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Project Manager Roles, Responsibilities, Knowledge, Skills, and Abilities

The first step in developing a Project Management Career Development Program is to define the roles, responsibilities, knowledge, and skills required for project managers during the various phases of the project life cycle.

The roles responsibilities, knowledge and skills are organized according to the project phases described in DOE Order 413.3 and the accompanying manual.

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Project Management General

The following roles, responsibilities, knowledge, and skills are applicable to all phases of a project.

1. Lead the Integrated Project Team

Knowledge of:

Leadership principles and techniques
Delegation techniques
Performance assessment techniques

Skill in:

Leadership
Organization
Delegation
Objectivity
Working toward results/goal orientation
Conflict Resolution

2. Serve as focal point for all project activities

Knowledge of:

Project activities
Lines of communication

Skill in:

Communications
Organization
Maintaining focus

3. Serve as primary point of contact for Stakeholder interfaces

Knowledge of:

Methods to identify and communicate with all stakeholders

Skill in:

Communications, including public speaking

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Negotiation
Conflict Management

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Project Planning

Pre-Project

1. Ensure mission need is defined and justified

Knowledge of:

DOE Strategic Plan
Program/Site Strategic Plans
Project Objectives
Project Alternatives

Skill in:

Analysis techniques, including decision techniques
Gathering, assessing, and integrating information
Recognizing information gaps
Drafting mission need documents

2. Identify customer and other stakeholder expectations

Knowledge of:

Effective communication techniques
Interviewing techniques
Facilitation techniques
Analysis techniques
Stakeholder identification methods
Scope of work determination methods
Techniques to determine stakeholder expectations

Skill in:

Interviewing
Facilitating meetings
Communicating effectively
Gathering, assessing, and integrating information

3. Establish Program/Project Planning Budget

Knowledge of:

Estimating techniques

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Analysis techniques
Federal budget processes
Techniques to determine stakeholder expectations
Scheduling techniques
Decision-making techniques

(Pre-Project Continued)

Skill in:

Making decisions
Gathering, assessing, and integrating information
Interviewing
Communicating effectively
Developing time and range cost estimates
Presenting information
Negotiating

Pre-Conceptual Planning

1. Identify and assemble Integrated Project Team

Knowledge of:

Project technical and administrative expertise needs
Methods to determine resource availability
Organization structures/alternatives

Skill in:

Effective communications
Negotiation
Interviewing
Personnel selection

2. Determine project goals/functional performance requirements by identifying and working with project stakeholders in order to meet their requirements, and/or expectations.

Knowledge of:

Effective communication techniques
Interviewing techniques
Facilitation techniques

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Analysis techniques
Methods to determine stakeholders
Available specifications

Skill in:

Interviewing
Facilitating meetings
Communicating effectively
Gathering, assessing, and integrating information
Functional requirements decomposition
Conducting trade-off analysis
Writing specifications, functional design criteria, and requirements documents

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(Pre-Conceptual Planning Continued)

3. Determine product or service deliverables by reviewing or generating the scope of work, requirements, and/or specifications to meet stakeholder expectations.

Knowledge of:

- Effective communication techniques
- Interviewing techniques
- Facilitation techniques
- Analysis techniques
- Methods to determine stakeholders
- Required scope of work
- Methods to determine stakeholder expectations
- Negotiation
- Conflict Resolution

Skill in:

- Interviewing
- Facilitating meetings
- Communicating effectively
- Gathering, assessing, and integrating information
- Goal Setting

4. Develop Acquisition strategy by working with stakeholders, A/E, and other project decision makers

Knowledge of:

- DOE Order 413.3
- FARs
- Contracting strategies
- Resource Planning
- Federal Budget process
- Analysis techniques
- Communication techniques
- Techniques for determining project requirements and objectives
- Methods to determine stakeholder expectations
- Interviewing techniques
- Negotiating techniques
- DOE Project Management Manual and Practices Guide

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Skill in:

Decision-making
Gathering, assessing, and integrating information
Interviewing
Negotiating
Writing persuasively

(Pre-Conceptual Planning Continued)

Communicating effectively
Alternative evaluation
Writing an Acquisition Plan

5. Document project constraints through coordination with stakeholders and review of regulations, policies and procedures to ensure compliance.

