

**APPENDIX T**

**LONG-TERM STEWARDSHIP AGREEMENT FOR THE FEDERAL CELL FACILITY**

**Real Estate Transfer Agreement for the Federal Cell by  
and between *EnergySolutions*, LLC and the  
U. S. Department of Energy**

## **1.0 Purpose**

This Real Estate Transfer Agreement (Agreement or Transfer Agreement) for the Federal Cell (FC) between *EnergySolutions*, LLC (*EnergySolutions*) and the U.S. Department of Energy (DOE or Department) documents the terms and conditions upon which *EnergySolutions* will transfer real property to the DOE at no cost, estimated to be in the year 2075 or later. The State of Utah is not a party to this Agreement.

## **2.0 Introduction**

The Department owns and generates low-level radioactive waste (LLRW) and mixed LLRW from routine operations and cleanup activities throughout the nation. While there is uncertainty in future waste volumes due to the funding and scheduling variability of, and schedule for future operations and cleanup projects, offsite disposal capacity is expected to be needed as long as operations and cleanup activities continue.

The DOE intends to enter into a non-binding memorandum of agreement (MOA) with the Director of the Utah Division of Waste Management and Radiation Control (UDWMRC) to address the parties' understanding with respect to the licensing, operations, decommissioning, post-closure care, title transfer and long-term stewardship of the proposed Clive, Utah Federal Cell (FC). The parties are executing this Agreement to govern specific terms for the development of the FC and its conditional transfer upon its decommissioning. This Agreement is contingent upon issuance of the License (as discussed below) and the execution of the MOA.

## **3.0 Background**

*EnergySolutions* is in the process of obtaining from UDWMRC a Radioactive Material License (License), which will authorize construction and operation of the FC for the disposal of depleted uranium from DOE, as well as other Federal Facility Waste (as defined below). For purposes of this Agreement, and the License, Federal Facility Waste is defined to include only LLRW, the disposal of which is the responsibility of the Federal Government under sections 3(b)(1)(A)-(C) of the Low-Level Radioactive Waste Policy Amendments Act of 1985 (LLRWPA), as amended. No waste other than Federal Facility Waste may be disposed of in the FC.

*EnergySolutions* must comply with all provisions of the License to be issued by UDWMRC prior to and during construction, operation, and decommissioning of the FC.

UDWMRC requires, as a condition to obtaining the License and as required by Utah law, prior to the disposal of a total aggregate quantity of more than one metric ton of concentrated depleted uranium, a written agreement signed by DOE and acceptable to the Director of the UDWMRC, stating that DOE accepts perpetual management of the FC, title to the land on which the FC is located, title to the waste in the FC, and financial stewardship for the FC and waste in the FC. *EnergySolutions* intends to satisfy this requirement with this Agreement. *EnergySolutions* will submit this Agreement to the

UDWMRC as part of the License application, as required under U.C.A. § 19-3-103.7(3)<sup>1</sup>, and believes UDWMRC will finalize and enter into the MOA with the DOE in connection with the approval of the License.

If Federal Facility Waste is disposed of in the FC, all right, title, and interests in the land and buildings of the FC shall be conveyed to DOE or its successor upon decommissioning and closure of the FC, regardless of whether the decommissioning is planned or unplanned. If Federal Facility Waste is disposed in the FC, *EnergySolutions* shall formally convey to DOE or its successor the right, title and interest in the Federal Facility Waste within the FC prior to termination of the License. Upon decommissioning and conveyance of the FC to the DOE or its successor, the FC would no longer be subject to State regulation and would not be subject to the UDWMRC License. If no Federal Facility Waste is disposed of in the FC, neither DOE, its successor nor any other agency within the Federal Government would assume responsibility for the ownership of the FC and this Transfer Agreement shall be terminated.

This Agreement does not require DOE to utilize the FC for the disposal of Federal Facility Waste. DOE has the sole discretion to determine whether it will enter into any contract(s), agreement(s) or other arrangements with *EnergySolutions* for the disposal of waste in the FC, and to determine the terms and conditions of any contract(s), agreement(s) or any other arrangement(s) between DOE and *EnergySolutions* for the utilization of the FC. DOE also has sole discretion to determine whether it will approve of the disposal of Federal Facility Waste in the FC.

In the event of default by *EnergySolutions* of its responsibilities, either under this Agreement or under its License, prior to completion of decommissioning of the FC and Federal Facility Waste has been disposed of in the FC, the parties expect that UDWMRC would utilize financial assurance mechanisms to fully decommission the FC prior to transfer of ownership of the FC to DOE. In the event of default by *EnergySolutions*, the transfer from UDWMRC shall be at no cost to the Federal Government, other than the administrative and legal costs incurred in making the transfer.

DOE has no financial liability for and is not otherwise liable for the financing or performance of construction, operation, or decommissioning of the FC. Any funding by DOE of the costs of assuming ownership and performing long-term stewardship of the FC will be subject to the availability of appropriated funds.

*EnergySolutions* and DOE are parties to the Low-Level Waste & Mixed Low-Level Waste Disposal Contract # 89303318DEM000005, issued on August 23, 2017 (the “Current DOE Disposal Contract”). DOE may dispose of Federal Facility Waste in the FC under the Current DOE Disposal Contract or under future disposal contracts that may

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<sup>1</sup> U.C.A § 19-3-103.7(3) states in pertinent part: “The director shall require as a condition to the disposal by a radioactive waste facility of a total aggregate quantity of more than one metric ton of concentrated depleted uranium: . . . (c) pursuant to an agreement acceptable to the director, that the United States Department of Energy accepts perpetual management of the federal cell, title to the land on which the federal cell is located, title to the waste in the federal cell, and financial stewardship for the federal cell and waste in the federal cell.”

be negotiated between the parties or between EnergySolutions and a DOE contractor or subcontractor.

