basis in the decision documents and "Waste Site Reclassification Forms." The land-use management (excavation permits) is controlled through the Site Selection Process. The LTS Program participates in reviewing the site selection requests. The review identifies potential impacts of the proposed activities on the ICs and, as such, appropriate measures are recommended.

The annual IC assessment is required by DOE/RL-2001-41. S&M of physical components related to ICs is conducted to ensure that the physical controls are in satisfactory condition to perform their function. Examples of physical controls that need to be monitored and maintained include warning signs, fences, and other barriers. Other ICs such as trespassing on the Hanford Site also are evaluated during the annual assessment.

Any given area on the Hanford Site may be subject to Sitewide ICs and/or site specific ICs. The sitewide ICs generally include access controls, fences and warning signs. The site specific ICs are identified in the CERCLA decision documents.

MSA manages fire station (3709A Building) in the 300 Area. DOE formulated a plan, documented in Memorandum 14-AMRP-0264, "Recommendations for Proposed Irrigation and Recharge Control for 3709A, 3709B, 3220, 3212, 3507, and 339A, Hanford Site 300 Area", to allow limited irrigation around the 3709A Building. The institutional controls for 3709A Building are addressed in Section A8.0. There are other types of warning signs not required by CERCLA or RCRA. They may include radiological postings, signs on the reactors and at the bat habitats. The radiological postings will be maintained by MSA Radiological Control using MSC-13536, *MSC Radiological Control Procedures*. The signs on the reactors will be assessed during the annual reactor inspection. The assessment of the signs at the bat habitat is addressed Section 5.4.1.

5.3 Monitoring of Waste Sites with Residual Radioactivity

Cleanup standards result in no Occupational Worker "trigger" (exposure in excess of 100 mrem/yr) that would require periodic radiological monitoring. However, should closure conditions change, waste sites with residual radioactivity may be monitored on as needed basis and will be determined case-by-case.

Subpart E, "Monitoring of Individuals and Areas," (10 CFR 835.401) provides general requirements to demonstrate compliance. Monitoring is performed to:

- Demonstrate compliance with the regulations in this part
- Document radiological conditions
- Detect changes in radiological conditions
- Verify the effectiveness of engineered controls in containing radioactive materials
- Identify and control potential sources of individual exposure to radiation and/or radioactive material.

5.4 Protection of Resources

Multiple RMPs have been developed at the Hanford Site to provide the policies, goals, and objectives for the protection and management of the Site's biological, natural, and cultural resources. These plans address ongoing surveillance, protection, and controlled use of the resources. The resources in the LTS managed land are managed according to the Hanford RMPs defined in DOE/EIS-0222-SA-01. The RMPs that address activities applicable to the LTS land are discussed in this section.

5.5 Revegetation Monitoring

DOE/RL-96-17, *Remedial Design Report/Remedial Action Work Plan for the 100 Area*, provides a revegetation plan for the waste sites that will be remediated as part of the CERCLA Remedial Action Project. Each remediated site and the associated support facilities (roads, spoils piles, etc.) that are disturbed during remediation will be revegetated under this plan. Waste sites are planted to restore the land with communities that are dominated by native vegetation. These areas eventually will provide wildlife habitat common to the Columbia Basin. Representative sites are monitored in the River Corridor and used as indicators of overall planting success. These representative sites are monitored for 5 years in accordance with the representative site concept as described in DOE/RL-2001-22, *Mitigation Action Plan for the 100 and 600 Area of the Hanford Site*. The number of representative sites will vary, depending on the number and distribution of the sites revegetated each year.

WCH's contract required the revegetation of remediated sites under the requirements above. After transition to LTS, the LTS Program will have responsibility for the balance of the 5-year monitoring requirement. After 5 years, the criteria for success will be a total canopy cover of greater than 25% for native plants. If this is not achieved, the cause will be identified and rectified with additional planting, fertilizer, irrigation, or soil amendments, as applicable. All revegetation actions will follow the DOE/RL-98-10, *Hanford Cultural Resources Management Plan* to ensure it will not impact historic properties or other cultural resources (see Section 7.0 for more information).

