

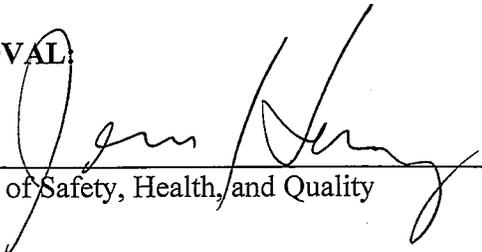


TRU Waste Processing Center Training  
Implementation Matrix for DOE O 5480.20A

**TRU Waste Processing Center Training Implementation Matrix  
for DOE O 5480.20A**

Implementation Date: 2/6/2008

APPROVAL:

  
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Director of Safety, Health, and Quality

2/6/2008  
\_\_\_\_\_  
Date



TRU Waste Processing Center Training  
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### Revision Summary

<u>Revision</u>	<u>Change Summary</u>	
0	Initial Issue	
1-2	Previously issued	
3	Updated to clarify editorial comments from DOE Oak Ridge Office.	
<u>Current Revision Specific Changes</u>		
<b>Location</b>	<b>Description</b>	<b>Reason</b>
1.4	Deleted reference to RH program being prepared.	Reference is not longer applicable.
6.3.2	Added CM-R-AD-001, Documented Safety Analysis as a reference for certification determination.	Clarification
4.0	Added correspondence reference of when the 5480.20A requirements were implemented.	Clarification
Table 1	Added exception procedure reference to Contractor Requirements Document section of the table.	Clarification
Table 1 (through out)	Replaced existing reference for justification to not certify Operator with one to Section 6.3.2.	Clarification

**TRU Waste Processing Center Training  
Implementation Matrix for DOE O 5480.20A****1.0 INTRODUCTION****1.1 Purpose**

This Training Implementation Matrix (TIM) describes how the Transuranic (TRU) Waste Processing Center (TWPC) implements the applicable requirements of DOE Order (DOE O) 5480.20A, Personnel Selection, Qualification, and Training Requirements for Department of Energy (DOE) Nuclear Facilities (DOE O 5480.20A). The TIM defines the application of the selection, qualification, and training requirements of DOE O 5480.20A at the TWPC. The TIM describes the organization, planning, and administration of the TWPC training and qualification program(s) for which DOE O 5480.20A applies. A suitable justification is provided for exceptions taken to non-applicable requirements contained in DOE O 5480.20A.

Only DOE O 5480.20A Chapter I, General Requirements, and Chapter IV, Non-Reactor Nuclear Facilities, apply to the TWPC. DOE O 5480.20A Chapter II, Category A Reactors, and Chapter III, Category B Reactors, do not apply to the TWPC.

**1.2 Maintenance**

The Training Program Manager is designated the document owner and is responsible for updating this document. Approval authority rests with the Director of Safety, Health, and Quality (DSH&Q).

**1.3 Organization of the Training Implementation Matrix (TIM)**

The TIM contains sections that describe the Operating Organization, administration and control of qualification programs, and implementation methodology for qualification programs that are subject to DOE O 5480.20A requirements. Appendix 1 contains a listing of applicable DOE O 5480.20A positions or functions. Appendix 2 lists the correlating qualification requirements for those positions or functions listed in Appendix 1. Table 1 contains a requirements implementation matrix noting which DOE O 5480.20A requirements are applicable to the TWPC and the status of implementation.

**NOTE:** The matrix is a template provided by the DOE Office of Nuclear and Facility Safety Policy that calls out the specific requirements of DOE O 5480.20A and only the requirements of DOE O 5480.20A Chapters I and IV are included.

**TRU Waste Processing Center Training  
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The TWPC is a non-reactor nuclear facility. Its scope includes packaging the treated waste for transporting to an appropriate permanent disposal facility. DOE transports the treated TRU waste to the Waste Isolation Pilot Plant (WIPP) or other disposal facilities. The waste types to be treated by the TWPC are currently located at Oak Ridge National Laboratory and include:

- Remote Handled (RH) tank wastes (sludge and supernate) presently stored in the Melton Valley Storage Tanks or other tanks on the Oak Ridge Reservation
- RH solid wastes (debris) presently stored in facilities on the Oak Ridge Reservation
- Contact handled solid wastes (debris)

The treated waste is prepared, packaged, and documented in accordance with the waste acceptance criteria and other requirements of the appropriate disposal facility.

**2.0 OPERATING ORGANIZATION**

The Operating Organization for TWPC is comprised of an operations organization and nine support organizations, as follows:

- Operations

**Support Organizations**

- Radiological Control
- Training
- Safety Authorization Basis
- Engineering
- Quality Assurance
- Maintenance
- Environmental Programs and Permitting
- Waste Programs
- Nuclear Criticality Safety

**2.1 Operations Organization**

The Operations Organization includes Operations and the support organizations of Maintenance and Engineering. The Director of Facility Management has overall responsibility for these organizations and the operations of the TWPC. The Director of Facility Management assures the qualification of the managers for these organizations.

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The Operations Manager oversees the day-to-day operations of the TWPC and the qualification of Operations personnel. The Operations Manager provides information to the Director of Facility Management and the Training Program Manager to ensure that the Operations training program is administered, evaluated, and improved.

The Maintenance Manager oversees the day-to-day maintenance functions at the TWPC and the training assignments that constitute the qualification of maintenance personnel. The Maintenance Manager provides information to the Training Program Manager to ensure the training profiles of maintenance personnel remain current to the needs of the TWPC.

The Design Engineering Manager oversees the engineering, drafting, and specifications of the TWPC and the training assignments that constitute the qualification of engineering personnel. The Design Engineering Manager provides information to the Training Program Manager to ensure the training profiles of engineering personnel remain current to the needs of the TWPC.

**2.2 Radiological Control Organization**

The Radiological Control (RC) Manager oversees the radiological control organization at the TWPC. The RC Manager reports to the DSH&Q. The RC Manager qualifies the radiological control personnel and provides information to the Training Program Manager to ensure the training program is administered, evaluated, and improved.

**2.3 Safety Authorization Basis Organization**

The Safety Authorization Basis (SAB) Manager oversees the Safety Authorization Basis organization and Unreviewed Safety Question (USQ) processes at the TWPC. The SAB Manager reports to the DSH&Q. The SAB Manager qualifies nuclear safety personnel and provides information to the Training Program Manager to ensure qualification requirements remain current to meet the needs of the TWPC.

**2.4 Nuclear Criticality Safety**

The Nuclear Criticality Safety (NCS) Manager oversees the Nuclear Criticality Safety processes at the TWPC. The NCS Manager reports to the DSH&Q. The NCS Manager qualifies nuclear safety criticality personnel and provides information to the Training Program Manager to ensure qualification requirements remain current to meet the needs of the TWPC.

