APPENDIX A. REFERENCES

The following major references were used in developing this handbook:

- *Accelerating Cleanup: Paths to Closure*, June 1998
- DOE Notice N430.1, *Energy System Acquisition Advisory Board Procedures*, October 28, 1998
- DOE Order 331.1, *Departmental Employee Performance Management System*, September 30, 1998
- DOE Order 430.1A, *Life-cycle Asset Management*, October 14, 1998
- *DOE Strategic Management System*, May 21, 1998
- *Draft 2006 Plan Guidance*, October 20, 1997
- Draft Guidance for Updating the Integrated EM Corporate Database, Developing National and Site 1999 Paths to Closure, and Formulating the FY 2001 Budget, October 14, 1998
- *EM Functions, Responsibilities, and Authorities Manual (FRAM)*, February 1998
- EM Operational Expectations, November 2, 1998
- *FY 1998 Progress Tracking System Guidance*, February 26, 1998
- *Guidelines for Development and Review of Performance Based Incentives for Contracts Supporting the EM Program*, April 24, 1998
- *Integrated Strategic Planning, Budgeting, and Management System Process Description and Transition Plan*, November 6, 1996
- *Integrated Planning, Accountability, and Budgeting System Handbook Concurrence Draft*, May 14, 1997
- *Joint Program Office Direction on Project Management*, February 20, 1996; revised in March 1998
- *Life-cycle Asset Management Good Practice Guides*, October 1996, DOE Office of Project and Fixed Asset Management, available at http://www.fm.doe.gov/FM-20
- OMB Circular A-11, Part 3: *Planning, Budgeting, and Acquisition of Fixed Assets*
- *Standard Operating Procedures on Approved Funding Program*, August 4, 1998

APPENDIX B. DOCUMENTS TO BE VOIDED WITH THE ISSUANCE OF THE IPABS HANDBOOK

Document	Date Issued
EM-Level Documents	
EM Program Management Policies and Requirements Notebook	6/91
EM-30 Documents	
Office of Waste Management Policies and Requirements	8/92
Office of Waste Management Plan	1/93
Office of Waste Management Requirements Implementation Matrix	3/92
Office of Waste Management Standard Operating Procedures and Practices	11/93
EM-30 Work Breakdown Structure	4/94
Office of Waste Management Program Managers Guide	11/94
EM-40 Documents	
Environmental Restoration Management Policies and Requirements	3/92
Environmental Restoration Management Plan	3/92
Environmental Restoration Standard Operating Procedures and Practices	Varies
Management Action Process (MAP) Resource Guide	1/96
Environmental Restoration Baseline Guidance	3/92
Environmental Restoration Requirements Implementation Matrix	11/92
EM-40 Project Management Notebook	3/92
EM-60 Documents	
Materials Stabilization and Facility Deactivation Project Policies and Supplemental Information	7/95
Draft EM-60 Deactivation Strategy Work Plan	9/96
Draft Mortgage Reduction Project Plan	8/97

APPENDIX C. EM HIGH VISIBILITY PROJECTS/SYSTEMS

	Operations Office	Project/System	Significant Project Baseline Summary Numbers and Names
1	Carlsbad Albuquerque Idaho Rocky Flats	Transuranic Waste System	· CAO-1 Waste Isolation Pilot Plant (WIPP) Base Operations · CAO-2 WIPP Disposal Phase Certification and Experimental Program · CAO-3 WIPP Transportation · CAO-4 WIPP TRU Waste Site Integration and Preparation · CAO-6 WIPP TRU Waste Transportation (Privatization) · AL-013 Los Alamos National Laboratory-Waste Management-Legacy Waste · ID-WM-103 Idaho National Engineering and Environmental Laboratory (INEEL) TRU Project · RF-002 Waste Management Project
2	Idaho	High-Level Waste System	· ID-HLW-101 HLW Pretreatment · ID-HLW-103 HLW Treatment and storage · ID-HLW-105 Low Activity Waste Treatment Facility (LAWTF)
3	Idaho	Advanced Mixed Waste Treatment Project	· ID-WM-104 Asset Acquisition Project (Privatization) · ID-WM-105 AMWTF Production Operations
4	Idaho	Pit 9 Staged Interim Action	· ID-ER-107
5	Idaho	Spent Nuclear Fuel (SNF) Program	· ID-SNF-101 National Spent Nuclear Fuel Program · ID-SNF-102 Integrated Spent Nuclear Fuel Program · ID-SNF-103 Emptied Spent Nuclear Fuel Facilities Project · ID-SNF-104 Constructed New Facilities Project · ID-SNF-105 Dry Storage and Transfer Project (Privatization)
6	Nevada	Underground Test Area (Environmental Restoration)	· NV 212
7	Oak Ridge	ETTP (K-25) Process Equipment Deactivation and Decommissioning	· OR 44302
8	Ohio	West Valley Demonstration Project (WVDP)	· OH-WV-01 High-Level Waste Vitrification & Tank Heel High Activity Waste Processing · OH-WV-02 Site Transition, Decommissioning & Project Completion
9	Ohio	Fernald	· OH-FN-03 On-Site Disposal Facility · OH-FN-05 Waste Pit Remediation Project · OH-FN-07 Silos (This includes privatization of Silo 3)

