

**Standards**

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**Hanford Radiological Worker**

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## **Change Summary**

### **Description of Change**

Comments received were editorial in nature and had no impact to the proposed revision. no additional changes needed.

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## 1.0 PURPOSE

This Training Program Description (TPD) establishes the requirements for Hanford Site Radiological Worker (RW) training applicable to Hanford contractors and DOE workers, except for workers at Pacific Northwest National Lab (PNNL) and Waste Treatment and Immobilization Plant (WTP) construction project. This document defines RW I and II initial, accelerated and retraining/qualification training. The training described below satisfies the requirements of 10 CFR 835, *Occupational Radiation Protection*; DOE/RL-2002-12, *Hanford Radiological Health and Safety Document*; and individual Hanford Site Contractor radiation safety programs.

## 2.0 SCOPE

This TPD applies to all Hanford DOE personnel who enter radiologically posted areas managed by Hanford Contractors, Hanford contractor employees, and subcontractor (including vendor) employees performing work within the scope of one of the Hanford Contractor Radiation Protection Programs. HAMMER provides RW training to all Hanford organizations except for PNNL and WTP. In general, RW training is required for unescorted access to:

- Areas posted as Radiological Buffer Areas, Radioactive Material Areas, and Radiation Areas (RW I).
- Areas posted as Radiological Buffer Areas, Radioactive Material Areas, Radiation Areas, High Radiation Areas and Very High Radiation Areas, Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, and Soil Contamination Area (when disturbing soil) (RW II).
- As specified by individual Hanford Contractor policies and procedures.

## 3.0 RESPONSIBILITIES

### 3.1 Hanford Radiological Control Forum

As required by DOE/RL 2002-12, Sections A and I, and the Hanford Radiological Control Forum (HRCF) Charter, establish criteria and requirements that use DOE standardized core training material to the maximum extent practical.

### 3.2 HAMMER Radiation Safety Training Manager

- Implement the criteria and requirements for RW training and qualification established by the HRCF.
- Keep the HRCF informed of recommended technical and training changes.
- Implement and administer the RW initial and continuing training program.

- Authorize training waivers and extensions for portions of RW training course(s), based on the trainee's previous training or experience, with the responsible contractor's concurrence.
- Support training assessments or evaluations of the RW initial and continuing training program as required by HAMMER procedures or 10 CFR 835, Occupational Radiation Protection.
- Approve RW training program tasks selected for training.
- Approve RW training program learning objectives based on the recommendations of DOE-HDBK-1130-2008, Radiological Worker Training.

### **3.3 HAMMER Radiation Safety Training Manager & Radiological Worker Training Lead**

- Coordinate staff and scheduling of initial, accelerated, and retraining courses to meet the needs of requesting contractors.
- Approves training waivers, extensions, and equivalencies in accordance with approved HAMMER procedures.
- Review and submit training records in accordance with HAMMER procedures.
- Maintain program training records in accordance with HAMMER procedures.
- Provide recommendations on needed level of qualification to contractor training representatives and first line managers.

## **4.0 INITIAL TRAINING**

The RW Training program is comprised of RW I & II initial and accelerated courses. The course content implements the requirements of 10 CFR 835.901(b) and recommendations of DOE-HDBK-1130-2008.

### **4.1 Training Program Entry Requirements**

- There are no education and experience requirements for RW training or qualification.
- Students must be able to read and understand English adequately enough to understand safety and health postings and warnings and complete the RW examinations.
- The Contractor Radiation Protection Managers must approve any language deviation or the use of oral exams.

- Employees must meet the physical requirements necessary for use of personal protective equipment required for the job as established by the Contractor Employee Job Task Analysis (EJTA) or equivalent.

## 4.2 Initial Training

The table below lists the training courses included in initial RW training.

Course No.	ITEM Course Title
020701 0207A1	RW I training, OR RW I accelerated training
020001 0200A1	RW II training, OR RW II accelerated training

## 5.0 INITIAL TRAINING PROCESSES

### 5.1 Instructional Methods

Radiological Worker training is administered by HAMMER in a variety of settings to match the instructional method with the students' level of experience. Classroom instruction, computer based instruction and hands-on practical factors are used to accomplish training.

### 5.2 Training Process

- Radiological Worker training is based on DOE Handbook 1130-2008.
- Revisions have been made in accordance with the Systematic Approach to Training to add Hanford Site information in the program.
- Practical factors have been developed to ensure basic skills are learned prior to use in the field. The Hanford Radiological Control Forum has approved a generic approach to performance elements to support a standardized site RW qualification as required by DOE/RL-2002-12. Facility-specific requirements are addressed in other training or orientations.
- Individuals who have previous RW training or experience (from another DOE site, commercial nuclear, navy nuclear, etc.) or a related college degree may be accelerated through the initial training using the accelerated training course(s).
- Satisfactory completion of both the examination and the practical factors are required.

