

**Final Draft**  
**Site-Specific Requirements in Support of Long-term**  
**Stewardship Transfer for Brookhaven National Laboratory**

**March 25, 2002**



Prepared for

DOE-CH Long-term Stewardship Pilot Project  
Planning Critical Elements of the Transition to Long-term Stewardship  
at Chicago Operations Facilities

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## **1.0 Background**

The Department of Energy's Office of Environmental Management (EM) soon will complete its current clean-up mission at Brookhaven National Laboratory. Based on the approved EM Baseline, it could be finished by FY 2006 or sooner. However, uncertainties in funding could extend the final date by up to five years. Once mission is complete EM would like to turn over responsibility for managing the site (long-term stewardship, or LTS) to the Program Secretarial Office (PSO) responsible for the site.

The Department of Energy's policy is that transfer of LTS responsibilities can occur only after the site's landlord (for Brookhaven, it is the Office of Science, SC) and EM agree that the EM's mission at the site is completed, and technical planning has established the current LTS operating baseline, describing the scope and operating costs for future LTS work. The policy also requires that budget authority and budget target have been transferred to the receiving PSO for the amount equivalent to the operating costs for LTS activities. When all parties have agreed, a formal transfer agreement for LTS is developed and signed for each site. The intent of the DOE policy was to allow sufficient flexibility so that portions of a site could be transferred. For example, the involved program offices could agree to transfer a portion of the site, say the operations and maintenance (O&M) responsibilities, once all groundwater remedial actions were completed, followed by a facility-by-facility transfer of decommissioned radiological facilities.

Before beginning this process, the EM and SC must agree on the scope of the transfers, the funds needed for LTS, and jointly develop a Memoranda of Agreement that will define future roles and responsibilities.

At Brookhaven, all of the EM cleanup work is being performed under the CERCLA regulatory framework, specifically a Federal Facility Agreement under CERCLA section 120 (also called the Interagency Agreement [IAG]). While this process is complex, it is unified and addresses many elements necessary for LTS. For example, the IAG contains requirements for retaining records, transferring property, public participation, and a Five Year Review to ensure that remedies continue to protect public health and the environment.

There is a need to begin discussing and planning for this transfer. Guidance on planning also is needed. To facilitate early planning and the development of guidance, the DOE-CH is sponsoring an LTS Pilot Project to prepare Long-term Stewardship Implementation Plans (LTS Plans) for three sites that they manage; Argonne National Laboratory-East (ANL-E), Argonne National Laboratory-West (ANL-W) and Brookhaven National Laboratory. The project's goal is to coordinate, leverage, and enhance LTS activities across several CH facilities, and efficiently

resolve critical issues on site- and national-stewardship. This document is the first of a series being prepared as part of Brookhaven's participation in the pilot project.

## 2.0 Purpose

The purpose of this document is to identify and list

- the information needed,
- the issues that must be resolved and,
- the plans and policies that need to be put in place

before transitioning LTS activities from the EM program to the site landlord. This will ensure that the subsequent LTS Plan for Brookhaven will adequately capture the responsibilities and commitments involved in the transfer.

Current DOE guidance defines the scope of the LTS program as those activities necessary to protect public health and the environment from residual contamination at completed environmental restoration sites. The detailed scope of LTS activities at Brookhaven is somewhat undefined, and more fundamental information is needed. In preparing this document, we made several planning assumptions that allowed us to move this process forward. These assumptions probably will change with time, and therefore, this analysis of our information needs may need to be updated iteratively as planning data are further refined.

**Table 1. BNL LTS Activities**

- operations, maintenance, and monitoring of 17 groundwater treatment systems (with a combined treatment capacity of approximately 4500 gallons per minute and approximately 650 groundwater monitoring wells)
- maintenance & monitoring of 3 landfills,
- institutional controls and surveillance of soil cleanup areas,
- surveillance and monitoring of the Brookhaven Graphite Research Reactor, the High Flux Beam Reactor and the Peconic River.
- records management, reporting
- regulator/stakeholder participation & communication.