	Operations Office	Project/System	Significant Project Baseline Summary Numbers and Names
10	Richland	High-Level Waste System	· RL-TW01 Tank Waste Characterization Project · RL-TW02 Tank Safety Issue Resolution Project · RL-TW03 Tank Farm Operations · RL-TW04 Retrieval Project · RL-TW05 Process Waste Support · RL-TW06 Process Waste Privatization Phase I · RL-TW07 Process Waste Privatization Phase II · RL-TW08 Process Waste Privatization Infrastructure · RL-TW09 Immobilized Tank Waste Storage & Disposal Project · RL-TW10 TWRS Management Support
11	Richland	Transition Program	· RL-TP05 PFP Deactivation · RL-TP08 324/327 Facility Transition Project
12	Richland	Spent Nuclear Fuel	· RL-WM-01 Spent Nuclear Fuel Project
13	Rocky Flats	Waste Management Project	· RF-002
14	Rocky Flats	Special Nuclear Material (SNM) Stabilization	· RF-008 Plutonium (Pu) Metals and Oxides Stabilization
15	Rocky Flats	SNM Residues Stabilization	· RF-009 Pu Solid Residue Stabilization
16	Rocky Flats	SNM Shipping	· RF-011 Highly Enriched Uranium · RF-012 Scrub Alloy
17	Rocky Flats	371 Cluster Closure	· RF-016 Building 371 Cluster Closure
18	Rocky Flats	771/774 Cluster Closure	· RF-018 Building 771/774 Cluster Closure Project
19	Rocky Flats	779 Cluster Closure	· RF-022 Building 779 Cluster Closure Project
20	Savannah River	High-Level Waste System	· SR-HL03 Waste Removal Project · SR-HL04 High-Level Waste Pretreatment Operations · SR-HL05 Vitrification Project (DWPF) · SR-HL13 Salt Disposition
21	Savannah River	Canyon Stabilization	· SR-NM-01 F-Area Stabilization · SR-NM-02 H-Area Stabilization · SR-NM-03 Actinide Packaging Storage Facility

APPENDIX D. EM CORPORATE PERFORMANCE MEASURES

The following is a listing of EM's Corporate Performance Measures and their data collection level (Site, Project, or Operations Office)

SITE LEVEL MEASURES

Geographic Sites

- Number of geographic sites completed

Technology Deployment

- Number and type of innovative technology deployments (Responsibility for technology deployment rests with EM-30, EM-40, EM-60, and Operations/Field Offices.)

Pollution Prevention

- Reduction in waste generation from routine operations by waste type (Mixed Low Level Waste [MLLW], Low Level Waste [LLW], Hazardous, and Sanitary)
- Reduction in waste generated from cleanup and stabilization operations (total of all waste types)

EM PROJECT-LEVEL MEASURES

Release Sites Completed

- Number of release site assessments completed
- Number of release sites completed

Facilities Deactivated/Decommissioned

- Number of facilities deactivated
- Number of facility assessments completed
- Number of facilities decommissioned

Material and SNF Stabilized/Made Disposition Ready

- Quantity of material stabilized (i.e., Plutonium Solution [liters]; Plutonium Residue [kg bulk]; Plutonium Metal/Oxides [container]; Uranium Solution [liters]; Uranium in Other Forms [kg bulk]; Other Nuclear Material in Solution Form [liters]; Other Nuclear Material in Other Forms [handling units])
- Quantity of material made disposition ready during the period (i.e., Plutonium Metal/Oxides or in Other Forms [container]; Uranium Solution [liters]; Uranium in Other Forms [kg bulk]; Other Nuclear Material in Solution Form [liters]; Other Nuclear Material in Other Forms [container])
- Quantity of material in disposition ready storage (i.e., Plutonium Metal/Oxides or in Other Forms [container]; Uranium Solution [liters]; Uranium in Other Forms [kg bulk]; Other Nuclear Material in Solution Form [liters]; Other Nuclear Material in Other Forms [container])

