

*One Team. One Culture.*

Management Plan

## **PRC-MP-TQ-011**

### **CH2M HILL Plateau Remediation Company (CHPRC) Qualification and Training Plan**

Revision 1, Change 7

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USQ Screen Number:

- Solid Waste Operations Complex : Excluded from USQ  
**Exclusion Reason:**  
Excluded per PRC-PRO-NS-062, Rev. 2-0, Appendix B, Bulleted List.
- Canister Storage Building/Interim Storage Area : Excluded from USQ  
**Exclusion Reason:**  
Excluded per PRC-PRO-NS-062, Rev. 2-0, Appendix B, Bulleted List.
- Central Plateau Surveillance and Maintenance : Excluded from USQ  
**Exclusion Reason:**  
Excluded per PRC-PRO-NS-062, Rev. 2-0, Appendix B, Bulleted List.
- Waste Encapsulation Storage Facility : Excluded from USQ  
**Exclusion Reason:**  
Excluded per PRC-PRO-NS-062, Rev. 2-0, Appendix B, Bulleted List.
- 100 K Facility : Excluded from USQ  
**Exclusion Reason:**  
Excluded per PRC-PRO-NS-062, Rev. 2-0, Appendix B, Bulleted List.
- Less Than HazCat 3 : Excluded from USQ  
**Exclusion Reason:**  
Excluded per PRC-PRO-NS-062, Rev. 2-0, Scope.
- Plutonium Finishing Plant : Excluded from USQ  
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- Transportation : Excluded from USQ  
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## CHANGE SUMMARY

### Description of Change

Revisions include reference updates and improving the procedure's clarity.

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**1.0 INTRODUCTION**

The CH2M HILL Plateau Remediation Company (CHPRC) Qualification and Training (Q&T) Plan describes a training management system to meet the technical, organizational, and professional development training requirements, regulations, and directives specified in the CHPRC contract with the Department of Energy (DOE). The CHPRC Q&T programs are designed to promote adherence with the Integrated Safety Management System/Environmental Management System (ISMS/EMS), supports the Voluntary Protection Program (VPP), and promotes a strong, safe work environment. This Q&T Plan applies to CHPRC scope of work and describes how training is accomplished to maintain a qualified and trained work force capable of performing assigned work activities safely and compliantly. The Q&T Plan directly supports the following related documents:

- CRD O 426.2, *Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities*
- DE-AC06-08RL14788, *CH2M HILL Plateau Remediation Company Management Contract*
- PRC-MP-EP-40182, *Environmental Management System Manual*
- PRC-MP-MS-003, *Integrated Safety Management System/Environmental Management System Description (ISMSD)*
- PRC-MP-MS-19361, *CH2M HILL Plateau Remediation Company Project Execution Plan*

**2.0 REQUIREMENTS FOR TRAINING PROGRAMS****2.1 Requirements Identification, Flow Down, and Implementation Process**

The CHPRC is required by 10 CFR 830.122 (e), *Quality Assurance – Training and Qualification*, to “perform work consistent with technical standards, administrative controls to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means.”

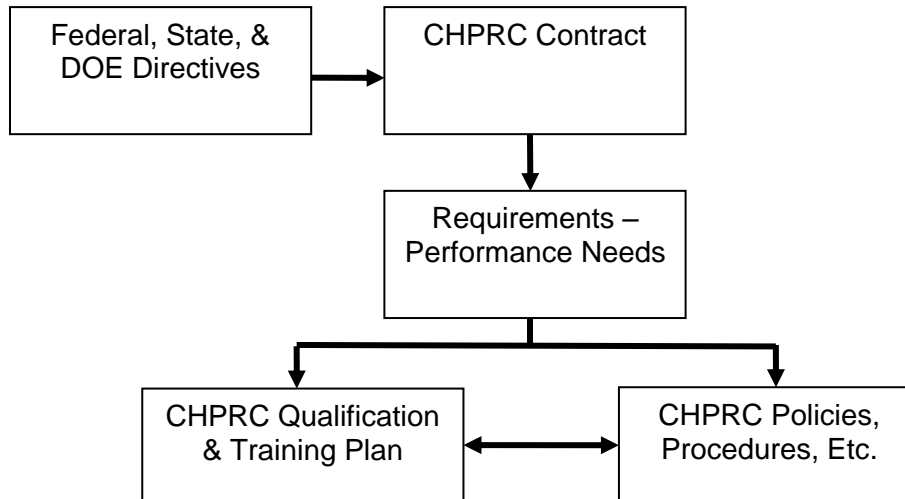
The CHPRC document hierarchy flows the requirements down from source documents specified in the CHPRC’s contract into a set of plans, procedures, and other documents that implement the requirements. This structure is depicted in Figure 1, *CHPRC Training Requirements Flowdown Model*.

