

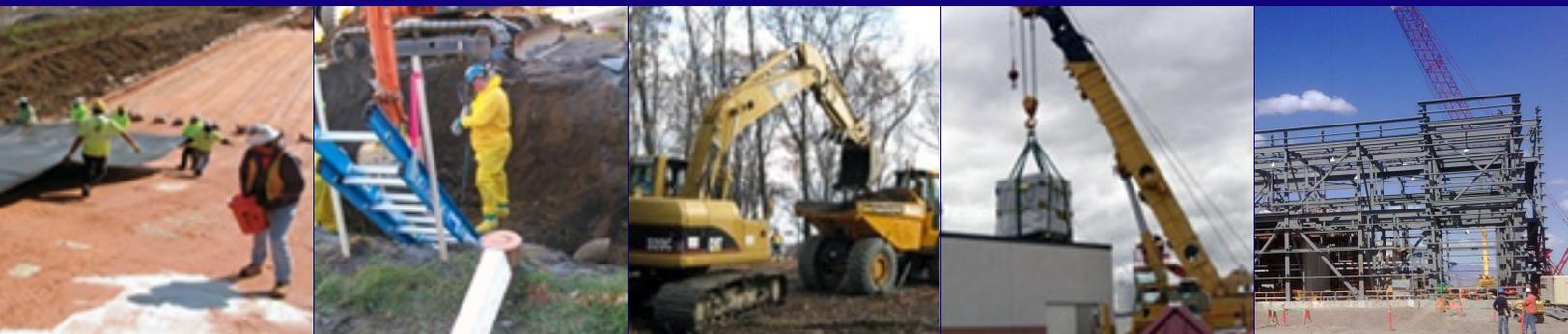


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2nd Edition

Environmental Management
Safety ▪ Performance ▪ Cleanup ▪ Closure

STANDARD REVIEW PLAN (SRP)

FACILITY DISPOSITION SAFETY STRATEGY REVIEW MODULE



**CORPORATE CRITICAL DECISION (CD) REVIEW AND
APPROVAL FRAMEWORK ASSOCIATED WITH NUCLEAR FACILITY CAPITAL AND
MAJOR CONSTRUCTION PROJECTS**

MARCH 2010

OFFICE OF ENVIRONMENTAL MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON D. C. 20585

OFFICE OF ENVIRONMENTAL MANAGEMENT

Standard Review Plan (SRP)

Facility Disposition Safety Strategy

Review Module

Critical Decision (CD) Applicability					
CD-0	CD-1	CD-2	CD-3	CD-4	Post Operation
					✓



March 2010

FOREWORD

The Standard Review Plan (SRP)¹ provides a consistent, predictable corporate review framework to ensure that issues and risks that could challenge the success of Office of Environmental Management (EM) projects are identified early and addressed proactively. The internal EM project review process encompasses key milestones established by DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of Capital Assets*, DOE-STD-1189-2008, *Integration of Safety into the Design Process*, and EM's internal business management practices.

The SRP follows the Critical Decision (CD) process and consists of a series of Review Modules that address key functional areas of project management, engineering and design, safety, environment, security, and quality assurance, grouped by each specific CD phase.

This Review Module provides the starting point for a set of corporate Performance Expectations and Criteria. Review teams are expected to build on these and develop additional project-specific Lines of Inquiry, as needed. The criteria and the review process are intended to be used on an ongoing basis during the appropriate CD phase to ensure that issues are identified and resolved.

¹ The entire EM SRP and individual Review Modules can be accessed on EM website at <http://www.em.doe.gov/Pages/Safety.aspx>, or on EM's internet Portal at <https://edoe.doe.gov/portal/server.pt> Please see under /Programmatic Folder/Project Management Subfolder.

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ACRONYMS

CD	Critical Decision
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
D&D	Decontamination and Decommissioning
DOE	Department of Energy
EM	Environmental Management
FD	Facility Disposition
FDSS	Facility Disposition Safety Strategy
FPD	Federal Project Director
FRAM	Functions, Responsibilities and Authorities Manual
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
ISM	Integrated Safety Management
JHA	Job Hazards Analysis
LOIs	Lines of Inquiries
RM	Review Module
SSC	Structures, Systems and Components
SB	Safety Basis
SRP	Standard Review Plan
S&M	Surveillance and Maintenance
TSR	Technical Safety Requirements
USQ	Un-reviewed Safety Questions

I. INTRODUCTION

One of the key activities of the Department of Energy (DOE) mission is the safe disposition of surplus facilities. This involves several possible phases and approaches following completion of the operations phase of a facility. Environmental Management (EM) has the primary responsibility for the receipt and disposition of facilities once they have been identified as surplus.

