Project Management Career Development Program

Certification and Equivalency Guidelines

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SECTION 1
INTRODUCTION

This Certification and Equivalency Guidelines (CEG) establishes the U.S. Department of Energy (DOE) competency requirements for all DOE federal project management personnel to be certified as DOE Federal Projects Directors (FPDs) in accordance with DOE Order 361.1B, *Acquisition Career Management Program, Chapter IV (Project Management Career Development Program [PMCDP]*).[i]

The purpose of the CEG is to provide requirements for certification and guidance to FPDs for the submission of certification packages presented to the Certification Review Board (CRB) for consideration and approval.

Each Program has a point of contact (POC) whose role is to support the FPD in preparing the certification package. A list of Program POCs is on the PMCDP website under quick links. As an incumbent FPD or FPD seeking a higher level of certification, the first step is to identify the Program POC and contact him/her to start the process for certification.

SECTION 2
APPLICABILITY

This Certification and Equivalency Guidelines (CEG) applies to all Department of Energy (DOE) federal project management personnel required to plan and execute projects in accordance with DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets.*

IDENTIFICATION AND SELECTION OF PMCDP PARTICIPANTS

DOE Contractors. This CEG and DOE Order 361.1B do not apply to contractors.

Exclusions. This CEG and DOE Order 361.1B do not apply to the Bonneville Power Administration.

Grandfathering. This module does not have a "grandfather" provision for project management certification, and the Certification Review Board (CRB) will not issue a certification based solely on the candidate's incumbency as a Federal Project Director (FPD) before the effective date of DOE Order 361.1B.

Participants. Certification candidates are nominated by their Program Secretarial Office (PSO) with a profile submitted to the CRB electronically through the Corporate Human Resources Information Service (CHRIS)/Employee Self Service System (ESS). Certification profiles are not accepted from individuals without their Program's approval and sponsorship.

The duties and responsibilities of a FPD can be found in DOE Order 413.3B.

INTERFACE WITH FEDERAL QUALIFICATION PROGRAMS

The Project Management Career Development Program (PMCDP) has been designed to interface with other federal qualification programs.

DOE Technical Qualification Program (TQP). Prior training and qualifications under the TQP and Senior Technical Safety Manager (STSM) programs may be considered as PMCDP training and work/developmental equivalencies where applicable.

Acquisition Career Professionals. Acquisition personnel other than FPDs are certified under separate chapters of DOE Order 361.1B. PMCDP training is available to the acquisition community and provided on an as-needed basis.

Federal Acquisition Certification for Program and Project Managers (FAC-P/PM)[ii] The Office of Management and Budget (OMB), Office of Federal Procurement Policy (OFPP) has promulgated certification requirements for the acquisition workforce[iii] in civilian agencies. The FAC-P/PM recognizes three levels of certification—entry/apprentice, mid-level/journeyman and senior/expert. The PMCDP is compliant with the requirements of the FAC-P/PM at all levels:

FAC-P/PM	EQUATES TO	PMCDP
Entry Level	=	Level I
Mid-Level/Journeyman	=	Level II
Senior/Expert Level	=	Level III

FPDs assigned to projects considered major acquisitions[iv] are required to attain senior level certification under the FAC-P/PM.

The Acquisition Career Manager appointed by the Chief Acquisition Officer under Policy Letter 05-01, or designee, is responsible for administering the DOE FAC-P/PM certification program and issuing FAC-P/PM certification. Certification under FAC-P/PM requirements may apply (at a minimum) to the following DOE project management personnel:

- Individuals with significant involvement in one or more phases of the acquisition investment process (initiation, conceptualization/design, development, implementation, modification, maintenance, evaluation, and disposal)
- Managers with authority and responsibility for overseeing multiple phases of the acquisition investment process
- Individuals with responsibility for leading cross-agency or acquisition investment programs for a major portion or all of the investment life-cycle
- Individuals responsible for leading, coordinating, and managing integrated project teams (IPTs) for acquisition investments
- Individuals participating on an IPT or a phase of the investment lifecycle with aspirations for career development as a project manager

PROFESSIONAL CERTIFICATIONS

The PMCDP acknowledges the extensive training and experience requirements for several professional certifications/licenses and grants fulfillment of specific PMCDP requirements. The following licenses and certifications are accepted as fulfillment for some PMCDP requirements.

Project Management Professional (PMP). The Project Management Institute (PMI) offers a certification credential that requires the applicant pass an exam and document experience to

demonstrate a proficient level of project management skills. PMCDP accepts this credential for numerous competencies at Level I. This certification has to be current.

Professional Engineer (PE). PMCDP accepts a PE license from any United States entity. This certification does not have to be current.

Registered Architect (RA). PMCDP accepts a RA license from any United States entity. This certification does not have to be current.

Certified Safety Professional (CSP). The Board of Certified Safety Professionals accredits safety, health, and environmental practitioners and sets standards related to professional safety practice. The PMCDP accepts a CSP certification for fulfillment of competency 1.5.1.

Senior Technical Safety Manager (STSM). The DOE certifies technical staff under the TQP. STSM certification is granted through the DOE General Technical Base Qualification Standard. The PMCDP accepts an STSM certification for fulfillment of competency 1.5.1

SECTION 3
FUNCTIONAL REQUIREMENTS

The Project Management Career Development Program (PMCDP) establishes requirements and responsibilities for all Federal Project Directors (FPDs) required to plan and execute projects in accordance with DOE Order 413.3B. The PMCDP certifies FPDs in support of the Department of Energy's (DOE's) construction, experimental equipment, and environmental management capital asset projects that correspond to defined levels of project management responsibilities.

The certification requires completing an application that presents the candidates' training, education, experience and demonstrated performance. All knowledge, skill, and ability (KSA) requirements are competency-based and encompass a range of developmental, experiential, training, and mentoring activities leading to certification. Levels III and IV require an interview and reference checks in addition.

CERTIFICATION

Certification in the PMCDP is dependent upon meeting training, work and development activity requirements and on possessing competencies commensurate with a specific level of certification. Currently, project management certification under the program is based upon the requirements outlined in the certification standard contained in DOE Order 361.1B and this Certification and Equivalency Guidelines (CEG). The Office of Engineering and Construction Management (OECM) and the National Nuclear Security Administration (NNSA) will grant the final certification.

Although the goal of certification may not be a requirement for some who participate, the PMCDP offers a range of training that can be geared specifically to help participants stay abreast of current applications in managerial, professional and technical areas.

CERTIFICATION LEVEL

Persons planning to be certified under the PMCDP may attain certification levels with the following total project cost (TPC) limits:

- Certification Level IV: TPC exceeding $400 million (M)
- Certification Level III: TPC greater than $100M and equal to or less than $400M
- Certification Level II: TPC greater than $20M and equal to or less than $100M
- Certification Level I: TPC greater than $5M and equal to or less than $20M

If an FPD is managing a portfolio of projects, the required certification level is determined by the project with the highest TPC dollar value.

In certain circumstances, projects may be aggregated for candidates seeking Level IV certification. Level IV candidates must speak to their Board member prior to requesting this exemption.

Certification level requirements based on project TPC should be evaluated based on the following considerations and in concert with the requirements of DOE Order 361.1B:

- General plant projects (GPPs) or similar small, routine infrastructure improvement projects may not be included in the TPC consideration

- The certification candidate must serve on a project for at least six continuous months to receive appropriate experience credit

- The certification candidate ideally will have a broad spectrum of experience that spans all project critical decision (CD) phases, CD-0 through CD-4; the TPC utilized to show experience at a particular certification level may not be exclusively composed of projects that have not reached CD-1

- For non-line item projects (e.g., Office of Environmental Management [EM] Cleanup Projects), a "Near-Term Baseline" (NTB) as approved by the Acquisition Executive (AE) can be used in lieu of the TPC for purposes of crediting experience, or for determining required certification levels relative to the above thresholds; only engineering and construction costs within the NTB may be included; operations and non-capital asset work activities should not be included

The PMCDP is designed around competencies organized in KSA categories. These may be acquired by training, experience, developmental assignments, or a combination. These requirements are provided for each of the four levels of certification (see Section 4 “PMCDP Requirements by Certification Level”) and are categorized by each of the KSA areas.

For all required competencies, certification candidates must provide a brief statement that details their required level of knowledge, how they have put their knowledge into action, and the impact of the training, experience, and/or developmental assignments had on their project(s). This must be included in the certification profile.

COMPETENCIES: KNOWLEDGE, SKILLS, AND ABILITY

The competencies contained in this document are divided into the following KSA categories for each level of certification (as applicable):

1. General Project Management

2. Leadership/Team Building

3. Scope Management

4. Communication Management

5. Quality/Safety Management

6. Cost Management

7. Time Management

8. Risk Management
9. Contract Management
10. Integration Management
11. Related Course Electives
12. Work and Developmental Activities
13. Behavioral

COMPETENCIES: KNOWLEDGE/SKILL LEVEL

The knowledge/skill level that an individual must possess is based on Bloom's taxonomy and defined as follows:

Familiarity-level: Basic knowledge of, or exposure to, the subject/process.

Working-level: Ability to apply the subject/process.

Expert-level: Comprehensive, practical knowledge of the subject/ process sufficient to provide direction and guidance in the absence of procedures.

COMPETENCIES: TRAINING

All PMCDP classes require participants to attend a minimum of 90 percent of training and have a minimum of 70 percent pass rate to complete the course and receive PMCDP credit.

COMPETENCIES: EQUIVALENCY

PMCDP competencies may be fulfilled through designated PMCDP training, equivalent education/training, or work experience. Fulfillment of a competency by equivalent education/training or experience may be granted if an objective evaluation determines the candidate appropriately demonstrated equivalency.

Note: To appropriately demonstrate equivalency, whether through experience or alternative training, candidates must provide specific examples describing how they have applied the knowledge examples covered in the PMCDP course. An example is included for each certification level in Appendix D.

Field element managers (FEMs)/office managers validate equivalencies for competencies for required coursework proposed by project management certification candidates. As part of the certification process, the Certification Review Board (CRB) reviews equivalencies for compliance with PMCDP certification requirements.

COMPETENCIES: BEHAVIORAL

Levels II – IV require candidates to address behavioral competencies based on the five Executive Core Qualifications:

1. **Leading Change**: Ability to bring about strategic change, both within and outside the organization, to meet organizational goals and establish an organizational vision and to implement it in a continuously changing environment.

2. **Leading People**: Ability to lead people toward meeting the organization's vision, mission, and goals and provide an inclusive workplace that fosters the development of others, facilitates cooperation and teamwork, and supports constructive resolution of conflicts.

3. **Producing Results**: Ability to meet organizational goals and customer expectations, and make decisions that produce high-quality results by applying technical knowledge, analyzing problems, and calculating risks.

4. **Business Acumen**: Ability to manage human, financial, and information resources strategically.

5. **Building Coalitions**: Ability to build coalitions internally and with other federal agencies, state and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve common goals.

For each behavioral competency, candidates should use the following format when crafting a response:

- Challenge/Issue
- What I Did
- Benefit to Project
- Outcome/Result

An example is included for each certification level in Appendix D.

EXPERIENCE: FEDERAL PROJECT DIRECTOR

All experience claimed as fulfillment of a competency should be described briefly and explicitly with specific project examples that show what was done, how it was done, and the results of the actions taken. Specific titles, roles, and responsibilities must be described for all equivalencies. These examples are meant to act as a guide for the certification candidate, not as a template or text to be copied verbatim. The certification candidate must serve on a project for at least six continuous months to receive appropriate experience credit. An example is included for each certification level in Appendix D.

The following requirements must be met for developmental/work experience claimed on **Level II – IV certifications**:

- Certification candidates must demonstrate a minimum of two years of experience as an FPD (or equivalent) managing projects at the previous level of certification; OR
    - A combination of one full year of FPD (or equivalent) experience, and one full year of Deputy FPD experience on an active, post CD-3 project; OR
    - A combination of FPD and Deputy FPD experience for two continuous years on the same active, post CD-3 project is acceptable as long as the FPD experience accounts for a minimum of 12 months of that two-year period; the guidance for accepted experience governing this requirement is addressed in the following section
- Experience in project management will not be credited for work done on projects that have yet to reach CD-0; ideally, certification candidates should possess experience in all CD phases of project management (this may be spread over multiple projects); Level II, III and IV applicants will be required to demonstrate post CD-3 experience
- The role of the FPD and Deputy FPD must be formally recognized in project documents
- Candidates may not use the same project experience to satisfy experience requirements for multiple certification levels unless the time periods do not overlap; for example, if a candidate served as the project director from 1/2006 – 2/2010 on the same Level III capital asset project, the candidate could claim the time period from 1/2006 – 1/2008 to satisfy one certification level experience requirement, and the time period from 2/2008 – 2/2010 to satisfy a higher certification level experience requirement
- Candidates may not claim any project management experience that occurred simultaneously to satisfy certification level experience requirements; for example, a candidate cannot claim 2 years of project management experience for managing Project A from 10/2007 to 10/2008 and Project B from 10/2007 to 10/2008 because the time periods overlap (the candidate can only claim one year of experience)

EXPERIENCE: DEPUTY FEDERAL PROJECT DIRECTOR

At Levels II – IV, the candidate may fulfill part of the work/developmental experience requirement by serving as a Deputy FPD. To be granted credit for experience, the candidate must serve as a Deputy FPD (or some other term of art) on an active, post CD-3 project having a TPC greater than $20M for Level II and III candidates and greater than $100M for Level IV candidates.

To receive work and developmental experience credit for serving as a Deputy FPD, the candidate:

- Must demonstrate he or she has been accountable and responsible (i.e. “owned”) a complete, discrete and usable subset of the overall project (i.e. a complete subset of the work breakdown structure [WBS])
- Must describe and show in documentation how he or she has functioned as the FPD on a specific piece of the project scope, and be able to identify the cost, schedule, and scope of the

project sub-part; this may be a separate building or a major, discrete sub-system of a very large project, like the piping and pressure vessels in a nuclear power plant

- Must work directly for the FPD on a capital asset construction or environmental project and be formally designated in project documents (e.g., Project Execution Plan [PEP])

EXAMPLE:

"I was in charge of the complete construction of Building 16 of the XYZ Project, a separate and distinct facility within the large ABC project. Building 16 had a TPC of $110M and was constructed over eighteen months. I had full responsibility for the cost, schedule and scope of construction. The PEP identifying me as the Associate (Deputy) FPD is attached."