Knowledge of:

DOE policies and procedures, including DOE Order 413.3
ES&H policies and procedures
S&S policies and procedures
Effective communication techniques
Interview techniques
Facilitation techniques
Analysis techniques
EPA Regulations
State Regulations
Federal Budget Process
General Engineering and Construction principles

Skill in:

Interviewing
Facilitating meetings
Communicating effectively
Gathering, assessing, and integrating information
Writing effectively
Negotiating

6. Document assumptions by determining information that must be validated, or situations to be controlled during the project in order to facilitate the project planning process.

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Knowledge of:

Effective communication techniques
Interview techniques
Facilitation techniques
Analysis techniques
Negotiation techniques
Project planning process

Skill in:

Interviewing
Facilitating meetings
Communicating effectively

(Pre-Conceptual Planning Continued)

Negotiating
Gathering, assessing, and integrating information
Writing effectively
Recognizing information gaps

7. Develop Integrated Safety Management Plan

Knowledge of:

Integrated Safety Management Methods
Systems Engineering
Hazards analysis techniques
Roles and responsibilities

Skill in:

Analysis
Communicating

8. Identify pre-conceptual risks

Knowledge of:

Risk management process and techniques

Skill in:

Exercising judgment
Communicating effectively
Using risk management procedures

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9. Determine technology development requirements

Knowledge of:

Methods to determine technology risks

Methods to determine technology maturity

Skill in:

Communication

Gathering, assessing, and integrating information

Recognition of information gaps

Facilitating meetings

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(Pre-Conceptual Planning Continued)

10. Develop Conceptual Design schedule and budget

Knowledge of:

- Analysis techniques
- Communication techniques
- Project requirements and objectives
- Methods to determine stakeholder expectations
- Organizational and other resource pools
- How to derive project deliverables
- Ways to determine funding
- Estimating techniques
- Resource skills categories
- Methods to determine anticipated project duration

Skill in:

- Gathering, assessing, and integrating information
- Interviewing
- Communicating effectively
- Developing order of magnitude estimate
- Estimating resource requirements
- Presenting information

11. Develop PED budget estimate range and submit request for PED funds

Knowledge of:

- Parametric Estimating
- Analysis techniques
- Communication techniques
- Project requirements and objectives determination techniques
- Stakeholder expectation determination techniques
- Organizational and other resource pools
- Ways to determine project deliverables
- Ways to determine project funding requirements
- Resource skills categories
- Methods to determine project duration

Skill in:

- Gathering, assessing, and integrating information

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Interviewing
Communicating effectively
Developing order of magnitude estimate
Estimating resource requirements
Presenting information

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(Pre-Conceptual Planning Continued)

12. Obtain Critical Decision 0 approval

Knowledge of:

DOE Order 413.3
Project Risks
Presentation techniques
Mission Need
Project Alternatives
Acquisition Strategy

Skills in:

Communication
Negotiation
Formal presentation
Writing decision memoranda

Conceptual Design

1. Identify performance criteria by referring to product/service specifications and process standards in order to ensure and/or support the quality assurance effort.

Knowledge of:

Analysis techniques
Communication techniques
Project requirements and objectives
Stakeholder expectations
Interviewing techniques
Negotiating techniques
Quality assurance standards and techniques
Performance criteria
Process standards
Product/service specifications

Skill in:

Developing standards
Gathering, assessing, and integrating information
Interviewing
Making decisions

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Negotiating
Writing performance criteria
Developing project timelines
Developing metrics
Writing a QA plan

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Conceptual Design Continued)

2. Determine ES&H and S&S standards and requirements.

Knowledge of:

ES&H and S&S standards and requirements
DOE Order 420.1

Skill in:

Making decisions
Information gathering
Communications

3. Determine key resource requirements by referring to deliverables in order to support planning and decision-making.

Knowledge of:

Analysis techniques
Communication techniques
Project requirements and objectives
Methods to determine stakeholder expectations
Organizational and other resource pools
Project deliverables
Funding methods
Estimating techniques
Resource skills categories
Anticipated project duration

Skill in:

Gathering, assessing, and integrating information
Interviewing
Communicating effectively
Estimating resource requirements
Presenting information

4. Define an appropriate project budget and schedule ranges by determining time and cost estimates in order to support decision-making.