- Quantity of Spent Nuclear Fuel (SNF) (in m^3 and MTHM) stabilized during the period; fuel made disposition ready during the period, fuel in stabilization process, fuel not yet stabilized, stable fuel not disposition ready, and fuel in disposition ready storage

Waste Stored/Treated Disposed

- Volume of waste treated by waste type (High Level Waste [HLW], TRU, MLLW, LLW) in cubic meters
- Volume of waste disposed by waste type (TRU, HLW, MLLW, LLW); Disposal-ready HLW in canisters
- Inventory (storage) by waste type (HLW, TRU, MLLW, LLW) in cubic meters

Technology Deployment Measures

- Number of alternative technology systems demonstrated that meet the performance specification-based needs as identified by the STCG
- Number of alternative technology systems available for implementation with full cost and engineering performance data

OPERATIONS/FIELD OFFICE LEVEL MEASURES

Safety and Health Measures

- Procedure violations/deficiencies, total recordable case rate, lost work day case rate, and corrective action status

EM LEVEL MEASURES

Total EM Stakeholder Trust and Confidence Measure

- Responding to an estimated annual total of 500,000 public requests for information and documents from the Center for Environmental Management Information within an average of 2 business days per request

APPENDIX E. MANAGEMENT OF PRIVATIZATION PROJECTS

EM has used the tool of privatization to reduce costs and to obtain enhanced performance and service delivery from its contractors. EM defines the term "privatization" to mean the use of fixed-price contracts wherein DOE pays only for deliverables (i.e., products and services received). Under this definition, the contractor is responsible for the design, construction, financing, and operation of cleanup and waste treatment, storage, and disposal facilities.

A separate budget appropriation account has been established by Congress to fund budget authorization requirements for a small number of EM privatization projects. For the projects funded under the privatization appropriation account, DOE established special management requirements and processes that are documented in the EM Privatization Program Management Plan (PMP) published in January 1998. Generally speaking, because of their visibility and importance, the management and oversight requirements for these projects are much more intensive than for the remainder of EM's projects. For example, as detailed in the EM Privatization PMP, the Requests For Proposals (RFP) and contracts for these projects must undergo an extensive Headquarters review in both their draft and final forms, regardless of their dollar value. In addition, EM must submit a formal report to Congress for these projects before awarding a contract.

Generally speaking, because of their fixed-price nature and the more intensive management requirements referenced above, most of the processes outlined in this handbook do not apply to the EM privatization projects funded under the privatization appropriation. The governing management documents that pertain to these projects are the EM Privatization PMP and the relevant contract between DOE and the vendor. If one of the processes detailed in this handbook is deemed to be applicable to a privatization project, and that process requires input from the contractor, the requirement must be specified in the relevant contract.

APPENDIX F. PROPOSED FY 1999 STRATEGIC SYSTEMS AND MAJOR SYSTEMS

Strategic/Major System	Title	PBS#
Richland Operations Office		
MS	Retrieval Project	RL-TW-04
MS	Immobilize Tank Waste Storage and Disposal	RL-TW-09
SS	Process Waste Privatization Phase I	RL-YW-06
MS	Spent Nuclear Fuels Project	RL-WM-01
Oak Ridge Operations Office		
MS	TRU Waste Privatization	OR-38902
Savannah River Operations Office		
MS	Actinide Packaging Line Item	SR-NM03
Idaho Operations Office		
SS	AMWTP Asset Acquisition (Phases 1 and 2) Privatization Project	ID-WM-104

APPENDIX G. PROJECT BASELINE DEVELOPMENT CONSIDERATIONS

These elements are generally applicable at the EM Project level and the integrated site baseline level. This appendix should be used as a reference by Project Managers in developing their baselines and by review/validation organizations in reviewing and validating baselines. Project baselines should reflect full compliance and the outyear funding guidance from the latest Lifecycle Planning and Budget Formulation Guidance.