#### **4.0 Parties**

##### **4.1 Licensee**

EnergySolutions is in the process of applying to UDWMRC for the License in accordance with the Utah Radiation Control Act. This License will be subject to all applicable current and future rules, regulations and orders of UDWMRC.

##### **4.2 Long-Term Custodian**

After the terms and conditions of this Agreement and the License are met, the long-term custodian of the FC will be the DOE or its successor, an agency acting on behalf of the United States of America to further the purposes of the Atomic Energy Act of 1954 (AEA) (Pub. Law No. 83-703) (42 U.S.C. § 2011 et. seq.), as amended. DOE will be responsible for maintaining a closed disposal site (the FC) to protect public health and the environment. DOE will also be responsible for the disposal of LLRW in accordance with section 3(b)(1)(A)-(C) of the LLRWPA. The Office of Legacy Management fulfills DOE's post-closure responsibilities and ensures the future protection of human health and the environment.

#### **5.0 Statutory and Regulatory Basis**

Applicable Federal authorities include, but are not limited to:

1. The AEA (42 U.S.C § 2011, et. seq.) authorizes DOE to acquire both real property and radioactive materials to further the purposes of the AEA.
2. Section 274 of the AEA, (42 U.S.C § 2021), provides for, *inter alia*, the discontinuance of the regulatory authority of the U.S. Nuclear Regulatory Commission (NRC) within a State over the licensing of a facility for the near-surface disposal of LLRW upon agreement between NRC and the Governor of the State. Such agreement was signed by the Chairman of the NRC, and the Governor of Utah on March 29, 1984.
3. Section 3(b)(1)(A)-(C) of the Low Level Radioactive Waste Policy Amendments Act (42 U.S.C. & 2021b *et. seq*) makes the Federal Government responsible for the disposal of certain LLRW.

Applicable State authorities include, but are not limited to:

1. U.C.A. § 19-3 (Radiation Control Act) authorizes regulation by UDWMRC of disposal of radioactive substances including LLRW, including U.C.A. § 19-3-103.7(3), which was amended to require, among other things, an agreement with DOE that DOE will accept perpetual management and title to the land on which the FC is sited if Federal Facility Waste has been disposed of in the FC.

2. U.C.A. § 19-6 (Solid and Hazardous Waste Act) authorizes regulation by UDWMRC of solid and hazardous waste, including the hazardous waste component of mixed radioactive waste.

## **6.0 Terms and Conditions for Real Property Transfer**

### 6.1 EnergySolutions Responsibilities

1. EnergySolutions shall ensure that only Federal Facility Waste is disposed of in the FC. For purposes of this Agreement, and the License, Federal Facility Waste includes LLRW, the disposal of which is the responsibility of the Federal Government under section 3(b)(1)(A)-(C) of the LLRWPA, and does not include any other LLRW for which the Federal Government is responsible under the LLRWPA.
2. Exhibit A to Appendix A provides the legal description of the FC to be conveyed. If modifications are made to the boundaries of the FC, EnergySolutions shall ensure that Exhibit A to Appendix A and this Agreement shall be amended by written agreement of both parties.
3. EnergySolutions shall provide DOE with an environmental baseline survey, which DOE will approve of in writing and that establishes the present site condition prior to any disposal of LLRW.
4. EnergySolutions shall provide DOE periodic reasonable access to the site for review and audits necessary to monitor DOE's interests including, environmental monitoring.
5. EnergySolutions shall decontaminate and decommission the FC in accordance with decommissioning requirements and plans of the License triggering the provisions of this Agreement.
6. If Federal Facility Waste is disposed of in the FC, EnergySolutions shall, prior to termination of the License, and at no cost to DOE, transfer ownership of the land and buildings comprising the FC, together with non-exclusive requisite rights of access appurtenant to the land and buildings of the FC, and title to the Federal Facility Waste within the FC, as specified in the Draft General Warranty Deed attached hereto as Appendix A.
7. Following regulatory closure (license termination), EnergySolutions shall observe, monitor, and carry out necessary maintenance and repairs at the FC disposal site for at least five years, prior to transfer of ownership to DOE and termination of the License by UDWMRC. During this period, EnergySolutions shall monitor LLRW disposal systems and monitoring wells, and share results and actual costs with DOE, to ensure all performance objectives included in the License are met. In the case that performance objectives are not met, EnergySolutions shall repair any systems that do not conform to applicable performance objectives to UDWMRC's and DOE's satisfaction, and the five year post-closure period may be extended to ensure disposal systems are functioning as intended.
8. EnergySolutions shall complete regulatory closure requirements as required by UDWMRC.

9. *EnergySolutions* shall comply with financial assurance requirements in accordance with applicable Federal and State laws and regulations.
10. *EnergySolutions* shall transfer Federal Facility Waste and the FC land and buildings to the DOE without cost to the State or Federal Government, other than the administrative and legal costs incurred in making the transfer.

#### 6.2 DOE Responsibilities:

1. DOE may consult at least annually with the UDWMRC on financial assurance requirements for *EnergySolutions* to ensure the adequacy of funds for closure, post-operational surveillance and institutional control of the FC. The financial assurance mechanism and cost estimates are expected to be reviewed annually by the UDWMRC to assure that sufficient funds are available for closure, surveillance, monitoring, maintenance and other care. DOE may submit comments upon verification of adequacy of funds remaining for long-term care, as appropriate, to the UDWMRC on the adequacy of financial assurance for its consideration and implementation.
2. This Agreement shall be made a part of the Current DOE Disposal Contract as well as any future LLRW disposal contract awarded, task order, or contracting officer's direction to *EnergySolutions* by DOE. DOE's prime contractors and subcontractors may issue task orders to send Federal Facility Waste to the FC so long as DOE has not exercised its rights under section 7.0 or 8.0 of this Agreement. If DOE authorizes other federal agencies' eligible Federal Facility Waste to be disposed of in the FC under non-DOE issued contracts, DOE will provide this Agreement to the cognizant contracting officers in those agencies with the expectation that it will be included by reference in those contracts.
3. This Agreement does not create any responsibilities by the Federal Government for the existing Class A West embankment, the Low Activity Radioactive Waste (LARW) or Mixed Waste cell at *EnergySolutions* Clive, Utah disposal facility, which are separate and distinct facilities for commercial LLRW and are separately licensed.
4. DOE will submit the title for the FC to the Department of Justice (or other appropriate agency) for title review, as required under 40 U.S.C. §3111(a) prior to transfer.