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Figure 1 – CHPRC Training Requirements Flowdown Model



Examples of document types to address training requirements and processes include:

- Policies - Policies are guiding principles that influence or determine decisions or actions. Policies are used to present a broad statement of values, principles and acceptable business practices.
- Plans – Plans are used to present a program or system description. They may vary in content but generally address the contractual drivers, major functions or systems, personnel roles and responsibilities, and interfaces with other programs or organizations.
- Procedures – Procedure are documents that present a series of steps to be followed or applied.

### 2.2 Technical Authorities (TAs)

To ensure the training content and processes are compliant with the requirements and meet the needs of the functional organization, the CHPRC has assigned TAs to review and approve, when necessary, the training material and processes related to their respective technical area.

### 2.3 Personnel Required Training Identification Process

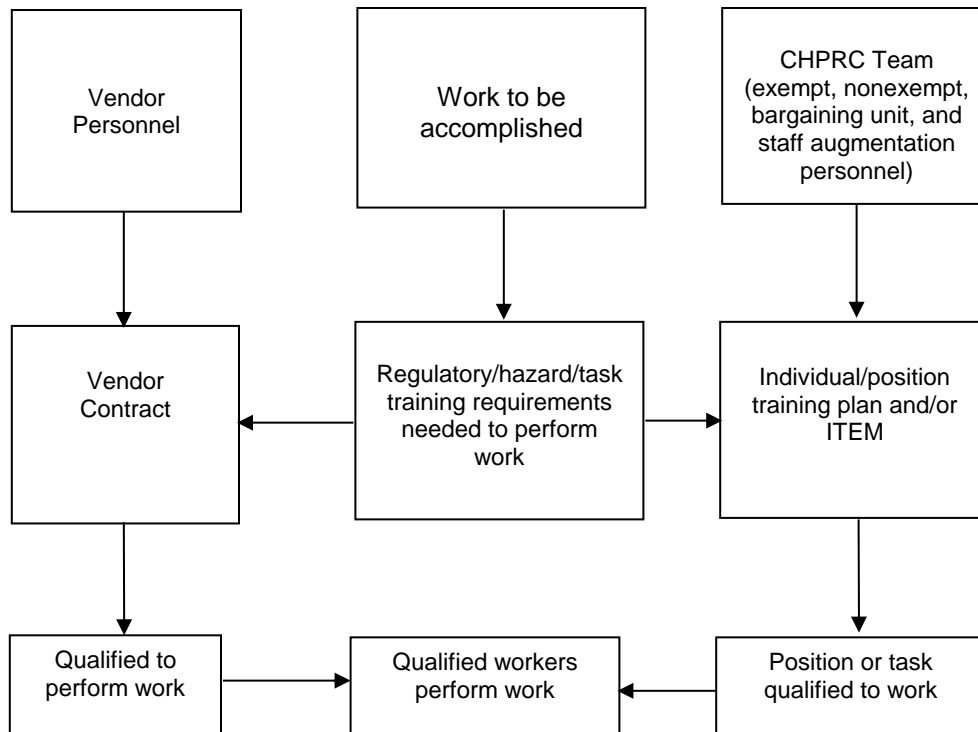
Personnel are trained in accordance with approved procedures and policies that address the CHPRC contractual training requirements. Also, Management may establish additional training requirements to meet specific performance or developmental needs of their organization. An overview of this process is depicted in Figure 2, *Required Training Identification Process*.

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Figure 2 - Training Requirements Identification Process



### 2.4 Graded Approach

A graded approach is applied to the administration of CHPRC training. Graded Approach is defined as the level of detail applied for analyses, documentation, and actions necessary to comply with requirements and performance needs and is commensurate with:

- the relative importance to safety, safeguards, and security
- the magnitude of any hazard involved
- the life cycle stage of a facility
- the programmatic mission of a facility
- the particular characteristics of a facility
- other relevant factors

Satisfactory personnel performance is the method used to determine if the appropriate level of the graded approach has been applied. Monitoring of personnel is part of the feedback and management assessment processes and training activities are adjusted as necessary.

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The CHPRC is required to have an approved Training Implementation Matrix (TIM) for a nuclear facility. A TIM identifies which requirements of CRD O 426.2 are applicable and allows exceptions when clarification has been provided. Initial TIMs are approved by DOE prior to operation of new nuclear facilities. Subsequent changes to the TIM, if editorial in nature per the Department of Energy Richland Operations Office (DOE-RL) guidance, are forwarded to DOE for information.

**2.6 Dangerous Waste Training Plan (DWTP)**

The DWTP describes how the CHPRC meets the requirements of WAC 173-303-330, *Dangerous Waste Regulations, Personnel Training*, which are described in the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, in the unit-specific portion of the Hanford Facility Dangerous Waste Permit Application.

In accordance with WAC 173-303-330(2), the training plan contains the following:

- For each position related to dangerous waste management at the facility, the job title, the job description, and the name of the employee filling each job. The job description must include the requisite skills, education, other qualifications, and duties for each position.
- A written description of the type and amount of both introductory (initial) and continuing (refresher) training required for each position.
- Records documenting that personnel at the facility have received and completed the required training.