5.6 Vegetation Control

The National Fire Protection Association (NFPA) 1144, *Standard for Reducing Structure Ignition Hazards from Wildland Fire*, requires a 30 feet "defensible space" between an improved property and a potential wildland fire, where combustible materials and vegetation have been removed or modified to reduce the potential for fire. The Hanford Fire Department has adopted this section of the NFPA Code. LTS will maintain a 30 feet area free of vegetation around 100-F reactor by using herbicides application. MSA Biological Control group will perform annual

herbicide application in the defensible space around the reactor. This activity will continue for the other reactor areas as they are transitioned into LTS.

5.7 Bat Monitoring Locations

LTS is responsible for maintaining the fences and signs around the bat habitat at the 183-F clear well, and for maintaining the roosts at the 105-F, 105-H and 105-N/109-N facilities. The fences, signs and roosts will be evaluated during the annual IC assessment.

5.8 Annual Review of Waste Sites

MSC-PRO-15333, *Environmental Protection Processes*, requires annual review of waste sites with "Accepted," "Accepted (Proposed)," and "Active" classifications. The assessment requires a review of WIDS site data, along with appropriate location information, and requires a review of the posting, overburden, and other applicable requirements to ensure continued compliance. For active waste sites, annual confirmation that site(s) are still active is required.

5.9 CERCLA Five-year review

CERCLA 121(c) requires five-year reviews on remedial actions when hazardous substances, pollutants, or contaminants will remain onsite above levels that allow for "unlimited use and unrestricted exposure." The review does not reconsider remedial cleanup decisions; it is an evaluation of the implementation and performance of the current cleanup strategy to determine if the remedy is or will be protective. Protectiveness is generally defined in the "National Oil and Hazardous Substances Pollution Contingency Plan" (40 CFR 300) by the risk range and the hazard index. Evaluation of the remedy and the determination of protectiveness should be based on and sufficiently supported by data and observations.

MSA works with DOE and other Hanford Site contractors to conduct the CERCLA five-year review, as described in MSC-PRO-54102, *CERCLA Five-Year Review*, and prepares the report for delivery to DOE-RL. DOE-RL submits the report to the U.S. Environmental Protection Agency and Washington State Department of Ecology for review. The next review is due in November 2016.

5.10 Waste Management

It is not anticipated that S&M activities will involve generation, handling, or disposition of waste; however, if waste is generated, LTS will work with MSA Environmental Organization to manage the waste in a compliant manner.

The waste generated from the Reactor five-year S&M activities will be managed in accordance with MSC-PRO-EIS-0204, *Reactor Facility Waste Management Instruction*.

6.0 TECHNICAL REPORTING

The LTS Program will prepare technical reports that document the S&M activities and provide a summary of conditions as appropriate. Technical reports include the following:

- **LTS Annual Reporting** - this report will be provided to the DOE-RL LTS Program as requested. The report will include information such as status on recent activities, including monitoring, maintenance, site inspections, and corrective actions for the preceding year. This report also will include the annual and five-year interim safe storage reactor assessments as appropriate.

- **Annual IC Assessment Report** - this report is required by DOE/RL-2001-41. It is a contract deliverable for MSA to provide the annual IC assessment report to DOE-RL by November 15 of every year. The report is a compilation of IC assessments conducted by MSA, WCH, and CHPRC.
- **CERCLA Five-Year Review Report**- this report is required by CERCLA 121(c). The process for conducting the review is briefly described in Section 5.6. The next review is due in November 2016.

7.0 PRE-OPERATIONAL ACTIVITIES

A priority for the MSA LTS Program is to ensure protection of human health and environment, which includes ensuring the safety of LTS Program workers. Safety is each employee's responsibility and a condition of employment. MSA safety objectives include a target of zero accidents, injuries, illness, and environmental releases and a goal of year-to-year continuous improvement. Prior to LTS program activities, a set of pre-operational activities are completed. The pre-operational activities include evaluation of personal safety and nuclear safety.

7.1 Personal Safety

The MSA LTS Program will work with the Safety, Health, and Quality organization to ensure LTS Program activities are performed in a safe manner per the MSA-POL-5053, *Policy for Environment, Safety, Health and Quality*, and in accordance with MSC-RD-49349, *Safety and Health Compliance*. MSA uses the Integrated Safety Management System (ISMS)/ Environmental Management System (EMS) process, described in MSC-MP-003, *Integrated Environment, Safety, Health Management System Description*, to facilitate safe work by implementing safety management into each facet of work planning and execution. The ISMS/EMS process is managed in accordance with DOE O 450.2, *Integrated Safety Management*, and DOE O 436.1 *Departmental Sustainability*.

