

SITE TRANSITION SCOPE AND TRANSITION PROCESS

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ABSTRACT

The U.S. Department of Energy's (DOE's) effort to accelerate site cleanup is resulting in the early completion of sites that no longer support departmental missions. To ensure the long-term protection of human health and the environment at these sites as well as the continuity of worker benefits, the Department created the Office of Legacy Management (LM) in December 2003.

After the DOE Office of Environmental Management (EM) cleanup mission is completed at a site and there is no continuing mission, responsibility for the site and/or the associated records will be transferred to LM. Where residual hazards (e.g., disposal cells, groundwater contamination) remain, active long-term surveillance and maintenance (LTS&M) will be required to ensure protection of human health and the environment.

LM responsibilities include the transition process, transition requirements, and transition policies that govern the site transition efforts. Related activities and obligations include development and use of the Site Transition Plan, the LTS&M Plan, relationship between site transition and the Critical Decision (CD) process, records management, and post-closure regulatory environment. Lessons learned from current efforts to manage the transition process at the EM closure sites are also addressed.

INTRODUCTION

During World War II and the Cold War, the Federal Government developed and operated a vast network of industrial facilities for the research, production, and testing of nuclear weapons, as well as other scientific and engineering research. These processes left a legacy of radioactive and chemical waste, environmental contamination, and hazardous facilities and materials. Since 1989, the Department has taken an aggressive accelerated cleanup approach to reduce risks and cut costs. At most sites, because of financial and technical impracticality, some residual hazards will remain at the time cleanup is completed. The Department has an obligation to protect human health and the environment after cleanup completion. To meet this post-closure obligation, the Department created the Office of Legacy Management (LM) in fiscal year (FY) 2004 to manage the Department's post-closure responsibilities and to ensure the future protection of human health and the environment.

As a site nears cleanup completion, LM and the transferring organization must begin to plan and prepare to ensure a smooth transition. For example, the post-closure technical and programmatic requirements and the expected long-term surveillance and maintenance (LTS&M) activities must be identified prior to transfer. Also, a Site Transition Plan will be prepared so that progress can be tracked and issues that may potentially affect the schedule can be resolved to prevent delays in the transfer. Therefore, it is important that both LM and the transferring organization agree to the date of the transition with enough time to adequately conduct the transition. While there is not a set time limit, the notification should allow enough time for both organizations to successfully execute the transition. It is expected that, for a small site, notification of 4 to 6 months may be adequate. However, for a large site (e.g., Rocky Flats, Mound, and Fernald), notification of 2 years or more may be necessary to ensure a smooth transition. The current EM guidance states that at least 3 years prior to the transfer, EM initiates the discussion with LM (EM National FOCUS Project Fact Sheet "EM Completion: Transitioning LTRA Responsibilities," June 2003).

This paper provides discussions on two areas of site transition: (1) site transition scope (i.e., which sites are expected to come into LM in coming years) and (2) site transition policies and guidance.

SITE TRANSITION SCOPE AND SCHEDULE

Immediately upon organizational standup, LM had custodial responsibility for 66 sites. These sites were under the management of DOE's then called Grand Junction Office that became part of the LM organization. During the next 5 years, LM expects to receive responsibility for an additional 56 sites from the Office of Environmental Management (EM) and other agencies, including the Formerly Utilized Sites Remedial Action Program (FUSRAP) and the Uranium Mill Tailings Radiation Control Act (UMTRCA) sites. Figure 1 provides a summary of the cumulative number of sites that will be transferred to LM through FY 2010.