**3.0 ROLES AND RESPONSIBILITIES****3.1 U.S. Department of Energy (DOE)**

The DOE-RL is the regulatory authority for compliance with CRD O 426.2 and has oversight responsibility of the CHPRC training programs. DOE-RL reviews and approves CHPRC TIMs prior to operation of new nuclear facilities, and changes to CRD O 426.2 when transmitted to CHPRC by the DOE Contracting Officer.

**3.2 CHPRC Management**

CHPRC management has overall responsibility and authority for the content and effective conduct of the training and qualification program(s) within their functional areas. CHPRC management assigns TAs to assist Training in the development of procedures, policies, and training material for their respective functional areas.

Management ensures sufficient resources are available to support the training effort and ensures attendance at required training sessions. Management ensures approved policies, plans, and procedures are implemented and promote a graded approach to training. Training provided by outside training suppliers (e.g., subcontractor, vendor) in support of CRD O 426.2 specified qualification or certification meets the same basic requirements for development, implementation, student evaluation, and documentation as the training provided by the CHPRC.



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CHPRC managers are responsible for ensuring the following:

- Personnel are qualified to perform the assignment and maintain their qualification and proficiency
- Communicate management training expectations for job performance
- Approve tasks related to training
- Interface with the Training Organization through project/facility points of contact and management interfaces or other effective methods
- Review and analyze facilities' operating performance related to training
- Provide feedback to CHPRC Training and facilities/projects' training on employee work performance
- Help determine if training is the appropriate method for correcting identified performance deficiencies
- Participate in training assessments or evaluations as identified in the program plans

### **3.3 Technical Authorities (TAs)**

TAs identify “new or revised” requirements for training, provide oversight and interpretation of training requirements in their functional areas, and approve (as the TA) procedures, policies, and training material developed by the training organization to satisfy the requirements.

### **3.4 Training Manager**

The Training Manager is responsible to implement training processes across the CHPRC project. The Training Organization provides the Functional Managers (FMs) with the necessary support to ensure that the requirements of CRD O 426.2 are adequately implemented for the Operating Organization. The Training organization implements other training as necessary, to provide employees with the skills and knowledge to perform new tasks and assignments in support of DOE initiatives for environmental restoration, or to improve employee performance and effectiveness.

The Training Manager is responsible for the following:

- Ensuring individual training records, program plans, and course information are easily auditable
- Coordinating vendor provided training, e.g., Hanford Site Training Contract
- Acting as the principal liaison with DOE-RL for the training functional area
- Establishing, maintaining, and assessing the training management systems and administrative processes
- Establishing instructor qualifications
- Ensuring instructional staff, including subcontract personnel, are qualified
- Maintaining a process for course scheduling and student training registration

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- Ensuring the systematic approach to training (SAT) is applied for training CRD O 426.2 required training programs
- Assisting training lead and line management in identifying individual and position training requirements
- Performing management assessments using applicable DOE-STD-1070-94, *Guidelines for Evaluation of Nuclear Facility Training Programs*, objectives and criteria
- Incorporating management expectations into training materials
- Monitoring instructional and technical performance of instructors

The Training Manager is the TA for the CRD O 426.2 related training and qualification functional area.

- The Training TA reviews and concurs with the updates and revisions of the facilities' TIMs.
- The Training Manager also serves as the FM for CHPRC training administration and processes.

**3.5 CHPRC Project/Facility Training Leads**

The CHPRC project/facility Training Leads:

- Assist line management in identifying training needs based on requirements, TIM, DWTPs, hazards, tasks, and/or performance needs
- Ensure update of training material to reflect changes such as modifications to the facility, safety requirements, procedures, and regulations, and pertinent lessons learned prior to instruction
- Identify and document training needs and provide feedback for program improvements
- Develop and/or conduct facility training per CHPRC procedures and other related guidance
- Ensure trainees meet prerequisites to participate in training
- Incorporate management expectations into training materials
- Monitor training effectiveness and evaluate trainees
- Monitor performance and ensure qualification of facility instructional staff
- Perform designated functions as delegated by the Training Manager
- Ensure subcontractors providing services to their facility meet specified requirements

**CH2M HILL Plateau Remediation Company Qualification  
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CHPRC personnel are responsible for completing their required training and monitoring qualification status to ensure required training elements do not lapse.

**3.7 Other CHPRC Organizations**

Some training activities will be prepared and presented by non-training organizations (Human Resources, Safety, Security, Quality Assurance, Supply Chain, etc.). These organizations are responsible for the respective training provided in those areas.

**3.8 CHPRC Training Interface**

The training organization has yearly training and qualification program reviews via the ESRB, and conducts monthly training meetings with respective management at the project/facility level to review expectations, priorities, and upcoming commitments to ensure the following attributes are met:

- Implement standard and consistent CHPRC training processes and procedures support training needs
- Ensure continuous improvement is applied to the training administration and processes
- Provide a forum and process for resolving training issues
- Monitor training standards and regulations
- Enhance information exchange between CHPRC training groups

**3.9 Hanford Site Training Center of Expertise**

The mission support contractor (MSC) hosts a Hanford Site Training Center of Expertise (TCOE) to provide a forum for the site contractors to communicate and identify common training opportunities for improvement where time and cost can be reduced and quality increased. The CHPRC supports this forum by providing a knowledgeable representative at the TCOE meetings.