General Elements of a Project Baseline

Projectization. Baselines should be developed at whatever level is most appropriate at each site for developing and documenting integrated scope, schedule, and cost plans. This level may vary from site to site and may include release site, facility, waste stream, Waste Area Grouping, Operable Unit, Solid Waste Management Unit, etc. Subproject baselines should rollup to EM Project Baselines.

Integration. The Project baseline should reflect integration of all EM activities within a site and with related activities at other sites.

Graded Baseline Development. The degree of project baseline definition should be appropriate for the project phase. Baselines should address the entire project life-cycle and should extend through the ultimate project end state (cleanup complete, waste disposed, etc.).

Documentation & Traceability. All aspects of the project baseline should be presented in a format that is easily understood by the Project team and validators. The baseline should be supported by clearly identified assumptions; quantified scope, cost, and schedule; methodology that is consistent with industry accepted standards; and well-documented backup information that will help in configuration management and baseline change control. The baseline should be clearly traceable to the appropriate program or project strategy, planning, or execution documentation.

Responsibility. The DOE and contractor managers responsible for the project baseline development and execution should be clearly identified.

Risk Management. Actions taken to minimize or mitigate programmatic risks (i.e. risks to maintaining project costs, schedule, and scope). See also Programmatic Risk Categories in Appendix H.

Safety Management. Safety management activities, such as Operational Readiness Reviews and Assessment, completion and approval of Hazard Analysis and Facility Categorization, Safety Analysis Reports, Basis of Interim Operation, and Authorization Agreements, should be summarized or referenced in the baseline.

Best Practices. Project baselines should incorporate appropriate benchmarks, best industry practices, innovative contracting strategies, value engineering, pollution prevention, and the like.

Scope/Technical Elements of a Project Baseline

Mission. The purpose and end state of the project should be clearly defined. The mission and end state of the project should be consistent with regulatory decision and specific stakeholder and Tribal Nation agreements. End state considerations include land use, cleanup levels, facility disposition, and special nuclear materials and waste disposition.

Compliance Requirements. Compliance requirements should be clearly identified including applicable laws, regulations, regulatory agreements, DOE orders, and Executive orders.

Technical Requirements. Characterization information, including the inventory and characteristics of contaminated media and release sites, facilities, legacy waste, operations waste, and special nuclear material should be defined in the baseline.

Technical Approach. The technical approach (including planned technology) to cleanup should be defined. This may be done in regulatory or planning documents, such as Records of Decision, Remedial Design Documents, or Title I/Title II design reports. Safety and Health requirements should be built into the technical approach.

Scope Definition. The life-cycle scope of the project should be based on activity-based planning and expressed in appropriate measurable terms. Scope should be quantified based on actual quantities, estimates, or assumptions.

Performance Measures. Performance Measures for describing performance toward performance objectives in the *Paths to Closure* should be established during development or update of project baselines. As appropriate, project performance measures should link to EM's Corporate Performance Measures.

Work Breakdown Structure. A WBS that identifies the products to be produced or activities and subactivities to be performed in the execution of the baseline work scope should be established. The WBS is typically used to integrate scope, schedule, and cost information in the baseline. Industry standard WBSs, such as the EM Uniform Cost Breakdown Structure to support cleanup activities, should be used to define lower level work elements where applicable.

Acquisition and Contracting Strategy. Based on the work activities or subactivities, it should be determined what methods will be used to conduct the various activities and subactivities (e.g., what work will be conducted in-house and what will be performed by contract). The type of contract should be determined based on the scope of work.

Schedule Elements of a Project Baseline

Project Prioritization and Sequencing. Activities within a project should be sequenced and prioritized to meet DOE's, stakeholders, and Tribal Nations' priorities. Prioritization and sequencing considerations include regulatory compliance, risk reduction, mortgage reduction, regulatory approvals, inter-site transfers, critical path dependencies within the project and with other site/EM Projects, and availability of efficient technologies.

Critical Path Schedule. Schedule information for project baselines should be supported with descriptions of discrete activities, including associated duration and activity dependencies (predecessor/successor relationship). The critical path to achieving the project end state should be determined.

Milestones. Key and other interim milestones for performance measurement should be identified. Milestone descriptions, completion criteria, and planned dates should be defined as necessary. Schedules should include milestones for regulatory compliance and compliance with milestones in EM Implementation Plans responding to DNFSB recommendations. Regulatory and DNFSB commitment milestones should not be changed in the baseline until the milestones are changed by the regulators or the DNFSB.

