

6.0 PERFORMANCE ENHANCEMENT MECHANISMS

To minimize the gap between baseline cost requirements and anticipated outyear funding, EM must implement performance enhancement mechanisms that achieve cost avoidances compared with the current baselines. These performance enhancement mechanisms cut across the business processes described in this handbook. The following sections describe key EM performance enhancement mechanisms, including the objective of each mechanism, how that mechanism is to be implemented, and responsibilities for implementing the mechanism. Implementation of these mechanisms must be evaluated on a case-by-case basis. As required, EM will establish and implement other performance mechanisms that will be documented in lower-level business process documentation.

6.1 PROGRAM INTEGRATION

The objective of program integration is to support DOE's efforts to achieve consensus on the complex wide configuration of waste and nuclear material management activities and to ensure

cost effectiveness and efficiency. This effort includes the supporting technology development and transportation activities.

The program integration process is an iterative process that 1) starts with the current site baselines; 2) identifies opportunities to resolve problems or improve the baselines; 3) screens these opportunities to identify those for further evaluation; 4) evaluates the opportunities; 5) makes decisions on the opportunities; and 6) implements the decision through changes to the project baselines as required. The evaluation of opportunities will comply with NEPA or other environmental laws or regulations such as CERCLA or RCRA as applicable. The integration process will use the program management tools that reflect the current site baselines, such as the PBSs, Disposition Maps, and Site Critical Paths. For example, it is the shipping site's responsibility to coordinate with receiver sites before an interface is included in the baseline. An important aspect of national integration is communication and dialogue with program stakeholders. As required, EM will discuss integration with states, Tribal Nations, regulators, and other stakeholders.

EM has embraced integration as part of its work culture. *A Working Charter for Environmental Management Program Integration* approved by the Assistant Secretary for EM and for all Field Office Managers guides the EM integration process. Program Area Integration Teams spanning the entire EM Program employ a common systems integration approach to identify, plan, and evaluate integration opportunities. The results are recommendations to senior management for rejection or implementation. These teams promote strong Field and Headquarters ownership and participation. The approach requires that program area integration teams involve stakeholders in planning and evaluation steps. Evaluation and subsequent decision making comply with established decision processes (NEPA, CERCLA, or RCRA).

6.2 PROJECT SEQUENCING

The objective of project sequencing is to reduce the EM Program life-cycle costs through reductions in fixed costs or “mortgage” costs. Mortgage costs represent the fixed portion of a project and support activities required to maintain a facility and its stored waste or material in a minimum safe configuration. Mortgage costs are significant and often account for roughly one-half to two-thirds of total site budgets. By resequencing projects to reduce high mortgage costs, the EM Program believes it can reduce risk, accelerate closures, minimize surveillance and maintenance activities, and reduce support costs. Therefore it is important to identify and implement project sequencing as early as possible in project planning.

Project sequencing is implemented in two-steps:

1. Analyze EM Projects and activities and identify projects for which EM support costs are high, and where acceleration of activities within the project may reduce costs for support activities significantly. Also, identify projects that offer a high potential internal rate of return if funding can be increased and the “mortgage reduction” can be quantified.
2. Resequence activities within a project (accelerate activities that will reduce fixed costs while deferring activities that do not reduce fixed costs). Also, resequence projects within a site or between sites (accelerate projects with high fixed costs and defer or slow down projects with low fixed costs).

EM has established a Mortgage Reduction Team to identify projects with high mortgage reduction potential. This team will evaluate candidate projects and will make recommendations to the Field and EM management for resequencing projects and reallocating funding. The Field is then responsible for planning work to take advantage of the mortgage reduction opportunities. EM has strongly emphasized project mortgage reduction by making it one of the eight guiding principles of the EM Vision. Headquarters Site Teams will review project sequencing as part of the baseline and budget review process and will recommend changes to reduce site mortgages.

6.3 TECHNOLOGY DEPLOYMENT

EM focuses technology development on key technologies with high likelihood of meeting identified site needs for cleanup and that can have potential major impacts on reducing the costs of cleanup, and in some cases, enable cleanup.