**4.0 TRAINING PROGRAM ADMINISTRATION AND IMPLEMENTATION****4.1 Training Policy**

The CHPRC training policy, PRC-POL-TQ-11337, *Employee Training*, conveys a corporate message that training directly supports the Integrated Safety Management System/Environmental Management System (ISMS/EMS) Guiding Principle of: Competence Commensurate with Responsibility, the VPP tenets, and promotes a Safe Work Environment. A full description of this policy is described in PRC-POL-TQ-11337.

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### 4.2 Personnel Qualification and Training Process

#### 4.2.1 Personnel Selection

The personnel selection process ensures that an individual's previous background, education, and experience meet the minimum entry-level education and experience for a job position. The FM determines the minimum education and experience requirements using requirement references and evaluation of operational needs. The FM also determines whether the individual's previous background, education, and experience meet the entry-level education and experience and accepts the individual into the position.

Personnel who do not meet these requirements may be placed in the position provided the FM provides a justification in accordance with PRC-PRO-TQ-40164, *Personnel Qualification and Training*.

Qualification of operators and their immediate supervisors is valid for a period not to exceed two years unless revoked for cause (e.g., medical disqualification, and performance deficiencies).

#### 4.2.2 General Employee and Visitor Training

General Employee Training (GET) is designed to orient employees with the company, its policies, safety culture, and basic job-related knowledge. Examinations are administered, when required. It also provides refresher training when there are significant changes and annually or biennially based on requirement drivers. Typically, GET consists of a combination of Hanford General Employee Training (HGET), Employee Orientation, and the respective Facility Orientation. Changes that affect GET are incorporated into continuing training programs, updated within GET, and distributed to employees through bulletins, etc., or a combination of all.

HGET includes the following elements applied commensurate with the job duties of personnel:

- General description of facilities
- Job related policies, procedures, and instructions
- Radiological Health and Safety programs
- Facility emergency plans
- Industrial safety/hygiene program
- Fire protection program
- Security program
- Quality Assurance program
- Criticality Safety

For persons requiring long-term (e.g., more than 7 working days) access, understanding of the information provided by the GET program must be evaluated by administering a written examination (includes computer and web based training examinations). The GET examination covers areas selected for training and is of sufficient difficulty to ensure persons have adequate knowledge to work independently at the facility. All hazard identification and safety signage on the written examination must be identical in appearance and language as it exists at the facility. Persons who do not pass this examination are not permitted access without a continuous escort.

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### 4.2.3 Training Program Descriptions

Training program descriptions provide an overview of the elements of a training program or the means to achieve qualification for a respective position or function. They typically apply to select CRD O 426.2 qualification areas, specialized functions, or are required by MSC specified programs. Training program descriptions typically have the following elements, as applicable, to the respective program:

- Entry-level education and experience
- Initial training and qualification requirements
- Continuing training requirements
- Requalification requirements
- Examination requirements
- Remediation process
- Disqualification limitations
- Medical requirements
- Proficiency requirements

Training program descriptions (TPDs) aid FMs in identification of required training for personnel that is included in individual training plans. The CHPRC is contractually required to utilize a select set of training courses or program elements provided by the MSC. The CHPRC works closely with the MSC to ensure that these training elements are consistent with the CHPRC needs and requirements. The MSC Training Program Descriptions utilized by CHPRC are listed below and can be accessed via the WEB link listed below. Liaison activities include a joint review of the specified training programs/elements and modify the TPDs as necessary.

MSC Training Program Descriptions:

<http://msc.rl.gov/rapidweb/Training/index2.cfm?FileName=/docs/7/docs/TrainingProgDesc.htm>

- *Beryllium (MSC) TPD*, TPD-0002
- *Electrical Safety (MSC) TPD*, TPD-0040
- *Fall Protection (MSC) TPD*, TPD-0039
- *Hanford Site Radiological Worker*, DOE-0357
- *Hanford Site Core Radiological Control Technician Qualification*, DOE-0358
- *HAZWOPER TPD*, DOE-0355
- *HGET TPD*, DOE-0356
- *Hoisting and Rigging (MSC) TPD*
- *Instructional Staff (MSC)*, TPD-0017
- *Lockout/Tagout (MSC) TPD*, TPD-0038
- *Respiratory Protection (MSC) TPD*, TPD-0032
- *Engineering Selection, Qualification, and Training*, PRC-PRO-EN-20051
- *OCRWM Personnel Training*, PRC-PRO-QA-20765,
- *Quality Assurance Engineer Training and Qualification*, PRC-PRO-QA-40102

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The training program descriptions for CHPRC can be found in the training and qualification virtual manuals section of PPS (please see link below).

