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WASTE TREATMENT AND IMMOBILIZATION PLANT
CHAPTER 8.0
PERSONNEL TRAINING
CHANGE CONTROL LOG

Change Control Logs ensure that changes to this unit are performed in a methodical, controlled, coordinated, and transparent manner. Each unit addendum will have its own change control log with a modification history table. The “**Modification Number**” represents Ecology’s method for tracking the different versions of the permit. This log will serve as an up to date record of modifications and version history of the unit.

Modification History Table

Modification Date	Modification Number
04/05/2018	8C.2018.1F
09/05/2017	8C.2017.6F
06/2011	



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CHAPTER 8.0
PERSONNEL TRAINING

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**CHAPTER 8.0
PERSONNEL TRAINING**

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1 8.0 INTRODUCTION

2 This chapter discusses personnel training requirements based on Washington Administrative Code
3 (WAC) 173-303 and the *Dangerous Waste Portion of the Hanford Facility Resource Conservation and*
4 *Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste* (Ecology 1994a),
5 hereafter referred to as “the Permit.”

6 The dangerous waste training program consists of introductory and continuing training programs that are
7 designed to prepare personnel to manage and maintain the Direct Feed Low Activity Waste Facility
8 (DFLAW) Dangerous Waste Management Units (DWMUs) in a safe, effective, and environmentally
9 sound manner. In addition to preparing personnel to manage and maintain the DFLAW DWMUs under
10 normal conditions, the training program ensures that personnel are prepared to respond in a prompt and
11 effective manner should abnormal or emergency conditions occur. Emergency response training is
12 consistent with the description of actions contained in Chapter 7, “Building Emergency Plan.”

13 Permit Condition II.C (Personnel Training) contains training requirements applicable to Hanford Site
14 facility personnel and non-facility personnel. Compliance with these requirements at the Hanford Tank
15 Waste Treatment and Immobilization Plant (WTP) is demonstrated by information contained in both
16 Permit Attachment 5 and this chapter. ~~A training plan for the WTP will be submitted for incorporation~~
17 ~~into the operating record prior to initial receipt of waste to meet interim compliance schedule item 7.~~

18 8.1 Initial Training

19 ~~Introductory-Initial~~ training includes general Hanford Facility training and WTP-specific training.
20 General Hanford Facility training is described ~~below in Permit Attachment 5, and provided in accordance~~
21 ~~with Permit Condition II.C.~~ WTP-specific training is provided to WTP personnel allowing personnel to
22 work unescorted, and in some cases is required for escorted access. WTP personnel cannot perform a
23 task for which they are not properly trained, except to gain required experience while under the direct
24 supervision of a supervisor or coworker who is properly trained. WTP personnel ~~will be~~ trained within
25 6 months after their employment at or on assignment to the WTP. If personnel are assigned to a new job
26 title or position at the WTP, any additional position-specific training ~~will be~~ completed within 6 months.

27 **General Hanford Facility Orientation:** Permit Condition II.C.2 requires Hanford Facility personnel to
28 receive general facility training within 6 months of hire. Refer to description in Permit Attachment 5,
29 Section 5.1. This training provides an orientation on dangerous waste management activities being
30 conducted on the DFLAW DWMUs and includes the following:

- 31 • Training to all new staff that meets the requirements listed for Permit Condition II.C.2.
- 32 • Familiarization with the applicable portions of the Hanford Emergency Management Plan (Permit
33 Attachment 4).
- 34 • Description of emergency signals and appropriate personnel response.
- 35 • Identification of contacts for information regarding dangerous waste management activities.
- 36 • Introduction to waste minimization concepts.
- 37 • Identification of contact(s) for emergencies involving dangerous waste.

38 Permit Condition II.C.4, requires the Permittees to provide the necessary training to non-Facility
39 personnel (i.e., subcontractors) as appropriate for the locations and activities undertaken at the WTP
40 Facility.

41 **Contingency-Building Emergency Plan Training:** -WTP personnel receive training on applicable
42 portions of the *Hanford Emergency Management Plan* (DOE/RL-94-02), as amended (Permit
43 Attachment 4) in General Hanford Facility Orientation. In addition, WTP personnel receive training on
44 the description of actions contained in the ~~contingency plan~~ Building Emergency Plan documentation in
45 Part III, Operating Unit Group 10, Chapter 7.0 to be able to effectively respond to WTP emergencies.

1 **Emergency Coordinator Training:** -WTP personnel who perform emergency coordinator duties as
 2 specified in WAC 173-303-360 (e.g., the Building Emergency Director) in the Hanford Incident
 3 Command System (ICS) receive training on implementation of the contingency plan and fulfilling the
 4 position within the Hanford ICS. These WTP personnel ~~will~~ also become thoroughly familiar with
 5 applicable contingency plan documentation, operations, activities, location, and properties of waste
 6 handled, location of records, and the unit and building layout.