**Table 1** outlines the basic scope. The planning assumptions include the following:

- The transfer could occur as early as July 05, based on funding levels stated in the existing EM baseline.
- The landlord will be responsible for LTS, but budget authority and budget target will be transferred to the receiving PSO for the amount equivalent to the operating costs for LTS activities.

## 3.0 Information Needs

To prepare the LTS Plan, much information that describes the LTS program must be compiled. This information will define completed and ongoing restoration operations; ongoing inspection, maintenance, monitoring, and other requirements; and also the nature of residual risk at sites where remedial actions were completed. This information, along with the EM Baseline, commitments made by EM and SC, management strategies, and transition plans will provide the technical basis for developing Brookhaven's LTS Plan. The specific requirements are described next.

### **3.1 Description of Waste Sites Being Transferred from EM to Site Landlord**

Four categories of waste sites are expected to be transferred from EM to the site landlord by July 2005. The sites or projects within each category have similar remedial objectives and LTS requirements.

- Remedy-in-place-Operations, Maintenance, and Monitoring  
These sites include landfill maintenance and monitoring, groundwater-treatment systems operation and monitoring, and maintenance and monitoring of the Peconic River.
- Remediation Complete-Free Release/Unrestricted Use  
The scope of LTS work for these sites is envisioned as including archiving and maintenance of records of closure, and agency documentation agreeing to completeness. An example is the Landscape Soils Remediation project where soils were remediated to a residential-land-use risk scenario.
- Active Remediation Complete-No Further Action  
These projects meet cleanup criteria defined for the project, but do not support free release or unrestricted use. For example, the former Hazardous Waste Management Facility will be restored to an industrial-land-use risk scenario and will likely require institutional controls, surveillance, and monitoring.
- Radiological Facilities with D&D Complete for Restricted Use  
These projects meet cleanup criteria defined for the project, but do not support free release or unrestricted use. For example, the Brookhaven Graphite Research Reactor will be decontaminated to an industrial-land-use risk scenario and will require institutional controls, surveillance, and monitoring.

Before developing the LTS Plan, a list of sites/projects at The Laboratory should be completed and categorized under this system. In preparing the Plan, we will focus on those sites that will be transferred to SC by July 2005. It also would be useful to compile a list of documents for each project/site defining the cleanup project, the site-specific remedial decision- process, risks, and LTS requirements.

The residual risk and liability associated with each site/project being transferred must be stated. It must be verified that the existing documentation suitably summarizes information about these sites, including their location, size, type of past and present operations, environmental restoration actions completed, regulatory status, and the nature of known or suspected contamination. The type and magnitude of waste materials, contaminated media, or radiological contamination within structures needs to be ascertained. From this documentation, a summary statement should be prepared on the potential consequences of this residual contamination and included in the LTS Plan to assist in prioritizing efforts.

To assist in planning, and revising future LTS Plan revisions, non-EM sites awaiting D&D or remediation also should be listed. At Brookhaven, it would include the High Flux Beam Reactor (HFBR), and the Brookhaven Medical Research Reactor (BMRR).

### **3.2 Scope of the LTS Work**

The Laboratory's EM-funded cleanup work is managed via the EM Project Baseline Summary. This Baseline was updated and validated in July 2001. Major projects are defined by Operable Units for the site, each containing multiple work-packages for specific activities or projects. It includes the scope of work, cost, schedule, and contingency for cleanups, as well as applicable LTS activities. Because this Baseline represents the best available scope of work for LTS activities, it should be used for developing the LTS Plan. The EM Baseline Work Packages identify current O&M, environmental monitoring, and S&M assumptions for LTS and are expected to adequately reflect regulatory requirements and commitments. They also estimate the length of time for which these activities will be required.

However, as with any estimates of scope and cost, they usually are most accurate in the near-term and less so for activities projected to extend out several decades. Hence, before establishing the LTS Plan, the LTS elements of the Work Package's scope of work, costs, and schedule should undergo a focused review to make any necessary revisions.

Furthermore, sorting the Work Packages according to the categories listed here in section 2.1 should be considered. This would structure the work according to similar remedial objectives, risks, and LTS requirements, and may integrate LTS responsibilities into existing systems and organizations.