CHPRC Training Program Descriptions:

<http://prc.rl.gov/pps/virtualManual.cfm/topicalAreas/TQ>

### 4.2.4 Individual Training Plan

The responsibility to define the required training for a particular position or function lies with the FM. The identified required training is input into the Enterprise Learning Management (ELM) system to build an individual training plan for their subordinates. The ELM system is a component of the training support systems that collectively comprise the Integrated Training Electronic Matrix (ITEM). ITEM provides management a method to track required training to ensure personnel remain current for training necessary to perform work safely and effectively. The responsibility for completing required training identified in the training plan lays with the individual and his/her respective manager/supervisor. Line management identifies employees who will perform the tasks and require the training, and ensures that those personnel complete the training before being assigned work activities.

Much of the training at Hanford is requirements-driven by various laws, regulations, and DOE directives. Examples of this include industrial safety training, hazardous and radioactive material handling training, and nuclear operations training. The required training to meet these requirements is identified and approved by the various TAs. The training required is determined by potential hazard exposure and/or the tasks being performed.

In addition to regulatory training, management may identify other training activities to ensure employees are cognizant of various legal ramifications associated with work assignments or conduct. Examples of this type of training include subjects on Human Resources (e.g., sexual harassment) and Industrial Relations (e.g., working hours). Senior and/or line management will identify which individuals should attend such training. The decisions are generally based on the individual's duties.

Functional managers may also assign other needs-driven training in areas such as professional development to improve an employee's efficiency and effectiveness. Examples of this type of training include secretaries who need to maintain proficiency with the latest software, engineers who need to understand the new technology, and managers who need to improve communication skills. Other examples are training for personnel changing assignments, or classes on subjects such as time management. The driver for these classes is management directed to improve personnel performance.

### 4.2.5 Initial Training

Initial training is designed to provide personnel the knowledge and skills to perform their respective job and is listed in their training plan. Personnel are typically identified as "in training" for the first six months while completing initial training.

Personnel who are in training for a CRD O 426.2 qualification program or function are not allowed to independently make decisions or take actions that could affect facility safety, nor be placed in such positions. However, they may independently perform specific tasks or job assignments for which they are qualified.

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### 4.2.6 Continuing Training

Continuing training is structured commensurate with the specific performance needs and designed to maintain job proficiency on a cycle not to exceed two years. DOE-STD-1060-93, *Guide to Good Practices for Continuing Training*, is available as a reference for developing and implementing continuing training programs. Continuing training may include retraining on complex or infrequently performed tasks or refresher for safety and regulatory training, and is a method for personnel to stay current on such things as:

- Changes to regulatory requirements
- Changes to the job position
- Significant changes in procedures
- Changes in plant systems or equipment
- Fundamentals
- Lessons learned

As applicable, periodic examinations are administered and documented throughout the cycle on material included in the Operations training programs.

### 4.2.7 Student Evaluation

Students are evaluated, as necessary, to assure mastery of objectives or training content by using written or oral examinations, OJT evaluations, performance demonstrations, and quizzes. These evaluation methods are based on learning objectives and administered consistently, controlled, and documented per CHPRC procedures. Mastery of some training courses or content is determined through group activities or by instructor questioning. Additional guidance on written and oral examinations is provided in PRC-PRO-TQ-40163, *Written Examination Administration and Control*, and PRC-PRO-TQ-40172, *Oral Board Administration*. Additional guidance on on-the-job training (OJT) and performance demonstrations is provided in PRC-PRO-TQ-40170, *On-The-Job Training and Evaluation*.

### 4.2.8 Student Remediation and Suspension of Personnel Qualification

For personnel who are in formal qualification programs that experience difficulty in meeting the associated standards, the CHPRC provides varying degrees of remediation to aid the student's learning process. Also, there are occasions where an individual may not achieve or maintain performance standards and a qualification or certification must be revoked. Reinstatement is allowed after meeting the standards. This process is described in PRC-PRO-TQ-40164.

## 4.3 Training Types and Delivery Methods

### 4.3.1 Formal Training

Formal training is required to be completed to be qualified to perform specific tasks. Formal training also requires completion to be recorded and tracked to ensure personnel remain qualified for assignment.

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Management may provide informal training in the form of “all hands” meetings, classroom training, briefings, etc., on an as-needed basis. Informal training is not considered to be required training or formally tracked.

**4.3.3 Training Delivery**

Training delivery may include a variety of presentation techniques such as classroom-type lectures, seminars, computer-based training, on-the-job training, required reading, and structured self-study activities. Examinations are included, when necessary, to ensure mastery of learning objectives or training content and documented when required. The training delivery method is normally determined by the cognizant instructor for the setting and environment being used.

**4.3.4 On-The-Job Training (OJT)**

OJT is designed to prepare personnel for job performance through training and performance testing that is conducted by qualified OJT trainers in a setting as close to the actual work environment as possible. It provides hands-on experience, and has the advantage of providing training for tasks that are of immediate need to the trainee. OJT is limited to those situations where it is administratively and physically possible to conduct the training (i.e., where facilities are adequate, where OJT can be conducted without significant interference with facility operations and where qualified personnel are available to conduct and manage the OJT program). OJT is conducted in accordance with PRC-PRO-TQ-40170.