EM is implementing this mechanism using the following process:

1. Establishing Corporate Performance Measures for innovative technology availability, demonstration, and deployment to assist in tracking technology use and performance
2. Developing site-specific deployment plans, e.g., use of Site Technology Coordinating Groups
3. Conducting cost savings analyses
4. Interfacing with the EM oversight (user) committees
5. Identifying medium- to high-technology risk activities on the Site Critical Path
6. Identifying the waste streams (from Disposition Maps) that have medium to high degrees of technical risk
7. Reviewing low-risk but high-cost activities
8. Establishing roadmaps that link Science and Technology needs to Science and Technology investments
9. Initiating performance-based contracting that encourages the use of technology
10. Implementing an Accelerated Site Technology Deployment Initiative

The Field facilitates technology deployment by identifying opportunities for technology deployment as early as possible in the project life-cycle, notifying Headquarters of the needs for new technology, and by providing new technology deployment performance information to Headquarters. Headquarters is responsible for focusing technology deployment on site-specific requirements by acting as an informed counsel to the Field for technological expertise, maintaining cognizance of Site Technology Coordination Group activities, serving as a facilitator to ensure that technology activities at individual sites are integrated with the national program, participating in technology deployment reviews and activities, and advocating deployment of innovative technology at the sites where appropriate.

6.4 CONTRACTING APPROACH

The EM contracting objective is to identify and develop site-specific contracting policies that can best accomplish aggressive environmental cleanups without increasing costs. The primary approach is to use contracting policies that assist or encourage actual site cleanup activities. Various elements of these policies include—

- Increased use of contractor incentives for improved performance (i.e., quality results and accelerated completion) and disincentives for poor performance (i.e., regulatory non-compliance or failure to meet contractual obligations)
- Additional privatization of certain EM cleanup activities by encouraging free-market principles through an open, competitive bidding process
- Increased use of performance-based contracting mechanisms (for example, competitively awarded fixed-price contracts rather than open-ended time and materials contracts) to encourage more efficient cleanup
- Additional focus on linking work planning to the way contract types are selected, incentives, and the make or buy process
- Increased use of competitively awarded contracts

The major focus of these policies is to provide mechanisms to ensure that DOE resources expended are focused on effective site cleanup, not to manage or minimize contractor profit. Effective contract reform should provide the possibility and means for greater contractor profits for demonstrated, tangible results, e.g., bonuses for accelerated cleanup activities, use of effective technologies on fixed price bids. However, contract reform may also present an element of risk for the contractor that does not meet contracted performance targets or goals. This risk should act as an incentive for the contractor to use the most cost-effective technologies and work practices, and thus provide the greatest life cycle cost savings for the DOE.

Headquarters has implemented and is aggressively pursuing various contracting mechanisms to facilitate site cleanups. All projects are encouraged to research contracting options to facilitate site cleanup on current and future projects. Sites have the lead in developing and implementing site-specific contract approaches, including future contracting and establishment of performance measures and incentives. Sites are also responsible for ensuring defensible integrated site baselines are developed for the contract period. Additionally, sites are advised to use the Department's lessons learned programs to disseminate contracting option successes and failures to maximize the effectiveness of the mechanism.

The EM contracting approach focuses on four main areas: existing contracts, future contracts, privatization contracts, and the integrated site baseline (scope, schedule, and cost). In the case of existing contracts, the emphasis is on contract type and how performance measures and incentives can be incorporated into the contract for award fee determinations. The selection of contract type should focus on optimizing the risk sharing between DOE and the contractor. The goal is to select the contract type that places the maximum reasonable cost, schedule, and performance risk with the contractor. Emphasis is also placed on improvement in the administration of and award fee evaluations for performance-based contracts. In the case of future contracts, the thrust is to refine and improve implementation of the overall contracting

approach, with emphasis on scope and schedule, type of contract, performance measures and incentives, and government cost estimates for contract activities. In the case of privatization contracts, privatization is an acquisition tool used only where appropriate. Headquarters reviews privatization RFPs and contracts and issues reports to Congress. The focus will be on the relationship of the factors considered in proposing new privatization projects to the execution of existing privatization projects. The fourth focus area, integrated site baseline for the contract period of performance, is critical to the contracting effort because it is this portion of the life-cycle baseline from which performance measures and incentives will be developed. Emphasis is placed on well-defined scope of work, sound cost estimating, and realistic schedules.