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The Quality Assurance Manager (QAM) oversees the quality processes at the TWPC and reports to the DSH&Q. The QAM identifies the training assignments that qualify personnel and provides information to the Training Program Manager to ensure the personnel qualifications remain current to the needs of the TWPC.

**2.6 Environmental Programs and Permitting**

The Environmental Programs and Permitting (EPP) organization is led by the Director of Environmental Programs and Permitting (DEPP) and is responsible to ensure the TWPC meets the environmental regulations. The DEPP reports to the TWPC General Manager. The DEPP identifies the training assignments that qualify EPP personnel and provides information to the Training Program Manager to ensure the EPP training assignments meet the needs of the TWPC.

**2.7 Waste Programs**

Waste Programs provides waste related characterization support, transportation, analytical, and quality assurance support. The Director of Waste Management identifies the training assignments that qualify personnel and provides information to the Training Program Manager to ensure the personnel qualifications remain current to the needs of the TWPC.

**2.8 Training Organization**

The Training Program Manager reports to the DSH&Q and oversees the training program management and administrative processes documented in CM-A-AD-003, Training Program, and CM-P-AD-027, Personnel Qualification and Training. The responsibilities of the Training Organization include:

**1. Training Program Manager**

The Training Program Manager is responsible for application of a graded systematic approach to training for development and administration of DOE O 5480.20A related training programs within the TWPC, which includes the following:

- Establish an overall training program that meets the requirements of DOE O 5480.20A.
- Developing procedures to control the administration of the applicable DOE O 5480.20A training programs.
- Establish instructor entry-level and qualification requirements.
- Ensure instructional staff is qualified to perform their duties.
- Ensure training materials are developed and maintained using a graded systematic approach to training (SAT).

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- Maintain an auditable training records system that meets the requirements of DOE O 5480.20A.
- Evaluate training programs for effectiveness.

**2. Instructional Staff**

There are no Training Coordinators at the TWPC as defined in DOE O 5480.20A. The TWPC has a Training Coordinator, by title, that assists in the scheduling of training, supports instructional activities, and maintains the TWPC training records.

Instructors are qualified in accordance with the requirements of CM-A-AD-003, Training Program, and perform or assist in the development, revision, and/or maintenance of classroom, on-the-job training (OJT), and self-study training materials using a graded SAT.

**2.9 Vendor Provided Training Support**

Training courses and materials supplied by vendors for affected DOE O 5480.20A programs must meet the standards set by the line and training organization, as applicable, in accordance with TWPC administrative procedures.

**2.10 Subcontractor Personnel**

Subcontractor personnel who perform DOE O 5480.20A job functions as a "purchased service" at the facility must be qualified to perform that job function. Qualification is determined in accordance with the applicable TWPC procedures.

The TWPC line management is responsible for ensuring that subcontractor personnel are qualified to perform their assigned tasks by requiring verification of qualifications prior to beginning work. The need for additional job- and facility-specific training will be determined by the responsible line manager and completed as necessary.

Subcontractor personnel who perform work on engineered safety features identified in the SAB and are not qualified are supervised by a person who meets the qualification criteria established by the Operating Organization for the conduct of these activities.

**3.0 QUALIFICATION PROGRAM, PLANNING, AND ADMINISTRATION****3.1 General Employee Training**

Full time on-site personnel are required to complete General Employee Training (GET) prior to being allowed unescorted access. A full time on-site individual is hosted and are given a visitor orientation while on-site until GET is completed.

The GET program includes a core set of subjects that crosscut the TWPC site personnel.

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Additionally, personnel whose primary work function supports a DOE O 5480.20A program are assigned an individual training profile that supplements GET with specialized training to meet the needs of the specific job function. Persons who change job classifications are assigned an individual training profile commensurate with the new job function.

Examinations, quizzes, or other suitable evaluation methods are administered, as necessary to ensure comprehension of the GET program. Personnel complete GET refresher training annually to stay current on updates and changes to the GET program.

Visitors, contracted personnel, and temporary personnel are hosted and provided visitor orientation while at the facility unless they have completed necessary training in appropriate areas from the below bulleted list of DOE O 5480.20A subject areas, to the extent necessary, to ensure safe execution of their duties.

- General Facility Description
- Quality Assurance
- Radiological safety
- Emergency Plans
- Industrial Safety/Hygiene
- Fire Protection
- Security
- Job related policies, procedures, and instructions

### **3.2 Initial Training**

Initial training programs are established to ensure that personnel are able to perform their duties in a safe and efficient manner. This is achieved by using a graded SAT as described in CM-A-AD-003, Training Program. Initial training content is described in training program descriptions or per the training assignments in the individual's training profile.

Training methods for TWPC personnel consist of a combination of classroom, self-study, and/or OJT. Classroom training includes lectures, seminars, case studies, computer aided instruction, and/or other forms as determined appropriate for the subject matter.

Self-study includes the use of training manuals, self-study guides, and/or procedures. Examinations, oral questioning, OJT, observations, and performance demonstrations are used, as appropriate, to evaluate the student's mastery of training content.

### **3.3 Continuing Training**

Continuing training programs are established to maintain and improve the performance of the Operating Organization. Continuing training may include, but is not limited to, training on facility systems, facility drills, component changes, hazard communication, lessons learned, conduct of operations, applicable procedure changes, and selected fundamentals. The content of continuing training sessions varies based on identified needs, facility and industry changes, and operating experience.

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Designated persons in the Operating Organization attend continuing training program sessions as necessary to maintain and improve their performance. The schedule of continuing training is normally set on a quarterly basis for Operations and Radiological Control and as needed for other support organizations, but is dependent on the content need and balancing facility/department priorities.

**3.4 Drill Program**

The TWPC drill program is used to train new personnel and maintain the emergency management proficiency of qualified personnel. The program is implemented in accordance with CM-P-EM-102, Conduct of Drills, and CM-M-EM-100, Local Emergency Manual (LEM).

The TWPC Operations Manager is responsible for overall administration and implementation of the emergency management and drill program. A Waste Operations Lead is assigned to develop, administer, and conduct the operational and emergency management drill program.

Formal drills are conducted in accordance with a written drill scenario. A post-drill critique analyzes the drill and identifies deficiencies. Records of drill scenarios and drill critiques are maintained in accordance with the drill procedure.

**3.5 Program Planning**

DOE O 5480.20A required qualification programs are developed using a SAT. A graded approach is applied in the development of training materials based on identified hazards, risk, complexity, and life cycle of the associated operation of TWPC.

An analysis of the job function or job position is performed when planning a qualification program for Operators and Radiological Control Technicians (RCTs). Maintenance, engineering, and other support personnel job functions are reviewed and an individual training profile is established when activities involve the SAB of the facility.