Cost Elements of a Project Baseline

Cost Estimates. Consistent with the project phase or the degree of project definition, an appropriate cost estimating methodology should be used (e.g., bottom-up, activity-based costing, parametric, estimating models, expert opinion, market quotations). At a minimum, detailed activity-based cost estimates should be made through the budget cycle plus one year. The estimating methodology should be clearly specified with any assumptions made for determining the life-cycle cost estimates.

Escalation Factors. Escalation factors should be clearly identified and be consistent with either OMB-specified escalation rates or DOE-approved rates.

Contingency. The baseline cost estimate and associated contingency for each year must be clearly identified. Any contingency and its basis should be clearly identified. Contingencies should not be added in multiple layers. Contingencies should be added based on site guidelines and an analysis of the project risks and uncertainties.

Time-Phased Cost Profile. The schedule of project activities should be resource loaded to determine annual funding requirements. Resource leveling should then be employed as required so that project planning is consistent with realistic outyear funding expectations as long as compliance is maintained in the project baseline.

APPENDIX H. PROGRAMMATIC RISK CATEGORIES

The programmatic risk factors defined in the following table are used to identify high, medium, and low programmatic risk EM Projects, activities, or milestones.

Risk Categories	Technological	Work Scope Definition	Inter-Site Dependency
5 (high)	The technology required to accomplish the planned activity does not exist.	Project end state or end point is not determined or supported by stakeholders and/or regulators.	Activity involves multiple sites.
	Development of this technology has not been initiated, but an Site Technology Coordinating Group (STCG) number has been assigned.	Waste/material quantities and characteristics are unknown.	No concurrence has been reached between sites.
		Process operations are not identified or supported by stakeholders and/or regulators, or final disposition location for waste/materials has not been identified and approved.	Stakeholders and/or regulators are opposed to the site's involvement in the activity.
4 (high)	The technology to accomplish the planned activity is identified and has an STCG number.	Project end state is determined but may prove controversial to stakeholders and regulators.	Activity involves multiple sites; site concurrence has been verbally reached.
	The identified technology to accomplish the planned activity is under development on a schedule to meet project needs but has not been demonstrated on a near-commercial scale, e.g., has not been scaled up from laboratory testing.	Process operations are identified but may prove controversial to stakeholders and/or regulators.	The Waste Acceptance Criteria (WAC) have not been resolved.
		Final disposition location for waste/material has been identified, and a controversial Environmental Impact Statement (EIS) is being prepared	No funding has been identified, and no schedule for receipt or treatment of the waste/material exists.
			Involvement of the site may be controversial to stakeholders and/or regulators.
3 (med)	The technology required has been identified and has an STCG number assigned.	Project end state is determined and is expected to be acceptable to stakeholders and/or regulators.	Activity affects another site, site agreement has been verbally reached.

Risk Categories	Technological	Work Scope Definition	Inter-Site Dependency
	The identified technology has been successfully demonstrated on a near-commercial scale.	Waste/material quantities and characteristics are broadly known.	Receiving facility is reviewing characterization data to determine WAC acceptability.
		Process operations are identified and expected to be acceptable to stakeholders and/or regulators.	Funding has been identified, but no schedule for receipt or treatment of the waste/material exists.
		Final disposition location for waste/material has been identified and an EIS is being prepared.	Site involvement is expected to be acceptable to stakeholders and/or regulators.
2 (low)	The identified technology has been fully developed, demonstrated, and deployed on one or more comparable scale projects in DOE or the private sector.	Project end state is determined and is expected to be acceptable to stakeholders and/or regulators.	Activity does not affect another site, or site agreement has been documented if multiple sites are affected.
		Waste/material quantities and characteristics are broadly known.	Receiving facility has verified WAC acceptability.
		Process operations are identified and expected to be acceptable to stakeholders and/or regulators.	Funding has been identified, but no schedule for receipt or treatment of the waste/material exists.
		Final disposition location for waste/material has been identified and a non-controversial EIS is being prepared.	Site involvement is supported by stakeholders and/or regulators.
1 (low)	The identified technology has an extensive history of commercial use and success. Multiple suppliers may be available.	Project end state or end point is determined and supported by stakeholders and/or regulators.	Activity does not affect another site, or site agreement has been documented if multiple sites are involved.
		Waste/material quantities and characteristics are well known.	Receiving facility has verified WAC acceptability.
		Process operations are identified and supported by stakeholders and/or regulators.	Funding is identified in an approved Project Baseline Summary, and facility is ready to receive the waste/material.