To facilitate use of this review module (RM), the module is broken into two general phases 1) transition of excess facilities; 2) Post operations activities. This second category includes deactivation, surveillance and maintenance (S&M) and decontamination and decommissioning (D&D). The approach provide two succinct checklists to be used by the EM review teams to support the Federal Project Director (FPD) in addressing the adequacy of the documentation and approaches identified to ensure that safety are addressed and comply with DOE requirements and expectations. This RM is consistent with the DOE project management philosophy and approach as identified in DOE O 430.1B, *Real Property Asset Management*, its supporting guides, and DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of Capital Asset*, and it's supporting DOE G 413.3-8, *Environmental Management (EM) Cleanup Projects*.

DOE safety requirements for facility disposition include Integrated Safety Management (ISM) principles defined in DOE P 450.4, *Safety Management System Policy*, facility and nuclear safety requirements defined in 10 CFR 830, *Nuclear Safety Management*, and worker safety requirements defined in 10 CFR 851, *Worker Safety and Health Program*. If the project is being implemented under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), then 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response* (HAZWOPER) also applies to ensure worker health and safety during hazardous waste operations. DOE-STD-1120-2005, *Integration of Environment, Safety, and Health into Facility Disposition Activities*, provides the Safe Harbor methodology to address safety basis requirements of 10 CFR 830. It also explains how ISM principles are applied for facility disposition. 10 CFR 830, Subpart B, requirements apply only to greater than hazard category 3 projects (as determined by DOE-STD-1027-92, Chg 1, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports*).

II. PURPOSE

The Facility Disposition Safety Strategy (FDSS) Review Module is a tool that assists DOE federal project review teams in evaluating the adequacy of the facility documentation, preparations or previous activities, characterization and planning activities as related to safety and associated with the phases or paths that a facility may take to ultimately achieve decommissioning . The Performance Objectives and Criteria identified in this RM were specifically developed to be generic in nature to ensure that they were applicable to as many DOE projects as possible. Therefore, it is essential that the review team use these Performance Objectives and Criteria as a starting point to develop project specific Lines of Inquiries (LOIs) to ensure that the project is adequately evaluated.

While the focus of this module is on the safety aspects of a Disposition Project, it is important to recognize that many aspects of the disposition planning and key deliverables, such as end-state definition, disposition plan, etc., will often significantly impact the safety documentation and controls required for execution of the project. As a result, some of these items are included with a focus directed toward the integration of safety into the disposition process. The FPD should recognize that, as with design and build projects, no aspect of the disposition process should be performed without consideration of the safety implications and participation of safety personnel in the evaluation of the options. To do otherwise can and historically has resulted in costly rework of safety documentation and or implementation of additional controls.

The transition phase identified in this RM is specifically design to provide assistance in the review of the facility and the documentation by the EM organization prior to acceptance of the facility from the operating organization. The use of an integrated and knowledgeable team lead by EM HQ personnel to evaluate the facility and documentation for the prior to acceptance of the facility into the EM organization is essential to the success of the post operations facility process. This process is intended to identify the hazards and risks associated with the facility (safety basis and worker safety risks) and the project risks. The focus of the Performance Objectives and LOIs in this RM is limited to the safety related risks with the exception of where the two risks overlap.

III. ROLES AND RESPONSIBILITIES

A successful FDSS review depends on an experienced and qualified team. The team should be comprised of appropriate subject matter experts selected to complement the specific technical concerns of the project being reviewed. The specific types of expertise needed will be dependent on the type of facility being reviewed, as well as other factors such as complexity and hazards and risks.

It is strongly recommended that the team leader should either be a project or systems engineer experienced in the management of a multi-disciplined review team (e.g. fire protection, criticality, radiological protection, worker safety, nuclear) that matches to the extent practicable the contractors disposition team.

Management support is another necessary component to a successful FDSS review. Field element managers, as well as the Federal Project Director, must recognize the importance of the FDSS review and facilitate the resources necessary for its execution. This also requires appropriate interfaces with EM headquarters personnel who may direct or participate in the FDSS process.