Following a job analysis for Operators and RCTs, tasks are screened for importance, complexity, and frequency. Those tasks that have a high degree of importance and complexity are then further analyzed to determine the associated knowledge and skills of the task or function. Training methods and material are then developed for tasks that are selected for training.

A graded functional or topical analysis of training needs is performed to identify the training program content for maintenance, engineering, or other technical support personnel. Functional or topical analysis may be as simple as reviewing the related job description to identify applicable training assignments or more in depth for complex or important functions.

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Training instructor job requirements are consistent with the respective Personnel Qualification/Responsibilities Form as specified in CM-A-AD-003, Training Program, and CM-P-AD-027, Personnel Qualification and Training.

**3.6 Program Administration****3.6.1 Position Determination**

Persons entering a qualification program for a specified DOE O 5480.20A job position meet the entry-level requirements for that position unless a specific exception is granted. Personnel entry-level requirements are specified in the respective training program description and/or the related Personnel Qualification/Responsibilities Form for that position. Alternatives to education and experience requirements are considered on a case-by-case basis in accordance with CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.

Entry-level education and experience requirements are established to help ensure personnel have the ability to perform their job safely and reliably. The education and experience requirements of the TWPC are consistent with nuclear facility standards for similar positions. Because of the variation in the operations of DOE and commercial nuclear facilities, it is reasonable to consider and allow substitutions and alternatives to education and experience requirements.

Personnel who are appointed to a position in the DOE O 5480.20A Operating Organization subsequent to the approval of the Training Implementation Matrix (TIM) meet the entry-level education and experience requirements for their respective positions. However, personnel who held positions prior to the approval of the TIM are excluded from these requirements. Participation is required in the job-specific training and qualification program and subsequent continuing training.

**3.6.2 Qualification/Certification**

Qualification is the formal line management process that determines if an employee is capable of performing their job. Each qualification requires completion of training as specified in the respective Training Program Description or initial completion of specific training assignments in the individual training profile.

For Operator or RCT personnel with specific qualification requirements, the qualification requirements only apply to tasks selected for training for that job function. Additional safety training may be required by regulation or DOE Orders, but is not considered a part of the specific position (or task) qualification. For Example: An RCT may need confined space training to enter an area in the facility to perform a radiation survey, but the qualification for the "RCT position" is only related to the skill to perform the radiation survey and not the confined space training for personal safety.

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OJT is conducted for Operators and RCTs by instructors who are technically competent or by qualified incumbents who have completed OJT instructor training. Many times, the activities of the TWPC are related to new equipment or processes where no qualified personnel exist. To ensure a safe operation, an instructor may assist the line organization with the conduct of OJTs for the first set of line personnel, or a dry run or other similar process may be used. A dry run process is where line personnel walk through the initial set of procedures until the procedures are workable and personnel have a familiarization equivalent to an OJT process. After the initial set of line personnel have become familiar with the new equipment or process, the line organization completes the training for the remaining personnel using an OJT process with qualified individuals who have completed OJT instructor training.

Requalification of Operators and RCTs is normally conducted on a two-year cycle and is accomplished by successful completion of the task or courses selected for requalification. These items are typically those that are complex, have high risk if improperly performed, and are performed infrequently.

Personnel in some positions are considered qualified by virtue of meeting entry level education and experience requirements. This applies to Managers, Technical Support Personnel (e.g., Cognizant Systems Engineers), Environmental Specialists, Waste Programs, and Maintenance personnel. There may be situations where specific job assignments may require additional training for performance of specialized tasks or to meet regulatory requirements, and training is then provided as necessary.

DOE O 5480.20A certification requirements do not apply at the TWPC, as there are no fissionable material handlers as described in the interpretation of the Office of Nuclear and Facility Safety Policy document "Guidance for Determining if Personnel Handling Fissionable Materials Require Certification," July 3, 1996. The referenced guidance states that if a facility has determined that inadvertent criticality is an incredible event and the facility does not require a criticality alarm system, fissionable material handler certification is not required. The TWPC has determined through analysis that inadvertent criticality is not credible and no criticality related instrumentation is required as stated in CM-R-AD-001, Documented Safety Analysis, Chapter 6, Prevention of Inadvertent Criticality.

A probabilistic risk assessment was not conducted at the TWPC, so the DOE O 5480.20A requirement does not apply.

### 3.6.3 Changes to the Training Program

Changes to the training program may be initiated as a result of facility modifications, safety or environmental analyses, administrative changes, operating experience, internal and external evaluations, and lessons learned from industry experience. Personnel can identify a need for changes to training materials or courses by submitting a request to the

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Training Program Manager that defines the scope of the proposed change. The Training Program Manager interfaces with the appropriate line organization for the review and authorization for the change, as necessary.

### 3.6.4 Training Exceptions

Exception from certain portions of the training program may be granted on the basis of an employee's previous experience, education, and training that is related to a particular job function. Requests for training exceptions are processed in accordance with CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements. Suitable justification accompanies the request for exception.

### 3.6.5 Extensions of Qualification

CM-P-AD-027, Personnel Qualification and Training, establishes the policy, responsibilities, and authority for extending TWPC qualifications beyond the normal expiration date.

### 3.6.6 Examination/Re-examination

Observation of personnel performance is the primary method of examination for qualification and is completed as part of the OJT process. Personnel are trained to the degree necessary for satisfactory demonstration of performance. Some specific program areas require written examinations, which are prepared and administered in accordance with TWPC administrative procedures when required for that program. Remediation and re-examination are completed as necessary.

### 3.6.7 Training and Qualification Records

Training and qualification records are maintained in accordance with CM-P-AD-049, Records Management. Personnel education, experience, and employment histories are on file with Human Resources. Recent health evaluation records are maintained by the Health and Safety (HS) Manager.

## 3.7 Training Program Evaluations

The TWPC training organization and/or line management perform periodic evaluations of the TWPC training program(s). Additionally, feedback is acquired from students, line managers, and training personnel. Examples of evaluation and feedback include:

1. Student feedback collected using evaluation forms at the completion of selected courses. These forms include feedback on the student's overall satisfaction with the course and the instructor's presentation, along with a comments section.

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Comments provided (both positive and negative) that are deemed important to the quality of the training program are used as a basis to modify training programs by the instructor.

2. Facility training programs directly related to DOE O 5480.20A are evaluated as part of the TWPC Management Assessment Program using specific lines of inquiry and include applicable areas of DOE STD 1070-94, Guidelines for Evaluation of Nuclear Facility Training.
3. Other course and program evaluations are conducted as needed based on department performance reviews.

**4.0 APPLICATION OF REQUIREMENTS**

TWPC applies the requirements of DOE O 5480.20A to areas and positions to which the order applies. Where necessary, TWPC procedures and requirements have been modified to meet the requirements of the order. The Requirements Implementation Matrix contained in Table 1 represents the overall identification of applicable requirements.