Risk Categories	Technological	Work Scope Definition	Inter-Site Dependency
		Final disposition location for waste/material has been identified and is ready to receive waste/material. An EIS Record of Decision is issued.	Site involvement is supported by stakeholders and/or regulators.

APPENDIX I. RELATIONSHIP OF EM BUSINESS PROCESSES TO OFFICE OF SCIENCE AND TECHNOLOGY

The Office of Science and Technology (OST) conducts a Headquarters-managed National Program to develop breakthroughs in science and to apply innovative technology solutions to EM's most challenging cleanup problems. The OST Program does the following:

- Provides the scientific and technical foundation to support definition of end state cleanup requirements
- Provides technical defense of the technology baselines
- Identifies and provides alternative cleanup approaches and/or technologies
- Provides technical assistance to technology user projects to help solve operational issues and improve efficiencies.

Because OST is a National Program, program planning, budgeting, and execution activities are the responsibility of Headquarters and are performed by Headquarters in conjunction with the Field.

OST's three programs, Science, Technology Development, and Risk Policy, are structured as projects in the same manner as Field Projects; therefore, IPABS is still applicable for business processes. Each of these programs is organized into PBSs with defined scope, schedule, and cost provided from Multi-Year Program Plans (MYPP). However, there are a number of differences between Field- and HQ-developed projects. Examples of how OST- and Field-based programs differ are listed in the following table.

Table I-1. Representative Differences Between OST- and Field-Based Programs

Comparison of OST (National Program) and Field-Based Programs		
Factor Considered	**OST Program**	**Field-Based Program**
Goal	Technology products and assistance for DOE Complex	Cleanup of a specific site
Major activities and results	Technology solution-oriented projects providing a data package usable for future site cleanup decisions	"Geography-defined" cleanup projects
Major participants	OST HQ and Field jointly plan the program, and the Field executes the plans. Sites (i.e., users), other than OST Field activities, deploy the OST technologies.	The Field (i.e., user) leads planning and execution with cleanup vendors and stakeholders at a specific site.
Corresponding elements using IPABS terminology	EM-HQ-OST DAS	Field Manager
	Integrated OST Baseline	Integrated Site Baseline, including Site Critical Path
	Technology Development PBS	EM Project PBS

Comparison of OST (National Program) and Field-Based Programs		
Factor Considered	**OST Program**	**Field-Based Program**
	Focus Area or Crosscut Program (FA/CP) Baseline (scope, schedule, and cost from the Multi-Year Program Plan (MYPP)	EM Project Baseline (including scope, schedule, and cost, and Disposition Maps from site documents)
	Product Line Baseline	(No corresponding IPABS element)
	Annual Performance Measures–Corporate EM, OST, and FA/CP levels	Annual Performance Measures–Corporate EM, Field Office, site, and project levels

OST assists the entire DOE Complex, whereas Field projects address the cleanup of a specific site. The technology user in the Field is a critical partner in OST to define and plan the work for the National Program so that technologies developed by OST will be deployed by the operating sites in the Field. In many cases, development and demonstration of technologies at DOE sites are accomplished with joint funding by the technology users at the site.

The OST Technology Development project is further divided into Focus Areas and Crosscutting Programs (FA/CP). Each FA/CP is analogous to a Field project. Each FA/CP has scope, schedule, and cost information developed around product lines that address specific classes of technical problems and is summarized in Multi-Year Program Plans. The Field leads the management of each FA/CP technical effort and provides monthly cost and performance status reports on to HQ through the Project Tracking System, or its equivalent, relative to the proposed scope of work and cost for individual technologies in the product lines. This information is outlined in OST Technical Task Plans (TTP) and is more detailed than would be reported in IPABS.

OST has instituted User Steering Committees to ensure OST program priorities are linked to the needs and schedules of the technology users in the Field. The User Steering Committee reviews, provides input to, and endorses critical planning documents. The Committee ensures acceptability of program priorities and budgets, integrates the FA/CPs with the line programs, identifies issues and opportunities for technology development and deployment, approves yearly program plans, and validates the annual Internal Review Budget (IRB) and Program Execution Guidance (PEG).

The specific roles and responsibilities of Headquarters and the Field for OST may be modified from those in Table 2 in Chapter 7 of this handbook. Some examples are given in Table I-2. A complete set of management elements will be included in the lower level documents supporting IPABS. Table I-2 shows the IPABS business process element for Field-based programs and the corresponding OST element and related business practice. For most elements, the responsibilities are different for the Field-based versus National programs like OST.