All experience must be described with specific examples demonstrating what was done, how it was done, and what the results were.

- Deputy FPD experience may be used for certification Levels II – IV if the candidate functioned as outlined above

- The same Deputy FPD project assignment cannot be used to attain multiple levels of certification

PROJECT MANAGEMENT EXPERIENCE

Project management experience is distinguished from FPD experience and applies to general project management activities and experience. Positions that do not count towards experience in project management include: program manager, property manager, health, safety and security (HSS) positions, and financial positions. Project management activities include knowledge and skills of the following nature:

- Conducting design and project reviews

- Developing and/or approving engineering drawings

- Performing field construction inspections

- Performing contract administration functions

- Evaluating contractor construction deliverables

- Participating in the federal budget formulation and execution processes

- Developing project data sheets

- Defining project scope and the project WBS

- Writing and/or approving specifications

- Writing and/or approving decision memoranda and project reports

- Developing the project acquisition strategy and the acquisition plan
- Writing the PEP and getting it approved
- Participating in the Energy Systems Acquisition Advisory Board (ESAAB) process
- Participating in the National Environmental Policy Act (NEPA) and other regulatory processes and writing NEPA documents
- Participating in quarterly project reviews
- Participating in trade-off analyses and/or value engineering studies
- Developing and updating project schedules and cost estimates
- Developing and maintaining project risk management plans
- Developing and using an earned value management system (EVMS) and performing earned value analyses

EXPERIENCE AT EACH PHASE OF THE CRITICAL DECISION PROCESS

Level III and Level IV PMCDP certification candidates should have experience in all phases of the CD process, but must have experience in CD-1 to CD-4 phases.

- For CD-1, candidates may use both Federal Project Director (FPD) and integrated project team (IPT) experience.
- For CD-2, CD-3 and CD-4, this experience must be as an FPD or FPD equivalent.
- Candidates must serve on a project for at least six continuous months to receive experience credit.

DOCUMENTATION

Documentation must be submitted with all Level II – IV certification packages.

- Former FPD (or equivalent) experience must be documented with a copy of project documents naming the candidate as the project director. This can be through a variety of project documents such as, but not limited to:
    - Page from PEP
    - Page from program/project plan
    - ESAAB presentation

- Organization chart

If past experience cannot be validated through documents such as those listed above, the FPD will be required to obtain a signed affidavit from his or her former immediate supervisor or site manager.

- Applicants claiming experience where they were not named as the FPD, but whose role and responsibilities were equivalent, must address the following key FPD roles and responsibilities or their project equivalencies in their certification package submittal:
    - Led the establishment and implementation of the PEP
    - Approved applicable project controls changes
    - Presented the Quarterly Project Progress Reviews to the AE
    - Served as the single point of contact between federal and contractor staff for all matters relating to the project and its performance

INTERVIEWS

The CRB conducts an interview for Level III or IV certification candidates unless waived by the CRB (see Appendix F). Levels III and IV certified FPDs must master technical management and demonstrate leadership expertise, including expert leadership of project teams, expert management of project resources, and accountability for project successes and failures. These skills are necessary to manage projects effectively beyond one's technical capabilities and are identified within the PMCDP as behavioral competencies. Interview lines of inquiry include general behavioral competencies applicable to Level III or Level IV FPDs. At the discretion of the CRB, lines of inquiry may also include project management competencies applicable to Level III or Level IV FPDs. Additionally, some lines of inquiry may be unique to an individual FPD's experience and project history identified during the certification package review process (either by the Independent Reviewers or the CRB members).

Interviews are conducted after the certification candidate's profile has been provisionally approved by the CRB. The interview may be conducted face-to-face, by telephone, or through televideo, at the discretion of the CRB. The certification candidate is provided with a minimum of four questions the day before the interview to allow time to prepare his/her responses. After the interview, the CRB deliberates and determines the certification level recommended.

If the interview is not successful, the CRB provides details on key areas that the certification candidate must improve before again requesting certification. At a minimum, the certification candidate must wait 12 months before reapplying to the CRB.

REFERENCE CHECKS

Reference checks may be requested for Level III and IV candidates to provide CRB members with additional input to validate the ability and readiness of a candidate to manage projects at a higher level. The certification candidate is asked to provide the following references with the certification application:

- Federal AE for his/her most recent project
- Two professional references (either site manager or supervisor and a co-worker with whom the FPD has worked in the past 5 years)

The procedure for reference checks is administered by the PMCDP.

SECTION 4
PMCDP REQUIREMENTS BY CERTIFICATION LEVEL

The numbering convention used in this section to identify the individual competencies is the same numeric coding used in the Project Management Career Development Program (PMCDP) Module of the Corporate Human Resources Information System (CHRIS) / Employee Self Service (ESS) system.

LEVEL I

To attain Level I certification, the candidate must:

- Appropriately demonstrate the applicable knowledge, skill and ability (KSA) Level I competencies or successfully complete the following Level I core courses:
    - *Project Management Essentials* (competencies 1.2.1, 1.3.1, 1.4.1, 1.6.1, 1.7.1)
    - *Project Management Systems and Practices in DOE* (competencies 1.1.1, 1.1.2, 1.1.3, 1.3.2, 1.6.2)
    - *Earned Value Management Systems* (competency 1.10.2)
    - *Managing Contract Changes* (competencies 1.9.3, 1.10.1)
    - *Contracting Officer Representative* (competency 1.9.1)
    - *Planning for Safety in Project Management* (competency 1.5.1)
    - *Acquisition Management for Technical Personnel* (competencies 1.9.2, 1.9.4)
    - *Project Risk Analysis and Management* (competency 1.8.1)
- Successfully complete at least one of the following elective courses:
    - *LEED for New Construction and Existing Buildings* (competency 1.11.1)
    - *Capital Planning for DOE O 413.3B Capital Asset Projects* (competency 1.11.2)
    - *Performance-Based Management Contracting* (competency 1.11.3)
- Satisfy work and developmental activities (1.12.1, 1.12.2, 1.12.3) that focus on[v]
    - Constructing a work break down structure
    - Preparing a project analysis documents
    - Tailoring acquisition documents to ensure that quality, effective, efficient systems or products are delivered:
        - Analyzing and or developing requirements
        - Monitoring performance
        - Assisting with quality assurance
        - Developing a budget

1.1 GENERAL PROJECT MANAGEMENT

1.1.1 The certification candidate must demonstrate **working-level** knowledge of the Federal Project Director's (FPD's) roles and responsibilities. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Systems and Practices in DOE*; OR, 2) a description of the candidate's demonstrated equivalent experience or understanding of the FPD's roles and responsibilities (for this competency, there is no equivalent class to *Project Management Systems and Practices in DOE* that covers the same topics, hence the PMCDP does not permit applicants to claim alternative training). If the applicant does not currently possess experience working on federal projects, private-sector experience may be substituted as long as it is comparable to the roles and responsibilities of the FPD as outlined in DOE O 413.3B.

The justification of fulfillment through equivalent experience requires candidates to demonstrate all of the following covered in the PMCDP course:

- The FPD's responsibilities relative to the Management & Operating (M&O) or Management & Integrating (M&I) contractor
- The purpose and operation of the integrated project team (IPT)
- Ethics requirements for FPDs
- Department of Energy (DOE) Headquarters-Field relationships and Lead Program Secretarial Officers (LPSOs)
- Roles and responsibilities associated with managing federal projects

1.1.2 The certification candidate must demonstrate **familiarity-level** knowledge of the environmental regulations applicable to DOE projects. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Systems and Practices in DOE*; OR 2) the successful completion of an equivalent course or training; OR 3) a description of the candidate's demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The purpose and content of each of the following environmental documents and the impact on DOE projects:
    - Environmental Impact Statements
    - Environmental Assessments
    - Safety Analysis
    - Categorical Exclusions
    - Finding of No Significant Impact
- The role of the FPD in the National Environmental Protection Act (NEPA) process

- The requirements of the following laws as they impact DOE projects:
  - NEPA
  - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
  - Resource Conservation and Recovery Act (RCRA)
  - Clean Water Act (CWA)
  - Clean Air Act (CAA)
  - Toxic Substances Control Act (TSCA)
  - Occupational Safety and Health Act (OSHA)

1.1.3 The certification candidate must demonstrate **working-level** knowledge of DOE Order 413.3B.[vi] Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Systems and Practices in DOE*; OR 2) a description of the candidate's demonstrated equivalent experience (for this competency, there is no equivalent class to *Project Management Systems and Practices in DOE* that covers the same topics, hence the PMCDP does not permit applicants to claim alternative training).

The justification of fulfillment through equivalent experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The purpose, scope, and application of DOE Order 413.3B and the DOE 413.3 Guides; this includes the definition of key terms, essential elements, and personnel responsibilities and authorities
- The source documents necessary to effectively manage the project
- The critical decision process including the roles, responsibilities, and authorities for critical decisions
- The procedures for determining contractor compliance with the requirements of DOE Order 413.3B and with the DOE Project Management Guides
- The role of the participants in the Energy Systems Acquisition Advisory Board (ESAAB) process, the steps in the process, and the associated schedules
- The FPD’s role in baseline development, change control, and project status reporting, including Quarterly Project Reviews
- The role of the FPD in the performance of independent reviews (headquarters, external reviews, internal assessments, Government Accountability Office [GAO] and Inspector General reviews)
- General engineering or scientific principles required to perform DOE projects
- The purpose, use, and content of the:
  - Project Acquisition Strategy
  - Project Execution Plan (PEP)
- The earned value management systems (EVMS) and project reporting requirements in DOE Order 413.3B

- The steps to integrate safety into the business case
- The steps to integrate safety management into the critical decision (CD) process
- The relationship between DOE Headquarters-Field and LPSOs
- The role of the FPD in implementing DOE policy on value management
- The requirement for a value management assessment prior to CD-1 approval

1.2 LEADERSHIP/TEAM BUILDING

1.2.1 The certification candidate must demonstrate **working-level** knowledge of team building and leadership within a team. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Essentials*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience; OR 4) current Project Management Professional (PMP) certification.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Team building methods and recognizing individual and team performance
- Results/goal oriented work processes
- Team leadership and coordination of team activities
- Consensus building and conflict resolution techniques
- Trust and confidence development among team members
- Effective leadership models and their application

1.3 SCOPE MANAGEMENT

1.3.1 The certification candidate must demonstrate **working-level** knowledge of work breakdown structure (WBS) development and project scope baseline. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Essentials*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience; OR 4) current PMP certification.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Project mission need determinations
- Conceptual and detailed design documentation development and review

- WBS development
- Project scope baseline development techniques and their application
- Project alternatives development and analysis
- Scope change management
- Configuration management

1.3.2 The certification candidate must demonstrate **working-level** knowledge of test and evaluation. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Systems and Practices in DOE*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate all of the following knowledge examples covered in the PMCDP course:

- Participation in the development and execution of the acceptance test plan
- Acceptance of deliverables against performance metrics standards
- Application of contract terms and conditions to waivers and deviations

1.4 COMMUNICATION MANAGEMENT

1.4.1 The certification candidate must demonstrate **working-level** knowledge of interpersonal communications. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Essentials*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience; OR 4) current PMP certification.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate all of the following knowledge examples covered in the PMCDP course:

- Interpersonal relationship development
- Team development
- Effective team leadership
- Effective written and oral communication techniques

1.5 QUALITY/SAFETY MANAGEMENT

1.5.1 The certification candidate must demonstrate **working-level** knowledge of safety planning in project management. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Planning for Safety in Project Management*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

Equivalency: Hold or receive the Senior Technical Safety Manager (STSM) certification by January 31, 2010, or hold a current Certified Safety Professional (CSP) certification, or successfully completed DOE SAF220, Senior *Technical Safety Manager Overview*.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The importance of safety to projects and DOE's image and viability
- Emphasis of centrality of safety to every project even if it is not central to the mission
- Identification of safety requirements and considerations at each CD level
- The FPD's role in safety throughout the CD process
- The importance of alternatives analysis and conceptual design
- How to perform and conduct a failure mode and effects analysis (FMEA)
- How to control environmental safety hazards and worker safety hazards
- How to conduct a hazards analysis
- How to evaluate the final design in reference to safety
- How to manage safety during construction
- The roles and responsibilities of the contractor for Health, Safety and Security (HSS) protection, including integrated safety management (ISM)

1.6 COST MANAGEMENT

1.6.1 The certification candidate must demonstrate **working-level** knowledge of life-cycle cost estimating. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Essentials*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience; OR 4) current PMP certification.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Lifecycle estimating techniques and methodologies
- The principles of time value of money
- Basic cost estimating techniques, including parametric estimating, estimating by analogy, bottom up estimating, and activity-based costing
- Contingency estimation and usage
- The principles and use of range estimating
- Procurement guidelines and performance regulations
- The principles of earned value management

1.6.2 The certification candidate must demonstrate **working-level** knowledge of the federal budget process. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Systems and Practices in DOE*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The impacts of the federal budget process on the project
- The role of the FPD in the federal budget process
- The participants in the federal budget process and the major phases of budgeting
- Budget documents, their development, and their use
- Congressional, Office of Management and Budget (OMB), and DOE-internal budget roles and processes
- Definitions of budget terminology

1.7 TIME MANAGEMENT

1.7.1 The certification candidate must demonstrate **working-level** knowledge of project planning and resource loaded scheduling. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Essentials*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience; OR 4) current PMP certification.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Project schedule networks, including the definition of activity durations, and logic
- Critical paths and other scheduling terms
- Resource allocation
- Methods for reporting and displaying schedule information

1.8 RISK MANAGEMENT

1.8.1 The certification candidate must demonstrate **working-level** knowledge of project risk management. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Risk Analysis and Management*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate all of the following knowledge examples covered in the PMCDP course:

- Risk assessment and quantification
- The importance of assigning risk management responsibility
- Tools to assess and manage risk
- Risk mitigation plan development
- Risk management integration into project management

1.9 CONTRACT MANAGEMENT

1.9.1 The certification candidate must possess **working-level** knowledge of performing as a contracting officer's representative (COR). Fulfillment of this competency may be achieved through the following: 1) the successful completion of the Defense Acquisition University online *Contracting Officer Representative* course CLC 222; OR 2) the successful completion of the classroom-based course *Contract Administration for Technical Representatives* provided by DOE; OR 3) the successful completion of an equivalent course or training; OR 4) demonstrated equivalent experience.