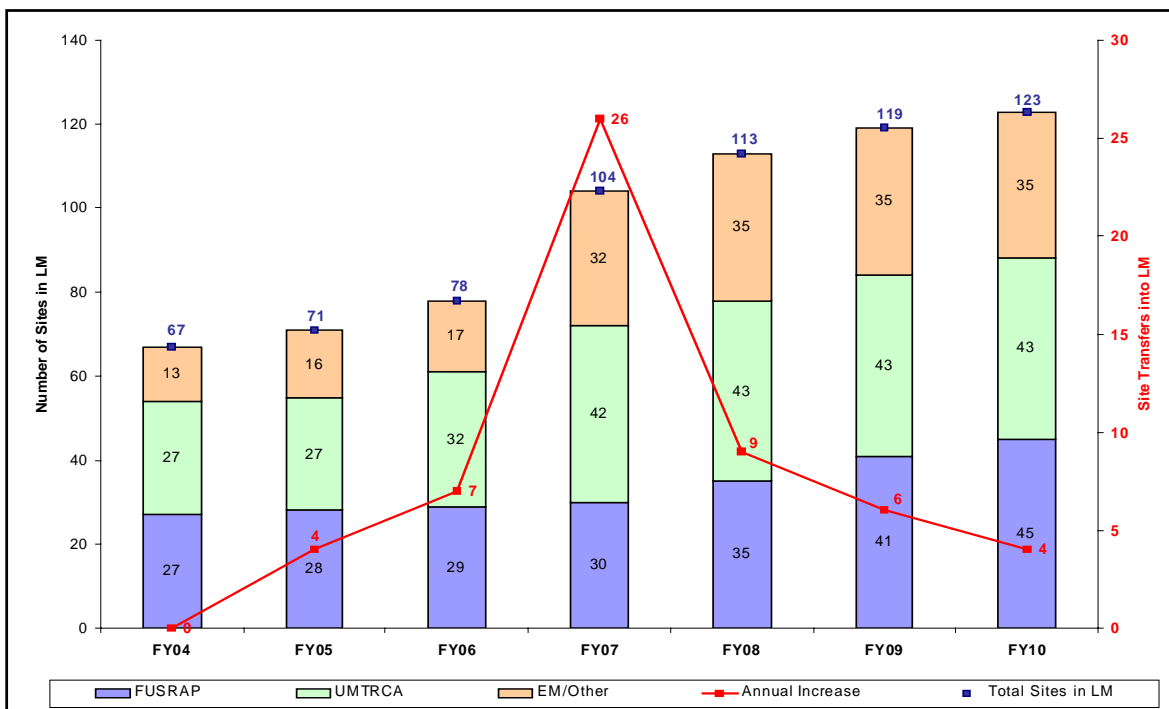


Fig. 1. Cumulative number of sites LM expects to receive through FY 2010

Transferring Organizations

The current schedules for the transfer of each site to LM, by each transferring organization, are presented in the following sections.

Sites Transferred From EM

EM is DOE's cleanup program with the goal to accelerate cleanup of the nuclear weapons manufacturing and testing sites, completing cleanup of 108 contaminated sites by 2025. As EM sites that have been cleaned up become excess to DOE's mission, they will require long-term post-closure management. Table I presents the schedule for EM sites that will be transferred to LM.

Table I. Schedule for Transfer of Sites From EM

FY 2005	FY 2006	FY 2007	FY 2008
General Atomics Hot Cell Facility, CA Geothermal Test Facility, CA Missouri University Research Reactor, MO	Laboratory for Energy Related Health Research, CA	Rocky Flats, CO Fernald, OH Ashtabula, OH Mound, OH BCL, OH Nevada Offsites (8 sites)	Inhalation Toxicology Laboratory, NM General Electric Vallecitos Nuclear Center, CA Energy Technology Engineering Center, CA

Sites Transferred From FUSRAP

DOE established FUSRAP in 1974 to remediate sites that were contaminated during the 1940s and 1950s as a result of researching, developing, processing, and producing uranium and thorium ore products for the nation's nuclear weapons program and storing processing residues. DOE assessed more than 600 candidate facilities and identified 46 sites that required remediation. Between 1981 and 1997, DOE remediated 25 sites of the 46 sites.

Congress transferred responsibility for FUSRAP site characterization and remediation to the U.S. Army Corps of Engineers in 1997 as part of the Energy and Water Development Appropriations Act of 1998. The Corps of Engineers assumed responsibility for cleanup of the remaining 21 of the 46 sites and for surveillance, operation, and maintenance at a site for 2 years after site closeout, defined as the completion of cleanup and publication of notice in accordance with the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Contingency Plan, and Corps of Engineers procedures. Beginning 2 years after site closeout, DOE assumes responsibility for the site.

A 1999 Memorandum of Understanding between the Corps of Engineers and DOE defined the roles of each agency in administering and executing FUSRAP. DOE assumed responsibility for the 25 sites cleaned up between 1981 and 1997 and, beginning in 2004, the new LM office assumed responsibility for surveillance, operation, and maintenance of these sites. Table II presents the schedule for transfer of FUSRAP sites to LM.