7.2 Nuclear Safety

MSC-PRO-8366, *Facility Hazard Categorization and Change Management Process*, is used to prepare a hazard categorization for the MSA facilities. In the context of S&M, this procedure is used to identify how less than Hazard Category (HC) 3 (<HC3) facilities are managed. The final hazard categorization (FHC) for the reactors is less than HC3 as determined in MSC-56872, *Final Hazard Categorization for Surveillance and Maintenance of 100 Area Reactor Buildings*. This document also identifies the controls required to ensure that the FHC remains valid.

Within MSC-PRO-8366, a change management process is used to ensure that LTS personnel manage and identify changes and discoveries with the potential to affect the controls established in MSC-56872 and negatively impact the FHC of the reactors. The process ensures that proposed activities cannot increase the radioactive inventory or alter its form and distribution in a manner that would cause the HC3 threshold to be exceeded. The process applies a graded approach to protect the key assumptions underlying the hazard categorization to ensure that this does not happen.

The change management process for the 100 Area reactors relies on the Responsible Manager (RM) (or delegate) to identify instances where an impact might occur. Potential impacts are then reviewed by the Qualified Evaluator (QE) to determine whether there is an actual impact that

would require an update to the hazard categorization (and possibly DOE-RL approval) before the proposed action can take place. The QE must be sufficiently familiar with the controls and conditions/assumptions needed to protect the <HC3 designation and adhere to the processes/requirements as specified in MSC-PRO-8366 to determine when there is potential for an impact warranting a formal evaluation.

7.3 Pre-operational Activities

This section describes the activities that are required before starting S&M activities.

7.3.1 Procedures

The S&M activities are performed according to MSA procedures. Two types of procedures are required to conduct S&M activities. Some procedures are specific to the S&M task; e.g., MSC-PRO-15333. Other procedures are required for supporting tasks such as ensuring the safety and health of LTS workers and the public, providing compliant radiological protection, and ensuring personnel are trained adequately. The procedures specific to each of the S&M activities are listed in Table 1. The supporting procedures are posted on the MSA web page, *DOCS Online* (<http://msc.rl.gov/rapidweb/MSCDOL/dol/index.cfm>). Prior to initiation of an S&M activity, the supporting procedures will be reviewed to determine which of the procedures are applicable to the activity. The *DOCS Online* web page will be checked for the most current version of the procedures and for additional applicable procedures before starting S&M activities.

7.3.2 Work Package

A pre-operational work package will be prepared for each S&M activity. The work package will include, but is not limited to, the following:

- Job Hazard Analysis using the MSC-PRO-079, *Job Hazard Analysis*, and MSC-GD-17132, *Automated Job Hazards Analysis (AJHA) Process Guide*
- AJHA SIU-1298, *AJHA Hazard Report*, will be used for activities involving field visits
- Cultural Review to meet the requirement of 16 USC 470, Section 106 of the *National Historic Preservation Act*
- Ecological Review as prescribed in DOE/RL-96-32, *Hanford Site Biological Resources Management Plan*
- Completed Environmental Screening Form (A-6003-727) (Work with the Environmental Compliance Officer to complete the form)
- Change management process screening determination form (A-6006-503, *Change Management Evaluation Process*).

Most hazards will be controlled through compliant mechanisms identified in MSC-PRO-079. If, however, a facility-related condition within a closure facility would require costly and extensive structural/engineering modifications to be in compliance with the hazard control requirements in 10 CFR 851.23, "Safety and Health Standards," MSC-RD-32621, *Closure Facility Hazards*, will be used to address alternative controls.

A global positioning system unit will be pre-loaded with coordinates of the S&M activity locations. Field activities requiring off-road access will require adherence to Hanford Fire Department procedures to protect against fire dangers.

8.0 RECORDS MANAGEMENT

The MSA LTS Information Management Program supports surveillance, monitoring, and maintenance activities as stated in HNF-50340, *Long-Term Stewardship Information Management Program Plan*. S&M records are captured to document the S&M activities and are stored in the Integrated Document Management System (IDMS) as electronic records. The records capture table (Table 2) provides more information about the management of S&M records. All records are generated, received, processed, and maintained in accordance with MSC-PRO-10588, *Records Management Processes*, and MSC-RD-210, *Records Management Program*. The records capture table lists the S&M activity records and record management responsibilities.