Note*:* COR training must have been completed within the five years previous to the certification application date; if not, the candidate must include both the original date of the COR training as well as subsequent COR refresher courses. COR refresher courses must also have been completed within the five years previous to the certification application date.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The roles and responsibilities of a COR
- The process for modifying an existing contract
- Methods for communicating with the contractor and the roles and responsibilities of project participants
- Contract administration
- Techniques for evaluating change orders
- The process and methods for evaluating contractor deliverables, accepting work, and evaluating contractor procurement guidelines and regulations

1.9.2 The certification candidate must demonstrate **working-level** knowledge in the area of acquisition strategy development and planning, and pre-award actions required in acquisition planning. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Acquisition Management for Technical Personnel*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Adhering to federal policy for project planning that includes acquisition strategies and mission need statements
- Adhering to DOE policy for project planning, budgeting, and management
- Determining project acquisition strategies and developing mission need statements that are included in the acquisition plan

- Using risk management skills in analyzing and recommending technical, location, and acquisition alternatives for acquisition strategies

1.9.3 The certification candidate must demonstrate **working-level** knowledge in the area of managing contract changes. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Managing Contract Changes*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Research and interpretation of regulatory framework for contract changes
- Successful change order management
- Effective management and settlement of Requests for Equitable Adjustments (REA)
- Determination or entitlement for a change or REA
- Price changes and REAs
- Options for providing contract financing for changes
- Dispute settlement in accordance with the Disputes Act
- Project and contract management alignment

1.9.4 The certification candidate must demonstrate **working-level** knowledge in the areas of the DOE Acquisition System. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course, *Acquisition Management for Technical Personnel*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The relationship between technical personnel and contracting personnel in the acquisition process
- The various contracting and solicitation activities for acquiring services and supplies, including: sealed bidding and competitive contracting; fixed-price and various types of cost-reimbursement contracts; and unique DOE solicitation instruments
- The key tasks involved in development of a procurement request, including: definition of requirements; development of a statement of work; preparation and application of evaluation criteria; evaluation of proposals; and administration of contracts

- The statutes that govern the federal acquisition system, to include the Federal Acquisition Regulation (FAR)

- The types of contracts available to DOE to procure goods

- The complete breadth of acquisition planning and contract execution activities:

  - Pre-solicitation notices
  - Procurement requests
  - Request for Proposals
  - Award
  - Debrief/Protest
  - Payment
  - Contractor management
  - Termination

- The Source Evaluation Board (SEB) and its functions

- The function and applicability of M&O contracts

1.10 INTEGRATION MANAGEMENT

1.10.1 The certification candidate must demonstrate **working-level** knowledge in the areas of project control, configuration management, and life cycle logistics. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Managing Contract Changes*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Change control and configuration management techniques

- Procedures for preparing, reviewing, and approving baseline changes

- Basic decision making techniques

- Project control techniques and their application

- Project and contract management alignment

1.10.2 The certification candidate must demonstrate **working-level** knowledge in the areas of EVMS and project reporting. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Earned Value Management Systems*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Using EVMS processes and techniques for organizing, planning, and authorizing project work
- Monitoring performance
- Presenting the graphical cost, and schedule elements of the project baseline based on the WBS
- Selecting the appropriate EVMS technique for different WBS elements
- Collecting, interpreting, and reporting earned value data

1.11 TRAINING ELECTIVES

To attain Level I certification, the candidate must complete one of the following three elective options (1.11.1, 1.11.2, or 1.11.3) or satisfy the competency requirements through equivalent training or experience.

1.11.1 The certification candidate must demonstrate **familiarity-level** knowledge in the areas of green building construction and maintenance. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Leadership in Energy and Environmental Design* (*LEED) for New Construction and Existing Buildings;* OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate all of the following knowledge examples covered in the PMCDP course:

- The LEED Green Building Rating System and green initiative goal standards for new construction and existing building maintenance
- The relationship of climate change and building impacts to DOE projects
- The five LEED categories

1.11.2 The certification candidate must demonstrate **familiarity-level** knowledge in capital planning for capital asset projects under the 413.3B. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Capital Planning for DOE O 413.3B Capital Asset Projects*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The government's structured capital planning process and its application to the DOE's acquisition management system

- How to leverage capital assets for strategic outcomes using tools and resources at the FPD's disposal

- Capital planning as a structured process

- DOE Order 413.3B CD process for acquiring capital assets as it aligns to capital planning

- Use of project information to support the project data sheet and OMB Exhibit 300 reporting requirements

- The FPD's role in each step of the capital planning process

1.11.3 The certification candidate must demonstrate **working-level** knowledge in the area of performance-based management contract planning. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Performance-Based Management Contracting*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- DOE policy for Performance-Based Management Contracts (PBMCs):

  - Contract types and their applications
  - FAR requirements

- DOE's Strategic Management System: planning, budget formulation and execution, and program evaluation

- How to align performance incentives to DOE organizational goals

- How to develop PBMCs

- Use of performance-based management elements

1.12 WORK AND DEVELOPMENTAL ACTIVITIES

To achieve certification, the certification candidate must also perform developmental assignments or show experience that demonstrates application of the required knowledge and skill. Information provided should be results-oriented and showcase the impact the FPD had on the project and/or lessons learned. The following are the required developmental assignments:

1.12.1 Work for 12 months as a project engineer or IPT member; OR possess a current PMP certification; OR possess a professional engineer (PE) or registered architect (RA) license.

1.12.2 Three years (minimum) experience in project management; OR possess a current PMP certification. Documented experience should include knowledge and skill from participating in most of the following activities:

- Conducting design and project reviews
- Developing and/or approving engineering drawings
- Performing field construction inspections
- Performing contract administration functions in his/her role as a FPD
- Evaluating contractor construction deliverables
- Participating in the federal budget formulation and execution processes
- Developing project data sheets
- Defining project scope and the project WBS
- Writing and/or approving specifications
- Writing and/or approving decision memoranda and project reports
- Developing the project acquisition strategy and the acquisition plan
- Writing the PEP and getting it approved
- Participating in the ESAAB process
- Participating in the NEPA and other regulatory processes and writing NEPA documents
- Participating in quarterly project reviews
- Participating in trade-off analyses and/or value engineering studies
- Developing and updating project schedules and cost estimates
- Developing and maintaining project risk management plans
- Developing and using an EVMS and performing earned value analyses

Note: The following positions do not count towards experience in project management: program manager, property manager, HSS positions, and financial positions.

Note: A candidate must work on a project for a minimum of six continuous months for the experience to count towards the three year requirement.

1.12.3 Candidates must demonstrate one year of experience in project management within the last five years prior to the FPD certification application date. A PMP certification will satisfy this project management experience requirement as long as the PMP certification has been earned within the last five years.

1.13 BEHAVIORAL

No behavioral competencies are required for Level I.

LEVEL II

To attain Level II certification, the candidate must:

- Successfully complete all the Level I requirements.
- Appropriately demonstrate the applicable knowledge, skill and ability (KSA) Level II competencies or successfully complete the following Level II core courses:
    - *Advanced Concepts in Project Management* (competencies 2.1.1, 2.5.1)
    - *Project Management Simulation* (competencies 2.1.2, 2.7.1)
    - *Project Leadership* (competencies 2.1.3, 2.2.1, 2.2.2, 2.2.3)
    - *Effective Program and Project Communication* (competency 2.4.1)
    - *Cost and Schedule Estimation* (competency 2.6.1)
    - *Scope Management/Baseline Development* (competency 2.3.1)
- Successfully complete at least two of the following elective courses:
    - *Value Management* (competency 2.11.1)
    - *Environmental Laws and Regulations* (competency 2.11.2)
    - *Federal Budgeting Process in DOE* (competency 2.11.3)
    - *Real Property Asset Management* (competency 2.11.4)
- Satisfy work and developmental activities (2.12.1, 2.12.2, 2.12.3, 2.12.4) that focus on:[vii]
    - Performing market research
    - Developing and applying technical processes and technical management processes
    - Performing or participating in source selection
    - Preparing acquisition strategies
    - Managing performance based service agreements
    - Developing and managing a project budget
    - Writing a business case
    - Engaging in strategic planning
- Satisfy behavioral competencies 2.13.1, 2.13.2, 2.13.3, 2.13.4, and 2.13.5

2.1 GENERAL PROJECT MANAGEMENT

2.1.1 The certification candidate must demonstrate **working-level** knowledge of systems engineering. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the Project Management Career Development Program (PMCDP) core course *Advanced Concepts in Project Management*; OR 2) the successful completion of an equivalent course or training; OR 3) a description of the candidate's demonstrated equivalent experience.

The justification of fulfillment through equivalent experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The systems engineering model as used in project management
- Functional allocation and functional requirements definition as used in systems engineering
- Design reviews (conceptual, preliminary, critical, system, etc.)
- Trade-off analyses
- Configuration management from a systems engineering perspective

2.1.2 The certification candidate must demonstrate **working-level** knowledge in pre-project planning. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Simulation*; OR 2) the successful completion of an equivalent course or training; OR 3) a description of the candidate's demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate all of the following knowledge examples covered in the PMCDP course:

- The use of up-front project definition in developing project scope
- The use of stakeholder alignment techniques
- The use of the Project Definition Rating Index

2.1.3 The certification candidate must demonstrate **working-level** knowledge of facilitation techniques and conflict resolution methods. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Leadership*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate the following knowledge examples covered in the PMCDP course:

- Problem solving and conflict resolution

- Facilitation techniques and facilitating discussions/meetings

2.2 LEADERSHIP/TEAM BUILDING

2.2.1 The certification candidate must demonstrate **working-level** knowledge of leadership principles. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Leadership*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Developing and communicating clear goals and vision
- Recognizing individual and team performance
- Using effective leadership styles for different situations
- Leading integrated project teams
- Developing and implementing operating procedures and systems
- Working with external project stakeholders

2.2.2 The certification candidate must demonstrate **working-level** knowledge of motivational techniques. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Leadership*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Using motivational techniques
- Assigning and evaluating work
- Identifying individual team members’ strengths and weaknesses

2.2.3 The certification candidate must demonstrate **working-level** knowledge of integrated project team building. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Leadership*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Building consensus

- Developing trust and confidence among team members
- Organizing teams
- Effectively planning and managing multiple tasks among team members
- Monitoring and tracking results
- Assigning work

2.3 SCOPE MANAGEMENT

2.3.1 The certification candidate must demonstrate **working-level** knowledge of the techniques used in scope management, baseline development, and work breakdown structure (WBS) development. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Scope Management/Baseline Development*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Using baseline development techniques
- Developing and decomposing a WBS
- Identifying requirements as functional or non-functional and discretionary or non-discretionary
- Prioritizing requirements
- Recognizing and controlling scope changes

2.4 COMMUNICATION MANAGEMENT

2.4.1 The certification candidate must demonstrate a **working-level** knowledge of effective briefing techniques. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Effective Program and Project Communication*; OR 2) the successful completion of equivalent courses or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP courses:

- Making formal presentations to senior management
- Communicating with diverse audiences

- Making persuasive communications with well-founded convincing arguments
- Communicating with multiple types of stakeholders

2.5 QUALITY/SAFETY MANAGEMENT

2.5.1 The certification candidate must demonstrate **working-level** knowledge of quality management. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Advanced Concepts in Project Management*; OR 2) a description of the candidate's demonstrated equivalent experience (for this competency, there is no equivalent class to *Advanced Concepts in Project Management* that covers the same topics, hence the PMCDP does not permit applicants to claim alternative training).

The justification of fulfillment through equivalent experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Quality Assurance (QA) and Quality Control plans and procedures development and interpretation
- Systems and component testing and inspection processes
- The requirements of Department of Energy (DOE) Order 414.1D, Quality Assurance, and 10 CFR 830.120 Nuclear Safety Management
- Time quality management principles
- The quality auditing process

2.6 COST MANAGEMENT

2.6.1 The certification candidate must demonstrate **working-level** knowledge of cost and schedule estimating processes. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Cost and Schedule Estimation*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Cost Estimate Initiation – Using Government Accountability Office (GAO) Cost Estimation Guide Steps to provide a framework for estimate development
- Scope Estimate – WBS and the parameters; ground rules and assumptions needed for estimate development

- Estimate Data Sources – Estimate tools, data sources and the collection, analysis and use of data

- Parametric Cost Estimate Development – Cost estimating methods and procedures for parametric type estimating

- Detailed Cost Estimate Development – Cost estimating methods and procedures for detailed, bottom-up estimating

- Schedule Development – Techniques for development of project schedules

- Cost-Schedule Integration – How cost estimates and schedules are integrated and used together within DOE

- Estimate Review and Sensitivity Analysis – Approaches used to review cost estimates developed by contractors and others, including sensitivity analysis of the estimate

- Risk and Uncertainty Analysis – Principles and techniques; management reserve, contingency, and how both are calculated/determined

- Comprehensive, complete and accurate estimate documentation

- Clear, concise and useful presentation of cost estimates to management and stakeholders

- Estimate Update and Maintenance – Issues encountered after a cost estimate is developed and approved, including subsequent revision and updates

- Development and Use of Government Estimates – DOE requirements and use of independent estimates and estimate reviews

- Life Cycle Cost Estimates and Analysis – How they are developed and used

2.7 TIME MANAGEMENT

2.7.1 The certification candidate must demonstrate **working-level** knowledge of automated scheduling software. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Project Management Simulation*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate the following knowledge examples covered in the PMCDP course:

- The use of automated scheduling tools

- The use of schedule analysis, crashing, and resource-leveling

2.8 RISK MANAGEMENT

This competency shall have been developed to a **working-level** knowledge at Level I; therefore, no additional competency training/equivalency is required in this category for Level II Federal Project Directors (FPDs).