The roles and responsibilities for all involved in the FDSS review must be clear and consistent with various requirements of DOE O 413.3A and the DOE FRAM. The table below provides a compilation of facility disposition safety strategy review roles and responsibilities.

Position	Responsibility
Field Element Manager	Provides support and resources to the Federal Project Director and Review Team Leader in carrying out the review.
	Facilitates the conduct of the review. Ensures that office space, computer equipment, and support personnel are assigned to the team as necessary to accomplish the review in the scheduled time frame
Federal Project Director	Identifies the need for a FDSS review and determines the scope of the review effort.
	In conjunction with the Contractor Project Manager, develops the briefing materials and schedule for the review activities.
	Coordinates the review team pre-visit activities and follows up review team requests for personnel to interview or material to review.
	Coordinates the necessary training and orientation activities to enable the review team members to access the facility and perform the review.
	Unless other personnel are assigned, acts as the site liaison with the review team. Tracks the status of requests for additional information.
	Coordinates the Federal site staff factual accuracy review of the draft report.
Review Team Leader	Leads the development of the corrective action plan if required. Tracks the completion of corrective actions resulting from the review.
	In coordination with the Federal Project Director selects the areas to be reviewed.
	Based on the areas selected for review, project complexity and hazards involved, selects the members of the review team.
	Verifies the qualifications: technical knowledge; process knowledge; facility specific information; and independence of the Team Members.
	Leads the review pre-visit.
	Leads the review team in completing the Review Criteria for the various areas to be reviewed.
	Coordinates the development of the data call and forwards to the Federal Project Director, a list of documents, briefings, interviews, and presentations needed to support the review.
	Forwards the final review plan to the FPD for approval.
	Leads the on-site portion of the review.
	Ensures the review team members complete and document their portions of the review and characterizes the findings.
	Coordinates incorporation of factual accuracy comments by Federal and Contractor personnel on the draft report.
Review Team Member	Forwards the final review report to the Project Director for consideration in making the decision to authorize approval of the CD. This review should be consistent with the DOE O 413.3A critical decision process and the implementation by EM-50 and OECM on the review of EM Projects.
	Participates, as necessary in the closure verification of the findings from the review report.
	Refines and finalizes the criteria for assigned area of the review.
	Develops and provides the data call of documents, briefings, interviews, and presentations needed for his or her area of the review.
Review Team Member	Completes training and orientation activities necessary for the review. Conducts any necessary pre visit document review.
	Participates in the on-site review activities, conducts interviews, document reviews, walk downs, and observations as necessary.

Position	Responsibility
	Based on the criteria and review approaches in the Review Plan, assesses whether his or her assigned criteria have been met.
	Documents the results of the review for his or her areas. Prepares input to the review report.
	Makes recommendations to the Review Team Leader for characterization of findings in his or her area of review.
	Resolves applicable Federal and Contractor factual accuracy comments on the draft review report.
	Prepares the final review report for his or her area of review.

IV. REVIEW SCOPE AND CRITERIA

This FDSS RM provides a set of Performance Objectives and Criteria that are organized based on the key technical and safety areas and disciplines identified in the DOE Orders and guidance related to the EM facility disposition activities. The Performance Objectives and Criteria were specifically developed to be generic in nature to ensure that they were applicable to as many DOE projects as possible. Therefore, it is essential that the review team use them only as a starting point, and that more detailed project specific LOIs should be developed to ensure that the project is adequately evaluated.

General Guidance

This area of the review is to ensure the Integrated Safety Management (ISM) principles are applied at each stage of the EM facility disposition projects. Requirements on ISMS are described in DOE P 450.4, *Safety Management System Policy*, dated 10-15-96, and safety guidance for facility disposition projects is described in DOE-STD-1120-2005.

Hazard Characterization

This area of the review is intended to ensure that facility characterization is adequate to support the development of work plans and documentation as necessary for development of safety and health strategies and documentation both for the current identified activities/scope and to support planning for the next phase in the disposition process (as appropriate). From lessons learned throughout the DOE site, less than adequate characterization in advance of specific disposition activities is a recurring deficiency that can result in identification of Un-reviewed Safety Questions (USQs) and associated changes to safety documentation associated with a positive USQ.