#### 6.3 Joint Responsibilities:

1. *EnergySolutions* and DOE shall complete all site transition activities. Regulatory, real property, environmental, long-term surveillance and maintenance, and administrative responsibilities (e.g., quality assurance, data and records management) will be identified and transition activities completed to the satisfaction of DOE (e.g., in accordance with DOE's Site Transition Framework (see Appendix B) and long-term surveillance requirements to be developed during the transition period, approximately two years prior to decommissioning).
2. DOE and *EnergySolutions* shall update and execute the final General Warranty Deed (see Appendix A) prior to transfer.



3. DOE and EnergySolutions shall create a framework for acceptance and disposal of Federal Facility Wastes. Disposal of these wastes shall be reviewed and approved by DOE on a case-by-case basis.

## **7.0 Termination**

### 7.1 Termination of this Agreement Prior to Execution of the MOA:

If the MOA between UDWMRC and DOE is not executed by the fifth anniversary of the execution of this Agreement (the “Automatic Termination Date”), this Agreement shall automatically terminate on the Automatic Termination Date and the parties shall have no further obligations or liability whatsoever under this Agreement.

### 7.2 Termination of this Agreement After Execution of the MOA But Prior to the Disposal of Waste:

If no Federal Facility Waste, as defined in section 3 of this Agreement, is disposed of in the FC by the tenth anniversary of the execution of this Agreement, this Agreement may be terminated at the request of either party subject to dispute resolution in accordance with section 11 of this Agreement.

## **8.0 Breach of Current DOE Disposal Contract and/or Transfer Agreement after Disposal of Waste and Prior to Transfer of the FC**

1. Prior to the transfer of the FC under this Agreement, if EnergySolutions has disposed of any Federal Facility Waste in the FC, and if a breach of this Agreement also constitutes a breach of any clause under the Current DOE Disposal Contract, or any associated task order, or other instrument, then the procedures under the Current DOE Disposal Contract’s termination for default clause will apply. DOE shall ultimately take title to all Federal Facility Waste, land and buildings as provided in this Agreement. The provisions of Section 8.3 shall apply.
2. Prior to the transfer of the FC under this Agreement, if EnergySolutions has disposed of any Federal Facility Waste in the FC, and DOE asserts that EnergySolutions knowingly and willfully breaches this Agreement, the provisions of section 8.3 shall apply. The parties will enter into a revised General Warranty Deed. DOE shall take title to only the Federal Facility Waste within the FC that has been disposed of as of the effective date of suspension, together with the land and any buildings on the FC.
3. Cure of Breach:
  - a) DOE shall provide a written notice to EnergySolutions specifying a breach of the Transfer Agreement and/or Current DOE Disposal Contract.
  - b) As part of any notice by DOE of a breach of this Agreement and/or Current DOE Disposal Contract, DOE may request, that EnergySolutions shall immediately suspend the acceptance of Federal Facility Waste for disposal in the FC. EnergySolutions may invoke dispute resolution under section 11 of this Agreement, during which period the waste disposal suspension continues.



- c) *EnergySolutions* shall have thirty (30) working days to cure such breach. Any such cure period may be extended by written mutual agreement.
- d) If the parties are unable to reach a mutually agreed upon resolution of a dispute following the expiration of the cure period or when the parties jointly end dispute resolution, whichever is later, DOE may in its sole discretion provide a written notice of termination of waste acceptance notice to *EnergySolutions*.
- e) If DOE provides a notice of termination of waste acceptance to *EnergySolutions*, the following shall apply:
  - Section 4.2 and section 6.0 shall survive termination with respect to those responsibilities necessary to implement decommissioning and transfer as defined in the revised General Warranty Deed and amendment to this Agreement.
  - *EnergySolutions* is not authorized to dispose of any more waste in the FC.
  - *EnergySolutions* shall notify all affected contract holders and waste generators of such termination of waste acceptance.

## **9.0 Responsibilities**

1. Subject to section 8.1 above, this Agreement constitutes the entire agreement between the DOE and *EnergySolutions* pertaining to the FC land and buildings and the transfer thereof to DOE and supersedes all prior agreements, understandings, negotiations, and discussions, whether oral or written, of the parties pertaining to the scope of this Agreement.
2. This Agreement does not preclude DOE or *EnergySolutions* from seeking to amend this Agreement, nor does it affect any other agreement to which the DOE or *EnergySolutions* may currently be, or decide to be, a party not pertaining to the scope of this Agreement.

## **10.0 Limitations**

This Agreement is not a fiscal, funds, or Task Order obligation document. Nothing in this Agreement authorizes or is intended to obligate the Parties to spend, exchange, or reimburse funds, services, or supplies. No funds will be expended or obligated pursuant to this Agreement prior to, or in excess of, the appropriation of funds for the purpose of this Agreement in accordance with the Anti-deficiency Act (31 U.S.C. §§ 1341 (a)(1)(A) and (B)).