2.9 CONTRACT MANAGEMENT

This competency shall have been developed to a **working-level** of knowledge at Level I; therefore, no additional competency training/equivalency is required in this category for Level II FPDs.

2.10 INTEGRATION MANAGEMENT

This competency shall have been developed to a **working-level** of knowledge at Level I; therefore, no additional competency training/equivalency is required in this category for Level II FPDs.

2.11 TRAINING ELECTIVES

To attain certification at Level II, the certification candidate must select **two** elective options or satisfy the competency requirements through equivalent training or experience.

2.11.1 The certification candidate must demonstrate **working-level** knowledge of value management. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Value Management*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- DOE policy on value management
- The limited impact of the FAR requirements on DOE value management studies
- The value management assessment requirements for critical decision (CD)-1 approval
- Team composition and the importance of value management experience
- The advantages of using value management early in the project lifecycle
- The use of value management for re-examining projects with a view to reducing total project costs
- The value engineering/vale management concepts, principles, definitions, and the various legal and regulatory drivers that now mandate its application
- Value management team development and leadership with a focus on the value management process

- The 6-step value management job plan
- Contractual aspects
- The project life cycle and function analysis in the value management process

2.11.2 The certification candidate must demonstrate **working-level** knowledge of DOE environmental regulations. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Environmental Laws and Regulations*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate the following knowledge examples covered in the PMCDP course:

- Current DOE environmental policies and implementing guides, as well as federal environmental regulations to include:
  - National Environmental Policy Act (NEPA)
  - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
  - Resource Conservation and Recovery Act (RCRA)
  - Clean Water Act (CWA)
  - Clean Air Act (CAA)
  - Toxic Substances Control Act (TSCA)
  - Occupational Safety and Health Act (OSHA)

2.11.3 The certification candidate must demonstrate **working-level** knowledge of the federal budget process. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Federal Budgeting Process in DOE*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The budget formulation process
- The budget execution process
- The impact of the Government Performance and Results Act (GPRA) on the budget process
- The implementation of DOE Order 135.1A, Budget Execution - Funds Distribution and Control
- Congressional and Office of Management and Budget (OMB) roles and requirements in budget formulation

- Strategies/techniques for responding to OMB and Congressional inquiries, questions and answers, etc.

2.11.4 The certification candidate must demonstrate **working-level** knowledge of real property life-cycle asset management. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Real Property Asset Management;* OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Management of federal real property through a systematic, integrated approach
- Real property planning
- Ten-year site plans
- Real property status reporting requirements and mechanisms
- Value management
- Performance management and DOE and contractor role and responsibilities for real property asset management
- Requirements contained in the Executive Order, Federal Real Property Asset Management (EO 13327 - 69 r. Reg. 589, February 4, 2004) which places greater visibility on management of real property assets

2.12 WORK AND DEVELOPMENT ACTIVITIES

To achieve certification, the candidate must also perform developmental assignments or show experience that demonstrates application of the required knowledge and skill. Information provided should be results-oriented and showcase the impact the candidate had on the project and/or lessons learned. The following are the required developmental assignments:

2.12.1 Work for a minimum of two years as a Level I FPD (or equivalent) or satisfy the following equivalencies (2.12.1.1, 2.12.1.2, or 2.12.1.3).

2.12.1.1 Equivalency: Possess a combination of one year of Level I FPD experience (or equivalent) and one year of Deputy FPD experience. A combination of FPD and Deputy FPD experience for two continuous years on the same active, post CD-3 Level II or higher project is acceptable as long as the FPD experience accounts for a minimum of 12 months of that two-year period. The guidance for accepted experience is under **EXPERIENCE: DEPUTY FEDERAL PROJECT DIRECTOR** on page 3-5.

2.12.1.2 Equivalency: Work for one year as a Level I FPD (or equivalent), and serve one year as a functional manager on a Level IV project (i.e., engineering manager, procurement manager, construction manager, environmental compliance manager, project controls manager, licensing/quality assurance manager).

2.12.1.3 Equivalency: Work for one year as a Level I FPD (or equivalent), and serve one year as a supervisor of FPDs. Typical roles and responsibilities/activities of a formally documented supervisor of FPDs:

- Assigns FPDs who manage a portfolio of Capital Asset projects > $20M and having an aggregate total project cost (TPC) greater than $100 million
- Reviews key project documentation such as project execution plans (PEPs) and Acquisition Strategy
- Participates in Quarterly Performance Reviews and Energy System Acquisition Advisory Board (ESAAB) presentations
- Concurs in Level II or higher Baseline Change Proposals
- Provides recommendations to the Acquisition Executive (AE) on FPD project assignments
- Prepares Supervisor's Performance Management Plan which contains critical elements and standards from the projects for which his/her subordinate FPDs are responsible (in accordance with the Deputy Secretary's memorandum dated 12 December 2004)
- Demonstrates KSAs related to DOE project management principles and practices by recent work experience or recent completion of PMCDP training courses

2.12.2 One year of experience as a supervisor or as a team leader. Typical roles and responsibilities/activities while serving as a supervisor or a team leader are assignment and evaluation of the work of professional employees.

2.12.3 One year of project management experience serving as a FPD (or equivalent) or project engineer on a post CD-3 phase project, or serve one year with an Architecture/Engineering firm or DOE Management & Operating / Management & Integration (M&I) contractor on a post CD-3 project.

2.12.4 The certification candidate must demonstrate two years (minimum) of experience within the past five years prior to the certification application date serving in project management roles in support of construction, experimental equipment, or environmental management capital asset projects. Expertise should include knowledge and skill from participating in most of the activities listed under competency 1.12.2 on page 4-14 of this guide.

2.13 BEHAVIORAL

The PMCDP is designed to train and develop leadership and communication KSAs as well as project management KSAs. Candidates should focus behavioral information on their development as leaders and communicators. Levels II – IV require candidates to address behavioral competencies based on the five Executive Core Qualifications. For each behavioral competency, candidates should use the following format when crafting a response:

- Challenge/Issue
- What I Did
- Benefits to Project
- Outcome/Result

One example response is included in Appendix D.

2.13.1 **Leading Change.** Certification candidates must demonstrate **working-level** knowledge of leading change by describing how they led a team to develop and implement an innovative solution to a project challenge.

2.13.2 **Leading People.** Certification candidates must demonstrate **working-level** knowledge of leading people by describing how they build and maintain successful project management business relationships.

2.13.3 **Producing Results.** Certification candidates must demonstrate **working-level** competence in producing results by describing how they turned a potential organization or policy problem into an opportunity.

2.13.4 **Business Acumen.** Certification candidates must demonstrate **working-level** competence in business acumen by describing how they solved a potential financial or human capital deficit.

2.13.5 **Building Coalitions.** Certification candidates must demonstrate **working-level** competence in building coalitions by describing how they motivated project team members with conflicting views to work together to solve a problem.

LEVEL III

To attain Level III certification, the candidate must:

- Successfully complete all the Level I and Level II requirements
- Appropriately demonstrate the applicable knowledge, skill and ability (KSA) Level III competencies or successfully complete the following Level III core courses:
    - Competencies 3.1,2. 3.2.1, 3.3.1, 3.5.1, 3.6.1, 3.7.1, 3.9.1, and 3.10.1 do not have corresponding courses associated with them so candidates must write about their knowledge and experience
    - *Program Management and Portfolio Analysis* (competency 3.1.1)
    - *Advanced Risk Management* (competency 3.8.1)
    - *Executive Communications* (competency 3.4.1)
- Successfully complete one elective from each group:
    - Technical:
        - *Project Execution and Readiness Reviews* (competency 3.11.A.1)
        - *Systems Engineering* (competency 3.11.A.2)
        - *Strategic Planning* (competency 3.11.A.3)
    - Communication:
        - *Labor Management Relations* (competency 3.11.B.1)
        - *Negotiation Strategies & Techniques* (competency 3.11.B.2)
        - *Facilitating Conflict Resolution* (competency 3.11.B.3)
- Satisfy work and developmental activities (3.12.1, 3.12.2, 3.12.3, 3.12.4) that focus on:[viii]
    - Managing and evaluating agency acquisition investment performance
    - Developing and managing a program budget
    - Building and presenting a successful business case
    - Reporting program results
    - Engaging in strategic planning
    - Engaging in high-level communication with internal and external stakeholders

- Satisfy behavioral competencies 3.13.1, 3.13.2, 3.13.3, 3.13.4, and 3.13.5
- Unless waived, complete the Certification Review Board (CRB) interview (3.14)
- Provide references for the reference check (3.15)

3.1 GENERAL PROJECT MANAGEMENT

3.1.1 The certification candidate must demonstrate **expert-level** knowledge of program management and portfolio analysis. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the Project Management Career Development Program (PMCDP) core course *Program Management & Portfolio Analysis*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following covered in the PMCDP course:

- Strategic planning and strategic goal establishment
- Information gathering and analysis for multiple projects
- Resource allocation between multiple (competing) projects
- Project portfolio analysis

3.1.2 The certification candidate must demonstrate **expert-level** knowledge of Department of Energy (DOE) Order 413.3B and the Guides by providing specific project examples. A majority of the following should be addressed:

- Critical decision (CD) phases
- Energy Systems Acquisition Advisory Board (ESAAB)
- Project execution plans (PEPs)
- Baseline change control boards
- Quarterly project reviews
- Independent project reviews

3.2 LEADERSHIP/TEAM BUILDING

3.2.1 The certification candidate must demonstrate **expert-level** knowledge of Office of Management and Budget (OMB), Government Accountability Office (GAO), and Congressional processes, requirements, and relations. A majority of the following should be addressed:

- DOE's role in championing projects to OMB and Congressional officials
- Congressional, OMB and GAO inquiries
- Protocols
- Budget appropriation requests support
- OMB and Congressional questions and answers
- Congressional hearings input
- Presentations to Congressional staff
- The role of Congressional Affairs
- Congressional, state, and local political official communications

3.3 SCOPE MANAGEMENT

3.3.1 The certification candidate must demonstrate **expert-level** knowledge of scope management by describing how he/she responded to a major scope challenge and how that shaped the way he/she manages projects. A majority of the following should be addressed:

- Work breakdown structure (WBS) development and implementation
- Monthly contractor performance report analysis
- Contract analysis and management
- DOE O 413.3B scope change approval levels
- Design/construction verification reviews

3.4 COMMUNICATION MANAGEMENT

3.4.1 The certification candidate must demonstrate **expert-level** knowledge of managing external communications. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Executive Communications*; OR 2) the description of the candidate's demonstrated equivalent experience (since there is no equivalent class to *Executive Communications*, the PMCDP does not permit applicants to claim alternative training for this competency).

The justification of fulfillment through equivalent experience requires candidates to demonstrate a majority of the following covered in the PMCDP course:

- Representing DOE across agencies
- Managing interaction with reporters
- Understanding roles and responsibilities of the Public Affairs Office
- Using public speaking techniques
- Conducting new conferences/briefings/public hearings
- Communicating/interfacing with external stakeholder groups
- Communicating lessons-learned
- Using active listening techniques

3.5 QUALITY/SAFETY MANAGEMENT

3.5.1 The certification candidate must demonstrate **expert-level** knowledge of quality/safety management by describing how he/she addressed a safety/quality management problem. All of the following should be addressed:

- Integrated safety management
- DOE safety policies
- DOE quality assurance orders
- Inspections/testing

3.6 COST MANAGEMENT

3.6.1 The certification candidate must demonstrate **expert-level** knowledge of cost management by describing a lesson learned on a project that helped him/her effectively manage cost. All of the following should be addressed:

- PEPs
- Integrated project teams (IPTs)
- Change control
- Cost analysis

3.7 TIME MANAGEMENT

3.7.1 The certification candidate must demonstrate **expert-level** knowledge of time management by describing the systems used for project planning and project scheduling. The following should be addressed:

- Multiple project milestone and deadline tracking
- Schedule networks and critical path development
- Resource allocations and impact on projects

3.8 RISK MANAGEMENT

3.8.1 The certification candidate must demonstrate **expert-level** knowledge of advanced risk management practices. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP core course *Advanced Risk Management*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training or experience requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Identifying critical issues and risks
- Conducting root cause analyses
- Applying risk categorization principles
- Using advanced techniques for project risk identification, quantification, and analysis
- Using modeling tools and techniques in managing risk
- Using simulations in risk analysis
- Developing complex risk management plans

- Applying lessons-learned from accident/incident investigations

3.9 CONTRACT MANAGEMENT

3.9.1 The certification candidate must demonstrate **expert-level** knowledge of contract management by describing how he/she solved a contractual problem and how the experience impacted his/her contractual expertise. All of the following should be addressed:

- Contracting Officer Representative (COR) responsibilities
- Contract administration procedures
- Contractor deliverable evaluations
- Contract change management

3.10 INTEGRATION MANAGEMENT

3.10.1 The certification candidate must demonstrate **expert-level** knowledge of integration management by describing how he/she solved a problem when trying to integrate a project and the lessons he/she learned from the experience. All of the following should be addressed:

- Project control techniques
- Change control
- Configuration management

3.11 TRAINING ELECTIVES

The PMCDP offers electives in two groups (technical and communication) for Level III. To attain certification at Level III, certification candidates must successfully complete at least **one** elective from **each** group.

Technical comprises training centered on development of expert-level technical expertise, while communication comprises training centered on development of expert-level expertise in communication and leadership skills.