**4.3.5 Vendor Provided Training**

Training provided by an outside organization (e.g., subcontractor, vendor) in support of the CRD O 426.2 qualification or other required certification of personnel must meet the same basic requirements for development, implementation, testing, and documentation of training provided by CHPRC training organizations. For vendor provided training outside of CRD O 426.2 scope, the training material only needs to meet the expectations of the procuring manager. Vendor provided training is administered through PRC-PRO-TQ-40164 and PRC-PRO-TQ-40184, *Contractor Provided and Procured Training*.

**4.3.6 Team Training**

Team training is provided when there are multiple interfacing organizations needed to perform complex work on safety systems or other safety important activities. In many instances, team training involves the use of mock ups or other practical methods. The determination for team training is typically made in conjunction by the Functional and Training Manager/Lead.



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### 4.3.7 Emergency Response Drills

Facility qualification programs include training and drills for emergency or abnormal conditions. From a site wide perspective, Emergency Management is maintained by the MSC for DOE. CHPRC's role is limited to event contractor or "other site contractor." Roles and Responsibilities are clarified in "*Roles and Responsibilities for the Emergency Management Program Administrative Interface Agreement Between CH2M HILL Plateau Remediation Company And Project Hanford Management Contract For Safeguards And Security Services, October 1, 2008.*"

### 4.4 Qualification Programs

Qualification is a process to ensure identified positions or functions have the requisite knowledge and skill to perform safely and effectively (to include Instruction in the use of facility systems to control or mitigate accidents, including both classroom and training conducted in the facility.). Qualifications are normally defined in terms of education, experience, examination, training, or other requirements. The CHPRC management team determines the qualification requirements for personnel and ensures personnel selected for positions achieve the qualification standard to satisfactorily perform the functional responsibilities.

This applies to positions identified in the CHPRC TIMs, Quality Assurance personnel, select positions within the scope of DOE/RW-0333P, *Office of Civilian Radioactive Waste Management Quality Assurance Requirements and Description*, or other specific requirements, when identified. In many instances, for new equipment or processes it is necessary to initially qualify a Subject Matter Expert through equivalency based on previous education and experience, who then can qualify other personnel.

### 4.5 Certification Programs

Certification is required for select specialized functions that are specified in regulations and requirements such as welding, Quality Assurance, Fissionable Material Handling, etc. CRD O 426.2 requires certification for Fissionable Material Handlers and their supervisors who manipulate or handle significant quantities of fissionable materials, or manipulate the controls of equipment used to produce, process, transfer, store, or package significant quantities of such materials. Certified fissionable material handler positions/task functions are identified within the *CHPRC Training Implementation Matrix*.

The CHPRC determines whether personnel are required to be certified as fissionable material handlers using a graded approach based on the hazards involved and the risk associated with the operation of the facility or activity. Criticality safety analyses are performed for all operations or activities involving greater than an exempt quantity of fissile material in accordance with DOE-STD-3007-2007, *Guidelines for Preparing Criticality Safety Evaluations at Department of Energy Nonreactor Nuclear Facilities*. If these analyses show that a criticality is double contingent, operators are required to be certified. If these analyses show that a criticality is not credible, there is reduced risk of an operator affecting a critical condition. Accordingly, when consideration is given to risk, operators performing work that involves significant quantities of fissionable material for activities where documentation shows that a criticality is not credible do not require certification. In all cases, personnel handling greater than an exempt quantity of fissile material are required to be qualified.

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Continuing training programs for certified operators and supervisors consists of preplanned classroom-type training, on-the-job training, and operational evaluations on a regular and continuing basis. At a minimum, continuing training for certified operators and supervisors must include 1) Training and examination covering abnormal facility procedures and emergencies must be provided at least annually, 2) operational drills (that must not lead to safety concerns), 3) Instruction in the use of facility systems to control or mitigate accidents, 4) Training on topics listed per CRD O 426.2, Chapter 1, Section 7.(b).(5).

Certification programs outside of CRD O 426.2 are specified in other respective CHPRC procedures.

### 4.6 Systematic Approach to Training (SAT)

The SAT process is required by CRD O 426.2 for positions identified in the TIM. This model applies the elements of Analysis, Design, Development, Implementation, and Evaluation, referred to as the ADDIE model. A graded approach is applied to the degree necessary to ensure efficiency, but still provides adequate training and qualification for the workforce. The SAT process may be applied to other training programs as deemed necessary by CHPRC training management and instructional staff. Guidance for application of the SAT process is in PRC-PRO-TQ-40165, *Training Program Administration*.

### 4.7 Training Equivalency, Exceptions, and Extensions

CHPRC training programs apply equivalency processes that recognize previous education, experience, and training to ensure cost effectiveness and efficiency without reducing quality or safety culture.

Equivalencies, exceptions, and extensions for other training programs or courses are handled in accordance with PRC-PRO-TQ-179, *Obtaining Training Equivalencies, Exceptions, and Extensions*, as allowed by the respective Training Program Description, Training Manager for affected course, or other implementing standard.