## **11.0 Dispute Resolution**

This Agreement is a legal document and shall be enforceable by or against the parties to this Agreement or by such parties' legal successors. The parties hereby reserve all other non-real property related rights and interests in the FC not otherwise defined by this Agreement. In the event of a dispute, the Parties shall make every effort to exhaust all informal dispute resolution options including but not limited to the use of non-binding third-party facilitators.

## 12.0 References

1. 42 U.S.C. § 2011, *et. seq.*, Atomic Energy Act of 1954, *United States Code*.
2. DOE's Site Transition Framework for Long-Term Surveillance and Maintenance.
3. *Regulations of the Attorney General Governing the Review and Approval of Title for Federal Land Acquisitions (2016)*.

**13.0 Approved By**

The United States of America, Acting by and through the Department of Energy



Senior Advisor for Environmental Management to the Under Secretary for Science



EnergySolutions, LLC

Dated: 4/30/20

**Appendix A: Draft General Warranty Deed**

*(See attached)*

<p><b>TO BE EXECUTED IN THE FUTURE, JUST PRIOR TO TERMINATION OF THE LICENSE, AT TIME OF TRANSFER OF LAND AND PROPERTY</b></p>
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Prepared By and To Be Returned to: TBD, Attorney, U. S. Department of Energy, or successor

GENERAL WARRANTY DEED

STATE OF UTAH	§	KNOW ALL BY THESE PRESENTS:
	§	
COUNTY OF TOOELE	§	

This conveyance, made this \_\_ day of 2\_\_, between *ENERGYSOLUTIONS*, LLC, a Utah Limited Liability Company, or its successor, established by the laws of the State of Utah, and whose address is: 299 South Main Street, suite 1700, Salt Lake City, UT 84111 ("GRANTOR"), and the UNITED STATES OF AMERICA, whose address is: Washington, DC, ("GRANTEE"), consists of one section.

**1. SECTION 1: Conveyance with General Warranty of Title.** GRANTEE, hereby grants, bargains, transfers warrants and conveys to the GRANTEE, and its assigns, the real property (hereinafter called the "Tract of Land") situated in the County of Tooele, State of Utah, more particularly described on Exhibit A attached hereto and made a part hereof, together with and any and all buildings situated on the Tract of Land and title to any and all waste and containers of waste located within the Tract of Land (collectively, the "Property"). This conveyance excludes any right, title and interest in and to the minerals in and under the Tract of Land.

The acquiring federal agency is the Department of Energy, having an office address c/o Office of Environmental Management, TBD, Attn. TBD, Realty Officer.

To have and to hold the above described Property, together with all and singular the rights and appurtenances in any way belonging to the land. GRANTEE also hereby grants to GRANTOR a perpetual, non-exclusive appurtenant easement (the "Access Easement") on, over and across that certain tract of land more particularly described on Exhibit B attached hereto and made a part hereof (the "Easement Tract") to be used solely for the purpose of vehicular ingress and egress to the Property, such vehicular access to include automobiles, trucks and heavy equipment. GRANTOR reserves unto itself, its successors and assigns, the right to use and enjoy the Easement Tract for any lawful purposes, provided that such use does not unreasonably interfere with the exercise by Grantee of the rights hereby granted. In its use of the Easement Tract, GRANTEE shall not unreasonably interfere with GRANTOR's use thereof or with GRANTOR's operations and activities on GRANTOR's land adjacent to the Easement Tract.

The Grantor hereby covenants with the United States of America and its assigns that said Grantor is lawfully seized of said Property as above noted; that said Property is free from encumbrances except as noted on Exhibit C attached hereto and made a part hereof; that Grantor has legal power and lawful authority to convey the same; and that Grantor warrants and will defend title to the above-described Property against the lawful claims of all persons whomsoever arising by, through, or under Grantor during its period of record ownership as above noted, but not otherwise.

**IN WITNESS WHEREOF**, the Grantor has set its hand the \_\_\_ day of TBD, TBD.

**ENERGYSOLUTIONS, LLC, a  
UTAH Limited Liability Company**

**BY:** \_\_\_\_\_

**ATTEST:** \_\_\_\_\_

EXHIBIT A: Description of Tract of Land

**ACKNOWLEDGEMENT**

STATE OF UTAH  
County of Salt Lake

The foregoing instrument was acknowledged before me this \_\_ day of \_\_\_\_\_, by as officer of *EnergySolutions*, LLC, a Utah Limited Liability Company, on behalf of said limited liability company.

Witness my hand and official seal.

\_\_\_\_\_  
Notary Public  
My Commission Expires:



## EXHIBIT A

FIELD NOTE DESCRIPTION OF A 58 ACRE TRACT OF LAND OUT OF SECTION 32, OF TOWNSHIP 1 SOUTH AND RANGE 11 EST, SLBM, TOOELE COUNTY, UTAH,

defined by the following points of reference:

Southwest Corner: Latitude 40° 40' 55.05547" N  
Longitude 113° 07' 24.76157" W  
Elevation 4266 feet above mean sea level (amsl)

Southeast Corner: Latitude 40° 40' 54.93295" N  
Longitude 113° 07' 07.66161" W  
Elevation 4266 feet above mean sea level (amsl)

Northwest Corner: Latitude 40° 41' 12.59025" N  
Longitude 113° 07' 24.54541" W  
Elevation 4266 feet above mean sea level (amsl)

Northeast Corner: Latitude 40° 41' 12.46773" N  
Longitude 113° 07' 07.44420" W  
Elevation 4266 feet above mean sea level (amsl)

**EXHIBIT B [legal description of Easement Tract]**

**[Exhibit B to be provided two years prior to decommissioning]**

**EXHIBIT C [list of any specific permitted encumbrances]**

**[Exhibit C to be provided two years prior to decommissioning]**

**Appendix B:**  
***DOE Site Transition Framework for Long-Term Surveillance and Maintenance***

*(See attached)*

## **SITE TRANSITION FRAMEWORK FOR LONG-TERM SURVEILLANCE AND MAINTENANCE**

This document provides a framework for all U.S. Department of Energy (DOE) facilities and sites where DOE may have anticipated long-term surveillance and maintenance (LTSM) responsibilities. It is a tool to help facilitate a smooth transition from remediation to LTSM, providing a systematic process for affected parties to utilize in analyzing the baseline to understand and manage the actions from EM mission completion through a site's transition into LTSM.