Table 2. S&M Activities Records Capture Table.

Record	Submittal Responsibility	Retention Responsibility
Annual Reactor Inspection checklist	MSA LTS	IDMS
Reactor Inspection and Repair Work Packages	MSA LTS	IDMS
Remote monitoring for temperature and flood level	MSA LTS	IDMS
Management of change process screening determination (MSC-PRO-8366)	MSA LTS	IDMS
Reactor Five-year Surveillance Reports	MSA LTS	IDMS
Annual Institutional Controls Assessment	MSA LTS, WCH, CHPRC	IDMS
Revegetation Monitoring	MSA LTS	IDMS
Waste Information Data System Site Inspection/Review	MSA LTS	IDMS
LTS annual Report	MSA LTS	IDMS
CERCLA Five-year Review Report	MSA LTS, WCH, CHPRC	IDMS
CHPRC = CH2M HILL Plateau Remediation Company MSA = Mission Support Alliance, LLC. IDMS = Integrated Data Management System. S&M = surveillance and maintenance. LTS = long-term stewardship. WCH = Washington Closure Hanford.		

9.0 REFERENCES

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- 10 CFR 851, "Worker Safety and Health Program," *Code of Federal Regulations*, as amended.
- 16 USC 470, "*National Historic Preservation Act of 1966*", Title 16 United States Code, Section 106, et seq.
- 40 CFR 300, "National Contingency Plan," *Code of Federal Regulations*, as amended.
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APPENDIX A
SURVEILLANCE AND MAINTENANCE ACTIVITIES

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S&M ACTIVITIES ASSOCIATED WITH SPECIFIC WASTE SITES

This section identifies specific surveillance and maintenance (S&M) activities, associated requirements and other information. The activities are represented in Tables A-1 through A-6.

A1.0 ANNUAL REACTORS ASSESSMENT

The reactors are assessed annually for external conditions as shown in Table A-1. During the assessment conditions may be found which may require repair work. Work packages will be prepared specific to the repair work needed. The repair work will be performed according to the work packages.

Table A-1. Annual Reactor Assessment

Reactor	Activity	Source of Requirement	Methodology	Records
105- C	Inspection of roof and building structure	DOE/RL-98-44	Surveillance of reactor building exterior surfaces	Site wide Form A-6006-679
105-DR	Inspection of roof and building structure	DOE/RL-2002-28	Surveillance of reactor building exterior surfaces	Site wide Form A-6006-679
105-D	Inspection of roof and building structure	DOE/RL-2004-59	Surveillance of reactor building exterior surfaces	Site wide Form A-6006-679
105-F	Inspection of roof and building structure	DOE/RL-2003-45	Surveillance of reactor building exterior surfaces	Site wide Form A-6006-679
105-H	Inspection of roof and building structure	DOE/RL-2005-67	Surveillance of reactor building exterior surfaces	Site wide Form A-6006-679
105-N/109-N	Inspection of roof and building structure	DOE/RL-2011-106	Surveillance of reactor building exterior surfaces	Site wide Form A-6006-679

A2.0 FIVE-YEAR REACTORS ASSESSMENT

The reactors are assessed every five years for internal conditions as shown in Table A-2.

Table A-2. Five-Year Reactor Assessment

Reactor	Year Closed	Most Recent Assessment	Activity	Requirement	Next Assessment Due	Records
105-F	2003	2014	Surveillance of internal areas	DOE/RL-2003-45	2020	Assessment Report
105-C	1998	2008	Surveillance of internal areas	DOE/RL-98-44	2015 ²	Assessment Report
105-D	2004	2009	Surveillance of internal areas	DOE/RL-2004-59	2015 ³	Assessment Report
105-DR	2002	2012	Surveillance of internal areas	DOE/RL-2002-28	2017 ⁴	Assessment Report
105-H	2005	2010	Surveillance of internal areas	DOE/RL-2005-67	2015	Assessment Report
105-N	2012	2012	Surveillance of internal areas	DOE/RL-2011-106	2015	Assessment Report

A3.0 REMOTE MONITORING FOR TEMPERATURE AND FLOOD LEVEL

The safe storage enclosure for each reactor is configured with two sets of temperature sensors and a set of flood level sensors. The location of temperature and flood level sensors varies depending on the reactor. The sensors are accessed via wireless technology through a personal computer. Measurements of temperature and flood level are recorded monthly on an instrument log. The remote monitoring will be conducted at 105-C, 105-D, 105-DR, 105-H, 105-F and 105-N reactors.