Early in the Plan's development, the LTS scope of various work packages needs to be evaluated to identify opportunities to complete the work more efficiently, and to highlight those whose ownership can be clearly transferred to a responsible Brookhaven organization.

LTS requirements are expected to remain in effect for decades. The EM Baseline gives estimates by project. Because of this long period, the LTS requirements are likely to undergo unanticipated changes. Therefore, to enhance the Plan's value, it should be developed and detailed within a reasonable planning-window assumption (e.g., five-year intervals) with the acknowledgment that forecasts beyond this period are less accurate and more prone to revision. The LTS Plan would address activities within the planning window, and update them as the end of the planning window approaches.

No Record of Decision (ROD) was reached for restoring the Peconic River restoration or decommissioning the BGRR. . Therefore, the work-package descriptions of LTS activities at these sites should be considered very preliminary. RODs are expected for them before FY06.

### **3.3 Information Management**

The site landlord will require detailed, accurate information about the location and nature of residual hazards, the cleanup processes, and the operational and engineered controls used. Performance-monitoring data also are required to determine whether the remedy is functioning as intended, and whether the assumptions used in selecting it are still valid. Others may need to see this information, such as health professionals, neighbors who live and work in the surrounding communities, and off-site entities responsible for some institutional controls, emergency responses, and community planning. An assessment of users' needs is required prior to developing the LTS Plan.

The available information for each project/site that defines the site-specific remedial decision process, risks, and LTS requirements should be listed before developing the LTS Plan; from this selected information can be identified for transfer from EM to the site landlord.

### **3.4 Requirements for Stakeholder Information/Participation**

Brookhaven's environmental stewardship policy commits us to maintaining a positive, proactive, and constructive relationship with neighbors in the community, regulators, the DOE, and other stakeholders. The Laboratory openly discusses its progress and performance with stakeholders.

To successfully implement LTS, stakeholders must be properly informed about the transition from active cleanup to LTS phases, and their needs for information and participation identified. A community-participation plan should be established to obtain their input before proceeding with the LTS Plan and revising cost estimates for LTS.

### **3.5 Geospatial Information**

LTS has a fundamental need for geospatial information to help in assessing risks, prioritizing LTS activities, and monitoring the potential need for changing institutional controls. At a minimum, onsite- and offsite-land uses and zoning at the time of transfer will be required; a knowledge of proposals for future land use and a summary of covenants and land restrictions also will be useful for planning and evaluating risks. The footprints/locations of restored areas and decommissioned and decontaminated buildings will be required.

Brookhaven completed a Future Land Use Plan in 1995, addressing usage in the context of a near-term and a post site closure scenario. Planning for near-term uses was covered further in the Site Master Plan, updated in 2000. However, the Site Master Planning process may need upgrading to better accommodate LTS needs for managing institutional control and land-use control. This issue is discussed further under the Required Plans section.

### **3.6 Cost Estimate**

The cost of LTS work (by year and life-cycle) can be estimated from the latest EM Baseline Work Packages. They also comprehensively list the assumptions that were made in deriving the estimates. Forecasting LTS costs far into the future is difficult and entails considerable uncertainty, which is addressed by giving a contingency cost estimate. Therefore, before developing the Plan, the LTS elements of the Work Packages' scope of work, costs, and schedule should be carefully reviewed to ensure their completeness and to make any necessary revisions.

The actual costs for all LTS-like activities undertaken should be compiled and used to calibrate cost forecasts. The terms of offsite property leases at the time of transfer will be required.

### **3.7 Assessment of Potential Cost Risk**

Potential cost risk is captured in the contingency cost estimate for the EM Baseline. For LTS planning and negotiating Memorandum of Agreement (MOA), cost scenarios for the best, worst, and most likely case for LTS activities should be available. A second review of the cost estimates will ensure that all LTS activities were captured in the existing EM baseline, and that a sufficient cost contingency was applied for the "out years" for such work. .