The framework is not meant to provide an exhaustive list of the specific requirement and information that are needed. Sites will have unique considerations that may not be adequately addressed by this tool, and it is anticipated that a team comprised of the transferring and receiving organization will use judgment in utilizing this augmenting with other DOE guidance. However the framework should be followed to the extent possible at each site; and adapted to accommodate unique site-specific requirements, needs, and documents. Since the objective of the tool is facilitate better understanding of the conditions of the site and the actions required for transfer, the transition team utilizing the checklist is expected to consult with management of both the receiving and transferring organization to verify that major concerns are addressed.

Ideally, this framework should be used as early in the remediation process as possible. Subsequent applications of the Site Transition Framework (STF) to the site should be conducted periodically and used to verify that all appropriate steps have been or will be taken to close-out the site and that actions by both organization are identified to transfer the site to LTSM. The requirements are provided below:

### **I. Authorities and Accountabilities are Assigned and Documented:**

All interested parties' assignment of accountability and authority for long-term surveillance and maintenance has been identified and documented.

- A. All documents allocating the roles and responsibilities of interested parties have been approved and signed (e.g., Memorandum of Agreement, Memorandum of Understanding, Interagency Agreement, Cooperative Agreement).
- B. Each federal or non-federal entity that will be responsible for long-term surveillance and maintenance activities listed in Section I (A) has been identified. Funding sources for each activity have been identified and documented in section VI.
- C. Appropriate governmental requirements, policies and procedures for managing resources are incorporated into the long-term surveillance and maintenance plan and agreements.
- D. The legal authority under which long-term surveillance and maintenance will be conducted has been identified and documented or a "reservation of rights" has been indicated.
- E. Authorities relating to Institutional Controls are further discussed in paragraph IV.

## **II. Site Conditions are Accurately and Comprehensively Documented:**

All documentation-identifying site historical uses characterization, and remedial action, including the Preliminary and Final Closeout Reports have been completed and made available to the public. Where available, the information identified in this section should be of survey quality and have Global Information Systems (GIS) references.

- A. The site at the time of closure, including all remedies and remaining hazards, has been described. Examples include, but are not limited to, the following:
  - 1. Physical features of the site, including, site topography, geology, hydrogeology, geomorphology, seismicity, site and area boundaries, and other features relevant to the long-term performance of the site.
  - 2. Locations of active, inactive, and decommissioned buildings, structures, and surface and subsurface infrastructure (e.g., utilities).
  - 3. Locations of residual hazards and associated engineered and institutional control systems.
  - 4. Locations of groundwater wells, wastewater outfalls, and air quality monitoring stations. Information has been depicted onsite maps.
  - 5. For those sites undergoing closure, locations of off-site buildings and structures, important ecological resources, and associated potential receptors in the vicinity of the site.
  - 6. Characteristics of the remaining contaminants (e.g., radioisotope, activity, and physical form).
  - 7. Describe the initial risk at the site and the risk remaining at the site following remediation. This will be used to provide a reference baseline.
  - 8. The existence and basis for decisions on cleanup levels for the end state such as a "No Further Action" should be indicated.
- B. For those sites undergoing closure, a conceptual site model for long-term surveillance and maintenance has been completed (if deemed applicable), showing the relationships between existing residual hazards, environmental transport mechanisms, exposure pathways, and human/ecological receptors.
- C. All remedial action(s) and associated documentation have been completed and approved by regulators.
- D. Results of any Natural Resource Damage Assessment claims, where applicable, performed with associated documentation has been identified. This assessment should discuss the Department's potential environmental liability at the site.

## **III. Engineered Controls, Operation & Maintenance Requirements, and Emergency/Contingency Planning are Documented:**

- A. Engineered controls have been identified and documented. The information should include but not be limited to the following:
  - 1. Design and construction drawings, specifications, and completion report.

2. Site physical and geotechnical data.
  3. Locations of engineered controls accurately identified and depicted on site maps.
  4. Identification of on-going remediation and related waste management activities.
  5. Performance history assessments indicating successful operation.
- B. A life-cycle cost estimate, including basis and assumptions. The life-cycle cost estimate should be based on best available data but should also include a reasonable and prudent amount for future contingencies, recognizing that in most cases the long-term surveillance and maintenance activities may be on-going until such a time that no hazards remain to human health and the environment. The results of the lifecycle cost should be documented in section VI-B
- C. A master schedule of on-going activities has been made available,
- D. The Risk Based End State including exit criteria outlining if and/or when engineered controls are no longer necessary should be identified along with the supporting information. If exit criteria will be implemented while hazards to human health and the environment remain, a Probabilistic Risk Assessment (PRA) over several half-lives should be provided to justify the exit strategy and the discontinuance of the engineered controls.
- E. Operation & Maintenance (O&M) activities have been documented, funding is in place, and a party has been selected to perform the necessary activities.
1. Surveillance and monitoring requirements have been documented (e.g., scope frequency, reporting, process descriptions, and analytical parameters and methods). This document should allow for optimization that is consistent with the selected remedy.
  2. The cost, including basis and assumptions, of operations, maintenance and surveillance activities has been estimated, documented, and revised periodically as experience dictates. The request for funding should be in accordance with applicable budget appropriations procedures.
  3. An agreement and/or contract is in place for performance of all O&M activities during long-term surveillance and maintenance if an outside party will be performing these activities.
- F. Emergency/Contingency planning and the authority and responsibilities to implement have been identified.
1. Uncertainties associated with residual hazards, fate and transport mechanisms, exposure pathways, and the effectiveness of long-term surveillance and maintenance activities have been identified.
  2. Scenarios related to each uncertainty have been identified (e.g., failure scenarios).
  3. Roles, responsibilities, and procedures to respond to each scenario have been established.
  4. The conceptual site model developed in support of the remedial action or closure decision should be routinely reviewed, updated and re-evaluated based on new technical information and on monitoring data collected during stewardship of the site.