Knowledge of:

Estimating techniques

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Analysis techniques
Budget processes
Project deliverables
Project requirements and objectives
Project funding methods

(Conceptual Design Continued)

Techniques to determine stakeholder expectations
Scheduling techniques
Decision-making techniques
Facilities Construction Process
Engineering and Fabrication Processes

Skill in:

Making decisions
Gathering, assessing, and integrating information
Interviewing
Communicating effectively
Developing time and cost estimates
Presenting information
Negotiating

5. Refine project requirements, assumptions, and constraints through communication with stake-holders and/or by reviewing project documents to establish a preliminary baseline of the scope of work and enable development of the execution plan, as well as an Acquisition Plan and Preliminary Project Execution Plan.

Knowledge of:

Requirement analysis methods
Assumption identification techniques
Constraint identification methods
Effective communication techniques
Stakeholder identification techniques
Analysis techniques
Communication techniques
Project requirements and objectives
Resource, time, and cost estimates
Project deliverables
Stakeholder expectations

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Negotiating techniques
Acceptance processes
Decision-making processes
Types and administration of contracts

Skill in:

Making decisions while considering legal, organizational, and stakeholder issues
Communicating effectively
Gathering, assessing, and integrating information
Planning projects

(Conceptual Design Continued)

Presenting information
Writing persuasively/technically
Negotiating
Making decisions
Selling techniques

6. Create the Work Breakdown Structure (WBS) using the scope of work, other project documents, and decomposition techniques to facilitate detailed project planning and the executing, controlling, and closing processes.

Knowledge of:

WBS development and decomposition techniques
Effective communication techniques

Skill in:

Gathering, assessing, and breaking down information into work elements
Communicating effectively
Planning projects

7. Develop the resource management plan (Human Resources, Procurement, etc.) by identifying resource requirements and obtaining commitments from internal, external, and procured sources to complete all project activities.

Knowledge of:

Existing project documents

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Resource estimating techniques
Statistical analysis and forecasting techniques
Resource sources and availability
Resource selection criteria and techniques
Team-building methods and techniques
Procurement guidelines and regulations
Workload balancing techniques
Resource-leveling techniques
Communication techniques
Facilities construction process
Engineering fabrication process
Logistics

Skill in:

Gathering, assessing, and integrating information
Communicating effectively
Negotiating
Building and motivating teams
Estimating, forecasting, and managing uncertainty
(**Conceptual Design** Continued)

8. Perform project risk analysis

Knowledge of:

Risk management process and techniques

Skill in:

Exercising judgment
Communicating effectively
Using risk management procedures

9. Perform hazards analysis

Knowledge of:

Hazards analysis techniques
DOE Order 420.1
DOE Order 5480.13

Skill in:

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Hazards analysis
Probability and statistics
Technical writing

10. Complete Conceptual Design Report

Knowledge of:

DOE Order 413.3
Report writing techniques
Existing project documents
Integrating and sequencing activities and tasks
Industry standards
Accepted and/or required control processes, measures, and thresholds
Quality control and sampling techniques
EPA Regulations

Skill in:

Gathering, assessing, and integrating information
Analyzing and measuring statistically
Making decisions
Conducting trade-off studies
Negotiating
Writing formally
Communicating effectively

(Conceptual Design Continued)

11. Obtain Critical Decision 1 approval

Knowledge of:

DOE Order 413.3
Project Objectives
Project preliminary baseline ranges
Acquisition Plan

Skill in:

Formal presentation
Negotiation
Consensus building

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Writing decision memoranda

Project Execution

Project Execution General The following roles, responsibilities, knowledge, and skills are applicable to the entire project execution phase, i.e. design and construction.

1. Commit project resources in accordance with the project plan to ensure that all activities are performed.

Knowledge of:

Facilitation techniques

Communication techniques

Management techniques

Source selection

Contract administration (types, liabilities, terms, and conditions)

Budget management techniques

Organizational policies and procedures

Labor contracts

External and internal project environments (legal, cultural, operational, and geographic)

Functional business areas

Organizational culture

Skill in:

Communicating effectively

Using communication tools and programs

Coordinating activities

Orchestrating resources

(Project Execution General Continued)

Gathering, assessing, and integrating information

Facilitating meetings

Presenting information

Organizing, developing, and writing reports

Negotiating

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- Building, leading, and motivating teams
- Awarding and administering contracts
- Monitoring and tracking results
- Resolving conflicts
- Developing work-arounds (contingency planning)

2. Implement the project plan by authorizing the execution of project activities and tasks to produce project deliverables.