The collection of data is described in SIL-LTS-001, *Long-Term Stewardship Safe Storage Enclosure Remote Sensor Monitoring Procedure*. The records will be maintained in the Integrated Document Management System (IDMS).

A4.0 ANNUAL INSTITUTIONAL CONTROL ASSESSMENT

The institutional controls (IC) include warning signs, entry restrictions and land-use management. Drilling into the waste sites is controlled through the excavation permitting process, which is part of land-use management. Some ICs are not always associated with specific waste sites. The ICs with entry restrictions are conducted at the barricades located away from the waste sites. A fence line that serves as an IC may surround more than one waste site. Table A-3 lists the assessment sites and the ICs.

Table A-3. Annual Assessment of Institutional Controls. (4 sheets)

Assessment Site	Institutional Control	Mechanism	Source of Requirement	Methodology	Records
100-F-10 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
100-F-19:1 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
100-F-19:2 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
100-F-19:3 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
100-F-29 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
100-F-34 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-2 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-3 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2002-00008, Rev. 0	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-6 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620

Table A-3. Annual Assessment of Institutional Controls. (4 sheets)

Assessment Site	Institutional Control	Mechanism	Source of Requirement	Methodology	Records
116-F-9 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-10 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2003-00003	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-11 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2001-00003	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-12 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-14 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
116-F-14 Waste Site	Prohibit Irrigation	Environmental Activity Screening Form	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of Environmental Activity Screening Forms related to work at 116-F-14 waste site	Sitewide Form A-6006-620
118-F-6 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
118-F-8:1 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2003-00017	Evaluation of excavation permits	Sitewide Form A-6006-620
118-F-8:3 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
118-F-8:4 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
1607-F2	Control drilling or	Excavation Permit	CVP-2002-00005	Evaluation of	Sitewide Form A-

Table A-3. Annual Assessment of Institutional Controls. (4 sheets)

Assessment Site	Institutional Control	Mechanism	Source of Requirement	Methodology	Records
Waste Site	excavation into deep zone ((i.e., below 4.6 m [15 ft])).			excavation permits	6006-620
UPR-100-F-1 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	EPA, 2014, Record of Decision for 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-1 and 100-IU-6 Operable Units	Evaluation of excavation permits	Sitewide Form A-6006-620
116-K-1 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2003-00024	Evaluation of excavation permits	Sitewide Form A-6006-620
116-K-2 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2006-00001	Evaluation of excavation permits	Sitewide Form A-6006-620
118-K-1 Waste Site	Control drilling or excavation into deep zone ((i.e., below 4.6 m [15 ft])).	Excavation Permit	CVP-2013-00002	Evaluation of excavation permits	Sitewide Form A-6006-620
Fence along SR 240	Undamaged fence		DOE/RL-2001-41, <i>Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions</i>	Visual Observation	Sitewide Form A-6006-619
Fence around 183-F clearwell (Bat house)	Maintain fence in good condition		Letter 09-AMRC-0171, <i>Closeout Activities at Bat Habitat 183-F Clearwell</i> , WCH 312, <i>Identification and Protection of a Bat Colony in the 183_F Clearwell: Mitigation of Bat Habitat of Bat Habitat on the Hanford Site</i>	Visual Observation	Sitewide Form A-6006-619
Signs at the 183-F clearwell	Maintain signs in good conditions		Letter 09-AMRC-0171, WCH 312, <i>Identification and Protection of a Bat Colony in the 183_F Clearwell: Mitigation of Bat Habitat of Bat Habitat on the Hanford Site</i>	Visual Observation	Use Form A-6006-619
Warning Signs along the Columbia River and other signs required by CERCLA Decision	Maintain signs in good conditions.		DOE/RL-2001-41, <i>Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions</i> DOE/RL-96-17, <i>Remedial Design Report/Remedial Action Work Plan for the 100 Area</i>	Visual Observation	Sitewide Form A-6006-619

Table A-3. Annual Assessment of Institutional Controls. (4 sheets)