3.11.A Technical

3.11.A.1 The certification candidate must demonstrate **expert-level** knowledge of the project execution process, including operational readiness reviews (ORRs). Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Project Execution and Readiness Reviews*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The steps in the ORR process
- The DOE role in the ORR process
- Contractor requirements for ORRs
- Safety analysis report development
- Safety systems use at DOE facilities
- Hazards analysis results interpretation
- ORR team members selection
- The orientation and training requirements for ORRs

3.11.A.2 The certification candidate must demonstrate **expert-level** knowledge of systems engineering. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Systems Engineering*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The systems engineering process
- The project requirements development process
- The system architecture development
- Tradeoff analyses
- Life-cycle cost analyses
- Systems integration
- Scope of work and functional design criteria development
- Functional requirements decomposition

3.11.A.3 The certification candidate must demonstrate **expert-level** knowledge of strategic planning processes. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Strategic Planning*; OR 2) the

successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Managing the strategic planning process
- Establishing organizational mission and vision
- Conducting situational analyses
- Conducting competitive analyses
- Conducting environmental scanning
- Identifying strategic issues
- Establishing critical success factors and core competencies
- Establishing strategic goals and strategic objectives
- Writing a strategic plan
- Developing quantitative performance measures
- Operationalizing the strategic plan
- Distinguishing between mission and mandates

3.11.B Communication

3.11.B.1 The certification candidate must demonstrate **expert-level** knowledge of labor management relations. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Labor Management Relations*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- The basic rights of employees and labor organizations
- Union proposals, labor agreements, and negotiation tactics
- Strategies for dealing with labor unions regarding working conditions
- Unfair labor practice prevention
- Techniques and procedures of labor contract administration

3.11.B.2 The certification candidate must demonstrate **expert-level** knowledge of negotiation strategies and techniques. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Negotiation Strategies and Techniques*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Negotiations theory
- The steps of the negotiations process
- Negotiation strategy and plan development
- Ethics in negotiations
- Competitive negotiation and collaborative negotiation use
- Strategies for negotiating cost and schedule

3.11.B.3 The certification candidate must demonstrate **expert-level** knowledge of conflict resolution processes. Fulfillment of this competency may be achieved through the following: 1) the successful completion of the PMCDP elective course *Facilitating Conflict Resolution*; OR 2) the successful completion of an equivalent course or training; OR 3) demonstrated equivalent experience.

The justification of fulfillment through equivalent training requires candidates to demonstrate a majority of the following knowledge examples covered in the PMCDP course:

- Recognizing potential conflict situations
- Neutralizing conflict situations
- Negotiating “win-win” solutions
- Conducting negotiating sessions
- Using interpersonal strategies to resolve/minimize conflict in groups and between employees
- Resolving conflicts using facilitation techniques
- Responding to conflict
- Understanding communications theory and communication styles
- Using active listening techniques

- Using mediation to settle differences

3.12 WORK AND DEVELOPMENTAL ACTIVITIES

To achieve certification, the candidate must also perform developmental assignments or show experience that demonstrates application of the required knowledge and skill. Information provided should be results-oriented and showcase the impact the candidate had on the project and/or lessons learned. The following are the required developmental assignments:

3.12.1 Work for a minimum of two years as a Level II Federal Project Director (FPD) (or equivalent) or satisfy the following equivalency (3.12.1.1).

3.12.1.1 Equivalency: Possess a combination of one year of Level II FPD experience (or equivalent) and one year of Deputy FPD experience. A combination of FPD and Deputy FPD experience for two continuous years on the same active, post CD-3 Level II or higher project is acceptable as long as the FPD experience accounts for a minimum of 12 months of that two-year period. The guidance for accepted experience governing this requirement is under **EXPERIENCE: DEPUTY FEDERAL PROJECT DIRECTOR** on page 3-5.

3.12.2 For six months, be mentored by a Level III or IV FPD who has a minimum of two years experience on a Level III or higher project, OR satisfy the following equivalencies (3.12.2.1 or 3.12.2.2). **Note**: The mentoring activity must be entered into the individual development plans (IDPs) of both the mentor and mentee. A formal agreement must be signed by both parties detailing the goals, activities, etc. of the mentoring arrangement.

3.12.2.1 Equivalency: Be formally mentored for one year by a member of the Senior Executive Service (SES), or other executive excepted service positions, such as “EN,” “EJ,” “EK,” etc.

3.12.2.2 Equivalency: Serve as a member of the SES for two years (minimum).

3.12.3 Serve one year as a COR as determined by the contracting officer (CO) or satisfy the equivalency 3.12.3.1.

3.12.3.1 Equivalency: Serve for two years (minimum) as a formally designated technical monitor.

Typical roles and responsibilities/activities of a technical monitor include:

- Assisting COR in interpretation of contract requirements
- Questioning technical assumptions or other aspects of analyses and commenting on contract deliverables (through the COR)
- Providing guidance and technical input (through the COR) related to government furnished services and items
- Interacting regularly with the contractor in support of the COR

- Administering technical, administrative, and/or funding aspects of a task assignment, as assigned by the COR

Both COR and technical monitor must have successfully completed the DOE course *Contract Administration for Technical Representatives*. COR initial or refresher training must have been completed within the five years previous to the certification application date.

3.12.4 Candidates must demonstrate at least two years of project management experience serving as a FPD on a post CD-3 phase project; at least one year of the two years must be on a Level II or higher project.

3.13 BEHAVIORAL

Candidates should focus behavioral information on their development as leaders and communicators. Levels II – IV require candidates to address behavioral competencies based on the five Executive Core Qualifications. For each behavioral competency, candidates should use the following format when crafting a response:

- Challenge/Issue
- What I Did
- Benefits to Project
- Outcome/Result

Candidates should focus the response to the following behavioral competencies with specific information demonstrating growth as a leader and communicator beyond their Level II behavioral skills.

One example response is included in Appendix D.

3.13.1 **Leading change.** Certification candidates must demonstrate **expert-level** competence in leading change by describing how they persuaded a supervisor, site manager, and/or project team to try a new process to improve project management performance.

3.13.2 **Leading people.** Certification candidates must demonstrate **expert-level** competence in leading people by describing how they resolved a conflict among project team members.

3.13.3 **Producing results.** Certification candidates must demonstrate **expert-level** competence in producing results by describing how they effectively assessed project team members' strengths and delegated duties appropriately to meet a project milestone with a tight turnaround time.

3.13.4 **Business acumen.** Certification candidates must demonstrate **expert-level** competence in business acumen by describing innovative ways they used information management systems and other technological resources to meet their organizational needs.

3.13.5 **Building coalitions.** Certification candidates must demonstrate **expert-level** competence in building coalitions and communications by describing how they achieved consensus among a wide range of stakeholders with diverging interests.

3.14 INTERVIEW REQUIREMENT

Level III certification candidates must successfully complete DOE CRB panel interviews, unless waived by the CRB. The CRB may also elect to interview the current site/office manager before interviewing the certification candidate. New DOE hires for positions requiring Level III certification must successfully complete CRB panel interviews, unless waived by the CRB. The procedures for these interviews are issued by the CRB.

3.15 REFERENCE CHECKS

Reference checks may be requested for Level III candidates to provide Board members with additional input validating the ability and readiness of a candidate to manage projects at a higher level. The certification candidate is asked to provide the following references with the certification application:

- Federal AE for his/her most recent project
- Two professional references (either site manager or supervisor and a co-worker with whom the candidate has worked in the past 5 years)

The procedure for reference checks is administered by the PMCDP.

LEVEL IV

To attain Level IV certification, the candidate must:

- Successfully complete all the Level I, Level II, and Level III requirements
- Be actively assigned or targeted for assignment to a Level IV project
- Satisfy work and developmental activities 4.12.1, 4.12.2, 4.12.3, 4.12.4, 4.12.5, 4.12.6, 4.12.7, 4.12.8, and 4.12.9
- Satisfy behavioral competencies 4.13.1, 4.13.2, 4.13.3, 4.13.4, and 4.13.5
- Unless waived, complete the Certification Review Board (CRB) interview (4.14)
- Provide references for the reference check (4.15)

Note: The following knowledge, skills and abilities (KSAs) have been developed to an expert level at Level III; therefore, candidates do not need to address them at Level IV:

4.1 General Project Management

4.2 Leadership/Team Building

4.3 Scope Management

4.4 Communication Management

4.5 Quality/Safety Management

4.6 Cost Management

4.7 Time Management

4.8 Risk Management

4.9 Contract Management

4.10 Integration Management

4.12 WORK AND DEVELOPMENTAL ACTIVITIES

To attain certification, the candidate must also perform developmental assignments or show experience that demonstrates application of the required knowledge and skill. Information provided should be results-oriented and showcase the impact the Federal Project Director (FPD) had on the project and/or lessons learned. The following are the required developmental assignments:

4.12.1 Work for a minimum of two years as a Level III FPD (or equivalent) OR satisfy equivalency (4.12.1.1).

4.12.1.1 Equivalency: Possess a combination of one year of Level III FPD experience and one year of Deputy FPD experience. A combination of FPD and Deputy FPD experience for two continuous years on the same active, post critical decision (CD)-3 Level III or higher project is acceptable as long as the FPD experience accounts for a minimum of 12 months of that two-year period. The guidance for accepted experience governing this requirement is under **EXPERIENCE: DEPUTY FEDERAL PROJECT DIRECTOR** on page 3-5.

4.12.2 Perform one-year program management duties with 180 days (minimum) at Department of Energy (DOE) Headquarters (HQ). Duties at HQ may be fulfilled non-consecutively in two 90-day details. The CRB, in consultation with the appropriate Program, may waive this requirement for FPDs with more than 10 years of federal experience in project management roles.

4.12.3 Eight years project management experience as a FPD on at least two different projects. The CRB may consider a waiver if the FPD has been assigned for a total of eight years on a single Level III or higher project.

4.12.4 At least three of the candidate's eight years project management experience as a FPD, presented in 4.12.3, must be post CD-3 experience.

4.12.5 At least one year of the three years of post CD-3 experience as a FPD, presented in 4.12.4, must be on a Level III or higher project.

4.12.6 Participate as a member of a project peer review of another FPD's project (i.e., Independent Project Reviews (IPRs), External Independent Reviews (EIRs), independent cost reviews, earned value management validation reviews, etc.).

4.12.7 Lead a project peer review of another FPD's project (i.e., IPRs, EIRs, independent cost reviews, earned value management validation reviews, etc.).

4.12.8 Take a course from the Project Management Career Development Program (PMCDP) curriculum not previously taken, not taken within the last three years, or not taken since the course underwent a major revision.

4.12.9 Take a developmental course of the candidate's choosing. This course does not have to be part of the PMCDP curriculum. The course should focus on an area of improvement.

4.13 BEHAVIORAL

The PMCDP is designed to train and develop both leadership and communication KSAs. FPDs should focus behavioral information on their development as leaders and communicators. Levels II – IV require candidates to address behavioral competencies based on the five Executive Core Qualifications. For each behavioral competency, candidates should use the following format when crafting a response:

- Challenge/Issue
- What I Did
- Benefits to Project
- Outcome/Result

FPDs should focus the response to the following behavioral competencies with specific information demonstrating growth as a leader and communicator beyond their Level III behavioral skills.

One example response is included in Appendix D.

4.13.1 **Leading change.** Certification candidates must demonstrate **expert-level** competence in leading change by explaining how they how they leveraged cutting-edge information (scientific, technological, etc.) to overcome an unexpected obstacle and how they convinced senior management, stakeholders, and/or project team members to accept and implement the necessary changes. Lessons learned and applicability to other projects should be included.

4.13.2 **Leading people.** Certification candidates must demonstrate **expert-level** competence in leading people by describing how they rallied a team to meet project goals after a major project setback. The description should include examples of building moral, encouraging teamwork, facilitating cooperation and building trust, in addition to lessons learned and applicability to other projects.

4.13.3 **Producing results.** Certification candidates must demonstrate **expert-level** competence in producing results by providing an example of corrective actions taken when a project was not meeting a baseline. The description should include the results, lessons learned, and applicability to other projects.

4.13.4 **Business acumen.** Certification candidates must demonstrate **expert-level** competence in business acumen by describing how they successfully defended financial, staff, or technological resource requests in an unfavorable economic environment. The description should include tactics used, lessons learned, and applicability to other projects.

4.13.5 **Building coalitions.** Certification candidates must demonstrate **expert-level** competence in building coalitions and communication by describing how they implemented something across organizational boundaries, including the communication strategies, the outcomes, and how they used this experience in other project management situations.

4.14 INTERVIEW REQUIREMENT

Level IV certification candidates must successfully complete DOE CRB panel interviews, unless waived by the CRB. New DOE hires for positions requiring Level IV certification must successfully complete CRB panel interviews, unless waived by the CRB. The CRB may also elect to interview the current site/office manager before interviewing the certification candidate. The procedures for these interviews are issued by the CRB.

4.15 REFERENCE CHECKS

Reference checks may be requested for Level IV candidates to provide Board members with additional input validating the ability and readiness of a candidate to manage projects at a higher level. The certification candidate is asked to provide the following references with the application:

- Federal Acquisition Executive (AE) for his/her most recent project
- Two professional references (either site manager or supervisor and a co-worker with whom the candidate was worked in the past five years)

The procedure for reference checks is administered by the PMCDP.