Turnover Documentation

This area is focused on ensuring that the turnover documentation received for the current facility phase is sufficient to support the safe execution of work in that phase. In some cases, this area also addresses the adequacy of documentation developed to support the next phase. It is recognized that turnover documentation may not be developed or provided in all cases. These

LOIs are included for those projects where the opportunity for the benefits of adequate turnover documentation is possible. Effective turnover documentation can reduce the potential for identification of Un-reviewed Safety Questions and revisions to safety documentation associated with a positive USQ. Therefore, the impacts of turnover documentation to the safety strategy and related costs to the facility cannot be understated.

Operating Systems

The purpose of this review area is to ensure that necessary information is provided for the safe operation of all remaining operating systems. This review area also addresses the basis for maintaining the system operational so that effective decisions can be made throughout the disposition process for the timely elimination of the system and associated costs. The basis for operating systems should be closely tied to the results of the hazard and accident analysis – only those systems required for the safety of the facility, worker and the environment should be left operational. It is important the elimination of systems not required for the safety of the facility be accomplished as early in the disposition as possible.

Safety

This review area is designed to ensure that safety is addressed in all facility disposition phases in order to meet DOE and external requirements. These requirements include 10 CFR 830, *Nuclear Safety Management*, for nuclear and facility safety, and 10 CFR 851, *Worker Safety and Health Program*, for worker safety. Also, if the project is conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response* (HAZWOPER), also applies for worker safety to ensure worker health and safety during emergency response for hazardous waste operations.

Plans and Programs

This review area ensures that the proper plans are in place and adequately define planned work activities to allow for safety and health documentation to be developed and approved for the next phase of the disposition process. Depending on the facility disposition phases, these plans are the Transition Plan, Surveillance and Maintenance Plan, Deactivation Plan, and Decommissioning Plan. It is recognized that the formality of these plans may vary by projects and facilities from simple memorandums to transfer a facility with associated funding, to detailed plans and schedules for the facility disposition. The graded approach should be applied to these LOIs based on the hazards and complexity of the facility/project and its phase.

Transition Team (Applicable only to Transition)

This review area is focused on the evaluation and adequacy of the transition team as defined in DOE requirements and guidance documents, as necessary to support safety and health planning and document development.

V. REVIEW PLANS AND DOCUMENTATION

The results of a FDSS review will be used by the DOE Federal Project Director and ultimately the Acquisition Executive as a tool for the management of the EM cleanup projects. This review should be consistent with the DOE O 413.3A critical decision process and the implementation by EM-50 and OECM on the review of EM Projects. The overall Standard Review Plan (SRP) provides guidelines for preparing a Review Plan and a final report.

The following activities should be conducted as part of the Review Plan development and documentation and closure of the review:

- Subsequent to the selection, formation and chartering of the review team and receipt and review of the prerequisite documents, assignment of responsibilities for the development of specific lines of inquiry should be made.
- The review team members should develop specific lines of inquiry utilizing the topics and areas listed in the respective appendices of this module.
- The individual lines of inquiry should be compiled and submitted to the manager authorizing the review for concurrence prior to starting the review.
- The project-specific review plan should be compiled with a consistent and uniform numbering scheme that provided for a unique identifier for each line of inquiry, arranged by subject such that the results of each line of inquiry can be documented and tracked to closure.
- The lines of inquiry should be satisfied via document review and personnel interviews and any combination of these methods. The method used as the basis for closure/comment/finding and the result of the inquiry should all be documented and tracked.

VI. REFERENCE MATERIAL

- 10 CFR 830, *Nuclear Safety Management*
- 10 CFR 851, *Worker Safety and Health Program*
- 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response (HAZWOPER)*
- DOE Order DOE O 413.3A, Change 1, *Program and Project Management for the Acquisition of Capital Assets*
- DOE O 430.1B, *Real Property Asset Management*
- DOE G 430.1-2, *Implementation Guide for Surveillance and Maintenance During Facility Transition and Disposition*
- DOE G 430.1-3, *Deactivation Implementation Guide*
- DOE G 430.1-4, *Decommissioning Implementation Guide*
- DOE G 430.1-5, *Transition Implementation Guide*
- DOE/EM-0383, *Decommissioning Handbook*, January 2000
- DOE G 413.3-8, *Environmental Management (EM) Cleanup Projects*
- DOE-STD-1120-2005, *Integration of Environment, Safety, and Health into Facility Disposition Activities*

APPENDIX A- PERFORMANCE AND CRITERIA

1. Facility Disposition Phase -- Transition

Transition activities occur between operations and disposition in a facility’s life cycle. Transition begins once a facility has been declared excess or forecasted to be excess to current and future DOE needs. Transition includes transferring programmatic and financial responsibilities from the operating program to the disposition program, which is managed by EM.