The following are examples of cost risks:

- Persistent contamination areas that require supplemental treatment
- Longer periods of groundwater treatment than assumed
- Newly discovered legacy issues
- Potential requirements for treating the Magothy aquifer
- Excess facilities with unknown environmental liabilities
- Staying proactive to changing environmental conditions
- Changes in offsite property leases
- Claims for damage to natural resources
- LTS activities at the BGRR beyond 2055
- Changes in cleanup standards

### **3.8 Assessment of Potential Health & Environmental Risk from Failure of Stewardship**

To prioritize LTS activities, a simple assessment/statement of the ES&H risks from failure of operational- and engineered-controls of residual contamination should be factored into the LTS Plan. This might state, for example, the potential environmental and human health risks caused by failure of a landfill cap, failure to reach groundwater cleanup goals in the prescribed time, or failure of an engineered control of the BGRR “pile”.

Such an assessment can represent a functional equivalent of a site conceptual model. Its basis might be compiled from existing risk assessments made during a project’s EE/CA or feasibility study phase, O&M plans, hazard analyses, emergency-response plans, and natural resource management plans.

### **3.9 Value Engineering Analyses of LTS Scope and Cost**

Before the transfer, an independent value-engineering study could be made to assess functionality and verify the cost forecasts, as well as explore alternative means (e.g., better organizational integration, better monitoring technology) to meet the LTS’s objectives and requirements. Site staff assisted by a Certified Value Specialist could do this, and hold workshop(s) on the issue. Points of program transition usually are ideal for such reviews. Recurring reviews of opportunities for LTS cost savings/avoidance could be built into the Plan’s update process.

### **3.10 Summary of Commitments Between EM and Landlord During and After Transition**

Commitments made between the landlord and EM in negotiating the transfer should be summarized as a framework for the LTS Plan, and as the basis of a formal MOA. The MOA is the critical link to documenting responsibilities and assuring the DOE’s commitment to implementing LTS.

### **3.11 Environmental Process Assessments**

To integrate LTS activities into existing Laboratory systems, including the Environmental Management System, Environmental Process Assessments should be prepared for all groundwater treatment systems and surveillance and monitoring projects prior to setting up the LTS Plan. An Environmental Process Assessment is a procedure for identifying environmental hazards, necessary controls including Best Management Practices, and opportunities for pollution prevention. .

### **3.12 Framework of Critical Outcomes and Performance Measures Related to LTS**

Ultimately, elements of Brookhaven's LTS Plan will become part of all relevant site management initiatives and planning. A framework of the critical outcomes, objectives, and performance measures (CO/O/PM) that will be incorporated into the Site Operations' contract performance evaluation system relative to LTS activities would be useful in developing the LTS Plan. CO/O/PM is a valuable management tool to measure progress on LTS planning and performance in achieving its goals.

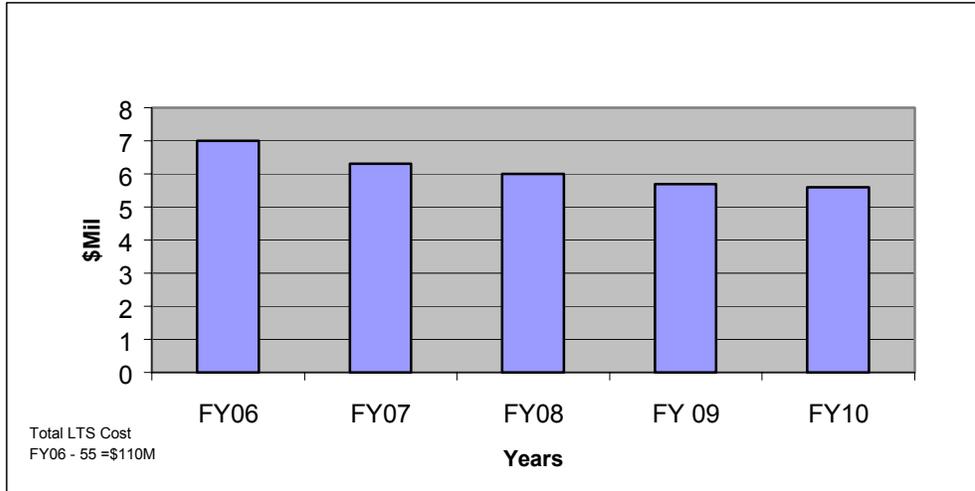
### **3.13 Identification of Other Related Environmental & Facility Maintenance Requirements**