Knowledge of:

- Organization policies and procedures
- Internal and external project environment
- Project management methodologies and tools
- Facilitation techniques
- Management techniques
- Communication techniques
- Negotiation techniques
- Motivational techniques
- Engineering and Construction methods

Skill in:

- Delegating to and empowering people
- Gathering, assessing, and integrating information
- Presenting information
- Organizing, developing, and writing reports
- Negotiating and conflict resolution
- Building, leading, and motivating teams
- Administering contracts
- Monitoring and tracking outputs (results)
- Communicating effectively
- Orchestrating and applying resources
- Exercising judgment

3. Manage project progress by ensuring that activities are executed as planned in order to achieve the project milestones and objectives.

Knowledge of:

- Organization policies and procedures and labor agreements
- Internal and external project environment

(Project Execution General Continued)

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Performance measurement techniques (e.g., PERT, CPM, EVA)
Project management methodologies and tools
Levels of authority
Contract administration
Management leadership principles and techniques
Communication and negotiation techniques
Reporting (production and requirements)
Statistics
Tracking and monitoring techniques

Skill in:

Gathering, assessing, and integrating information
Facilitating meetings
Presenting information
Organizing, developing, and writing reports
Negotiating and resolving conflicts
Leading, building, and motivating teams
Administering contracts
Monitoring and tracking results
Orchestrating resources
Communicating effectively
Using performance measurement tools

4. Communicate project progress by producing project reports to provide timely and accurate project status and decision support information to stakeholders.

Knowledge of:

Reporting techniques
Media and presentation tools
Project management methodologies and tools
Management/leadership principles and techniques
Reporting (production and requirements)
Tracking and monitoring techniques
Earned Value methods

Skill in:

Gathering, assessing, and integrating information
Facilitating meetings
Presenting information

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Organizing, developing, and writing reports
Negotiating and resolving conflicts
Leading, building, and motivating teams
Administering contracts
Communicating effectively

(Project Execution General Continued)

Orchestrating resources
Monitoring and tracking results
Using reporting tools, technology, techniques

5. Implement quality assurance procedures by performing project control activities to meet project objectives.

Knowledge of:

Project controls
Quality assurance procedures
Presentation and communication techniques
Industry product and services standards
Systems and component testing and inspection process

Skill in:

Gathering, assessing, and integrating information
Facilitating meetings
Presenting information
Organizing, developing, and writing reports
Negotiating and resolving conflicts
Administering contracts
Monitoring and tracking results
Orchestrating resources
Leading, building, and motivating teams
Communicating effectively
Identifying critical success factors
Exercising judgment

6. Serve as Contracting Officer Technical Representative, when appropriate

Knowledge of:

COTR Roles and Responsibilities

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Skills in:

Communication

Human interaction

Negotiation

Oversight

Assessment of project progress

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(Project Execution General Continued)

7. Measure project performance continually by comparing results to the baseline in order to identify project trends and variances.

Knowledge of:

Performance measurement techniques (e.g., PERT, CPM, EVA)
Data collection techniques

Skill in:

Gathering, assessing, and integrating information
Auditing
Earned Value analysis

8. Refine control limits on performance measures by applying established policy in order to identify needs for corrective action.

Knowledge of:

Control limits
Statistics
Performance measurement techniques (e.g., PERT, CPM, EVA)
Established policies

Skill in:

Properly applying control limits, based on project conditions
Properly applying established policies

9. Take timely corrective action by addressing the root causes in the problem areas in order to eliminate or minimize negative impact.

Knowledge of:

Root cause analysis
Corrective actions and their effects on project performance
Risk identification and quantification
Issues identification and resolution
Control limits
Trending and forecasting techniques
Negotiation techniques

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Skill in:

Selecting the appropriate corrective action for negative impacts
Extrapolating trends to the control limits (e.g., monitoring, forecasting)
Exercising judgment
Negotiating
Resolving conflict

(Project Execution General Continued)

10. Monitor project activity by performing periodic inspections to ensure that authorized approaches and processes are followed or to identify the need for corrective action.

Knowledge of:

Planned approaches and processes
Applied approaches and processes

Skill in:

Auditing
Exercising judgment to determine what variances are important
Communicating effectively
Conducting inspections, walk-downs, etc.

11. Evaluate the effectiveness of the corrective actions by measuring subsequent performance in order to determine the need for further actions.