For the development of the Performance Objectives and Criteria it is assumed that the lead organization in transition is the EM/receiving organization. Since the facility is transferred from operations to transition – items such as hazard characterization are only relevant to facility conditions and associated documentation at the time of transition to the EM organization. Review team personnel will need to revise and modify the general Performance Objectives and Criteria provided here to fit the specific facility conditions, operations and path forward for disposition as appropriate.

Legend of Transition Safety Strategy Review Topics

Review Topical Area	Identifier
Transition Team	TT
General Guidance	GG
Hazard Characterization	HC
Turnover Documentation	TD
Operating Systems	OS
Safety	SB

ID #	Performance Objectives and Criteria²	Met?
<i>Transition Team</i>		
TT-1	Has a transition team been formed?	
	Does the transition team include the appropriate disciplines (e.g. management, engineering, S&H, workers, and others based on facility complexity and hazards)? (TT-1.1)	
	Has a DOE employee been designated as the primary transition manager and as the lead of the integrated transition team? (TT-1.2)	
	Are both the current facility owners or operations organization and the receiving organization represented on the transition team? (TT-1.3)	
TT-2	Have the roles and responsibilities of the transition team been clearly defined?	

² The site should provide the technical bases and assumptions that support the answers provided to each Line of Inquiry. If possible, the review teams should independently verify the technical bases and assumptions.

ID #	Performance Objectives and Criteria ²	Met?
	Is the transition team clearly responsible for assessing the facility condition? (TT-2.1)	
	Is the transition team clearly responsible for identifying and implementing stabilization actions and subsequent end-points-driven activities before transition? (TT-2.2)	
TT-3	Has the transition team clearly identified the physical boundaries of the facility being transferred?	
	Have all the physical structures and waste sites associated with the facility transition been clearly identified? (TT-3.1)	
	Have any areas that will not be transition been clearly identified and the basis for not transitioning these areas/structures been provided? (TT-3.2)	
TT-4	Transition team facility walk-down activities have been performed to support transition planning and execution?	
	Have walk-down activities ensured that sufficient information has been collected, assembled, and analyzed to provide an understanding of existing conditions and hazards? (TT-4.1)	
	Have walk-down activities identified any additional characterization (if needed) and all stabilization activities required? (TT-4.2)	
	Have walk-down activities been used to identify resources needed to maintain or establish stable conditions of the facility, its systems and equipment pending disposition? (TT-4.3)	
	Are walk-down activities performed adequate to minimize the possibility of a halting progress of transition tasks because of unforeseen circumstances? (TT-4.4)	
General Requirements/Guidance		
GG-0	Have an inventory of available documents based on existing facilities/sites been identified in the scope of the project to facilitate hazard analysis and project planning?	
GG-1	Have the potential hazards and their safety and risk implications been identified in the transition development/planning?	
GG-2	Has a Safety Strategy been developed and integrated into transition planning documentation?	
GG-3	Has a set of safety directives been identified applicable to the facility transition project?	
GG-4	Has the safety documentation been assessed against the proposed scope of post transition activities to ensure they are adequate for transition and to determine the applicability to the next phase scope?	
GG-5	Have qualified safety and health professionals been identified to serve on the Integrated Project Team necessary to support the FPD?	
GG-6	Have safety basis documents been developed or updated, reviewed, and approved for the transition and do they address the planned activities in the immediate post transition phase?	
Hazard Characterization		
HC-1	Is the facility adequately characterized consistent with the requirements for transition and with regard to physical safety and both chemical and radiological inventories and materials to support the planned activities in the immediate post transition phase?	
	Has baseline data been collected and evaluated? (HC-1.1)	