Information that defines the requirements of other environmental and facility maintenance (i.e., non-EM LTS) should also be collected and integrated with LTS to ensure that all the relevant responsibilities and issues are discussed during negotiations. These may include S&M of radiological control areas, environmental protection/compliance monitoring and reporting, land-use planning, infrastructure operations and maintenance. Then, segregating similar LTS activities under the auspices of existing environmental services, plant engineering, radiological control, or other functions can be considered. This should minimize duplication of effort and resources, and encompass LTS principles into the site's planning and operations.

## **4.0 Issues Requiring Resolution Before LTS Transition**

There are several unresolved issues about the transfer of LTS responsibilities, and others may arise as the transfer approaches. Failure to resolve them before preparing the LTS Plan probably would prevent the successful transfer of these responsibilities. The resolution of these issues will be captured within the LTS Plan as definitions of terms, statements of responsibility, statements of scope, or other elements. The following lists known unresolved issues:

- **Funding** – Ensuring that the Laboratory has sufficient sustainable funding to properly support LTS is critical. The DOE's policy states that LTS responsibilities may be transferred only after the site landlord and EM agree that the EM mission at the site was completed, and the budget authority and budget target were transferred to the receiving PSO for the amount equivalent to the LTS's operating costs. The mechanism for transferring funding must be defined. The continuity of future funding also is a significant concern. Should the DOE reset priorities, LTS activities might not be fully funded. Considering the projected LTS costs at Brookhaven (see **Figure 1**), it is impractical and infeasible to fund the work by having LTS compete for site overhead funds.



Note: These cost projections do not include contingency monies.

**Figure 1. Projected Long-term Stewardship Costs for FY06-FY10.**

Mechanisms need to be developed to ensure that sufficient sustainable funding is provided to the site to properly support LTS activities.

- Criteria for transfer from EM to landlord - Criteria must be defined for determining when environmental management actions are complete (for an individual unit or the entire site), and ready for transfer to the landlord. The primary issue is the landlord's acceptance of sites with continuing remedial requirements (i.e., operation and maintenance of remedial action systems, surveillance and monitoring, performance assessment, and eventual facility demolition). This is a major issue for the 17-groundwater remediation systems, for example. Remedies are planned to be in place by FY05 at these sites; however, there is significant liability in terms of continued operation of remedial systems and additional restoration actions (possibly treating the Magothy aquifer). Another example is whether decontaminated radiological facilities should be transferred facility-by-facility or as a group; this needs to be decided.
- Accommodating Future Contaminated Excess Facilities – The scope and resources for future cleanup and LTS work for contaminated excess facilities are not included the current EM baseline. For example, the HFBR and BMRR will require some degree of D&D and stewardship relatively soon. Looking out much further, managing the shielding of activated soil from the AGS facility could involve cleanup and stewardship responsibilities. An understanding is needed on how this issue will be dealt with.
- Timing of Transfer – It must be decided whether transfer will be phased or wait until the entire EM mission is completed. Brookhaven's groundwater remedies and Peconic River cleanup are expected to be fully operational by July 05. Depending on funding, cleanup of the soil also could also be finished by July 05, but the schedule is at more risk considering the existing budget. Completion of the D&D and stabilization of the HFBR and BMRR research reactors is not expected before FY08/FY09. A related issue is when, after remedial construction is complete, would the transfers occur. For sites that require continuing remediation, there may be considerable uncertainty about the scope and the cost of continuing

O&M activities for the first several years. This is particularly true of some groundwater-treatment system operations (e.g., Sr-90 treatment systems, and the HFBR tritium-plume management). The uncertainty will decrease as more operating experience is gained with these systems. . Under some circumstances, it might be useful to go through at least one cycle of the Five Year Review process to better understand the scope of the Laboratory's scope requirements from its IAG and stakeholder members, and the resources required to meet such requirements. The first Five Year Review is scheduled for Operable Unit IV in June 2002. The first comprehensive Five Year Review for the entire site will take place in May 2005. Some remedial activities, such as monitoring and maintaining landfills caps, are straightforward and likely would not require extensive site-specific experience. The landlord and EM need to come to an understanding on acceptable "start-up" times after construction before making the transfer.