Table II. Schedule for Transfer of FUSRAP Sites

FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
New Brunswick Laboratory, NJ	Wayne Interim Storage, NJ	Painesville, OH	Ashland 1, NY Ashland 2, NY Linde Air Products Division, NY Seaway Industrial Park, NY Shpack Landfill, MA	Colonie Interim Storage Site, NY Combustion Engineering, CT E.I. Du Pont, NJ Middlesex Sampling Plant, NY St. Louis Airport, MO St. Louis Downtown, MO

Sites Transferred From UMTRCA

Sites regulated under Title II of UMTRCA are commercial uranium mining and milling sites that contained uranium mill tailings and were in operation at the time of enactment of the act. When a host state declines to become the long-term steward for a mill tailings disposal cell, these responsibilities are assigned to DOE. Responsibility for these sites will be transferred to LM according to the schedule shown in Table III.

Table III. Schedule for Transfer of Sites From Private Licenses (UMTRCA Title II sites)

FY 2005	FY 2006	FY 2007	FY 2008
None	Highlands Disposal Site, WY Durita Disposal Site, CO Lisbon Valley Disposal Site, UT Panna Maria Disposal Site, TX Shootaring Disposal Site, UT	Maybell Disposal Site, CO Split Rock Disposal Site, WY Gas Hills West Disposal Site, WY Gas Hills East Disposal Site, WY Gas Hills North Disposal Site, WY Conquista Disposal Site, TX Ray Point Disposal Site, TX Shirley Basin Disposal Site, WY Sequoyah Fuels Disposal Site, OK Church Rock Disposal Site, NM	Uravan Disposal Site, CO

SCHEDULE

Table IV presents the current schedule for the transition of sites to LM during the next 5 years. The schedule is under configuration control by the LM Director and LM managers. The name of each site is shown as well as the transferring organization. The site type, when assigned, will indicate the level of legacy management activities that are expected for the site based on the following categories:

- **Category I** sites are expected to require only records-related activities.
- **Category II** sites are expected to require routine inspection and maintenance and records-related activities.
- **Category III** sites are expected to require operation and maintenance of remedial action systems, routine inspection and maintenance, and records-related activities.

Table IV. Site Transition Schedule

Site Name	Transfer Organization	Category (TBD)
FY 2005		
General Atomics Hot Cell Facility, CA	EM	
Geothermal Test Facility, CA	EM	
Missouri University Research Reactor, MO	EM	
New Brunswick Laboratory, NJ	FUSRAP	
FY 2006		
Panna Maria Disposal Site, TX	UMTRCA	
Highlands Disposal Site, WY	UMTRCA	
Durita Disposal Site, CO	UMTRCA	
Shootaring Disposal Site, UT	UMTRCA	
Lisbon Valley Disposal Site, UT	UMTRCA	
Laboratory for Energy Related Health Research, CA	EM	
Wayne Interim Storage, NJ	FUSRAP	
FY 2007		

Site Name	Transfer Organization	Category (TBD)
Gas Hills West Disposal Site, WY	UMTRCA	
Ashtabula, OH	EM	
Conquista Disposal Site, TX	UMTRCA	
Ray Point Disposal Site, TX	UMTRCA	
Fernald, OH	EM	
Mound, OH	EM	
Nevada Offsites (8 sites)	EM	
Painesville, OH	FUSRAP	
Gas Hills North Disposal Site, WY	UMTRCA	
Shirley Basin Disposal Site, WY	UMTRCA	
Rocky Flats, CO	EM	
Sequoyah Fuels Disposal Site, OK	UMTRCA	
Gas Hills East Disposal Site, WY	UMTRCA	
Maybell West Disposal Site, CO	UMTRCA	
Church Rock Disposal Site, NM	UMTRCA	
Split Rock Disposal Site, WY	UMTRCA	
FY 2008		
Ashland 1, NY	FUSRAP	
Ashland 2, NY	FUSRAP	
Energy Technology Engineering Center, CA	EM	
General Electric Vallecitos Nuclear Center, CA	EM	
Inhalation Toxicology Laboratory, NM	EM	
Linde Air Products Division, NY	FUSRAP	
Nevada Offsites (8 sites)	EM	
Seaway Industrial Park, NY	FUSRAP	
Shpack Landfill, MA	FUSRAP	
Uravan Disposal Site, CO	UMTRCA	
FY 2009		
Colonie Interim Storage Site, NY	FUSRAP	
Combustion Engineering, CT	FUSRAP	
E.I. Du Pont, NJ	FUSRAP	
Middlesex Sampling Plant, NY	FUSRAP	
St. Louis Airport, MO	FUSRAP	
St. Louis Downtown, MO	FUSRAP	