APPENDIX A
LIST OF ACRONYMS

AE	Acquisition Executive
CAA	Clean Air Act
CD	Critical Decision
CE	Continuing Education
CEG	Certification and Equivalency Guidelines
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHRIS	Corporate Human Resource Information System
CO	Contracting Officer
COR	Contracting Officer's Representative
CRB	Certification Review Board
CSP	Certified Safety Professional
DNFSB	Defense Nuclear Facilities Safety Board
DOD	Department of Defense
DOE	Department of Energy
DOE HQ	Department of Energy Headquarters
EIR	External Independent Review
EM	Office of Environmental Management
EPA	Environmental Protection Agency
ESAAB	Energy Systems Acquisition Advisory Board
ESS	Employee Self Service
EVMS	Earned Value Management System
FAC-P/PM	Federal Acquisition Certification for Program and Project Managers
FAI	Federal Acquisition Institute
FAR	Federal Acquisition Regulation
FEM	Field Element Manager
FMEA	Failure Mode and Effects Analysis
FPD	Federal Project Director
GAO	Government Accountability Office
GPP	General Plant Project
GPRA	Government Performance and Results Act
HQ	Headquarters
HSS	Health, Safety and Security
IDP	Individual Development Plan
IPR	Independent Project Review
IPT	Integrated Project Team
ISM	Integrated Safety Management
KD	Key Decision
KSA	Knowledge, Skills, and Ability
LEED	Leadership in Energy and Environmental Design
LPSO	Lead Program Secretarial Office
M&I	Management and Integrating
M&O	Management and Operating
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
NRC	Nuclear Regulatory Commission

NTB	Near-Term Baseline
OECM	Office of Engineering and Construction Management
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
ORR	Operational Readiness Review
OSHA	Occupational Safety and Health Act
PMCDP	Project Management Career Development Program
PBMC	Performance-Based Management Contracts
PE	Professional Engineer
PEP	Project Execution Plan
PMI	Project Management Institute
PMP	Project Management Professional
POC	Point of Contact
PSO	Program Secretarial Office
QA	Quality Assurance
RA	Registered Architect
RCRA	Resource Conservation and Recovery Act
REA	Requests for Equitable Adjustments
SEB	Source Evaluation Board
SES	Senior Executive Service
SME	Subject Matter Expert
STSM	Senior Technical Safety Manager
TPC	Total Project Cost
TQP	Technical Qualification Program
TSCA	Toxic Substances Control Act
U.S.	United States
USGS	United States Geological Survey
WBS	Work Breakdown Structure

APPENDIX B
CONTINUING EDUCATION REQUIREMENTS

Each person certified under Project Management Career Development Program (PMCDP) is required to successfully complete 80 hours of continuing education (CE) biennially to maintain certification.

Persons certified under PMCDP and Federal Acquisition Certification for Program and Project Managers (FAC-P/PM) may fulfill CE credits through various activities (see Table A-1 on the following pages). The Office of Engineering and Construction Management (OECM) Director or his/her designee will approve CE credits in subjects related to the management of highly technical Department of Energy Projects (DOE) projects. These subject areas may include such topics as project management, accounting, applied mathematics and statistics, engineering, physical sciences, hazardous material management, environmental management, safety, maintenance management, and logistics.

Table A-1 Continuing Education Credit Assignments

	Continuing Education (CE) Opportunity Description*	Unit	=	DOE CE Credit Hours
TRAINING/EDUCATION	Attendance at academic courses at an accredited college or university	1 semester credit 1 quarter credit	= =	15 9
	Audited academic courses at an accredited college or university	1 semester credit 1 quarter credit	= =	5 4
	Instructing at an accredited college or university	1 semester credit 1 quarter credit	= =	10 9
	Online training geared toward continuous learning and planned as part of individual's professional development. Online training must be supported by a record of completion	1 training hour	=	1
	Audit a PMCDP course and provide feedback.	1 PMCDP course	=	5
PROFESSIONAL ACTIVITIES	Attendance at educational portions of technical meetings, conferences, workshops, and seminars; DOE training; and focused training and short courses provided by commercial vendors	1 hour	=	1 (maximum 7/day)
	Presentations at workshops, conferences, and seminars	1 formal presentation	=	5
	Publication of P/PM/acquisition-related articles, technical papers, etc.	Article, Technical Paper or Analysis * Article or Technical Paper**	= =	10 25
	Professional examination, license, or certification	Year attained	=	40
	Active Association Membership (in relevant subject area or project management association)	Active Membership Association Activity Attended	= =	5/year 1 hour for each 60 minutes

* Article or Technical Paper or Analysis under 5,000 words presented within or outside the DOE.

** Article or Technical Paper of scholarly value of 5,000 words or greater that is formally peer reviewed and published within or outside the DOE

Table A-1 Continuing Education Credit Assignments (Continued)

	Continuing Education (CE) Opportunity Description*	Unit	=	DOE CE Credit Hours
EXPERIENCE	Serve as a Sponsor/Technical Content Advisor/Subject Matter Expert for one or more PMCDP courses (applies to all certified FPDs)	Serves for at least one year	=	15
	Certified Level III or 4 FPD serving as mentor to certification candidate. A formal written mentoring agreement is required for the mentoring development activity and is also required to be documented in both mentor and certification candidate Individual Development Plans (IDP). Additionally, Level III and 4 certified FPDs serving as mentors are encouraged to take departmental mentoring courses.	6 months mentoring a certification candidate	=	30
	Credit for Peer Review Participation	Peer Review Preparation and Participation CE hours claimed cannot exceed 32 per peer review		
	Participation as member of a project peer review of another FPD's project (i.e., IPRs, EIRs, independent cost reviews, earned value management validation reviews etc.)	1 work day (team convened)	=	8
	Participation as project peer review team member in preparation for a review of another FPD's project (i.e., IPRs, EIRs, independent cost reviews, earned value management validation reviews)	Maximum per review	=	8
	Serve as an incumbent FPD* (Maximum 10 CE hour credit for 2-year certification period)	1 year	=	5
	Participation on O413.3B Guide Team			
	Team Member	Maximum per review	=	8
	Team Lead	Maximum per review	=	16
	Carryover allowed per certification period. If FPD is certified to a higher level, this will still apply.	Maximum carryover	=	20
	Provide a Project Lessons Learned to the Lessons Learned Database	Must be approved by OECM	=	3
	Develop a Lessons Learned Study for PMCDP course		=	5
	Develop a Case Study for PMCDP course		=	8

* Incumbent FPDs are those formally appointed to direct capital assets in accordance with DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets.*

APPENDIX C
TOOLS AND RESOURCES

DOE's Corporate Human Resources Information System (CHRIS)/Employee Self Service (ESS) System

OECM has a tracking system to ensure that all certification candidates meet the competency requirements contained in this CEG. Documentation of competency requirement completion must be recorded in the DOE CHRIS/ESS PMCDP training module and included in the employee's record of qualifications.

Persons assigned as Federal Project Directors (FPDs) or who are certification candidates are required to be associated to the PMCDP module in the ESS. Association to this module is considered a personnel action and must be completed by a human capital management representative of the sponsoring Program Secretarial Office (PSO) who has administrator authority to make changes to personnel records.

INDIVIDUAL DEVELOPMENT PLAN (IDP)

Certification candidates, certified FPDs, and their supervisors are expected to know and understand the training and development needs required to maintain certification or to progress to higher levels of certification and project authority. All required training, work and developmental activities, or mentorship must be entered into the candidates' or FPDs' IDP through CHRIS/ESS.

Training. PMCDP courses listed in Section 4 "PMCDP Requirements by Certification Level" are recommended as the method of fulfillment for PMCDP requirements. Certification candidates, certified FPDs, and their supervisors need to plan and coordinate this training in the IDPs to ensure timely progression to higher levels of certification.

Work and Development Activities. The work and development requirements listed in Section 4 "PMCDP Requirements by Certification Level" consist of a variety of activities. The duration of these work and development activities ranges from one to eight years. Certification candidates, certified FPDs, and their supervisors need to plan and coordinate these assignments in the IDPs to ensure timely progression to higher levels of certification.

Mentoring. Mentoring is required for higher-level certification (see Section 4, "PMCDP Requirements by Certification Level" for further details and the PMCDP website for a recommended mentoring plan). This activity provides the FPD with access to experienced DOE FPDs or senior executives who can provide project management guidance and advice in informal, non-supervisory settings.

SUPPORT SYSTEM

As part of the PMCDP effort and other requirements under DOE Order 361.1B, Program Secretarial Officers and field element managers establish project management support offices ("homerooms") for the professional development of DOE FPDs and other associated project management personnel. These PMCDP homerooms provide training and work/development activities by communicating lessons learned, establishing mentoring programs, exchanging ideas, conducting technical presentations and workshops, and tracking career paths.

APPENDIX D
SAMPLE COMPETENCY STATEMENTS FOR EACH CERTIFICATION LEVEL

LEVEL I

Training Competency

Competency 1.1.1

If you have completed the PMCDP course:

In ESS, choose "PMCDP Course" as method of competency fulfillment; choose *Project Management Systems and Practices in DOE;* enter dates of course participation (i.e., 3/10/2007 - 3/12/2007); choose verification method: Course Completion Certificate.

OR, if you have not taken the class, describe equivalent experience:

In ESS, choose "Equivalency" as method of competency fulfillment. Choose "Experience." Enter the justification and choose a verification method.

Equivalent Experience:
Over the past 20 years, I have been responsible for accomplishing increasingly complex and high value projects through project planning, controlling, executing, and reporting and managed at least 10 projects from planning/start-up through close-out. As the FPD for the XXX Facility Project, (mm/yyyy - mm/yyyy) I wrote the XXX site manual detailing the integration of DOE O 413.3B in all projects, including the expected roles and responsibilities. Also, I have been a member of two integrated project teams (IPTs), and the leader of three IPTs since joining DOE.

Equivalent Experience Example:
I was the FPD for the DOE XXX Project (1/1/1999 – 12/31/2001) and the DOE XXX Facility (1/1/2002 – 3/3/2003); both projects went from critical decision (CD)-0 through CD-3. For all projects, I managed project resources, established milestones and schedules, authorized work, and acted as a COR. I was the program manager (project director equivalent in the U.S. Army) for the U.S. Army XXX Refurbishment and XXX Facilities Upgrade projects, 1/1/1995 – 2/2/1998); both projects went from CD-1 through CD-4 (equivalent phases).

Equivalent Experience Example:
As the subject matter expert in XXX, I participated as a member of the IPT for the XXX Project. I worked closely with the FPD for XXX years and assisted the team in all efforts applicable to my role as XXX. I am knowledgeable of DOE O 413.3B Change 1 that details the roles and responsibilities of the federal project director, the critical decisions of the project and how the IPT is integral to the success of the project. I worked with the FPD as a liaison with the Management and Operations (M&O) contractor and participated in the site project management council, made up of all program elements on this Lead Program Secretarial Office (LPSO) site.

Experience Competency

Competency 1.12.1

In ESS, choose status "Designation of Equivalency" as method of competency fulfillment. Choose "Experience," enter justification and choose verification method that is applicable.

Experience:
I have four years of experience as a project engineer/IPT member at the XXX Facility Project (mm/yyyy – mm/yyyy); project phases ranged from CD-0 through CD-4. My roles included acting as the subject matter expert in seismic design and construction. I interfaced with the IPT, produced seismic documents for stakeholder and regulatory bodies, such as the Defense Nuclear Facilities Safety Board (DNFSB) and the state environmental departments.

OR, if you hold a current Project Management Professional (PMP) or certification:

In the ESS PMCDP module, choose status "Designation of Equivalency" as method of competency fulfillment. Choose equivalency "PMP," enter PMP number in justification and choose verification method: Professional Certificate/License.

IF YOU HAVE A CURRENT PMP, YOU ARE NOT REQUIRED TO PROVIDE EXPERIENCE DETAILS FOR THIS COMPETENCY.

OR, if you hold a Professional Engineer (PE) or Registered Architect (RA) license:

In ESS PMCDP module, choose status "Equivalency" as method of competency fulfillment. Choose equivalency "PE or RA License," enter PE or RA number in justification and choose verification method: Professional Certificate/License.

IF YOU HOLD A PE OR RA LICENSE, YOU ARE NOT REQUIRED TO PROVIDE EXPERIENCE DETAILS FOR THIS COMPETENCY

LEVEL II

Training Competency

Competency 2.1.3

If you have not taken the class, describe equivalent experience:

In ESS PMCDP module, choose status "Designation of Equivalency" as method of competency fulfillment. Choose equivalency "Experience." Enter the justification and choose a verification method.

Equivalent Experience:
I am very experienced in problem solving, conflict resolution, and facilitation. For the XXX Project, there was a problem between the project and the stakeholders over engineering seismic construction methods on one of the fabrication facilities. I facilitated a workshop of stakeholders, regulators, and contractors in 2006 to establish a path forward. This major effort resulted in bringing diverse points of view around to a common set of goals and objectives. On the XXX Project, there was an employment conflict on the IPT in my tenure as DOE project director. I met separately with the conflicting parties and listened to their complaints and grievances. I then devised a plan of reconciliation and presented to both parties. While neither party wanted to admit that they had compromised in order to reach a settlement, both eagerly accepted the path forward. These parties had no further employment conflicts during my tenure as FPD and they worked harmoniously with the rest of the IPT.

Experience Competency

Competency 2.12.1.1

If the candidate does not have the requisite two years of experience as Level I FPD, show equivalency:

In ESS PMCDP module, choose status "Equivalency" as method of competency fulfillment. Choose equivalency "Experience," enter justification and choose verification method that is applicable.

Sample Experience Statement:
Position: 4/1984-5/1984: Civilian project director working for the Department of Defense (DOD)/United States Army. See attached documentation stating I was the Project Director.

Project: U.S. Army Ft. Bragg Refurbishment and Ft. Hood Facilities Upgrade projects, TPC of $19M, a Level I project.

What I did: I was totally responsible for this capital asset construction project. I was assigned at the end of preliminary design and brought the project through completion and delivery to the Army. I was responsible for all budget, cost and schedule, and working with the contractor on all contract issues (this was a firm fixed price contract). I was the COR and worked closely with the CO to ensure that work was performed within scope of the contract.

Position: 12/2008- Present: DOE Deputy FPD. See separately provided documentation formally designating me as deputy project director.

Project: XYZ Project, TPC of $250M.