### 4.8 Subcontractors

Subcontracted personnel training requirements are identified in the respective Request for Proposal or Statement of Work. A technical review is conducted to determine whether the prospective subcontractor meets the specified training requirements. Subcontractor personnel who fulfill a CRD O 426.2 position or function must meet the qualification requirements for that position or function. Determination of subcontractor personnel is performed in accordance with PRC-PRO-TQ-40164.

### 4.9 Training Program Evaluation

Evaluations of training programs provide reasonable assurance that the programs are producing competent employees who are capable of performing their jobs safely and efficiently. This assurance benefits the line organizations through increased productivity, increased worker and facility safety, and decreased costs of operation.

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### 4.9.1 Internal Assessments

Internal assessments consist of both management assessments and independent assessments. Management assessments are conducted by or for management to assist managers in identifying strengths and to correct weaknesses affecting performance deficiencies in the operating organizations. Management assessments will be scheduled, planned, and conducted according to PRC-PRO-QA-246, *Management Assessment*.

### 4.9.2 Nuclear Facility Evaluations

Evaluations of nuclear training programs are typically conducted at least every three years to provide reasonable assurance that the programs are remaining compliant and effective in producing competent employees. Assessments are performed using specific lines of inquiry and DOE-STD-1070-94 and conducted in accordance with PRC-PRO-QA-246.

### 4.9.3 External Assessments

External assessments are periodically conducted by organizations external to the CHPRC (RL, Defense Nuclear Facilities Safety Board [DNFSB], etc.). These assessments are scheduled by the appropriate authority and supported by CHPRC Training and other CHPRC training organizations.

### 4.9.4 Corrective Action Tracking and Closure

Concerns, observations, opportunities for improvements, and findings submitted by workers or discovered during an evaluation, surveillance, or assessment are dispositioned in accordance with the CHPRC Condition Reporting and Resolution System (CRRS) per PRC-PRO-QA-052, *Issues Management*.

### 4.10 Records

Training records are required by numerous regulatory drivers. CHPRC utilizes the MSC for a system to track and archive training records in accordance with contractual and regulatory requirements. The MSC also maintains the structure and data integrity of ITEM, and provides customer support for the use and operation of the system for training coordinators and other users. These requirements are implemented in accordance with PRC-PRO-TQ-249, *Training Records Administration*.

Records associated with the DOE/RW-0333P are implemented in accordance with PRC-PRO-QA-19579, *OCRWM Records Management*.

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**5.0 FORMS**

None

**6.0 SOURCES****6.1 Requirements**

10 CFR 830.122, *Quality Assurance – Training and Qualification*  
CRD O 414.1C, *Quality Assurance*  
DE-AC06-08RL14788, *CHPRC Contract CH2M HILL Plateau Remediation Company Management Contract*  
CRD O 426.2, *Personnel Selection, Training, Qualification and Certification Requirements for DOE Nuclear Facilities*  
DOE/RW-0333P, *Office of Civilian Radioactive Waste Management Quality Assurance Requirements and Description*  
PRC-MP-EP-40182, *Environmental Management System Manual*  
PRC-MP-MS-003, *Integrated Safety Management System/ Environmental Management System Description (ISMSD)*  
PRC-MP-MS-19361, *CH2M HILL Plateau Remediation Company Project Execution Plan*  
WAC-173-303-330, *Dangerous Waste Regulations, Personnel Training*  
10 CFR 835, *Occupational Radiation Protection*  
DOE-STD-1098-2008, *Radiological Control*

**6.2 References**

DOE-STD-1060-93, *Guide to Good Practices for Continuing Training*  
DOE-STD-1070-94, *Guidelines for Evaluation of Nuclear Facility Training Programs*  
DOE-STD-3007-2007, *Guidelines for Preparing Criticality Safety Evaluations at Department of Energy Nonreactor Nuclear Facilities*  
PRC-POL-TQ-11337, *Employee Training*  
PRC-PRO-EN-20051, *Engineering Selection, Qualification, and Training*  
PRC-PRO-QA-052, *Issues Management*  
PRC-PRO-QA-19579, *OCRWM Records Management*  
PRC-PRO-QA-20765, *OCRWM Personnel Training*  
PRC-PRO-QA-246, *Management Assessment*  
PRC-PRO-QA-40102, *Quality Assurance Engineer Training and Qualification*  
PRC-PRO-TQ-40170, *On-The-Job Training and Evaluation*  
PRC-PRO-TQ-179, *Obtaining Training Equivalencies, Exceptions and Extensions*  
PRC-PRO-TQ-249, *Training Records Administration*  
PRC-PRO-TQ-40163, *Written and Oral Examination Administration and Control*  
PRC-PRO-TQ-40164, *Personnel Training and Qualification*  
PRC-PRO-TQ-40165, *Training Program Administration*  
PRC-PRO-TQ-40172, *Oral Board Administration*  
PRC-PRO-TQ-40184, *Contractor Provided and Procured Training*  
*Roles and Responsibilities for the Emergency Management Program Administrative Interface Agreement between CH2M HILL Plateau Remediation Company and Project Hanford Management Contract for Safeguards and Security Services, October 1, 2008*