Knowledge of:

Performance measurement techniques (e.g., PERT, CPM, EVA)
Data collection techniques

Skill in:

Gathering, assessing, and integrating information
Auditing

12. Respond to risk event triggers in accordance with the risk management plan in order to properly manage project outcomes.

Knowledge of:

Risk monitoring methods
Existing project documents
Risk management process and techniques

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Skill in:

Exercising judgment
Communicating effectively
Using risk management procedures
Decision-making
Conflict Resolution

13. Review and endorse/approve project scope, cost, and schedule baselines and changes

Knowledge of:

Project scope, cost , schedule, & technical baselines
Project change control systems
Project requirements

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(Project Execution General Continued)

Skills in:

Data gathering and analysis
Estimating
Problem resolution
Configuration management and change control
Baseline development

14. Manage project contingency effectively.

Knowledge of:

Project risk
Project scope, cost & schedule control techniques
Methods to determine project estimate at completion

Skills in:

Estimating
Information gathering and analysis
Problem resolution

15. Raise project issues requiring higher or other management attention to resolve.

Knowledge of:

Project status, problems, and potential problems
Project risk
Corrective action methods
Levels of authority

Skills in:

Problem resolution
Effective communication
Human interactions
Motivation

16. Ensure Budgets are planned effectively

Knowledge of:

Federal Budget Process
Resource planning techniques

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Skills in:

Workforce/resource planning
Resource levelling
Communicating effectively in writing and orally

(Project Execution General Continued)

17. Ensure Contract specifications are developed and contracts are executed and managed effectively

Knowledge of:

FARs/DEARs
Contract Management
Specifications
National Codes & Standards

Skills in:

Specification writing
Contract Management
Negotiation
Human interactions
Team building

18. Ensure project activities are integrated with other activities.

Knowledge of:

Project interactions with project related program and other project activities
Project interactions with site infrastructure

Skills in:

Information gathering and analysis
Systems Engineering

Preliminary Design

1. Refine project time and cost estimates by applying estimating tools and techniques to all WBS tasks in order to determine and define project baseline, schedule, and budget.

Knowledge of:

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Gathering, assessing, and integrating information
Time and cost estimation techniques
Statistical analysis and forecasting methods
Budgeting techniques
Schedule preparation methods
Communication techniques

Skill in:

Gathering, assessing, and integrating information
Communicating effectively
Negotiating
Estimating, forecasting, and managing uncertainty

(Preliminary Design Continued)

Budgeting
Scheduling

2. Establish project controls by defining the required correct processes, measures, and controls to manage project change, communications, procurement, risk, quality, and human resources to facilitate project executing and controlling processes, and to ensure compliance with generally accepted industry standards.

Knowledge of:

Gathering, assessing, and integrating information
Scope and change management concepts
Communication management concepts, tools, and techniques
Procurement management concepts, tools, and techniques
Risk management concepts, tools, and techniques
Quality management concepts, tools, and techniques
Human resource management techniques
Team-building methods
Configuration Management
Project control systems

Skill in:

Managing change
Communicating effectively
Managing procurement
Negotiating
Managing risk

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Managing quality
Managing, developing, and motivating human resources
Using project control systems

3. Finalize a comprehensive Project Execution Plan by integrating and documenting project deliverables, acceptance criteria, processes, procedures, risks, and tasks to facilitate project executing, controlling, and closing processes.

Knowledge of:

Integrating and sequencing activities and tasks
Gantt, PERT, CPM, and PDM techniques
Negotiations
Risk-analysis techniques
Business-writing techniques
Industry standards
Accepted and/or required control processes, measures, and thresholds
Quality control and sampling techniques

Preliminary Design Continued)

Skill in:

Gathering, assessing, and integrating information
Analyzing and measuring statistically
Making decisions
Negotiating
Writing formally
Communicating effectively

4. Obtain project plan approval by reviewing the plan with the customer and other required stakeholders to confirm project baselines prior to proceeding with project executing processes.

Knowledge of:

Required reviewers
Approving authorities
Effective communication techniques
Negotiation techniques
Authorization procedures

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Skill in:

Negotiating
Presenting and explaining information
Communicating effectively

5. Ensure Technology is adequately developed.

Knowledge of:

New technology risks
Methods to integrate technology development activities with design

Skill in:

Decision making
Analysis
Identification/detection of critical issues
Developing requirements documents, standards, process descriptions, etc.