SITE TRANSITION PROCESS

Figure 2 illustrates the site transition process from EM to LM. The primary DOE orders related to the transition process is

- DOE Order 430.1B, *Real Property Asset Management*, which specifies the requirements of real property and asset management, including the disposition and/or transition of the real property and assets
- DOE Order 413.3, *Program and Project Management for the Acquisition of Capital Assets*, which specifies a disciplined process for project management using the Critical Decision (CD) process.

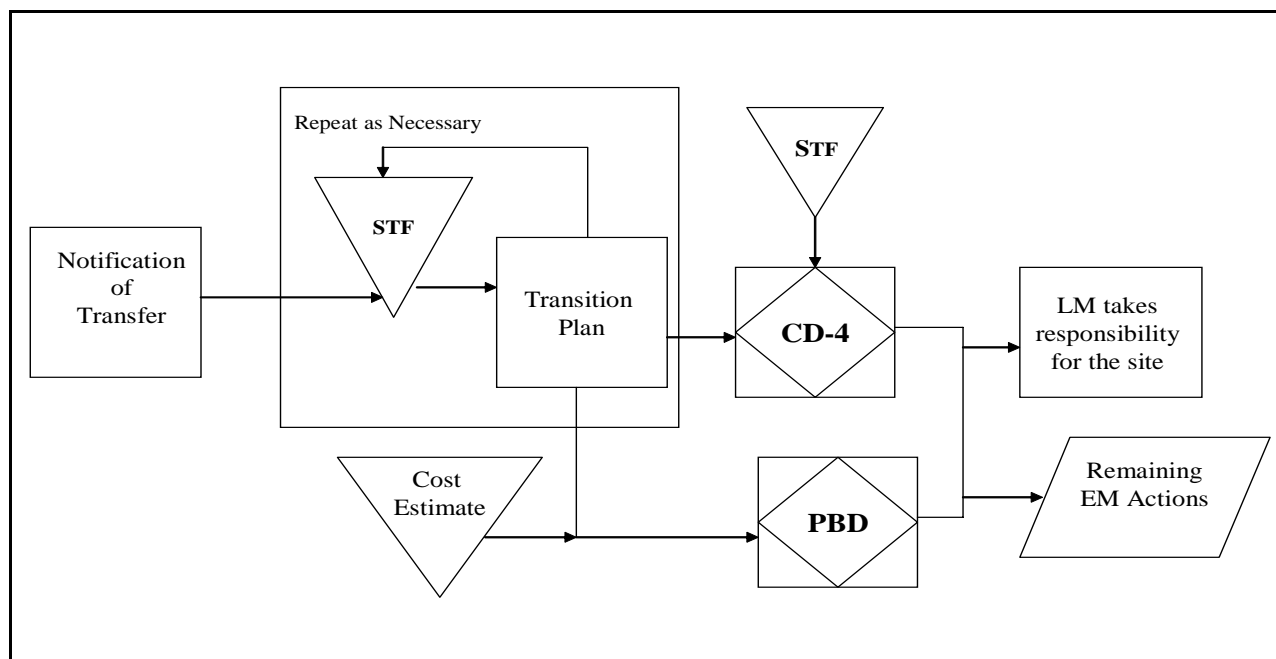


Fig. 2. EM-to-LM site transition process

Transition Steps

1. **Notification.** The transition process is initiated when EM notifies LM that EM is nearing mission completion at a site. While there is not a set time limit, the notification should allow enough time for both organizations to work jointly on the transition. For a less complex site, notification of 4 to 6 months may be adequate. For a more complex site (e.g., Rocky Flats, Fernald, and Mound), notification of 2 years or longer may be necessary to ensure a smooth transition.

To manage the transition efforts, LM established the Office of Policy and Site Transition (LM-40). A Site Transition Team, led by Site Transition Coordinators, is established once a site has been identified for transition. Subject matter experts use a crosscutting organizational approach to transition. The fundamental goal of the Site Transition Teams is to transition all identified functions and physical items needed for post-closure management in a manner that supports EM's closure schedules and enables sustainable management by LM. The Site Transition Coordinator will ensure adequate coordination on scope, schedule, and cost between EM and LM and will develop site-specific interfaces. Following completion of the transfer of financial and responsibilities to LM, the Site Transition Team will be dissolved.