Table I-2. Representative Examples of Business Process Roles and Responsibilities for the EM-OST National Program

Handbook Element	Equivalent OST Element, Related Business Practice (and Lead Responsibility)	Field Responsibility	OST Responsibility
2. PLANNING			
EM Project Structure	OST Project Structure OST will have three project baseline summaries, on Technology Development, Science, and Risk Policy. Each FA/CP under OST technology development is analogous to a Field project as described in the IPABS Handbook. (OST-HQ)	Assigns managers to support OST-projects on Technology Development, Science, and Risk Policy executed in the Field	Assigns HQ managers for technology development, science, and risk policy Assigns HQ managers for FA/CPs and other technical programs supporting Technology Development, Science, and Risk Policy Recommends Field structure to support Technology Development, Science, and Risk Policy
Integrated Site Baseline	Integrated OST Baseline OST baselines will be coordinated with Field project baselines to ensure timeliness of technology products. (OST-HQ)	Prepare product line baselines and MYPPs for FA/CPs and other OST projects executed by the Field	Approve the OST project MYPPs Roll up of MYPP information into PBS for technology development, science, and risk policy Roll up of PBSs into Integrated OST Baseline
3. BUDGETING			
Field Budget Input	OST Budget Input The OST budget is prepared jointly by the Field, which prepares the detailed product line level information, and HQ, which prioritizes this into an OST budget. (OST-HQ and OST-Field)	Field Leads prepare product line budget narratives and recommended priorities and budgets for FA/CPs and for OST Field-executed projects for Science and Risk Policy	Reviews and approves Field-proposed priorities and budgets Formulates budgets for OST Technology Development, Risk Policy, and Science and overall OST budget Updates budgets, priorities, and project baseline summaries for Technology Development, Science, and Risk Policy to reflect budget guidance

Handbook Element	Equivalent OST Element, Related Business Practice (and Lead Responsibility)	Field Responsibility	OST Responsibility
5. EVALUATION			
Operations/ Field Managers Periodic Performance Assessments	HQ Managers' Periodic Performance Assessments Conducts reviews by HQ at different levels to monitor scope, schedule, and cost and to ensure integration with HQ Site Team and FA/CP User Steering Committees. (OST-HQ)	FA/CP Field managers participate	OST-DAS conducts quarterly, mid-year and year-end reviews Technology Development, Science, and Risk Policy managers conduct periodic assessments

APPENDIX J. GLOSSARY OF TERMS

The following is a glossary of terms used in this handbook. Users should refer to the *LCAM Good Practice Guides* for standard definitions of other DOE business management terms.

Baseline Validation. A credible and independent validation of a site's baseline to ensure that the baseline is defensible relative to scope, schedule, and cost.

Corporate Forum. Convened before the Corporate Review Budget Submission as a review focusing on corporate direction/decisions and outstanding issues.

Consolidated PBS Quantity Table. Captures the quantity and related data, by PBS, for each stream (i.e., waste stream, material stream, contaminated media) depicted on the Disposition Maps.

Disposition Map. Graphical representation of a site's conceptual approach for managing wastes, nuclear materials, and contaminated media from current status through storage, treatment, and disposal, including shipping and off-site treatment and disposal. A Disposition Map depicts the facilities, activities, and inventory transfers required to disposition a site's nuclear material, waste, or contaminated environmental media streams and achieve the end state described in the Site *Paths to Closure*.

EM Project. All EM work is organized into EM Projects to support planning, budgeting, execution, and evaluation. Each EM Project has a defined end state, end date, and cost.

End State. A site is considered complete (or at its end state) when deactivation or decommissioning of all facilities currently in the EM Program has been completed, excluding any long-term surveillance and monitoring; all releases to the environment have been cleaned up in accordance with agreed-upon cleanup standards; groundwater contamination has been contained, and long-term treatment or monitoring is in place; nuclear material and spent fuel have been stabilized and/or placed in safe long-term storage; and legacy waste (i.e., waste produced by past nuclear weapons production activities, with the exception of high-level waste) has been disposed of in an approved manner.

Field Project Manager. An individual assigned the responsibility and authority for accomplishing a project. The Field Project Manager is responsible for planning, organizing, controlling, reporting, and directing the project.