The TWPC has implemented these requirements as of January 16, 2007 as denoted in correspondence to the DOE Oak Ridge Office, T-0107-6088, Contract DE-AC05-98OR22516, A051, Section J – List of Documents, Exhibits and Other Attachments, Attachment C Baseline List of Required Compliance Documents.

**5.0 REFERENCES**

DOE 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, U.S. Department of Energy, Washington, D.C.

DOE-STD-1070-94, Guidelines for Evaluation of Nuclear Facility Training, U.S. Department of Energy, Washington, D.C.

CM-A-AD-003, Training Program

CM-P-AD-027, Personnel Qualification and Training

CM-P-EM-102, Conduct of Drills

CM-M-EM-100, Local Emergency Manual (LEM)

CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements

CM-P-AD-049, Records Management



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Guidance for Determining if Personnel Handling Fissionable Materials Require Certification, July 3, 1996

CM-R-AD-001, Documented Safety Analysis

Correspondence – T-0107-6088, Contract DE-AC05-98OR22516, A051, Section J – List of Documents, Exhibits and Other Attachments, Attachment C Baseline List of Required Compliance Documents

## **6.0 ATTACHMENTS**

Attachment A Acronyms/Abbreviations, Terms and Definitions

Attachment B Applicable DOE O 5480.20A Position Listing

Attachment C Correlating DOE O 5480.20A Position Qualification



## Attachment A: Acronyms/Abbreviations, Terms and Definitions

DOE	U.S. Department of Energy
EPP	Environmental Programs and Permitting
GET	General Employee Training
HS	Health and Safety
NCS	Nuclear Criticality Safety
OJT	On-the-job training
QAM	Quality Assurance Manager
RC	Radiological Control
RCT	Radiological Control Technician
RH	Remote Handled
SAB	Safety Authorization Basis
SAT	Systematic approach to training
SH&Q	Safety, Health, and Quality
SME	Subject Matter Expert
TIM	Training Implementation Matrix
TRU	Transuranic
TWPC	TRU Waste Processing Center
USQ	Unreviewed Safety Question
WIPP	Waste Isolation Pilot Plant

**TRU Waste Processing Center Training  
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There are no DOE O 5480.20A applicable certified positions at the TWPC.

**QUALIFIED POSITIONS**

Listed below are the functional positions within the Operating Organization at the TWPC that correspond to positions in DOE O 5480.20A:

**OPERATOR FUNCTIONS**

1. Waste Operations Lead
2. Waste Operator (contact handled, remote handled, sludge, and supernate)

**TECHNICIANS AND MAINTENANCE PERSONNEL**

1. RCT
2. Maintenance Specialist

**TECHNICAL SUPPORT AND TRAINING PERSONNEL**

1. Cognizant System Engineer
2. Quality Assurance Specialist
3. USQ Evaluator
4. Environmental Specialist
5. Training Instructor
6. Waste QA Officer
7. Waste Analytical Manager
8. Waste Technical Support
9. Waste Characterization Officer
10. Nuclear Criticality Safety Engineer
11. Senior Nuclear Criticality Safety Engineer

**MANAGEMENT/SUPERVISORY PERSONNEL**

1. Executive Vice-President and General Manager
2. DSH&Q
3. Director of Facility Management
4. Operations Managers
5. DEPP
6. Training Program Manager
7. RC Manager
8. Maintenance Manager
9. QAM
10. Design Engineering Manager
11. Director of Waste Management
12. Nuclear Criticality Safety Manager



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**Attachment C: Correlating DOE O 5480.20A Position Qualification**

<b>Operations</b>	
<b>Qualification Area</b>	<b>Qualification</b>
Waste Operations Lead	CH-P-OP-020 Respective qualification for Waste Operations Lead as specified in CH-P-OP-020
Waste Operator	CH-P-OP-020 Respective qualification for Operator positions specified in CH-P-OP-020

<b>Radiological Control</b>	
<b>Qualification Area</b>	<b>Qualification</b>
RCT	CM-P-RP-317, Respective qualification card and/or tasks for Radiological Control Technicians

<b>Maintenance</b>	
<b>Qualification Area</b>	<b>Qualification</b>
Maintenance Specialist	Initial completion of the specified training assignment in the person's individual training profile.

<b>Technical Support Personnel</b>			
Technical Support Personnel are qualified by virtue of meeting entry-level education/experience and completing initial training assignment in the person's individual training profile. The applicable DOE O 5480.20A technical support positions are listed below.			
Cognizant Systems Engineer	Quality Assurance Specialist	USQ Evaluator	Environmental Specialist
Waste QA Officer	Waste Analytical Manager	Waste Technical Support	Waste Characterization Officer
Qualification Area	Qualification		
Criticality Safety Engineer	CM-A-AD-017, Nuclear Criticality Safety Program		
Senior Nuclear Criticality Engineer	CM-A-AD-017, Nuclear Criticality Safety Program		

<b>Training Instructor/Specialist</b>	
<b>Qualification Area</b>	<b>Qualification</b>
SME Instructor	CM-L-AD-005, SME Instructor Qualification
OJT Instructor	CM-L-AD-007, OJT Instructor Qualification

<b>Managers</b>			
<b>Course Topic</b>		<b>Course Topic</b>	
Managers are qualified by virtue of meeting entry-level education/experience and completing initial training assignments in the person's individual training profile. The applicable DOE O 5480.20A management positions are listed below.			
General Manager	DSH&Q	Director of Facility Management	Operations Manager
Training Manager	QAM	DEPP	Radiological Control Manager
Maintenance Manager	Design Engineering Manager	Director of Waste Management	Nuclear Criticality Safety Manager