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Training Program Descriptions

*Beryllium (MSC), TPD-0002*

*Electrical Safety (MSC, TPD-0040*

*Fall Protection (MSC), TPD-0039*

*Hanford Site Radiological Worker, DOE-0357*

*Hanford Site Core Radiological Control Technician Qualification, DOE-0358*

*HAZWOPER (MSC), DOE-0355*

*HGET (MSC), DOE-0356*

*Hoisting and Rigging (MSC), TPD-0016*

*Lockout/Tagout, TPD-0038*

*Instructional Staff (MSC), TPD-0017*

*Respiratory Protection (MSC), TPD-0032*

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ADDIE	Analysis, Design, Development, Implementation, and Evaluation
CHPRC	CH2M HILL Plateau Remediation Company
CRD	Contractor Requirements Document
CRRS	Condition Reporting and Resolution System
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DWTP	Dangerous Waste Training Plan
FM	Functional Manager
GET	General Employee Training
HAMMER	Hazardous Materials Management and Emergency Response
HGET	Hanford General Employee Training
ISMS	Integrated Safety Management System
ITEM	Individual Training Electronic Matrix
JPM	Job Performance Measure
MSC	Mission Support Contractor
OCRWM	Office of Civilian Radioactive Waste Management
OJE	On-the-Job Evaluation
OJT	On-the-Job Training
PFP	Plutonium Finishing Plant
Q&T	Qualification and Training
RCRA	Resource Conservation and Recovery Act
RL	DOE Richland Operations Office
SAT	Systematic Approach to Training
SOW	Statement of Work
TA	Technical Authority
TCE	Training Center of Expertise
TIM	Training Implementation Matrix
TPD	Training Program Description
TST	Training Selection Tool
VPP	Voluntary Protection Program
WAC	Washington Administrative Codes

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**Appendix B - Glossary**

<b>Term</b>	<b>Definition</b>
<b>Assessment</b>	The act of reviewing, evaluation, inspecting, testing, checking, surveillance, auditing, or otherwise determining and documenting whether items, processes, systems, or services meet specified requirements and are performing effectively.
<b>Certification</b>	The process by which contractor management endorses and documents in writing, the satisfactory achievement of qualification of a person for a position. Certification follows the completion of the qualification program for those positions identified as requiring certification. The notable difference between certification and qualification is that certification requires official contractor management endorsement of an individual's qualification to ensure senior management involvement in the qualification of key operations positions (i.e., operators and supervisors). Other significant differences between qualification and certification are the requirements associated with continuing training, examination, and reexamination for re-certification. Certification may be granted only after <u>all</u> qualification requirements (including written and oral examinations and operational evaluations) and other specified requirements (e.g., medical examination) have been satisfactorily completed, and management has assured that the person is capable of safely performing all functions of the position.
<b>Graded Approach</b>	The process by which the level of detail in analyses, documentation, and actions necessary to comply with requirements is commensurate with: the relative importance to safety, safeguards, and security; the magnitude of any hazard involved; the life cycle stage of a facility; the programmatic mission of a facility; the particular characteristics of a facility; or any other relevant factors.
<b>Integrated Safety Management System/Environmental Management System (ISMS/EMS)</b>	A single, defined safety and environmental management system that integrates environmental, safety and health requirements into work planning and execution processes to collectively protect the worker, the public, and the environment.
<b>Qualified</b>	An employee who is current in all qualification groups defined for the job. An individual for whom any job qualification has lapsed is automatically disqualified for that job and will not be allowed to perform functions associated with that qualification until requalification has been achieved.

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<b>Qualification</b>	A defined requirement determined by a company designated authority to be either prerequisite to independent performance of a task or to be fulfilled by a job incumbent to promote competent performance of job duties. Qualifications are normally defined in terms of education, experience, examination, training, or other special requirements. Examples: High school diploma (educational qualification), two years' experience in a nuclear facility (experience qualification), facility orientation (training qualification), satisfactory completion of a biennial operator examination (examination qualification), or mask fit card (medical qualification).
<b>Subcontractor</b>	An inclusive term for subcontractors and lower tier contractors.
<b>Technical Authority (TA)</b>	Is an individual(s) who possesses significant knowledge and experience in a process, regulation, or function, and to whom management has assigned responsibility for technical aspects of the process, regulation, or function.
<b>Training</b>	A presentation of detailed information, using classroom, laboratory, or simulation devices, in which the knowledge level of objectives learned, can be measured. Training is normally presented by a qualified instructor using an approved lesson plan.
<b>Training Program Descriptions (TPDs)</b>	TPDs are documents used to identify the training processes required for employees to perform work activities. TPDs will typically include the prerequisites for entry into the training program and describe the process for initial training, continuing training, examination pass/fail criteria, remediation training, programmatic evaluations and other information as appropriate for the respective training program.