The Site Transition Coordinator and the Site Transition Team ensure that

- The requirements of the transition process are met (i.e., Site Transition Framework).

- Active communication exists with site owners and operators, regulatory agencies, other affected organizations, and stakeholders.
- The responsible organization for each required activity is clearly identified.
- The schedule for the transition process is maintained, potential delays in the transition are immediately identified, and a path forward is developed.
- LM provides a fully integrated approach to transition that reflects LM policy and direction.
- Appropriate resources are requested in the budget for transition.

2. **Site Transition Plan.** The Site Transition Plan (STP) is the primary tool intended to assist in successful closeout or transition of EM site responsibilities to LM for post-closure management. The STP should include all work scope that will transition (i.e., to LM, EM, or some other entity) upon completion of EM work at the site. The STP should be developed 2 years prior to the planned transfer date. The STP also serves as the formal document for the transfer scope, date, and level of responsibilities and for funding, control, and custody for the property conveyed.

The purpose of the STP is to identify and guide the execution of the actions needed to move the site to a point where responsibility can be transitioned from EM to LM. The STP is jointly developed, approved by EM and LM Directors and jointly executed by EM and LM staff. The STP should meet the requirements of DOE Order 430.1B and include the disposition of federal workforce responsibilities. Programmatic risks to the transition schedule should be identified and tracked. Impediments to successful transition must be addressed and brought to senior management-level attention as necessary for resolution.

The STF is the framework for developing the STP and includes a set of requirements that must be met before programmatic transfer of a closure site. The STF serves as the primary tool to evaluate whether all relevant transition activities and end-point criteria have been identified. It should be noted that the STP and the STF would be updated periodically as EM and LM work toward the successful site transition.

Within this framework, the STP is intended to achieve several specific objectives:

- Ensure efficient transfer of EM activities that remain after physical site completion to the EM Consolidated Business Center (CBC) or other appropriate organization.
- Provide requirements for, and support the preparation of, the Critical Decision-4 (CD-4) documentation for project closeout.
- Establish a common understanding of EM and LM financial, programmatic, and legal responsibilities throughout the transition period.
- Ensure that the requirements of the STF are met.
- Establish requirements for LM post-closure responsibilities.
- Describe the approach to disposition real property, records, and data by EM and LM where appropriate.

A site-specific STP should include the following elements:

- The projected date and end-point criteria for programmatic transfer.
- A summary of transition cost, scope, and schedule, including organizational responsibility for major actions.

- Major milestones and deliverables that will be placed under configuration control administered by LM and EM Directors.
- A records turnover or retention plan, including the management of Facility Information Management System (FIMS) data and information.
- The information necessary to meet the requirements identified in DOE Order 430.1B for transfer of real property.

After the STP is approved, the critical milestones are placed under configuration control, and EM and LM staff members execute STP activities. The site manager, in coordination with the LM Site Transition Coordinator reports progress to EM and LM Directors on a quarterly basis. The STP should be updated periodically by assessing transition progress against the STF requirements. The STP should reflect the latest activities and/or management decisions.

3. **LTS&M Requirements.** Post-closure activities are identified and clearly documented in a LTS&M Plan. The LTS&M Plan includes those actions that are required to maintain the protection of the remedy (e.g., remedy performance monitoring, groundwater pump and treat); manage the natural, cultural, and historical resources; and involve and inform the public. For CERCLA sites, the LTS&M Plan will meet the requirements of the Operations and Maintenance Plan and include the enforceable activities to be administered under a post-closure agreement. LM will require support from EM but will lead the development of the LTS&M Plan.

The LTS&M Plan development process should be initiated approximately 2 years prior to the expected site transition date to ensure adequate time for stakeholder and regulator involvement in the process. The LTS&M Plan will define how the LM will manage and implement these activities once the site has been transferred to LM.