**TABLE 1: DOE O 5480.20A REQUIREMENTS IMPLEMENTATION MATRIX**

Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>CONTRACTOR REQUIREMENTS DOCUMENT</b>					
Perform periodic systematic evaluations of training and qualification programs.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
Exception procedures are submitted to and approved by the DOE Operations Office Manager.	Y	N	CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.	N/A	N/A
<b>CHAPTER I GENERAL REQUIREMENTS</b>					
<b>2. TRAINING ORGANIZATION</b>					
One or more organizations are established to be responsible for the training of operating organization personnel.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
This organization(s) is held accountable for providing facility line management with the support necessary to ensure that personnel in the operating organization are qualified to safely and effectively meet job requirements.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
The responsibilities, qualifications, and authority of training organization personnel (including subcontractors) are documented and managerial responsibilities and authority clearly defined.	Y	N	CM-A-AD-003, Training Program	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>3. SUBCONTRACTOR PERSONNEL QUALIFICATION</b>					
Subcontractor personnel meet the qualification requirements for the job function to be performed.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training  This requirement only applies to subcontractors who perform work on Safety Class or Safety Significant systems, components, or structures OR perform services within the Operations Organization that require a DOE O 5480.20A qualification.	N/A	N/A
The operating organization ensures that subcontractor and temporary personnel who perform specialized activities such as radiation protection, maintenance, in-service inspection, radiography, and welding are qualified to perform their assigned tasks by properly documenting one of the following:  a. The satisfactory result of an audit of subcontractor records which relate to qualification of the subcontractor personnel being considered for assignment by the operating organization; or  b. Previous verification (within 2 years) of the ability of the subcontractor employee to perform assigned tasks safely and efficiently; or  c. Successful completion by the subcontractor employee of those segments of the operating organization's qualification program which are considered pertinent to the accomplishment of the task to be performed.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training  This requirement only applies to subcontractors who perform work on Safety Class or Safety Significant systems, components, or structures OR perform services within the Operations Organization that require a DOE O 5480.20A qualification.	N/A	N/A
Subcontractor personnel who do not meet the requirements, for work activities on engineered safety features identified in the facility Safety Analysis Report are supervised by a person who meets the qualification criteria established by the operating organization for conduct of such activities.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training  This requirement only applies to subcontractors who perform work on Safety Class or Safety Significant systems, components.	N/A	N/A