5. Emergency and catastrophic planning such as fires, floods, etc. shall be documented

#### **IV. Institutional Controls, Real Property Records, and Enforcement Authorities are Identified:**

- A. Land Use/Institutional Controls have been identified, approved by the regulator(s) (if applicable) and implemented. All institutional control components of each implemented remedy are described (e.g., future lands use assumptions upon which each implemented remedy is based, associated land use restrictions). If engineered barriers are relied upon as part of the remedy requiring institutional controls, assumptions regarding the longevity and performance of these barriers should be identified.

On-site and off-site land uses for each area (property) and its associated land use assumptions have been identified.

Procedures for managing, assessing potential changes in, and enforcing on-site and off-site (as appropriate) land uses have been documented and are being conducted.

Institutional controls established as part of an implemented remedy have been identified and a process is in place to monitor and document these institutional controls.

Roles and responsibilities have been outlined for responding to requests to change existing land uses that is consistent with the land use assumed during implementation of the selected remedy.

Procedures have been put in place for periodic review of land uses and institutional controls to ensure that they are being maintained and remain protective.

Performance history indicating successful operation has been documented.

Procedures for management and periodic reassessment of institutional control restrictions are in place.

Off-site easements implemented to ensure the protectiveness of the remedy has been documented and a process in place to enforce/maintain these easements.

Exit criteria outlining when engineered controls/institutional controls are no longer necessary has been documented, if not previously documented in the Records of Decision (ROD) or other appropriate document.

- B. Property records (as required by applicable regulations and/or guidance) are complete. Examples of property records are provided below. A more complete list is provided in attachment 1.
  1. The site's real estate history has been documented, including identification of former property owners, deed restrictions, or other land use restrictions.
  2. Site boundaries and site markers are easily identified and documented.
  3. On-site and off-site easements, rights of way, and other property access rights have been established and documented. Preferably, this information should be depicted on site maps.
  4. Water, mineral, and other natural resource rights have been identified.
  5. Tribal treaty rights and other U.S. Government obligations have been identified.
  6. Areas where long-term surveillance and maintenance activities will be conducted have been documented in the property records.

**V. Regulatory Requirements and Authorities are Identified:**

Regulatory requirements regarding residual contamination have been identified. Pertinent regulatory documents are maintained and available to the public (e.g., RODS, Resource Conservation and Recovery Act (RCRA) Permits and Corrective Action Decisions, Consent Orders, Interagency Agreements, Federal Facility Agreements).

- A. All regulatory decision documents and associated site characterizations have been identified and are either complete or scheduled for completion (e.g., all remedial action activities regarding the soil have been completed, but the impacted groundwater is in the process of being resolved) and are maintained in accordance with regulatory requirements.
- B. The implemented remedy and associated long-term surveillance and maintenance activities are verified to be in compliance with all regulatory requirements (e.g., appropriate agreements have been entered into with appropriate regulator(s)).
- C. CERCA Five-Year Review or other review results have been made available. Future periodic reviews (not to exceed five years), including supplemental analysis of site-wide Environmental Impact Statements (if applicable and/or required), should be planned and consistent with existing guidance.
- D. The United States Environmental Protection Agency (EPA) National Priority List (NPL) Status and/or RCRA permit status, or state requirements and the basis for these requirements have been clearly indicated (e.g., de-listing, partial de-listing, non-NPL).
- E. Nuclear Regulatory Commission (NRC) License Status has been established. This should identify the license holder and the development of license transfer plans.
- F. Locations of documents have been identified and made accessible. A process should be in place to ensure that the documents are maintained and kept current (e.g., new technology updates for records management).

**VI. Long-term Surveillance and Maintenance Budget, Funding, and Personnel Requirements are Identified:**

Sites should be consistent with and follow their prescribed guidance in determining budget, funding, and personnel requirements. Some of the elements in this section may not apply.

- A. A technical baseline document for long-term surveillance and maintenance programs and activities at the site has been developed. The LTSM baseline includes activities to be conducted by the receiving organization.
- B. Funding (consistent with technical baseline) and supported by cost-estimates (section III).

Any funds for long-term surveillance and maintenance have been identified and are made available.

Estimates for the annual funding requirements for long-term surveillance and maintenance activities, associated oversight, and information management requirements have been derived and have been included in the Annual Budget Request to Congress.

Funding assurances have been made based on those estimates.

Mechanisms to transfer funds required for long-term surveillance and maintenance have been established.

Funding mechanisms for long-term surveillance and maintenance activities and regulatory oversight activities conducted by other federal and non-federal entities have been established (e.g., documentation of financial assurance agreements for long-term monitoring and surveillance funding).

Estimates required for financial assurance payments have been determined.

Authority has been granted to the steward to use, or have access to, funds related to long-term surveillance and maintenance.

- C. Personnel requirements have been identified (for activities not previously addressed within this set of criteria).
  - 1. All personnel functions and qualifications necessary for the technical implementation and administration of long-term surveillance and maintenance activities have been identified.
  - 2. A determination for the need of other on-site personnel has been made identifying the specific duties that may be required.
  - 3. A closeout plan for the disposition of excess federal full time equivalents has been developed.
  
- D. A business close out process has been developed (see section X)

## **VII. Information and Records Management Requirements are Satisfied:**

Records and information for LTSM turnover or retention plans are reflected in post closure or disposition plans.