### 5.3 Testing

Radiological Worker training courses have both a knowledge examination and practical factors evaluation. The knowledge examination may be in the form of a computer-based exam or written examination. In either format, the student will be administered an examination to measure the achievement of learning objectives for each course. Additional testing criteria are:

- The passing criterion for knowledge examinations is 80 percent.
- Examinations will be controlled.
- Practical factors evaluation will be graded on a satisfactory/unsatisfactory system with remediation provided for any missed objective.
- Completion of the exam and performance practical must be completed within 30 days of each other.
- Radiological Control Technicians and Radiological Control Supervisors radiological worker qualifications are covered by HMIS-STD-TQ-61031.

### 5.4 Remediation

Remediation for RW training will be as follows:

- Written and computer based exams will be reviewed with the student prior to taking a second exam. Remediation plans for qualification examinations will be provided to the employee verbally unless they request otherwise in writing.
- Second or subsequent failure requires a remedial plan discussed with the individual's manager or supervisor.
- Performance (practical) deficiencies noted in RW training will be communicated to the employee during the practical factors debriefing. Satisfactory performance of a pass/fail criteria is required prior to satisfactory completion of a performance deficiency.

### 5.5 Training Exceptions

- The HAMMER Radiation Safety Training Manager approves exceptions or waivers to radiological training requirements with written concurrence of the individual's contractor Radiation Protection Manager.
- The HAMMER Radiation Safety Training Manager may authorize equivalencies to training requirements based upon satisfactory evidence of prior training satisfying the objectives of the training program.

**NOTE**

*See HMIS-PRO-TQ-179, Obtaining Training Equivalencies, Exceptions and alternatives for Education and Experience.*

**5.6 Facility Training Support**

- Facilities may identify additional training requirements to supplement the Standardized Hanford RW training program. Typically, this training provides additional knowledge and skill needed by the employee to work safely with facility-specific radiological hazards.
- HAMMER Radiation Safety Training personnel are available to assist in the development and implementation of facility-specific training.
- Development of this training should be conducted in accordance with the Systematic Approach to Training and provided to the necessary employees prior to unsupervised task performance.

**6.0 RETRAINING PROCESS****6.1 Continuing Training**

Continuing training is provided as retraining and is required as listed below. Additional continuing training will be provided as necessary when policies or procedures change or as directed by the HRCF.

**6.2 Retraining**

- Radiological Worker I Retraining (#020703) will be taken in intervals not to exceed 24 months. Retraining will include the academics (classroom or computer-based) and practical factors performance. Retraining shall include examinations or performance demonstration evaluations as appropriate for the topic presented.
- Radiological Worker II Retraining (#020003) will be taken in intervals not to exceed 24 months. Retraining will include the academics (classroom or computer-based) and the practical factors performance. Retraining shall include examinations and or performance demonstration evaluations as appropriate for the topic presented.

**6.3 Extensions**

An employee's RW qualification may be extended for up to 30 days on a case-by-case basis. Extensions are documented and approved in advance per HMIS-PRO-TQ-179, Obtaining Training Equivalencies, Exceptions and Alternatives for Education and Experience.



Individuals whose qualifications have been expired less than six months may complete the retraining course. When qualification expiration is over six months, the individual must complete the initial or accelerated RW course.

#### **6.4 Examinations and Remedial Training**

- Passing scores for knowledge examinations will be 80% or greater. A satisfactory score shall be achieved for Practical Factors. All mandatory pass/fail practical factor criteria must be satisfactorily completed.
- Remediation for re-training courses will be as follows:
  - Performance deficiencies noted in RW training will be communicated to the employee. Practical Factors deficiencies will be addressed during a debriefing with the worker.
  - Remediation for the first qualification examinations failure will be provided to the employee verbally unless they request otherwise in writing. 2nd or subsequent exam failures require a minimum of a discussion with the responsible First Line Manager/buyer technical representative or supervisor.

#### **7.0 REFERENCES**

10 CFR 835.103, *Education, Training and Skills*  
10 CFR 835 Subpart J, *Radiation Safety Training*  
DOE/RL-2002-12, *Hanford Radiological Health and Safety Document*  
HMIS MAN-RC-5173, *HMIS Radiological Control Manual, Chapter 6, Part 3*  
HMIS-PRO-TQ-179, *Obtaining Training Equivalencies, Exceptions and Alternatives for Education and Experience*  
DOE-HDBK-1130-2008, *Radiological Worker Training*  
DOE-STD-1098-2017, *Radiological Control Standard*