TRU Waste Processing Center Training Implementation Matrix for DOE O 5480.20A

Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>4. PERSONNEL SELECTION</b>					
a. A process for selecting and assigning personnel into the operating organization is established.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training  Personnel who were in position prior to the approval of the TIM are considered grandfathered from the DOE O 5480.20A entry-level education and experience requirements. These personnel do participate in qualification and continuing training processes, as required. Personnel subsequent of the approval of the TIM meet the DOE O 5480.20A entry-level education and experience.	N/A	N/A
b. DOE approval is required on a case-by-case basis for individuals who do not meet experience requirements for a position but are assigned to the position based on a determination that the overall operating organization is balanced and strong.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>5. QUALIFICATION PROCESS</b>					
a. Qualification requirements for personnel in each functional level are defined based on the criteria in 5480.20A.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
c. Technician and maintenance personnel qualification includes demonstrated performance capabilities (performance demonstrations) to ascertain their ability to adequately perform assigned tasks.	Y	N	CM-A-AD-003, Training Program CM-P-RP-317, Radiological Control Technician Training Program Description  Maintenance personnel are qualified based on previous education and experience in addition to required training (e.g., OSHA). Facility task specific performance demonstrations are not applicable because the facility is not complex enough to require this level of rigor. Management observation of work performance is included.	N/A	N/A
Participation in continuing training programs is required to maintain and improve their abilities to continue to function safely in the operating organization.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
d. The successful completion of the requalification program and formal requalification of operators and their immediate supervisors is indicated by signature.	Y	N	CH-P-OP-020, Operations Training Program Description	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
(THE REMAINDER OF THE REQUIREMENTS OF THIS SECTION (examination requirements) ARE REPEATED ELSEWHERE IN THE ORDER AND NOT REFERENCED HERE)					
e. Qualification may be granted only after assuring that all requirements (including training and examinations as required) and other specified requirements (e.g., medical examination) have been satisfactorily completed.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
f. 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, performance deficiencies).	Y	N	CH-P-OP-020, Operations Training Program Description	N/A	N/A
<b>6. CERTIFICATION PROCESS</b>					
a. Certification is governed by written procedures which include requirements for documented assessment of a person's qualifications through examinations and operational evaluations.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
b. Certification may be granted only after assuring that all qualification requirements (including written and oral examinations and operational evaluations) and other specified requirements (e.g., medical examinations) have been satisfactorily completed,	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
And management has assured that the person is capable of safely performing all functions of the position.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
Certification is verified by a person or group other than the person or group that provided the training or the candidate's immediate supervisor.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
Certification is valid for a period not to exceed two years.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
c. Certification is required of positions equivalent to positions listed in 5480.20A.I.6.c.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
All other operator or immediate supervisor positions to be certified are identified in the Training Implementation Matrix.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
<b>7. TRAINING REQUIREMENTS</b>					
Training to support qualification and certification programs is based on a systematic approach to training.	Y	N	CM-A-AD-003, Training Program  There are no applicable DOE O 5480.20A certification requirements at the TWPC as described in Section 3.6.2.	N/A	N/A
A graded approach is used to establish the systematic approach to training for operations personnel, maintenance personnel, technicians, and the technical staff.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
<b>a. General</b>					
Training programs consist of a combination of classroom-type and on-the-job training, including simulator and laboratory training as applicable.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
(1)(a) Personnel who are appointed to positions in the operating organization subsequent to approval of the Training Implementation Matrix required by DOE 5480.20 of 2-20-91 meet the education and experience requirements of this DOE 5480.20A.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
(1)(b) Personnel who are appointed to positions in the operating organization prior to the approval of the TIM are required to participate in job-specific training and qualification/certification programs and subsequent continuing training programs.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program  There are no applicable DOE O 5480.20A certification requirements at the TWPC.	N/A	N/A
(3) Qualification and certification programs are reviewed by facility management and kept up to date to reflect changes to the facility, Safety Analysis Reports, Technical Safety Requirements, procedures, regulations, and applicable industry operating experience.	Y	N	CM-A-AD-003, Training Program  There are no applicable DOE O 5480.20A certification requirements at the TWPC.	N/A	N/A
Team training is incorporated into the training program if job functions require team solutions and activities.	Y	N	CM-A-AD-003, Training Program  Applies only to complex safety systems as identified within the Safety Authorization Basis and determined as needed by the Operations Manager.	N/A	N/A
<b>b. Training Process</b>					
A systematic approach to training is used to establish initial and continuing training programs to ensure operating organization personnel are qualified to perform job requirements.	Y	N	CM-A-AD-003, Training Program  A systematic approach to training is applied using a graded approach based on difficulty, frequency, and complexity of the area of training being addressed.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>c. Initial Training</b>					
Initial training programs are established for operating organization personnel at operable nuclear facilities to develop or enhance their knowledge and skills to perform job assignments.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
Examinations (written, oral, operational evaluations, performance demonstrations) on material included in the training programs are administered and documented as appropriate.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
Operational use of trainees is in accordance with (IAW) 5480.20A.I.7.c.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
<b>d. Continuing Training</b>					
Continuing training programs are established for operating organization personnel who perform functions associated with engineered safety features as identified in the facility Safety Analysis Report.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
(1) Continuing training is structured commensurate with specific position needs.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
Continuing training is administered on a cycle not to exceed two years.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program  Applies only to those positions/functions that have a two year requalification requirement.	N/A	N/A
Continuing training includes, at a minimum, training in significant facility system and component changes, applicable procedure changes, applicable industry operating experience, selected fundamentals with emphasis on seldom used knowledge and skills necessary to assure safety, and other training as needed to correct identified performance problems.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
(2) Periodic examinations (written, oral, operational evaluations, performance demonstrations, as applicable to the position) are administered and documented throughout the cycle on material included in the operator (operators and their immediate supervisors) training programs.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance personnel performance.	N/A	N/A
(3) Continuing training programs for certified operators include preplanned classroom-type training, on-the-job training, and operational evaluations on a regular and continuing basis.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
Continuing training programs for certified operations personnel includes, at a minimum, the following training items as related to job performance:					
(a) Training and examination covering abnormal facility procedures and emergencies at least annually for certified operators and certified supervisors;	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
(b) Training drills conducted in the facility or on a simulator to enable personnel and operating teams to maintain their ability to respond to abnormal and accident situations. Training drills conducted in the facility do not lead to or have the potential for safety concerns	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
(c) Instruction in the use of facility systems to control or mitigate accidents, including both classroom and training conducted in the facility.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
(d) Training on the subjects indicated in 5480.20A.I.7.d.(4).(d) 1 through 8 as applicable to the position, whenever examinations and experience (Industry and nuclear facility specific) or evidence indicates a need for emphasis.	N	Y	Certification is not required as described in Section 3.6.2.	N/A	N/A
<b>e. General Employee Training (GET)</b>					
A GET program is in place and all persons are trained in the subjects specified in 5480.20A.I.7.e.(1) commensurate with their job duties.(* Criticality safety has been added as a subject)	Y	N	CM-P-IS-003, General Employee Training  Criticality is not included in GET because criticality is not considered a credible event.	N/A	N/A
(2) Visitors, contracted personnel, and temporary personnel are under continuous escort while at the facility unless they have been trained in appropriate areas from the subjects specified above to the extent necessary to ensure safe execution of their duties.	Y	N	CM-P-IS-003, General Employee Training	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
(3) A written examination covering the areas specified in 5480.20A.I.7.e.(3) is required for all personnel except short-term visitors.	Y	N	CM-P-IS-003, General Employee Training  Examinations are given when appropriate for the topic being covered and is administered through the most efficient means equivalent to a written examination such as computer based questioning.  Examinations have either a pass or fail criteria or sufficient remediation to ensure comprehension of material.	N/A	N/A
Persons who do not pass this examination are not permitted access without a continuous escort.	Y	N	CM-P-IS-003, General Employee Training	N/A	N/A
(4) Changes in GET areas identified in I.7e(1) of the Order are included in continuing training programs for all facility personnel.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
<b>f. Probabilistic Risk Assessment (PRA) Training</b>					
For those facilities for which a PRA <b>HAS BEEN PERFORMED</b> , PRA results are included in initial and continuing training programs for operations and technical support personnel IAW 5480.20A.I.7.f.	N	Y	A Probabilistic Risk Assessment has not been performed and therefore this requirement does not apply.	N/A	N/A
<b>g. Technician and Maintenance Personnel Training</b>					
(1) Personnel in this category are qualified to perform tasks associated with their job specialty, or are directly supervised.	Y	N	CM-A-AD-003, Training Program CM-P-RP-317, Radiological Control Technician Training Program Description	N/A	N/A
(2) Training is provided on engineered safety features identified in the facility Safety Analysis Report and includes the systems (as applicable) and elements specified in 5480.20A.I.7.g.(2).	Y	N	CM-A-AD-003, Training Program CM-P-RP-317, Radiological Control Technician Training Program Description	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
(3) Training program content for radiological control technicians (RCT) is in accordance with the requirements contained in 10 CFR 835, Occupational Radiation Protection, and DOE/EH-0256T, DOE Radiological Control Manual.	Y	N	DOE/EH-0256T, DOE Radiological Control Manual is not a contractual requirement. CM-P-RP-317, Radiological Control Technician Training	N/A	N/A