- A. The Transfer of Information and Records.
  - 1. Agreements are in place identify the disposition of records that do not transfer to the receiving organization (e.g. current contract records, current litigation records, TRU waste related records, classified information etc.)
  - 2. Information and records needed for long-term surveillance and maintenance, property management, and government-owned contractor-operated pensions, annuities, and benefits, have been identified, including classified information.
  - 3. Practices and procedures for the transition of information systems and records have been established. For example, guidance is provided in the document "*Legacy Management Information and Records Management Transition Guidance.*"
  - 4. The guidance and operations information for information systems, including meta-data, have been identified and transferred along with the information systems.
  - 5. A Site Information and Records Transition Plan has been developed and approved, which establishes a framework to address site-specific records and

information requirements, including storage locations, special handling needs, and spatial data, and access and retrieval requirements.

6. The location(s) for storage and maintenance of site records and information systems has been identified and approved.
  7. A records tracking system has been implemented and standards for data formats, finding aids, and indices have been provided to the transfer site.
  8. Information from the transfer site's records tracking systems has been migrated to the tracking system, along with locator guides and indices.
  9. Records, and record location specified in agreements (section V) identified along with points of contact.
- B. Information and records management planning has been performed and is acceptable to the stakeholders, as required under regulatory requirements for stakeholder involvement and public availability.

Systems and procedures for the archival of long-term surveillance and maintenance information in one or more on-site or off-site repositories have been developed. Retention schedules that are appropriate for the management of records for long-term surveillance and maintenance needs have been developed.

Systems and procedures to establish and facilitate public access to and retrieval of records and information critical to long-term surveillance and maintenance are in place. Examples could include, but are not limited to, Internet access, local library, on-site information center (e.g., Interpretive Center, Museum, etc.), etc. The National Archives and Records Administration have been engaged, through the DOE Office of Chief Information Office, to approve any transfer of records past their retention dates, or the loan of current records to organizations outside of DOE.

The DOE librarian and DOE historian should be consulted regarding the transfer of non-record materials, such as library materials and other items that may have historic value, before agreements are made regarding their transfer to non-DOE entities.

Classes of long-term surveillance and maintenance information users and their access requirements have been identified and solutions have been implemented.

Information in DOE approved information systems such as those identified in DOE order 430.1B required for LTSM identified.

## **VIII. Public Education, Outreach, Information and Notice Requirements are Documented and Satisfied:**

Any community involvement and associated community relations plans should be governed by existing participation standards and systems.

- A. List of site stakeholders with associated address information has been developed and a process is in place for updating this list.
- B. Annual or more frequent updates of the administrative record and on-site information repository are made available to interested parties. Community involvement tools have been developed (e.g., fact sheets, newsletters, email notifications, public meetings, etc.).

- C. Costs associated with public involvement have been estimated (e.g., oversight committees, meeting locations, etc.). Funds sufficient for public involvement should be included in the funding requests.
- D. Updates of the administrative record/information repository on-site are annually (at a minimum) made available to interested parties.

**IX. Natural, Cultural and Historical Resource Management Requirements are Satisfied:**

- A. A discrete system or process is in place to protect information about sensitive and natural resources from inappropriate or unauthorized use or access.
- B. Biological resources, threatened and endangered species, archeological and cultural resources, Native American treaty rights, and/or other natural and cultural resources requirements have been identified and satisfied.
- C. Locations and characteristics of natural and cultural resources, needing long-term surveillance and maintenance, have been identified (e.g., precise locations and characteristic of cultural and natural resources that require long-term surveillance and maintenance have been identified). A management system is in place and operating successfully.

**X. Business Closure functions, Pension and Benefits, Contract Closeout or transfer, and other Administrative Requirements are Satisfied**

Actions required by the completing organization and receiving organization related to business closeout function are identified and reflected in requirements, policies and procedures (section I. C) schedules and cost estimates (section III. B. C) and Budgets (section VI)

- A. Determination has been made for who will be responsible for the administration of:
  - 1. Retiree benefits and pension fund(s)
  - 2. Workforce transition services
  - 3. National Defense Authorization Act for Fiscal Year 1993, Section 3161 Tuition Reimbursement Program and Relocation and Entrepreneurial Resource Program
- B. Current Contractor Pensions and Benefits needs are identified and planned:
  - 1. Information about current benefit plans has been obtained
  - 2. Post-closure benefits administrator is identified and appointed
  - 3. Employment dates, salary, and clearances verified
  - 4. Personnel-related databases (including manual systems) and records responsibility identified
    - a. Employment history and Personnel Files
    - b. Historical radiological dose records
    - c. Medical records
    - d. Retiree pension and benefit records

- e. Clearance History Files
  - f. Training Records
  - 5. Scope for reconciling the accounts identified
- C. Status of pending litigation and liabilities identified. (Generally these actions should be completed by the transferring organization):
- 1. Pollution Liability Policy
  - 2. Auto Liability Policy
  - 3. General Liability Policy
  - 4. Fiduciary/Crime/Medical Malpractice Liability Policy
  - 5. Government Rating Plan for Workers Compensation
  - 6. Non- Government Rating Plan Workers Compensation Claims
  - 7. Unresolved Hourly Employee Claims
  - 8. Beryllium Liability Claims
  - 9. State or community litigation or claims
  - 10. Pending citizen action suits
- D. Contract termination actions (These actions will normally be completed by the transferring organization unless contracts are required for LTSM.):
- 1. Contract closeout actions for closure of restoration contracts shall be identified
  - 2. Contracts and financial agreements required for LTSM identified (see section I.B)
- E. Requirements of DOE orders satisfied.
- 1. Facility Authorization Basis terminated
  - 2. Price Anderson Authorities oversight
  - 3. Reporting to IAEA terminated
  - 4. Disposition of personal property items