ID #	Performance Objectives and Criteria ²	Met?
	Have all the relevant information/documents describing the facility and hazards been collected and reviewed? (HC-1.2)	
	Have the current and past facility workers been interviewed, as appropriate, to gather information not evident from the document reviews? (HC-1.3)	
	Have walk downs been performed using a multidiscipline team to assess and confirm existing facility conditions and inherent hazards? (HC-1.4)	
HC-2	Has a determination been made by the integrated transition team regarding the need for additional characterization data?	
	Has a characterization plan been developed consistent with the determined need and based on the needs of the transition activities? (HC-2.1)	
	Has characterization been performed in accordance with the plan and the new baseline inventory/characterization data obtained? (HC-2.2)	
HC-3	Does the facility characterization information address the uncertainties in the assigned inventory values and the technical basis for these uncertainties?	
	Are uncertainties factored in to the determination of the bounding hazardous and radioactive material inventories assigned to the facility? (HC-3.1)	
	Are the uncertainties factored in decisions regarding the need for additional characterization? (HC-3.2)	
HC-4	Are hazards related to transition activities adequately characterized/addressed?	
	Are hazards related to changing system conditions and configurations identified? (HC-4.1)	
	Are hazards resulting from the transition end-state configuration (e.g. static conditions in processing vessels and piping) identified and addressed? (HC-4.2)	
Turnover Documentation		
TD-1	Turnover documentation is available for or has been provided to the receiving organization and is adequate?	
	Does the turnover documentation include relevant information regarding the past uses of the facility and systems? (TD-1.1)	
	Does the turnover documentation include information regarding the current configurations and conditions of all equipment within the facility? (TD-1.2)	
	Does the turnover documentation provide information regarding transition activities performed to reduce hazards and stabilize the facility equipment? (TD-1.3)	
	Does the turnover documentation provide information that supports the inventory values assigned to the facility? (TD-1.4)	
	Does the turnover documentation include the identification, configuration and engineering documents required for all operating systems? (TD-1.5)	
	Does turnover documentation include the required information regarding stabilized or out of service systems such that a determination of the associated hazards can be determined? (TD-1.6)	
	Does turnover documentation include the necessary environmental permits and documents to support activities for the next facility phase? (TD-1.7)	

ID #	Performance Objectives and Criteria ²	Met?
	Does turnover documentation include outstanding commitments to regulatory authorities, tribal governments, stakeholders, and DOE Organizations that require action? (TD-1.8)	
Operating Systems		
OS-1	Have operating systems that are subject configuration management program been identified?	
	Have operating/required utilities for the facility minimum safe configuration been identified? (OS-1.1)	
	Have any operating systems that are not utilities but are required for the facility minimum safe configuration been identified? (OS-1.2)	
OS-2	Has the necessary documentation associated with the operating systems been provided?	
	Have procedures for safe operation of the systems been provided? (OS-2.1)	
	Have engineering documents such as drawings and specifications been provided for all the operating systems? (OS-2.2)	
	Have the necessary maintenance procedures for the operating systems been provided? (OS-2.3)	
OS-3	Has the technical basis for requiring the operation of operating systems that are subject configuration management program been identified?	
	Is there a technical basis for the operation of each identified operating system that details why operation of the system is required? (OS-3.1)	
	Does the technical basis for each operating system identify the basis for all parameters recorded as part of surveillances or used in maintenance procedures? (OS-3.2)	
Safety		
SA-1	Is there current approved safety basis documentation for the facility?	
	Does the safety basis documentation reflect the best available characterization data to determine the bounding inventory and evaluate accident scenarios? (SA-1.1)	
	Does the safety basis documentation authorize the necessary activities for the immediate facility phase? (SA-1.2)	
	Does the safety basis documentation meet the primary requirements for safety basis documents as identified in 10 CFR 830.204 (has it been developed and approved using a recognized safe harbor methodology)? (SA-1.3)	
	Does the safety basis clearly identify safety SSCs and associate safety functions and performance requirements? (SA-1.4)	
	Are TSRs appropriate for the planned phase of the facility? (SA-1.5)	
SA-2	Does the SB document include provisions to “step out” of controls as the hazards are reduced or eliminated? (as applicable)	
	Has DOE been involved in the identification of the step-out control process to ensure that the process is efficient and meets the requirements and expectations of DOE? (SA-2.1)	
SA-3	Is Job Hazard Analysis (JHA) being conducted to identify and prevent worker hazards?	