Implementation of the EM contracting approach is intended to promote effective team building between EM Headquarters programmatic organizations and Field staff responsible for the developing and administering of performance-based management contracts, Management and Acquisition (MA), and other departmental elements. The EM Headquarters Site Leads and EM Field Managers are expected to work closely with the EM Field representatives to effect continual improvement in each focus area. The Operations/Field Office Procurement Directors, Project Managers, and the MA Office of Procurement and Assistance Management provide additional expertise and support.

Headquarters experts work as a team and coordinate with the Field to perform complex wide analyses on performance monitoring from the Field, and develop and disseminate topic area guidance and expectations, lessons-learned, and other information. EM representatives are expected to actively participate in site meetings to develop the contract performance evaluation plan and performance-based incentives. The EM Headquarters representative is responsible for identifying program expectations and ensuring that DOE and EM strategic goals and GPRA corporate goals are considered in developing contractor performance requirements at their respective sites.

The Field has the lead in developing and implementing site-specific contracting approaches, including establishing performance measures and incentives; improving implementation of future contracting; ensuring defensible baselines for the contract period; and monitoring and analyzing contract performance to yield site-specific lessons learned. The Field must also work closely with Headquarters to establish and monitor opportunities for awarding fixed price contracts and to ensure that contracts at closure sites maximize efficiencies and incentives for early completion. EM Headquarters representatives will participate in the development of all performance criteria. EM Headquarters representatives will participate fully in deliberations to discuss contractor performance ratings and related fee earnings.

The contracting strategy established by the Field should be incorporated into the Acquisition Plan required by the Federal Acquisition Regulations (FAR).

6.5 POLLUTION PREVENTION

Pollution prevention minimizes life-cycle cleanup costs by identifying and using remediation processes and procedures that minimize generation and release of pollutants, contaminants, hazardous substances, and wastes to the environment. An important component of pollution prevention is the concept of waste minimization which reduces life-cycle cleanup costs by

employing tactics that reduce the costs associated with waste handling, storage, transportation, and disposal. Pollution prevention should be implemented as early as possible in the project planning timeline to be most effective.

Pollution prevention is required under the Pollution Prevention Act, RCRA, DOE Orders, Executive orders, and state and local environmental agencies. The Field is responsible for identifying pollution prevention opportunities and implementing those that are cost effective. Headquarters will identify cross-site opportunities for Pollution Prevention, establish Pollution Prevention goals, and communicate best practices and lessons learned. Assistance is available from numerous sources, including the pollution prevention point of contact at each site. The DOE has training courses through its National Environmental Tracking Office to identify opportunities, to apply pollution prevention concepts during the design of new projects/modification, and to implement pollution prevention during environmental restoration.

6.6 LESSONS LEARNED

Application of lessons learned can decrease total life-cycle costs by minimizing the corporate learning curve as it applies to environmental cleanup management. EM recognizes that each site has unique characteristics that must be accounted for when performing cleanup activities. These characteristics may take the form of unique contaminants, unique geography, or unique stakeholders and regulators. Although every site will have to tailor its activities to address these characteristics, some actions and situations will be similar across different sites. As the similarities are identified and managed, the cleanup activities will become more efficient. Additionally, as personnel continue to perform the cleanup activities, they will become more efficient.

EM has accepted a very aggressive cleanup schedule. Application of the lessons learned performance mechanism will help EM become more efficient at performing its job and accelerating cleanups. The Field is tasked with submitting information concerning project management (successes and failures) to Headquarters, and reviewing and utilizing the lessons learned information supplied by Headquarters at the site project level. Headquarters is responsible for collecting and disseminating pertinent project management information. The EM Program is an active participant in the DOE's Lessons Learned Program and strongly encourages its use on all Projects. The Universal Resource Location (URL) for EM's Lessons Learned Homepage is <http://www.em.doe.gov/lessons/>.