What I did: I was assigned as the Deputy FPD for this project on 12/2008; the project was awarded CD-3 status on 12/2009. As deputy FPD, I am the head of the IPT for the overall project. Presently, I am responsible for the construction of Building 7, a completely separate and distinct facility within the overall XYZ Project. Building 7's construction began at the same time the overall XYZ Project was awarded CD-3 (12/2009), and construction on this building is expected to conclude sometime in late 2011. I am fully responsible for the cost, schedule and scope of Building 7's construction efforts – this sub-project's TPC is approximately $27 M. Photos of the building and the Project Execution Plan (PEP) listing me as the deputy FPD are included with the profile.

Behavioral Competency

Competency 2.13.2

Sample Experience Statement:

Challenge/Issue:
The XYZ Project required an expedited shipment of 20,000 drums of low-level waste for disposal to satisfy project schedule and budget milestones. However, state regulators had delayed shipment, stating there was not sufficient data to support the proposal as an appropriate disposal site.

What I Did:
My good people relations were key to the success. I convened the IPT to quickly provide in-depth responses to state regulator queries. Although this was an intensive and immediate effort, I had already cultivated a good working relationship with IPT members by recognizing individual and team performance through in-place reward systems, resulting in high morale and trust within the team. I also made sure all of my team members were informed of relevant information and I maintain an "open door" policy with my team. After the required information was provided, I held on-site meetings at the proposed site with site officials and state regulators to demonstrate that the site had been thoroughly researched, and that it was an appropriate disposal site.

Benefit to Project:
As a result of my efforts and a dedicated IPT, the site was able to accept this waste for disposal and the project achieved a significant waste management milestone.

Outcome/Result:
As a result of my success, I was selected to be the Employee Concerns Manager in 2003 and served in this capacity for over four years. This selection reflected management's confidence in my good people relations.

LEVEL III

Training Competency

Competency 3.1.1

If you have not taken the class, describe equivalency:

In ESS PMCDP module, choose status "Designation of Equivalency" as method of competency fulfillment. Choose equivalency "Experience." Enter the justification and choose a verification method.

Equivalent Experience:
I have participated in an IPT that established strategic planning goals and conducted project portfolio analysis. Due to the high dollar value and the large scope of the XXX Project, I implemented a full program management approach. I employed a systems engineering approach to consider the large number of technical issues that had to be addressed over 42 properties. I assembled three interdisciplinary teams early in the project composed of members with experience and degrees in civil engineering, ground water hydrology, health physics, geotechnical engineering, regulatory compliance, and cost and scheduling. I acted as the team leader for the three interdisciplinary teams and broke the work down to the work package level, and then plans were made followed by resource loading the different activities. Each property was planned and implemented as an individual project; I managed the projects as a portfolio in a manner similar to that of a headquarters program manager. The project came in under budget and ahead of schedule.

Experience Competency

Competency 3.12.1

In ESS PMCDP module, choose status "Equivalency" as method of competency fulfillment. Choose equivalency "Experience," enter justification and choose verification method that is applicable.

Sample Experience Statement:

Position: Project director

Project: XXX Project, TPC $99M, a Level II project, from Key Decision (KD)-1 approval, 6/1986 until KD-3/B 12/1991. See attached documentation stating I was the Project Manager (FPD equivalent).

What I did: I was totally responsible for the IPT, cost and schedule. I prepared the Project Plan and Acquisition Plan for this project. Since this project was a joint venture with XX Program Office, I had intensive contacts with the two HQ program offices to ensure that everyone was briefed on cross program issues and project progress. I also spent a great deal of time working with the local and state stakeholders, as well as the

regulatory oversight organizations. This project was completed six months late, and one percent over budget. Budget over run was primarily due to Congressionally mandated budget cutbacks that caused a major slip in schedule. I was able to re-define scope with the contractor, which made up 6 months on the schedule (off of a 12 month schedule slip) and minor cost increases.

Behavioral Competency

Competency 3.13.5

Challenge/Issue #1:
As the FPD for the XXX Technology and Transportation Project, I was assigned as the DOE representative for international repository research projects. The first challenge involved the limitations in allowable in-situ research in the U.S.

What I did:
I negotiated the scope and funding of the research being done in Switzerland and Sweden to ensure inclusion of parameters of the greatest concern by the geologists of the United States Geological Survey (USGS) and affected states. This involved extensive negotiations with representatives of seven other countries, and commitment of U.S. funding, only when the return-on-investment would be advantageous to the four repository projects in the U.S. The research parameters were assimilated from extensive interactions with the other project directors, USGS, and state geologists and governors' offices from 19 states. This was possible by establishing and maintaining close working relations with all offices.

Challenge/Issue #2:
However, it became apparent that the scope of those international projects could not accommodate our needs entirely.

What I did:
In response to this second challenge, I led collaboration with the program office and other project directors to define the needs for a new research project. I led the team of negotiators of technical experts, contracts personnel, and legal personnel and negotiated U.S. funding of a $10M Exploratory Shaft in Canada. The Canadians had the means to conduct the work and not the resources; DOE has the resources and not the means (specifically, an acceptable site) to perform in in the continental U.S. DOE established the performance requirements, reporting requirements, access to the data, and access to the facility for our technical experts to lead some sub-projects of research.

Benefits to the Project(s):
When originally proposed, this option was considered not feasible but after extensive negotiations and networking, I was able to convince all affected parties to the benefits. By working as a team, the project produced the desired technical data.

Outcome/results:
After completion of the shaft and the first two years of research, DOE extended the contract with the Canadian government and expanded the research program to accommodate issues and areas of concern requiring in-situ demonstration to convince the

regulators and stakeholders of the advantages of proceeding with the repository program. Arrangements were made for real-time access to performance data and input through review and comment on the technical reports produced.

LEVEL IV

Experience Competency

Competency 4.12.1

In ESS PMCDP module, choose status "Equivalency" as method of competency fulfillment. Choose equivalency "Experience," enter justification and choose verification method that is applicable.

Minimum two years as Level III Project Director:
XXX Project, TPC $210M, 1/2001 – 4/2003, Project Manager (FPD equivalent): See experience documentation submitted under separate cover stating I was the Project Manager. I was totally responsible for the IPT, cost and schedule. I prepared the Project Plan and Acquisition Plan for this project. Since this project was a joint venture with XX Program Office, I had intensive contacts with the two headquarters (HQ) program offices to ensure that everyone was briefed on cross program issues and project progress. I also spent a great deal of time working with the local and state stakeholders, as well as the regulatory oversight organizations. This project was completed six months late, and 1 percent over budget. Budget over run was primarily due to Congressionally mandated budget cutbacks that caused a major slip in schedule. I was able to re-define scope with the contractor, which made up 6 months on the schedule (off of a 12 month schedule slip) and minor cost increases.

Behavioral Competency

Competency 4.13.3

Challenge/Issue:
As the FPD of the XXX Project, I led the development and approval of a project baseline with an estimated schedule of four years and a budget of $4.9M. In the early stages of the XXX work, things went according to plan. In the second year, there were performance difficulties experienced in three particular areas and I initiated a team review to identify the issues.

The first issue involved the XXX technology application; the second came in finding alterations to the XXX design which were not formally integrated in the controlled engineering design specification documents; the third revolved around the XXX criteria and the insistence by the stakeholders that the site be returned to its original condition with no radioactivity left behind.

What I did:
I was able to quickly resolve the first issue by consulting with the technology experts and evaluating previous use experiences. I contracted with an expert consultant who devised the necessary modifications to resolve the application difficulties encountered made equipment adjustments, which increased the effectiveness and reduced the schedule by five months.

With regard to the second issue, I suggested the XXX do a personnel search for the individuals who operated the XXX during its operating period to determine if they were available for interviews. There were four individuals identified and brought in for consultations. They were able to recall several instances where they directed "adjustments" to the design which were not processed as formal design changes because they thought the "adjustments" were not significant enough to merit those formal procedures. The result was a reduction in scope, which saved another 4 months and $900K.

Finally, with regard to the third issue, the project had assumed it was acceptable to reduce the contamination to levels within the Environmental Protection Agency (EPA) criteria for soil and ground water contamination. All other material was arranged for disposition at the XXX disposal site. When estimates were prepared for the green cleanup and shared with the stakeholders, it was determined that the costs exceeded the benefits. I led a team that worked with the appropriate PSOs to determine a programmatic follow-on use for the facility which allowed minimal radioactivity fixation within the high-bay building after project completion, precluded total dismantlement of the building and the new PSO sponsor from having to construct a new facility, and also provided additional jobs for the area and continued funding for XXX.

Benefits to Project:
The project was completed on schedule and within budget.

Outcome/Result:
The lessons-learned resulted in the establishment of a DOE process for evaluating facility re-use options prior to program execution of demolition and deconstruction (D&D) projects.

APPENDIX E
CERTIFICATION REQUIREMENTS AT A GLANCE

PMCDP Certification Requirements at a Glance

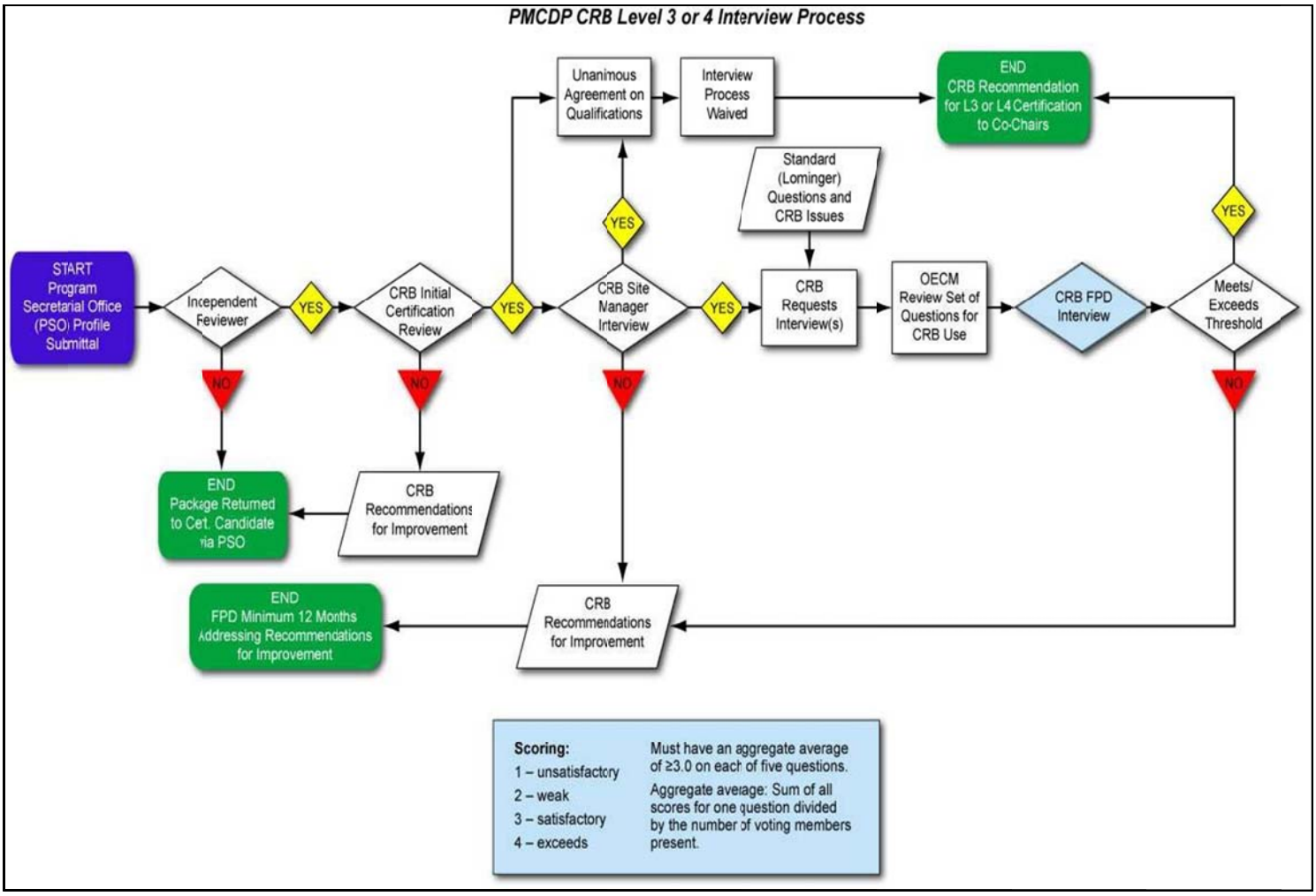
Certification Level	TPC Responsibility Range	Training Courses		Developmental Activities	Experience Years (Time Reqmnt.)
		Core *(CE hours)*	Electives *(CE hours)*		
I	$5-20M	1. Project Management Essentials (70) 2. PM Systems & Practices in DOE (60) 3. Earned Value Management Systems (21) 4. Contracting Officer Representative online course (DAU's CLC222) (22) 5. Project Risk Analysis & Management (25) 6. Managing Contract Changes (28) 7. Planning for Safety in Project Management (25) 8. Acquisition Management for Technical Personnel (32)	**Choose one:** 1. LEED for New Construction and Existing Buildings (18) 2. Capital Planning for DOE 413.3B Capital Asset Projects (14) 3. Performance-Based Management Contracting (21)	1. Project-Engineer or Integrated Project Team Member *(12 months)*	1. Experience in Project Management *(3 years)* 2. One year of project-related roles/experience within last five years* *PMP certification must have been obtained within the last 5 years
II	$20-100M	1. Advanced Concepts in Project Management (50) 2. Project Management Simulaton (35) 3. Project Leadership (21) 4. Effective Program and Project Communications (14) 5. Cost & Schedule Estimation (35) 6. Scope Management/Baseline Development (21)	**Choose two:** 1. Value Management (21) 2. Federal Budget Process in DOE (28) 3. Environmental Laws and Regulations (21) 4. Real Property Asset Management (21)	1. Team Leader/ Supervision Experience *(12 months)* 2. Post CD-3 Experience *(12 months)*	1. Level I FPD experience *(2 years)* 2. Two years of project management experience within the last five years
III	$100- $400M	1. Program Management & Portfolio Analysis (35) 2. Advanced Risk Management (25) 3. Executive Communications (21)	**Choose 1 from each group** **Technical:** 1. Project Execution and Readiness Reviews (21) 2. Systems Engineering (21) 3. Strategic Planning (21) **Communication:** 3. Labor Management Relations (21) 4. Negotiation Strategies & Techniques (21) 5. Facilitating Conflict Resolution (21)	1. Mentored by a certified Level III or IV Federal Project Director *(6 months)* 2. COR Experience *(12 months)* 3. Post CD-3 experience *(24 months)*	1. Level II FPD experience *(2 years)*
IV	Over $400M	1. A course from the PMCDP curriculum not previously taken, not taken within the last three years, or not taken since the course underwent a major revision. 2. A developmental course of the candidate's choosing. This course does not have to be part of the PMCDP curriculum.	Not applicable	1. Program Management (12 months, including minimum of 180 days at HQ) 2. Participate in a peer review of another FPD's project 3. Lead a peer review of another FPD's project	1. Level III FPD experience *(2 years)* 2. Project Management *(Minimum 8 years as an Federal Project Director on at least 2 different projects, & at least 3 of the 8 years post CD-3, & at least 1 year post CD-3 experience on a Level 3 or higher project)*
Total Courses Required: 24		17 Core Courses	13 Elective Courses (5 out of 13 required)	9 work activities	4 experience levels