2. Facility Disposition Phases

For the development of the Performance Objectives and Criteria it is assumed that transition has occurred and that the responsible organization is now the disposition organization. Note that areas such as turnover documentation and safety basis address both items received for the current phase and those being developed for the next phase. Review team personnel will need to revise and modify the Performance Objectives and Criteria provided here to fit the specific facility conditions, operations and path forward for disposition as appropriate.

In contrast to the transition phase identified above, the facility disposition phase Performance Objectives and Criteria are developed more with a focus on the safety related aspects and requirements of DOE O413.3A for project management as it applies to EM projects. The Performance Objectives and LOIs are intended to be used by the FPD to ensure that the facility and the associated documentation are adequate for approval of the CD to authorize the next phase of disposition activities.

It is important for the review team to recognize that the relative needs in each sub-section may differ significantly depending upon what phase in the disposition process the facility is in and preparing for next. For example the amount of characterization required to support S&M activities may be much less than for D&D activities. Effective application of the graded approach is the ultimately the responsibility of the FPD with support and input from the review team.

Legend of Facility Disposition Safety Strategy Review Topics

Review Topical Area	Identifier
General Requirements/Guidance	GG
Hazard Characterization	HC
Turnover Documentation	TD
Planning Documentation	PD
Operating Systems	OS
Safety	SA
Plans and Programs	PP

ID #	Performance Objectives and Criteria ³	Met?
Critical Decision Requirements/Guidance		
GG-0	Have an inventory of available documents based on existing facilities/sites been identified in the scope of the project to facilitate hazard analysis and project planning?	
GG-1	Have the potential hazards and their safety and risk implications been identified in the mission need statement?	
GG-2	Has a Safety Strategy been developed and integrated into project planning documentation?	

³ The site should provide the technical bases and assumptions that support the answers provided to each Line of Inquiry. If possible, the review teams should independently verify the technical bases and assumptions.

ID #	Performance Objectives and Criteria ³	Met?
GG-3	Has a set of safety directives been identified applicable to the project?	
GG-4	Has the safety document been assessed against the proposed scope of facility planning documentation identified activities?	
GG-5	Have qualified safety and health professionals been identified to serve on the Integrated Project Team necessary to support the FPD?	
GG-6	Have safety basis documents been developed or updated, reviewed, and approved for the project?	
GG-7	Have worker health and safety plans or applicable hazard analysis documents been developed or updated reviewed and approved for the project?	
Hazard Characterization		
HC-1	Is the facility adequately characterized with regard to both chemical and radiological inventories and materials to support necessary planning and activities?	
	Has baseline data been collected and evaluated? (HC-1.1)	
	All relevant information/documents describing the facility and hazards has been collected and reviewed? (HC-1.2)	
	Current and past facility workers have been interviewed, as appropriate, to gather information not evident from the document reviews? (HC-1.3)	
	Walk downs have been performed using a multidiscipline team to assess and confirm existing facility conditions and inherent hazards? (HC-1.4)	
HC-2	Has a determination been made regarding the need for additional characterization data?	
	Has a characterization plan been developed consistent with the determined need and application of the Data Quality Objective process? (HC-2.1)	
	Has characterization been performed in accordance with the plan and the new baseline inventory/characterization data obtained? (HC-2.2)	
HC-3	Does the facility characterization information address the uncertainties in the assigned inventory values and the technical basis for these uncertainties?	
	Are uncertainties factored in to the determination of the bounding inventories assigned to the facility? (HC-3.1)	
	Are the uncertainties considered in determination regarding the need for additional characterization? (HC-3.2)	
Turnover Documentation		
TD-1	Has turnover documentation for the previous facility phase been provided and is it adequate to support current activities and planning for the next phase?	
	Does the turnover documentation include relevant information regarding the past uses of the facility and systems? (TD-1.1)	
	Does the turnover documentation include information regarding the current configurations and conditions of all equipment within the facility? (TD-1.2)	
	Does the turnover documentation provide information regarding any cleanout runs/activities or decontamination of the facility equipment. (TD-1.3)	
	Does the turnover documentation provide information that supports the inventory values assigned to the facility? (TD-1.4)	
	Does the turnover documentation include the identification, configuration and engineering documents required for all operating systems? (TD-1.5)	