- Process for Future Changes in LTS Scope - Even after all sites at Brookhaven meet the transfer criteria, some environmental restoration work might be required in future. It may be needed at a closed site because an earlier remedial action fails (e.g., cap deterioration, incomplete characterization.), a change in site conditions (e.g., change in groundwater-flow path, change in land usage, or new construction.) or more effective technology are identified that will reduce residual risk or cost. It also may become necessary as operating facilities (research facilities) are shut down, unknown historic waste or contamination is discovered, or new contaminated sites are created through leaks or spills of hazardous or radioactive materials. Resolution is required on how future environmental restoration will be handled, who takes responsibility, and how the potential liabilities are bounded. Assessments must be made about what mechanisms will be used to add and delete LTS and about any unforecasted scope of remediation, and to adjust future levels of LTS funding. Similarly, an understanding is essential about which "classes" of issues would be eligible for LTS funding and which would be considered routine site maintenance and environmental monitoring. For example, how will "re-cleanup" be addressed (resulting from ineffective technologies/approaches or changing cleanup standards)? How will newly identified legacy issues be dealt with?
- Renegotiation triggers - Criteria are needed for triggering the renegotiation of the transfer agreement. . Such criteria would provide an agreed-upon means for obtaining help to respond to major problems with completed remedial actions, changes in land usage, changes in clean-up standards or other changes beyond the capability of the landlord and outside of the current EM Baseline.
- Acceptance of an LTS Planning Window – LTS requirements are expected to remain in effect for decades. The EM Baseline gives estimates by project. Thus, LTS activities for BGRR are projected through 2055. However, it is likely that they will be necessary beyond that date. Because of this prolonged period, the LTS requirements probably will undergo unanticipated changes. As discussed earlier, the LTS Plan should include reasonable planning windows (e.g. five year intervals), with detailed planning for activities within them. The EM and the landlord must accept that the forecasts beyond the planning window are less accurate and more prone to revision, and that the LTS Plan probably will be updated toward the end of the planning window.
- Natural Resource Damages - Under CERCLA, damages for injury to, destruction of, or loss of, resources, including the reasonable costs of assessing damages are recoverable from responsible parties. For the Laboratory, damages to the aquifer and or the Peconic River

could fall into this category. The organization responsible for these potential liabilities needs to be determined.

- Management approach - The organizational approach for implementing the LTS program at Brookhaven needs to be defined early during planning, including the distribution of LTS requirements within existing organizations and programs. Then, the role of existing programs, such as the Monitoring and Surveillance program and the Environmental Management Directorate, once the LTS program is instituted, needs to be clarified. Decisions about specific organizational responsibilities include the following:
  - Authority for budget
  - Responsibility of regulatory and community interfaces
  - Maintenance of exit strategies
  - Decision authority for optimization and reacting to changes
  - Responsibility for meeting ROD and IAG
  - Responsibility for reporting
  - Responsibility for removing the site from the NPL list
  - Institutional controls
  - Responsibility for final disposition
  - Property-access agreements

## 5.0 Required Plans

Several plans must be in place for the LTS Plan. Many of these specific planning needs already satisfied are through existing Laboratory management systems. Others can be satisfied by enhancing existing management systems to better address the needs of LTS. In three situations, planning is required to cover issues not dealt with by existing systems. Preparation, enhancement, and maintenance of these plans will ensure that LTS responsibilities are fully defined, integrated, and managed in cost-effectively consistent with Federal, State, and local regulations and stakeholders' concerns. Many of these plans will be living documents that will require regular review and updated to adjust to changes in site conditions, organizational changes, funding limitations, regulatory involvement, or stakeholder concerns. The following is a summary of the required plans.