6. Ensure Risks are analyzed and mitigated.

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Preliminary Design Continued)

Knowledge of:

Risk analysis methods and techniques
Types of risk, e.g.
 technical
 programmatic
 financial
 political
 labor
 contract
 weather and other natural phenomena

Skills in:

Information gathering and analysis
Managing risk

7. Ensure safety hazards are analyzed.

Knowledge of:

Safety Orders and regulations
Authorization Basis requirements
Safety standards

Skills in:

Safety analysis
Probability and statistics
Writing/reviewing PSARS

8. Ensure NEPA activities are conducted.

Knowledge of:

NEPA Regulations

Skills in:

Communicating effectively orally and in writing
Data gathering and analysis
Alternative analysis
Inter-agency representation
Conducting public hearings

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Preliminary Design Continued)

9. Ensure environmental, quality, safety, health, and S&S standards are identified.

Knowledge of:

Standards, Regulations, and Orders
Permits required
Acceptance criteria

Skills in:

Information gathering
Systems engineering
Communicating effectively

10. Submit project budget requests and requests for other resources and site support

Knowledge of:

Federal budget process
Material and Human Resource Acquisition process
Contract Acquisition process

Skills in:

Human interaction skills
Negotiation
Communication

11. Conduct VE studies

Knowledge of:

VE study techniques
Project/design requirements

Skills in:

Alternative analysis
Technical writing

12. Prepare preliminary safety analysis report

Knowledge of:

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Safety Orders and regulations
Authorization Basis requirements
Safety standards

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Preliminary Design Continued)

Skills in:

Safety analysis
Probability and statistics
Writing/reviewing PSARs

13. Refine project risk analysis

Knowledge of:

Risk management techniques
Risk management process and techniques

Skill in:

Exercising judgment
Communicating effectively
Using risk management procedures

14. Reconcile differences between Independent Cost Estimate and project estimate

Knowledge of:

Estimating techniques
Project Work Breakdown Structure

Skill in:

Analysis
Negotiation
Communication

15. Obtain Critical Decision 2 approval and request Construction funds

Knowledge of:

DOE Order 413.3
Project Objectives
Project baselines
Project Execution Plan
Federal Budget Process

Skill in:

Formal presentation

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Negotiation

Consensus building

Written communications, especially in writing decision memoranda

Analysis of resource need profiles

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Final Design

1. Ensure compliance with the change management plan by monitoring response to change initiatives in order to manage scope.

Knowledge of:

- Change management planning methods
- Work sampling and observations
- Process standards
- Existing project documents

Skill in:

- Gathering, assessing, and integrating information
- Applying the rules fairly but rigorously
- Exercising judgment to determine what variances are important

2. Reassess project control plans by scheduling periodic reviews in order to ensure their effective-ness and currency.

Knowledge of:

- Components of the project control system (communication, risk, etc.)
- Appropriate review standard and frequency
- Negotiating techniques

Skill in:

- Auditing
- Analyzing variance
- Exercising judgment to determine what variances are important
- Using intuition
- Communicating effectively
- Negotiating

3. Issue Final Preliminary Safety Analysis Report (PSAR)

Knowledge of:

- DOE Order 5480.13
- Technical writing techniques
- Safety analysis techniques

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Skill in:

Analysis
Written communication
Consensus building
Conflict resolution
Writing/reviewing PSARs

(Final Design Continued)

4. Perform final design review

Knowledge of:

Project design standards and requirements
Functional performance requirements
Design review techniques
Project design constraints
Engineering and construction methods

Skill in:

Gathering, assessing, and analyzing information\
Decision-making
Communicating

5. Obtain Critical Decision 3 approval

Knowledge of:

DOE Order 413.3
Project Objectives
Project baselines
Project Execution Plan

Skill in:

Formal presentation
Negotiation
Consensus building
Writing decision memoranda

Construction

1. Develop turnover and startup plan

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Knowledge of:

Required reviewers
Approving authorities
Effective communication techniques
Negotiation techniques
Authorization procedures
Turnover/start-up processes and procedures

Skill in:

Negotiating
Presenting and explaining information
Communicating effectively

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(Construction Continued)

2. Ensure completion of Construction in accordance with cost and schedule baselines and acceptance criteria.

Knowledge of:

Organization policies and procedures and labor agreements
Internal and external project environment
Performance measurement techniques (e.g., PERT, CPM, EVA)
Project management methodologies and tools
Contract administration
Management leadership principles and techniques
Communication and negotiation techniques
Reporting (production and requirements)
Statistics
Tracking and monitoring techniques