The scope of the LTS&M Plan will include the activities that DOE must conduct to fulfill its post-cleanup regulatory obligations, such as the long-term requirements defined in a Record of Decision or other regulatory decision document. Existing, or soon-to-be-developed, site documents should be considered for incorporation into the LTS&M Plan as appropriate. These documents may include, but are not be limited to, the Long-Term Stewardship Plan, the Operation and Maintenance Plan, and the Emergency Response Plan. If the document being considered for inclusion is already in development by the site, the development of the LTS&M Plan should not usurp the development of that document.

LM plans to develop only one post-closure regulatory document for each site – the LTS&M Plan. As the single post-closure regulatory document, the LTS&M Plan will help to reduce paperwork, eliminate duplicative requirements, and bring a comprehensive approach to post-closure management.

The development of the LTS&M Plan should include significant stakeholder involvement. A number of public meetings will be held to solicit and seek input from stakeholders on development of the plan.

The LTS&M Plan may include a section (or appendix) that is enforceable by a regulatory agency. This does not imply the entire document is enforceable. Examples of the section may include a CERCLA Operation and Maintenance Plan. An Operation and Maintenance Plan may be developed in a regulatory process separate from the LTS&M Plan.

4. **Communication and Outreach.** Communication with the site's stakeholders and regulatory agencies builds on existing communication and outreach efforts. One goal of the transition process is to ensure that stakeholders and regulators are aware of the plan to transition the site and participate in development of the LTS&M Plan.

LM recognizes that its mission cannot be successfully achieved without input from state and local governments, tribal nations, and stakeholders. Thus, LM will aggressively pursue credible, effective public participation processes into LM's program operations, plans, and decision-making efforts.

The Department is dedicated to protecting human health and the environment from residual hazards and to meeting its commitment to the environment, our stakeholders, and our workers – past and present. The Department will carry out its responsibilities to the former workers and communities following the completed remediation and closure of sites. Continued public involvement is critical to meeting these responsibilities. To this end, LM will vigorously promote an effective mechanism that provides for, and encourages, active public participation.

LM will communicate regularly with local stakeholders, tribal nations, and local governments regarding the status and plans for the transition of the sites. LM will encourage and solicit public participation regarding the approaches to public involvement, including the development of the public outreach strategy.

During this transition period, LM's communication approach includes, but is not limited to, informal conversations, written electronic communication, scheduled meetings and workshops (e.g., participation in Citizen Advisory Board meetings), and legally required hearings.

Once the site is transferred to LM, the extent of public outreach will be appropriate for the level of decision-making at the site. LM's communication with the public includes, but is not limited to, the following elements:

- LM's website at: <http://www.LM.doe.gov/>.
- Fact sheets that describe LM's activities and policies.
- Scheduled meetings and workshops, such as participation in site Citizen Advisory Board meetings.
- Mailing list of interested parties.
- Circulation for review of draft planning documents.
- Relationships and communications with tribal nations, national stakeholder organizations, state and local governments, local organizations, and individuals.

5. **Cost Estimates and the Program Budget Decision Document.** EM and LM will work together to ensure appropriate cost estimates are developed for the post-closure management of the site. This will require cost estimates for LTS&M, contractor pensions and benefits, and

other costs that are needed for post-closure management. It is important that both organizations understand the post-closure cost estimates because those estimates define the planned target transfer from EM to LM. Approximately 14 months prior to the expected transfer of the site, the Department will prepare a Program Budget Decision (PBD) document. The PBD is signed coincident with the preparation of the President's Request for the Fiscal Year LM is expected to receive the site. The document is the official notification that the Department intends to transfer budget and scope from EM to LM.

6. **Verification of Readiness.** As the site approaches closure, a CD-4 package must be developed in accordance with DOE Order 413.3, *Project Management for the Acquisition of Capital Assets*. A CD-4 package documents the completion of the EM mission at the site and validates the successful execution of the STP to the transfer point. Thus, the CD-4 package represents agreement between EM and LM on the status of the site and associated remaining activities at the time of transfer. Actions in the STP that remain at transfer are documented in the CD-4 package. The CD-4 package is signed by the Under Secretary for Energy, Science and Environment.
7. **Transfer.** Once Congress approves the budget request and the CD-4 package is signed, the site is officially transferred from EM to LM. The transition period ends on September 30 of the fiscal year in which EM completes its mission at the site. This date coincides with the projected transfer of programmatic responsibility for the site to LM. It should be noted that even though the site has been transferred, some activities (e.g., contract closeout) might remain for EM to complete. These activities will be documented in the approved CD-4 package.