Updated January 2012

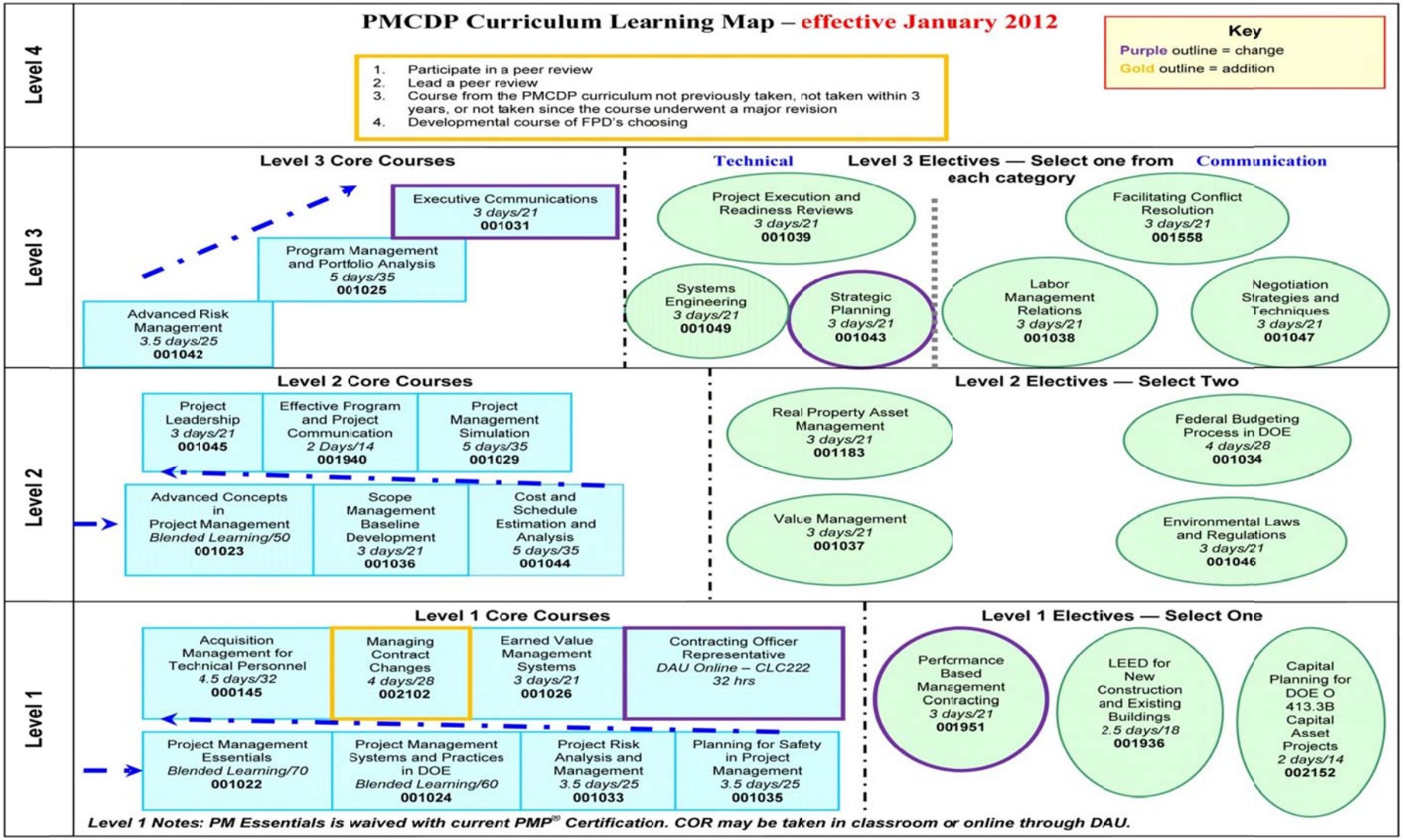
For additional information about the PMCDP, visit the website at http://energy.gov/management/office-management/operational-management/project-management-career-development-program

Activities/courses validated with the Project Management Institute's (PMI) PMP certification are shown in yellow.

APPENDIX F
CRB INTERVIEW PROCESS



APPENDIX G
PMCDP CURRICULUM MAP



APPENDIX H
ACTIONS AND ROLES OF CERTIFICATION REVIEW BOARD (CRB)

The CRB at DOE Headquarters is an independent, autonomous body that evaluates FPD candidate applications and issues recommendations for certification to DOE/OECM and the National Nuclear Security Administration (NNSA) per the requirements of DOE Order 361.1B, Chapter IV and the competencies established by this guide.

CERTIFICATION

To apply for certification, a candidate must be sponsored by his/her respective Program and submit an application with a coversheet containing the signatures of the candidate's site manager and first-line supervisor – a candidate may not self-nominate for certification. These signatures serve as verification that 1) the Program concurs that the candidate is eligible to seek certification and, 2) the information in the application is accurate.

All certification applications are reviewed by an independent reviewer who evaluates the qualifications and experience of candidates and provides analysis to the CRB for consideration prior to a formal vote. If the CRB grants certification, a certificate will be sent to the candidate's Program. If certification is not granted, the CRB will send an explanatory letter to the Program with a summary of key areas for improvement. The certification candidate must wait 12 months before reapplying.

APPEALS

An applicant denied certification may appeal in writing to the CRB Co-Chairs. The applicant should include a justification for reconsideration, a copy of the package submitted to the CRB, and any other relevant documentation to justify the appeal. Because any denial by the CRB is accompanied by recommendations on training and work/development activities to complete before again seeking certification, the justification must state why the recommended additional training and work/development activities are not warranted.

The OECM Director has discretion to establish a panel to review an appeal. Such appeal panels have at least three members, one representative from the PSO, one from DOE Headquarters Office of Human Capital Management, and one from a field office. To ensure an independent and unbiased assessment of the appeal, panels do not include anyone associated with OECM or with the field office of the applicant appealing the CRB decision.

The applicant who appeals a CRB decisions unsuccessfully may complete the CRB-recommended remedial action and reapply to the CRB for certification. There is no higher appeal.

Similarly, any applicant denied a recommendation for certification by a local review Board may appeal the decision to the OECM Director who will establish a three-member panel to review the decision. If the local Board's decision is overturned, the applicant's request for certification and documentation package will be forwarded to the CRB with a recommendation for certification.

WAIVERS

The CRB Co-Chairs have approval authority over all waivers. Waivers may be specifically identified work/developmental activities or for an entire certification level. Such waivers are granted only in extraordinary circumstances of long incumbency combined with exceptional performance in managing capital assets. Sponsoring Program Offices are required to present justification to the CRB during a scheduled Board meeting (in person or via teleconference) and prior to submitting the certification application to OECM for review.

INTERIM CERTIFICATION

Participants. Private or public sector professionals hired into project management billets who will assume FPD duties upon entry under DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets* (i.e. formal designation as the FPD on at least one project beyond CD-2) are eligible for interim certification.

Requirements. Interim certification candidates must possess training and experience commensurate with established CRB requirements and be sponsored by one of the CRB Voting Members.

Granting of Interim Certification. The Program's CRB Voting Member is authorized to act on behalf of the CRB and may grant an interim certification that will allow the new hire to be formally assigned to a project in full compliance with DOE Order 361.1B.

- For Programs with permanent CRB voting members, their CRB Voting Member (the Sponsor) must sponsor the interim certification candidate

- For Programs that are ad-hoc or otherwise do not have a permanent voting member on the CRB, OECM will act as the Sponsor and interim certification will be granted by OECM

- Programs must involve their Sponsor in the interview/selection process; the Sponsor reviews the interim certification candidate's credentials during the hiring process and determines that he/she has the experience and qualifications necessary to act as a Level II, III or IV FPD

- The Sponsor will grant the interim certification, be accountable for the interim FPD's performance under interim certification, and assist in formal certification by the CRB

Interim certification is issued with the following qualifiers:

- Interim certification is valid for no more than one calendar year from the official employment start date and cannot be extended by the Sponsor

- Within one calendar year, the interim FPD must go through formal CRB approval; the CRB may extend interim certification if necessary to complete final certification actions

    - No later than nine months after interim certification, the interim FPD must input and submit his/her application to the CRB through the CHRIS/ESS system and request PMCDP certification

    - The Board will follow its standard review process

  - Experience gained during this interim certification year may be credited towards project management experience

- The certification Level cannot be higher than that of the project assigned

- The candidate must attend the next available DOE "Interim FPD Orientation" class

- A formal mentoring arrangement must be established between the Sponsor (and/or an equivalent or higher level FPD assigned by the sponsor) and the interim FPD; the mentoring activity must be entered into the interim FPD's IDP.

DECERTIFICATION AND RECERTIFICATION

Overview

In general, decertification from the PMCDP may be appropriate for non-compliance with DOE Order 361.1B, *Acquisition Career Development Program* or DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets.* A FPD can be decertified for failure to meet continuing education requirements; for falsifying training, personnel, or project records; or for non-performance. Decertification under the PMCDP also results in decertification under the Federal Acquisition Institute (FAI).

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Decertification

Under DOE Order 361.1B: FPDs who fail to meet their biennial 80 hour CE requirement are given a 90-day notification of pending revocation of certification. FPDs who do not wish to lose their certification must have their Programs submit a formal request to the CRB co-chairs. The request must include an explanation of the extenuating circumstances leading to the failure to meet the requirement and a remedy plan to satisfy the requirement within 90 days of notice. If the Program does not submit a request or if the co-chairs deny it, the CRB will revoke the certification at the end of the 90-day notification period.

Under DOE Order 413.3B: DOE Order 413.3B assigns the FPD the responsibility of successful project execution with project performance assessed by the Program and Office of Engineering and Construction Management. In extreme cases, if a project's failure is attributed to insufficient FPD performance, the Program may remove the FPD from the project and request the CRB decertify the FPD. A Program's decertification request must be in writing and include the basis for the decertification action.

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Recertification

Under DOE Order 361.1B: FPDs decertified under DOE Order 361.1B may not petition the CRB for recertification earlier than one year after decertification. Requests for recertification will be considered by the CRB only after the condition(s) resulting in the decertification action have been addressed and adequate controls are put in place to prevent reoccurrence. The Program must provide documentation that the deficiency has been addressed, a plan to ensure that the deficiency will not reoccur, and the original certification package. All of these items will be taken into account when the FPD is considered for recertification.

Additionally, the FPD will work with his/her supervisor to accumulate CE hours based on:

- new FPD certification requirements since the original certification was granted
- skill gaps or development goals
- project assignment

Under DOE Order 413.3B: FPDs decertified under DOE Order 413.3B may not petition the CRB for recertification earlier than two years after decertification. Requests for recertification will be considered by the CRB only after the recertification candidate completes actions directed by his/her Program and the CRB co-chairs. Recertification is contingent on adequate controls being put in place to prevent reoccurrence of the conditions that resulted in the decertification action.

CURRICULUM REVIEW

The PMCDP's Curriculum Review Board meets during the summer to identify potential changes to PMCDP courses and FPD certification requirements based on DOE and federal policy; best practices in project management; participant, instructor, auditor, and technical content advisor input; and workforce development needs. The proposed changes are submitted to the Certification Review Board (CRB) for review and approval. Once approved, the changes become effective January 1st of the next calendar year. This four-to-five month period between CRB approval and enactment allows PMCDP the opportunity to give ample notice to the FPD community of impending changes. This timeframe also permits candidates who do not want to be subject to the new requirements to finish their packages and submit them to their Programs for review and approval.

ENDNOTES

[i] DOE Order 361.1B *Acquisition Career Management Program*
https://www.directives.doe.gov/directives/361.1-BOrder-b/view

[ii] FAC-P/PM

[iii] Acquisition workforce is defined in OFPP Policy Letter 05-01 section 5
http://www.whitehouse.gov/omb/procurement_policy_letter_05-01

[iv] Major Acquisitions are defined in OMB Circular A-11, Part 7, Exhibit 300

[v] FAC-P/PM section 6.c.1
http://www.whitehouse.gov/sites/default/files/omb/procurement/workforce/fed_acq_cert_042507.pdf

[vi] DOE Order 413.3B *Program and Project Management for the Acquisition of Capital Assets*
https://www.directives.doe.gov/directives/413.3-BOrder-b/view

[vii] FAC-P/PM section 6.c.2
http://www.whitehouse.gov/sites/default/files/omb/procurement/workforce/fed_acq_cert_042507.pdf

[viii] FAC-P/PM section 6.c.3
http://www.whitehouse.gov/sites/default/files/omb/procurement/workforce/fed_acq_cert_042507.pdf