ID #	Performance Objectives and Criteria ³	Met?
	Does turnover documentation include the required information regarding deactivated or out of service systems such that a determination of the associated hazards can be determined? (TD-1.6)	
	Does turnover documentation include the necessary environmental permits and documents to support current activities? (TD-1.7)	
Planning Documentation for Next Phase		
PD-1	Are safety requirements adequately integrated into the planning document?	
	Have the hazards to the worker, the facility and the environment been adequately identified and documented? (PD-1.1)	
	Does the safety documentation identifying the controls and hazards align with the planning documents as approved or provided for approval? (PD-1.2)	
	Is there evidence that safety has been integrated in the evaluation of activities? (PD-1.3)	
PD-2	Does the facility planning documentation meet the following criteria for safety?	
	Does the facility planning documentation identify a safe facility configuration that can be maintained until the next phase (if applicable)? (PD-2.1)	
	Does the facility planning documentation adequately address worker safety and health considerations? (PD-2.2)	
	Does the facility planning documentation adequately address nuclear safety considerations? (PD-2.3)	
PD-3	Have the end-point criteria (as applicable) been identified and the end states for operating and utilities systems been identified based on the derived hazards associated with the final facility condition of this phase as identified in the deactivation planning documents?	
PD-4	Does the facility planning documentation convey a tailored set of ES&H requirements applicable for the project, based on the anticipated hazards and work scope?	
Operating Systems		
OS-1	Have operating systems that are subject to a configuration management program been identified?	
	Have operating/required utilities for the facility minimum safe configuration been identified? (OS-1.1)	
	Have any operating systems that are not utilities but are required for the facility safe configuration been identified? (OS-1.2)	
OS-2	Has the necessary documentation associated with the operating systems been provided?	
	Have procedures for safe operation of the systems been provided? (OS-2.1)	
	Have engineering documents such as drawings and specifications been provided for all the operating systems? (OS-2.2)	
	Have the necessary maintenance procedures for the operating systems been provided? (OS-2.3)	
OS-3	Has the technical basis for requiring the operation of operating systems that are subject configuration management program been identified?	
	Is there a technical basis for the operation of each identified operating system that details why operation of the system is required? (OS-3.1)	

ID #	Performance Objectives and Criteria ³	Met?
	Does the technical basis for each operating system identify the basis for all parameters recorded as part of surveillances or used in maintenance procedures? (OS-3.2)	
Safety		
SA-1	Is there current approved safety basis documentation for the facility?	
	Does the safety basis documentation reflect the best available characterization data to determine the bounding inventory and evaluate accident scenarios? (SA-1.1)	
	Does the safety basis documentation authorize the necessary activities as identified in the facility planning documentation? (SA-1.2)	
	Does the safety basis documentation meet the current requirements for safety basis documents as identified in 10 CFR 830 (it was prepared to a recognized safe harbor)? (SA-1.3)	
	Does the safety basis clearly identify any safety SSCs and the basis for these? (SA-1.4)	
	Does the safety basis include required TSRs and are these appropriate for activities identified in the facility planning documentation? (SA-1.5)	
	Are TSR step-out criteria identified to allow the reduction of controls commensurate with the reduction of hazards in a timely manner as appropriate for this phase of the facility disposition? (SA-1.6)	
SA-2	Is there an established plan for the development and approval of the required safety basis documents to support the next facility phase (e.g. S&M or decommissioning)?	
	Does the planned safety basis document for the end-state condition address the requirements of 10 CFR 830 (the appropriate safe harbor methodology)? (SA-2.1)	
SA-3	Is Job Hazard Analysis (JHA) being conducted to identify and prevent worker hazards?	
SA-4	Are the worker hazard assessments documented for the identified chemical, physical, biological and safety hazards?	
Plans and Programs		
PP-1	Has a project plan for the next phase been developed and does it include the appropriate information?	
	Does the project plan communicate the safety related objectives, requirements and constraints for the phase of the project? (PP-1.1)	
PP-2	Are there safety programs to ensure worker and facility safety?	
	Are there written policy, goals, and objectives for the worker safety and health program? (PP-2.1)	
	Are there technical qualification standards to ensure the safety and health professionals are qualified to manage the worker safety and health program? (PP-2.2)	
	Are there established procedures for workers to report, without reprisal, job-related fatalities, injuries, illnesses, incidents, and hazards and make recommendations about appropriate ways to control those hazards? Are there established procedures for prompt response to the reports and recommendations made by workers? (PP-2.3)	
	Are there established procedures for regular communication, such as weekly safety meetings, with workers about workplace safety and health matters? (PP-2.4)	