Skill in:

Gathering, assessing, and integrating information
Facilitating meetings
Communicating effectively
Orchestrating resources
Monitoring and tracking results

3. Ensure Development of Operations and Maintenance Manuals

Knowledge of:

Required reviewers
Approving authorities
Effective communication techniques
Negotiation techniques
Authorization procedures
Operations and maintenance processes and procedures

Skill in:

Negotiating
Presenting and explaining information
Communicating effectively

4. Develop Final Safety Analysis Report

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Knowledge of:

DOE Order 5480.23

Technical writing techniques

Safety analysis techniques

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(**Construction** Continued)

Skill in:

Analysis

Written communication, especially FSARs

Consensus building

Mission

Acceptance

1. Complete startup testing

Knowledge of:

Component and systems testing techniques

Test planning methods

Acceptance criteria

Organization policies and procedures

Internal and external project environment

Project management methodologies and tools

Level of authority

Facilitation techniques

Management techniques

Communication techniques

Negotiation techniques

Motivational techniques

Skills in:

Resource management

Delegating and empowering resources

Gathering, assessing, and integrating information

Presenting information

Organizing, developing, and writing reports

Negotiating and conflict resolution

Building, leading, and motivating teams

Administering contracts

Monitoring and tracking outputs (results)

2. Complete Operational Readiness Review

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Knowledge of:

ORR requirements and planning methods
Acceptance criteria
Organization policies and procedures
Internal and external project environment
Project management methodologies and tools

(**Acceptance** Continued)

Level of authority
Facilitation techniques
Management techniques
Communication techniques
Negotiation techniques
Motivational techniques

Skills in:

Resource management
Delegating and empowering resources
Gathering, assessing, and integrating information
Presenting information
Organizing, developing, and writing reports
Negotiating and conflict resolution

3. Obtain Final Safety Analysis Report approval

Knowledge of:

Approval authorities
Safety Analysis results
Authorization Basis Documentation

Skills in:

Negotiating and conflict resolution
Technical writing
Communication of technical information to non-technical personnel

4. Obtain approval of Critical Decision 4

Knowledge of:

DOE Order 413.3
Project Objectives

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Project baselines
Project Execution Plan

Skill in:

Formal presentation
Negotiation
Consensus building
Writing decision memoranda

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(Acceptance Continued)

5. Prepare Project Completion Report.

Knowledge of:

Project Completion Report required content
Report writing techniques

Skills in:

Written communication

6. Obtain final acceptance of deliverables by obtaining formal approval from appropriate stake-holders to achieve closeout.

Knowledge of:

Effective communication techniques
Contract management techniques

Skill in:

Negotiating
Communicating effectively
Managing conflicts
Resolving conflicts

7. Document lessons learned by surveying project team members and other relevant stakeholders to use for the benefit of future projects.

Knowledge of:

Methods to identify stakeholders
Project results
Risk mitigation actions and results
Resources utilization
Documentation standards
Communication techniques

Skill in:

Facilitating
Organizing and documenting information
Gathering, assessing, and integrating information
Interviewing

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Writing effectively
Applying interpersonal skills

DRAFT

Acceptance Continued)

8. Facilitate administrative and financial closure in accordance with the project plan in order to comply with organization and stakeholder requirements.

Knowledge of:

Closing procedures
Customer requirements
Finance and law
Conflict resolution techniques
Contract administration
Project contracts

Skill in:

Facilitating
Attending to details
Resolving conflicts
Administering contracts

9. Preserve essential project records and required tools by archiving them for future use to adhere to legal and other requirements.

Knowledge of:

Organizational records control and maintenance procedures
Records/document management and control procedures
Intellectual capital management requirements
Proprietary information constraints
Storage mediums
Document production and retrieval requirements/specifications

Skill in:

Gathering, assessing, and integrating information
Making decisions
Managing intellectual capital
Organizing and documenting information

10. Release project resources by following appropriate organizational procedures in order to optimize resource utilization.

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Knowledge of:

Project resources
Organizational procedures
Project contracts
Organizational units
Communication techniques
Resource re-deployment plan
Resource allocation and control techniques
Recognition options (e.g., awards)

Skill in:

Making decisions
Gathering, assessing, and managing information
Negotiating
Using interpersonal skills
Recognizing performance