Geographic Site Level. Some of the data required by IPABS is to be reported at the geographic site level, which includes all of the work performed at one geographic site. At large sites, there are typically multiple EM Projects. As of July 1998, there were 53 geographic sites in the EM Program. EM's geographic sites are identified in the June 1998 *Paths to Closure*.

Headquarters Project Baseline Summary Lead. An individual assigned to the HQ Site Team, generally in a matrix relationship (from EM-30, -40, -50, -60, or -70) to support the HQ Site Team for a set of specifically assigned EM Projects. The Headquarters PBS Lead is vested with authority commensurate with his/her project responsibilities, and is accountable to the HQ Site Lead in discharging these responsibilities.

Headquarters Site Lead. A senior individual who reports directly to the Lead Site DAS for a particular site and is responsible for leading the Headquarters Site Team in their activities and for coordination and resolution of issues.

Integrated Planning, Budgeting, and Accountability System. The management system for the EM Program, which consists of business processes documented in the IPABS Handbook and the IPABS-Information System.

Integrated Site Baseline. Built up from individual project baselines and the incorporation of interfaces between related on-site and off-site projects. Includes all EM work performed at a site, including nuclear materials stabilization, facility deactivation, facility decommissioning, Science and Technology Development, waste management, environmental restoration, and landlord/infrastructure.

Lead Site Deputy Assistant Secretary (DAS). To provide an interface between Field and Headquarters organizations, Lead Site DASs are established at Headquarters for each Operations/Field Office. Lead Site DASs are responsible for coordinating and integrating Headquarters review of Field documents, including PBSs, the Site *Accelerating Cleanup: Paths to Closure*, budget submissions, and baseline change proposals. Lead Site DAS responsibilities are delegated to the Headquarters Site Lead.

Line Item Construction Project. Projects that are specifically reviewed and approved by Congress and have a total project cost greater than $5.0 million.

Management Commitments. To establish more personal accountability for cleanup progress, the Assistant Secretary for Environmental Management and each Site Manager sign agreements for the execution year that commit each site to accomplishing a certain scope of work. These commitments are discrete examples of the focus on Field-level responsibility and accountability for cleanup accomplishments. EM tailors these commitments to individual Operations/Field Offices and will provide a balanced approach to determining critical program expectations and for assessing EM's progress towards meeting key programmatic goals and objectives.

Mortgage Reduction. Mortgage costs represent the fixed portion of a project and support activities required to maintain a facility and stored waste or material in a stable configuration. Project sequencing is the primary enhanced performance mechanism to achieve mortgage reduction.

Performance Measures. EM has developed a single set of corporate performance metrics that focus the organization on achieving the goals and objectives identified in the *Paths to Closure*, as well as on those crosscutting areas essential to accomplishing program results effectively and efficiently (i.e., financial, safety and health, risk reduction, and stakeholder trust and confidence measures). Performance metrics provide the links between the processes of planning, budgeting, executing, and evaluating, and measure a Project's progress toward its defined end state.

Pollution Prevention. The use of materials, processes, and practices that reduce or eliminate the generation of releases of pollutants, contaminants, hazardous substances, and waste into land, water, and air. For DOE, this includes segregation and recycling activities.

Programmatic Risk. The risk to cost, schedule, and technical performance posed when an activity is not completed as planned. There are three categories of programmatic risk: Technology (Do we have the technology to do our work?), Scope (Do we know how much work there is to do?), Intersite Dependency (Do we know how and where we plan to store, treat, and dispose of material and waste?)

Programmatic Risk Management Plan. A management tool developed by the site that describes a specific risk, provides a path for managing the risk, and provides a schedule for risk mitigation activities.

Project Baseline. Project baselines define the planned scope, schedule, and cost for EM Projects and provide the basis for managing the project and measuring performance.

Project Baseline Summary (PBS). A management tool that summarizes information about each project, PBSs are used for planning, budgeting, executing, and evaluating. Baseline information in the PBS is consistent with the project baseline at the point of time when the PBS is developed.

Site Critical Path. The site critical path is a schedule of high-level activities, events, and/or decisions that must occur "on schedule" to achieve the site closure date. These paths identify the set of activities that govern overall completion of EM scope at a site, including critical milestones and interdependent projects.

Strategic System. (Formerly Major Systems Acquisition) A special type of line item project(s) that is a single, stand-alone effort within a program mission area that is a primary means to advance the Department's strategic goals. Designation of a Strategic System is determined by the Secretary based on cost, risk factors, international implications, stakeholder interest, and/or national security.