### 5.1 Existing Plans

- Environmental Monitoring Plan – This existing plan describes all sampling, analyses, data management, reporting, and other actions related to monitoring performance and detecting releases from environmental restoration sites, and the surveillance and monitoring of contaminated facilities. It is updated annually.
- Performance Assessment and Optimization Review - The Annual Groundwater Status Report and the CERCLA Five Year Review processes will be used to periodically review the performance of remedial systems and assess opportunities to optimize remedial actions with new technologies or approaches.
- Site Closeout Plan – The plan to finally closing the site, including cost estimate for final verification sampling, removal of completed environmental restoration equipment (wells,

pumps, control systems, fences, radiation monitors) and preparation of final closeout reports. The EM Baseline captures these elements.

## 5.2 Plans Requiring Enhancing or Updating

- Update the **Standards Based Management System (SBMS)** to ensure that LTS responsibilities are fully defined, integrated, and managed in cost-effectively. SBMS is the primary tool for setting institutional standards and conveying related information to staff. It also is the tool with which Brookhaven develops, integrates, and demonstrates conformance to requirements.
  - High-level, Laboratory-wide operating processes are summarized in Management System Descriptions (MSD). Each MSD identifies all external requirements applicable to an area, and translates them into internal processes that staff needs to conduct their work. Level II Managers and I primarily use the MSDs. The Environmental Management System Description, the Environmental Restoration Management System Description, Records Management System Description, and the Work Planning and Control Management System Descriptions will need to be reviewed and possibly updated to capture LTS responsibilities. Other MSDs that may be affected and should be reviewed include External Communication, Life Cycle Asset Management, and Integrated Planning.
  - Using the requirements management process, the SBMS summarizes all requirements (e.g., federal, state, and local regulations; voluntary agreements, and BSA policies) into procedures called **Subject Areas**. These are broken down into topics so that staff can easily determine which procedures apply to their jobs. The Subject Areas are Laboratory-wide procedures, whereas procedures applicable to only one department are documented through internal operating procedures. Several Subject Areas may need to be reviewed and possibly updated to capture LTS responsibilities. The Requirements Management subject area will be used to guide the SBMS update.
- Update Facility Use Agreements-establish the operating envelope and ES&H requirements for each facility.
- Operation and Maintenance Manual/Plan describes all work required to operate and maintain existing remedial systems, including maintenance of structures in the S&M mode. For the most part, these plans already exist for individual treatment and control systems, but they will likely require major updating to comply with EMS and SBMS.
- Land Use Plan – the existing Site Master Planning process must be enhanced to accommodate LTS needs for institutional control and land use constraint management. This plan is a requirement of the Operable Unit V ROD and such changes are in progress.
- Contingency Plan - describes procedures to be used to ensure a timely and adequate response to emergencies, unauthorized entry, and unexpected releases. These procedures must outline technical corrective actions and communication to senior Laboratory and DOE management, as well as to external stakeholders. Several existing procedures are in place, including ORPS, the Emergency Response Plan, the Groundwater Contingency Plan, and an Environmental Compliance Response procedure. These plans need to be reviewed and updated to ensure consistency, reduce redundancy, and to capture LTS requirements.

- Communication Plan – describes planned outreach activities with the external stakeholders to inform them of the pending transition of cleanup mission to LTS, and to seek input on their needs for involvement and information. Currently, communication plans are established for each project under going remediation. They also need to be updated and consolidated to address risk communication and LTS activities.

### **5.3 New Planning Efforts**

- Site De-listing Strategy- A simple strategy should be developed on the planned approach and timing for removing the Brookhaven site or a portion of it from the National Priorities List (NPL).
- Information Management Plan - An information management plan should be developed to establish the organizational framework for information management, including business and organization information, “level of service” requirements, maintenance functions, and cost analysis. This plan will be based on regulatory guidance, specific experience, lessons learned from managing and reusing excess facilities, and input from the community. The Laboratory’s information management system is envisioned to build upon our existing capabilities in combining spatial data (maps) with quantitative, image- and decision-document databases to enhance The Laboratory’s infrastructure, and support a variety of information management activities. It could allow planners, engineers, managers, field personnel, and external stakeholders to work together easily and share critical information on planning, design, and risk from any location.
- Organization/staffing plan for assimilating appropriate EM staff into LTS-related responsibilities.