Assessment Site	Institutional Control	Mechanism	Source of Requirement	Methodology	Records
documents					
'No Trespassing" signs	Maintain signs in good conditions		SCRD O 473.3, <i>Protection Program Operations</i> ,	Visual Observation	Sitewide Form A-6006-619
3709-A irrigation system	1 hour irrigation at each location		DOE Memo 14-AMRP-0264. "Recommendations for Proposed Irrigation and Recharge Control for 3709A, 3709B, 3220, 3212, 3507, and 339A, Hanford Site 300 Area.-	Interview, Record review	Sitewide Form A-6006-620
300 Area fire hydrant # 1 testing	Testing not allowed		DOE Memo 14-AMRP-0264. "Recommendations for Proposed Irrigation and Recharge Control for 3709A, 3709B, 3220, 3212, 3507, and 339A, Hanford Site 300 Area.-	Interview, Record review	Sitewide Form A-6006-620
Fire truck washing location at 3709-A	Truck washing allowed only on the north side		DOE Memo 14-AMRP-0264. "Recommendations for Proposed Irrigation and Recharge Control for 3709A, 3709B, 3220, 3212, 3507, and 339A, Hanford Site 300 Area.-	Interview, Record review	Sitewide Form A-6006-620
New surface discharges	Surface discharges that would enhance groundwater are not allowed.		DOE Memo 14-AMRP-0264. "Recommendations for Proposed Irrigation and Recharge Control for 3709A, 3709B, 3220, 3212, 3507, and 339A, Hanford Site 300 Area.-	Interview, Record review	Sitewide Form A-6006-620

A5.0 RADIOLOGICAL MONITORING OF WASTE SITES

Radiological Monitoring of waste sites may be performed on as needed basis to assess potential change with time.

Table A-4. Radiological Monitoring of Waste Sites

Location	Activity	Purpose	Source of Requirement	Frequency	Methodology	Records
RESERVED						

A6.0 REVEGETATION MONITORING

DOE/RL-96-17, *Remedial Design Report/Remedial Action Work Plan for the 100 Area (RDR/RAWP)*, gives a revegetation plan for the waste sites that will be remediated as part of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)* Remedial Action Project. Each remediated site and the associated support facilities (roads, spoils piles, etc.) that are disturbed during remediation will be revegetated under this plan. Success Criteria for cover is a total canopy of 25% for native plants. Waste sites are planted to restore the land with communities that are dominated by native vegetation. These areas will eventually provide wildlife habitat common to the Columbia Basin. WCH monitored nine sites for five years in the 100-F Area. Seven of the sites met the 25% success criteria. These sites are described in WCH-554, *2012 River Corridor Closure Contractor Revegetation Monitoring Report* and WCH-577, *2013 River Corridor Closure Contractor Revegetation Monitoring Report*. MSA will evaluate rectification measures for the remaining two sites described in Table A-5. MSA will also perform revegetation monitoring for the future transitioned areas as required.

Table A-5. Revegetated Site

Waste Site	Year Sites Revegetated	% Cover of Native Plants in	Monitoring Period	Rectification Measures	Records
RESERVED					

A7.0 ANNUAL SURVEILLANCE OF WASTE SITES

The active waste sites and inactive waste sites with Accepted, Accepted (proposed) classifications require annual review to confirm that the condition and status of the waste sites have not changed. Table A-6 lists the transitioned waste sites that require annual surveillance.

Table A-6. Annual Surveillance of Waste Sites with Accepted, Accepted (Proposed) and Active Classification

Waste Site Code	Activity	Purpose	Source of Requirement	Records
100-F-39	Surveillance	To confirm that there is no change in the site condition and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
100-F-59	Surveillance	To confirm that there is no change in the site condition and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
118-F-8:2	Surveillance	To confirm that there is no change in the site condition and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
118-C-3:1	Surveillance	To confirm that the site is still active and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
118-D-6:1	Surveillance	To confirm that the site is still active and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
118-DR-2:1	Surveillance	To confirm that the site is still active and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
118-H-6:1	Surveillance	To confirm that the site is still active and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901
100-N-66	Surveillance	To confirm that the site is still active and ensure continued compliance with the posting, overburden, and other applicable requirements.	MSC-PRO-15333, Section 5.34	Site Form A-6003-901