RCT training program elements (i.e., selection, training process, continuing training, qualification) are in accordance with the requirements of this Order.	Y	N	CM-A-AD-003, Training Program CM-P-RP-317, Radiological Control Technician Training Program Description	N/A	N/A
<b>h. Technical Staff Training</b>					
(1) A list of specific technical staff personnel positions that have a direct impact on employee, facility, of public safety is developed.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
(2) A training program is established for entry-level technical staff personnel.	Y	N	CM-A-AD-003, Training Program CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
Subject areas (as appropriate to the position) specified in 5480.20A.I.7.h.(2) are included in the training program.	Y	N	CM-A-AD-003, Training Program CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program  Subject areas applied as appropriate to the positions.	N/A	N/A
<b>i. Management and Supervisory Training</b>					
The topics listed in paragraph I.7.h.(2) are included as appropriate.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
Training programs for managers and first line supervisors are established and contain the topics listed in 5480.20.I.7.i.(1)&(2) as appropriate.	Y	N	CM-A-AD-003, Training Program	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>8. OPERATOR AND SUPERVISOR EXAMINATIONS</b>					
Comprehensive written and oral examinations and operational evaluations are prepared and administered for initial certification of certified operators and supervisors.	N	Y	DOE O 5480.20A, Chapter I, Section 8, Sentence 1 only applies to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A
Comprehensive written examinations and individual *performance demonstrations are prepared and administered for the initial qualification of other operators and supervisors.	Y	N	The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance personnel performance.	N/A	N/A
Separate oral examinations and operational evaluations are administered to Category A personnel (they may be combined for Category B and non-reactor nuclear facilities).	N	Y	DOE O 5480.20A, Chapter I, Section 8, Sentence 3 only applies to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A
These examinations contain a representative sampling of the knowledge and skills identified in and derived from the learning objectives resulting from the systematic analysis of the position, And from information in Safety Analysis Reports, Technical Safety Requirements, system description manuals and operating procedures, lessons learned from Occurrence Reports, and other applicable sources.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  Performance evaluation methods include these elements to the degree applicable.	N/A	N/A
a. Written procedures which address examination/evaluation development, approval, security, and administration are in place to administer examinations and operational evaluations.	Y	N	CM-A-AD-003, Training Program  Described using a graded approach to the necessary rigor of the affected program.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
Written procedures are in place to establish and maintain examination question banks.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance personnel performance.	N/A	N/A
b. The oral examination content is tailored to evaluate the candidate's operational knowledge (initial/continuing training program subjects) and organizational awareness to determine how the individual will function in an operating environment.	N	Y	DOE O 5480.20A, Chapter I, Section 8, specifies that oral examinations only apply to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>9. OPERATOR AND SUPERVISOR REEXAMINATIONS</b>					
Reexaminations for certified and qualified operators and supervisors include subjects in which the person is expected to be knowledgeable and emphasize those subjects covered by the continuing training program.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance personnel performance.  There are no applicable DOE O 5480.20A certification requirements at the TWPC.	N/A	N/A
Comprehensive biennial examinations or periodic examinations throughout the continuing training cycle are administered.	N	Y	The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance of personnel performance.	N/A	N/A
Written examinations and performance demonstrations are administered to requalify operators and supervisors.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance personnel performance.  Operators and supervisors do complete performance demonstrations as part of the requalification process.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
Written and oral examinations and operational evaluations are administered to recertify operators and supervisors.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Separate biennial oral examinations and operational evaluations are administered to Category A personnel (they may be combined for Category B and non-reactor nuclear facilities).	N	Y	DOE O 5480.20A, Chapter I, Section 8, specifies that oral examinations only apply to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A
<b>10. REQUALIFICATION</b>					
Operators and their supervisors are not allowed to continue to function in qualified or certified positions if they have not completed all of the requalification or recertification program elements (continuing training and associated examinations) within the two year continuing training cycle.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  There are no applicable DOE O 5480.20A certification requirements at the TWPC.	N/A	N/A
If a qualified or certified operator or supervisor fails a requalification or recertification examination, or shows serious job performance deficiencies which indicate that he or she may perform in an unsafe manner, the individual is removed from activities requiring qualification or certification.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  The facility does not have complex systems and processes that require comprehensive written examinations; however, evaluations equivalent to examinations are performed as part of the on-the-job training process, which provides adequate assurance personnel performance.  There are no applicable DOE O 5480.20A certification requirements at the TWPC.	N/A	N/A
a. Qualification or certification is regained only after completing remedial training designed to correct the deficiency(s) and	Y	N	CM-A-AD-003, Training Program  There are no applicable DOE O 5480.20A certification requirements at the TWPC.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
Satisfactory completion of a reexamination.	Y	N	CM-A-AD-003, Training Program  Reexamination is through performance demonstrations.	N/A	N/A
(1) Recertification includes a review of individual operating performance during the past certification period by either line management, by a committee, or by a person designated by management and	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
a current medical examination.	N	Y	DOE O 5480.20A, Chapter IV, Section 3, denotes certified positions. Certification is not required as described in Section 3.6.2	N/A	N/A
b. When a certified operator or supervisor has been absent from certification duties for greater than 3 months, but less than 12 months, selected retraining (including written and oral examinations and operational evaluations) is provided as deemed necessary prior to reassignment to certification duties.	N	Y	DOE O 5480.20A, Chapter I, Section 10.b only applies to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A
If the absence is greater than 12 months, comprehensive written and oral examinations and operational evaluations (as required of initial candidates) are given to determine weak areas.	N	Y	DOE O 5480.20A, Chapter I, Section 10.b only applies to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A
Retraining and reexamination are required in areas of weakness.	N	Y	DOE O 5480.20A, Chapter I, Section 10.b only applies to certified positions.  Certification is not required as described in Section 3.6.2	N/A	N/A
<b>11. EXCEPTIONS TO TRAINING</b>					
In all cases, the requisite examinations (as described in I.8) to establish qualification are completed.	Y	N	CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
a. Written procedures and criteria are in place for taking and documenting exceptions to the initial training program requirements of 5480.20A.	Y	N	CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.	N/A	N/A
The name of the person, the specific subject for which the exception is requested, and the justification are included as part of the documentation for each exception.	Y	N	CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.	N/A	N/A
The operating organization ensures that sufficient facility-specific instruction is provided to enable the candidate to perform job requirements.	Y	N	CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.	N/A	N/A
Exception procedures are submitted to and approved by the DOE Operations Office Manager.	Y	N	CM-P-AD-064, Obtaining Exceptions to TWPC Training Requirements.	N/A	N/A
c. Individual exceptions are approved by contractor management after approval of the exception procedure by the Operations Office Manager.	Y	N	CM-P-AD-064, Obtaining Exceptions to DOE TWPC Training Requirements.	N/A	N/A
d. If challenge examinations are administered, they are sufficiently comprehensive to adequately test the learning objective(s) that are stated in the training program.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
<b>12. EXTENSIONS</b>					
a. Written procedures which include the elements contained in 5480.20A.I.12.a.(1) through (3) are in place to control extensions of qualification and certification.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
b. Extension of certification is approved by the Operations Office Manager.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Extension of qualification is approved by contractor management.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>13. ALTERNATIVES TO EDUCATION AND EXPERIENCE</b>					
a. Alternatives to the education requirements specified are considered on a case-by-case basis and approved and documented by the operating organization.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
A system or written procedure is in place for determining alternatives to educational requirements using the guidelines provided in 5480.20A.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
(4) Related experience may substitute for education at the rate of six semester credit hours for each year of experience up to a maximum of 60 credit hours.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
b. A system or written procedure is in place for determining alternatives to experience requirements using the guidelines provided in 5480.20A.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
(1) Formal education is not allowed to substitute for more than 50 percent of the experience requirement unless otherwise stated in 5480.20 requirements.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
(2) Job-related training in the position sought may qualify as equivalent to nuclear experience on a one-for-one basis for up to a maximum of two years.	Y	N	CM-P-AD-027, Personnel Qualification and Training	N/A	N/A
<b>15. RECORDS</b>					
Written procedures are in place that specify requirements for the maintenance of training, qualification, and certification records for operating organization personnel.	Y	N	CM-P-AD-049, Records Management	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
a. Qualification and certification of personnel is documented in an easily auditable format.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description CM-P-RP-317, Radiological Control Technician Training Program Description CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program CM-P-AD-049, Records Management  Certification is not required as described in Section 3.6.2	N/A	N/A
<b>Individual</b> qualification and certification records include all items specified in 5480.20A.I.15.a.(1) through (7).	Y	Y	CM-A-AD-003, Training Program CM-P-AD-049, Records Management  Item #4 applies only to certification, which is not required as described in Section 3.6.2  Personnel records are maintained within the Human Resources area and medical records are maintained with the HS Manager.	N/A	N/A
b. A historical record that documents initial qualification or certification, and applicable information from a. above, that verifies the most recent qualification or certification is retained in individual records.	Y	Y	CM-A-AD-003, Training Program CM-P-AD-049, Records Management  Certification is not required as described in Section 3.6.2	N/A	N/A
<b>CHAPTER II CATEGORY A REACTOR FACILITY PERSONNEL – DOES NOT APPLY</b>					
<b>CHAPTER III CATEGORY B &amp; C REACTOR FACILITY PERSONNEL – DOES NOT APPLY</b>					
<b>CHAPTER IV NON-REACTOR NUCLEAR FACILITY PERSONNEL</b>					