## Real Property Requirements

### I. Real Property Information Requirements

All real property information requirements must be identified and documentation must be obtained prior to any sites transfer to Legacy Management (LM). Real property assets are defined as any interest in land, together with the improvements, facilities, structures, and fixtures located thereon, including prefabricated movable structures and appurtenances thereto, under the control of DOE. Real Property Assets are further defined in the *Federal Management Regulations* §101-476.103-12. Consider the following, as applicable:

- Determine what interests will remain at closure both on site and off site, including land, easements, minerals, water rights, well permits, licenses, and permits.
- Determine any other in grants or out grants proposed for transfer to LM.
- Determine future land use for property.
- Obtain as-built drawings for any remaining improvements and utilities.
- Obtain existing maintenance/operations plans and procedures.
- Perform a physical inspection of facility.
- Complete information on any ongoing acquisition/disposal efforts

Where applicable, the below, real property information requirements must be met prior to a properties transfer to LM.

### II. General Information Needed:

- All the below information should be documented, stored, and available for LM use:
  - Identification of Authority used to acquire the interests
  - Identification of all jurisdictions that exist
  - Identification of proprietary, exclusive, or other federal interests including off-site interests such as easements, licenses and permits
  - Identification of each grantor
  - Indemnification granted

### III. Budget and Accounting Data:

- The budget authority to any areas such as leases, operation and maintenance of improvements, and infrastructures are transferred to LM.
- PILT Money
- Integrated facility infrastructure documentation
- MARS record
- Quarterly Maintenance

### IV. Land:

- All the below information should be documented, stored, and available for LM use:
  - Identification of the type of title and whether title is held by the agency or the United States
  - Request U.S. Army Corps of Engineers or other agency real estate records.
  - Identification of where original real estate records are located and whether the real estate record is complete, including acquisition instrument and deeds, withdrawal records and *Federal Register* Notices, title plats, legal descriptions and plats, surveys, and maps
  - Identification of outstanding interests, such as out leases or easements, deed restrictions, or nonfederal controls or other burdens on the property (such as highway and utility rights-of-way).



- Identification, if applicable, of any federally funded off-site improvements (e.g., roads, traffic lights).
- All unneeded real property in grants and out grants must be terminated prior to transfer
- Identification of any RCRA/CERCLA transfer restrictions
- Identification of local government with jurisdiction for the property
- Realty instruments have been recorded and any zoning or tax issues have been identified
- Real Property Asset Management (RPAM)-required, 10-Year Plan has been completed.
- Identification of existing land use, zoning, and proposed land use if available
- Identification of any subsurface (mineral, oil, gas) rights
- Identification of any water rights, well permits
- PILT requests granted or pending
- FIMS is complete and up to date

V. Maps, Plats, and Exhibits:

- All the below information should be documented, stored, and available for LM use:
  - Official land surveys, monumentation records, and cadastral surveys records stored and available for use
  - Official site maps, mineral rights maps, water rights maps, well permit maps, easement maps and legal descriptions, oil and gas lease maps, and tribal trust land properly georeferenced in accordance with state or latitude/longitude coordinates and standards.
  - Master title plats, title plats, and county title plats
  - Legal descriptions and recorded data
  - Existing and abandoned utility improvement easements maps
  - Location of monuments

VI. Mineral Rights:

- All the below information should be documented, stored, and available for LM use:
  - Identification of mineral interests owned by the United States
  - Location of minerals severed from the surface estate
  - Location of any permitted mining operations

VII. Water Rights:

- All the below information should be documented, stored, and available for LM use:
  - Identification of water rights owned by the United States
  - Location of water rights retained by the former owner of the property
  - Location of outstanding water conveyances on the property and information on the easement holders - Provide copies of the easements
  - Description of surface water rights
  - Description of the surface water impoundments

VIII. Well Permits:

- All the below information should be documented, stored, and available for LM use:
  - Identification of well permits that exist for the United States
  - Identification of any state abandonment requirements
  - Identification of the state regulatory authority and point of contact
  - Identification of any off-site permits and access agreements -Provide copies of the records and instruments to LM
  - Data for FIMS is completed and up to date

IX. Leasehold Interests:

- All the below information should be documented, stored, and available for LM use:
  - Identification of any existing leases and expected expiration dates - Provide copies of the contracts to LM
  - Identification of any granted leaseholds to others (out grants)
  - Data for FIMS is complete and up to date

X. Other Real Property Interests

- All the below information should be documented, stored, and available for LM use:
  - Identification of any real estate ICs, such as deed restrictions, covenants, zoning agreements, or easements
  - Identification of any restrictions on the use of airspace over the site and point of contact if there are any restrictions
  - Subornated rights of others

XI. Infrastructure

- All the below information should be documented, stored, and available for LM use:
  - Identification of buildings or other structures that will remain
  - Identification of any leasehold interests associated with any buildings and other structures that will remain - If so, provide addresses of the leaseholders, copies of the contract
  - Identification of the costs, restoration requirements, cancellation or termination costs, and time frame for notices
  - Identification of all structures that will remain
  - Identification of any dam safety requirements or annual inspections and reports required
    - Power generation systems
    - Treatment systems
    - Fencing
    - Disposal facilities
    - Electrical distribution stations
    - Extraction wells
    - Injection systems
    - Surface water structures (e.g., drainage channels, streams, dams, ponds flow controls, flow diversions)
  - Identification of existing utilities that will remain
  - Identification of types and names of service providers (e.g., transmission or service, electric, natural gas, domestic water, sewage)
  - FIMS requirements must be met and applicable fields must be populated, complete and up to date
  - Identification of the FIMS administrator for the property
  - Identification of security requirements that will remain or be needed with the transition
  - Identification of maintenance management system used