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>2. ENTRY-LEVEL</b>					
<b>a. Managers</b>					
Meets the following prior to assuming the position.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
(1) Has a BS in engineering or related science.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
(2) Experience; 4 years nuclear. (3)(a) A degree may fulfill 3 years (job related education or experience may substitute for a degree).	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
(3)(b) Establish facility-specific training based upon comparison of persons background and abilities with position requirements.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
(c) The Training Program Manager has a Baccalaureate which includes courses in education and technical subjects.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>b. Supervisors</b>					
Meets the following prior to assuming the position.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description	N/A	N/A
(1) Has a High School Diploma. (2)(3) Experience; 3 years nuclear of which full-time academic training may fulfill 2 years.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description	N/A	N/A
<b>c. Operators</b>					
(1) Has a High School Diploma.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CH-P-OP-020, Operations Training Program Description	N/A	N/A
<b>d. Technicians</b>					
(1) Experience; 1 year job related.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CM-P-RP-317, Radiological Control Technician Training	N/A	N/A
<b>e. Maintenance Personnel</b>					
(1) Experience; 1 year maintenance related.	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>f. Technical Staff Personnel</b>					
(1) Baccalaureate in engineering or related science (2) Experience: 2 years Job related and 1 year Nuclear	Y	N	CM-A-AD-003, Training Program CM-P-AD-027, Personnel Qualification and Training CM-P-AD-037, Unreviewed Safety Question Process CM-A-AD-017, Nuclear Criticality Safety Program	N/A	N/A
<b>g. Training Organization Personnel</b>					
(1) Training Coordinators	N	Y	TWPC has no Training Coordinators as defined in DOE O 5480.20A.	N/A	N/A
(a) High School Diploma	N	Y	TWPC has no Training Coordinators as defined in DOE O 5480.20A.	N/A	N/A
(b) 2 years nuclear and 6 months on site	N	Y	TWPC has no Training Coordinators as defined in DOE O 5480.20A.	N/A	N/A
(2) Training Instructors	Y	N	CM-A-AD-003, Training Program	N/A	N/A
(a) High School Diploma	Y	N	CM-A-AD-003, Training Program	N/A	N/A
(b) Experience: Consistent with the material being presented.	Y	N	CM-A-AD-003, Training Program	N/A	N/A
(c) Special Requirements: Instructors who are responsible for instruction on subjects such as Technical Safety Requirements have received training on facility operating characteristics and principles, and operating limits and their bases. Instructors have demonstrated knowledge of instructional techniques through training or experience and are qualified by the Training Program Manager (or equivalent) for the material being presented.	Y	N	CM-A-AD-003, Training Program	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>3. MEDICAL EXAMINATIONS</b>					
The physical demands imposed upon personnel for both routine and emergency functions are determined.	Y	N	CM-P-IS-013, Medical Services and Bloodborne Pathogens  DOE O 5480.20A, Chapter IV, Section 3, denotes certified positions. Certification is not required as described in Section 3.6.2	N/A	N/A
An initial medical examination is administered to candidates.	Y	N	CM-P-IS-013, Medical Services and Bloodborne Pathogens  DOE O 5480.20A, Chapter IV, Section 3, denotes certified positions. Certification is not required as described in Section 3.6.2	N/A	N/A
Certified operators, fissionable material handlers, and certified supervisors are reexamined at least every two years.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Certified operators, fissionable material handlers, and certified supervisors are medically cleared prior to returning to work following any sickness or injury which keeps the person from performing duties for a period exceeding one month.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Medical examination requirements for other operating organization personnel are established by contractor procedures.	Y	N	CM-P-IS-013, Medical Services and Bloodborne Pathogens	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>4. SPECIFIC TRAINING</b>					
The depth and scope of training and qualification programs are commensurate with the hazard level and complexity of the operations.					
<b>a. Operators</b>					
Training is sufficiently comprehensive to cover areas which are fundamental to the job duties.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description	N/A	N/A
(1) A core of subjects such as industrial safety, instrumentation and control, basic physics, chemistry, industry operating experience, and major facility systems as applicable to the position and the facility is established.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description	N/A	N/A
(2) Training programs include on-the-job and classroom-type training on the topics identified in IV.4.a.(2)	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description	N/A	N/A
<b>b. Fissionable Material Handlers</b>					
Training includes the same categories specified for Operators, and additional categories listed in IV.4.b. to the extent applicable to the position.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
<b>c. Supervisors</b>					
Training includes the categories and on-the-job training specified for Operators and Fissionable Material Handlers to the extent to which they apply, and is of increased depth to reflect the added responsibility of the supervisor position.	Y	N	CM-A-AD-003, Training Program CH-P-OP-020, Operations Training Program Description  The TWPC does not have Fissionable Material Handlers.	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
<b>d. Certified Operator Written Examination Contents</b>					
The examination includes a representative sampling from the items listed in IV.4.d, in addition to the items listed in paragraph 4a, as appropriate to the position and to the facility.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
<b>e. Certified Supervisor Written Examination Contents</b>					
The examination includes a representative sampling from the items listed in IV.4.e, in addition to the items listed in paragraph IV.4.d, as appropriate to the position and to the facility.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
<b>f. Operational Evaluations</b>					
The operational evaluations administered to certified operator, fissionable material handler, and certified supervisor candidates are generally similar in scope.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
The evaluation contains questions and operational exercises and includes a facility walkthrough, and may include system and/or component operation.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Operational evaluations, to the extent applicable to the facility, require the candidate to demonstrate an understanding of, and the ability to perform the actions necessary to accomplish a representative sampling from the items listed in IV.4.f.(1)-(12).	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
<b>g. Control Manipulations</b>					
A list of control manipulations that is based on an analysis of the job is established.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Certified operator, fissionable material handler, and certified supervisor candidates perform control manipulations for initial certification and	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A



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Order Requirement	Req Met Y/N	Excep Y/N	Compliance Reference, Corrective Action, or Justification	Action/Resp Group	Comp %, Date
On a biennial basis as part of the continuing training program after certification is achieved.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
<b>5. OPERATOR, FISSIONABLE MATERIAL HANDLER, AND SUPERVISOR PROFICIENCY</b>					
Certified operators, fissionable material handlers, and certified supervisors actively participate in the job functions associated with their certification.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
a. Procedures are established by the operating organization which defines requirements and frequency necessary to maintain an active status.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
b. If active status (proficiency) is not maintained, certification is suspended.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
Prior to resuming duties associated with certification, the operating contractor ensures that:	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
(1) Certification is otherwise current and valid; and	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
(2) The certified operator, fissionable material handler, or certified supervisor performs certification duties under the direct supervision of a certified person, as appropriate to the position, for a specific period of time.	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A
c. If the facility is not operated frequently enough to meet normal proficiency requirements certification	N	Y	Certification is not required as described in Section 3.6.2	N/A	N/A



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