7 Emergency Coordinator training consists of the BED training course required for facility building
 8 emergency directors in DOE/RL-94-02, Table 12-1 and facility specific training; reading the WTP
 9 Building Emergency Plan; recovery planning; and familiarization with WTP Emergency Preparedness
 10 program documentation.

11 **Operations Training:** -Dangerous waste management operations training (e.g., waste designation
 12 training, shippers training) ~~will be determined on a unit by unit basis, and will~~ considers the type of waste
 13 management unit and the type of activities performed at the ~~waste management unit~~ facility. For example,
 14 training provided for management of dangerous waste in containers ~~will be~~ is different than the training
 15 provided for management of dangerous waste in a tank system. Common training required for
 16 compliance within similar waste management units ~~can be~~ is provided in general training, and
 17 supplemented at the WTP. Training provided for WTP-specific operations are identified in ~~both this~~
 18 ~~chapter and will be included in the WTP Dangerous Waste Training Plan~~ Tables 8-1 and 8-2. The detailed
 19 course curricula descriptions ~~will be~~ are contained in the WTP Dangerous Waste Training Plan.
 20 WTP-specific training ~~is based on~~ consists of the following subjects:

- 21 ~~• Whether a general training course exists.~~
- 22 ~~• The training needs to ensure waste management unit compliance with WAC 173-303.~~
- 23 ~~• Training commitments agreed to with the Washington State Department of Ecology.~~
- 24 • Waste verification on receipt at DFLAW DWMUs.
- 25 • Safe and compliant waste treatment activities.
- 26 • Container management.
- 27 • Conducting weekly inspections.
- 28 • Conducting waste pickups.
- 29 • Container packaging and labeling.
- 30 • Dangerous waste tank management (select staff).

31 8.2 Task Specific Training

32 ~~A properly designed~~ The WTP training program ensures that personnel who perform duties at the WTP
 33 related to WAC 173-303-330(1)(e) are trained to perform their duties in compliance with WAC 173-303.
 34 Actual job tasks, referred to as duties, are used to determine training requirements.

- 35 • The first step taken to ensure that WTP personnel have received the proper training is to
 36 determine and document the dangerous waste management duties by job title/ and position.
- 37 • In the second step, dangerous waste management duties are compared to the general waste
 38 management unit training curriculum. If the general waste management unit training curriculum
 39 does not address the waste management duties, the training curriculum is supplemented and (or)
 40 on-the-job training is provided.
- 41 • The third step summarizes the content of a training course necessary to ensure the training
 42 addresses the appropriate dangerous waste management duties.
- 43 • The fourth and last step is to assign training curriculum to WTP personnel based on their job title
 44 and position. The WTP Dangerous Waste Training Plan ~~will~~ describes this process.

1 Waste management duties include those specified in Attachment 5 and Tables 8-1 and 8-2, as well as
 2 those contained in WAC 173-303-330(1)(e). Training elements of WAC 173-303-330(1)(d) applicable to
 3 WTP operations include the following:

- 4 • Procedures for using, inspecting, repairing, and replacing emergency equipment and monitoring
 5 equipment. [WAC 173-303-330(1)(e)(i)]
- 6 • Key parameters for automatic waste feed cut-off systems. [WAC 173-303-330(1)(e)(ii)]
- 7 • Communications or alarm systems. [WAC 173-303-330(1)(e)(iii)]
- 8 • Response to fires or explosions. [WAC 173-303-330(1)(e)(iv)]
- 9 • Shutdown of operations. [WAC 173-303-330(1)(e)(vi)]

10 WTP personnel who perform these duties receive training specific to their duties. The WTP Dangerous
 11 Waste Training Plan ~~will contain~~ detailed course curricula for the types of training WTP personnel
 12 receive based on Attachment 5 and Tables 8-1 and 8-2.

13 8.3 Description of Training Plan

14 ~~The WTP Dangerous Waste Training Plan will consist of one or more documents and a training database.
 15 As allowed under Permit Condition II.C, training records will be maintained in hard copy and/or
 16 electronic media.~~

17 ~~In accordance with Permit Condition II.C, the WTP Dangerous Waste Training Plan is maintained outside
 18 the Permit, in the WTP Unit Specific Files of the Hanford Facility Operating Record. Changes to the
 19 WTP Dangerous Waste Training Plan are not required to undergo a permit modification. However, any
 20 change to this chapter is required to undergo a permit modification, which may affect information
 21 contained in the training plan. Upon completion of a permit modification that updates this chapter, the
 22 permittee has 6 months to submit an updated WTP Dangerous Waste Training Plan for incorporation into
 23 the Operating Record.~~

24 ~~In accordance with Permit Condition II.C.1, the unit specific portion of the Permit will contain a
 25 description of the training plan.~~

26 ~~The WAC 173-303-330 requirements for training are satisfied by this Chapter. A description of how The
 27 WTP Dangerous Waste Training Plan documentation meets the three items in requirements in
 28 WAC 173-303-330(2) is as follows:~~

- 29 1. -330(2)(a): "...the job title, the job description, and the name of the employee filling each job.
 30 The job description must include requisite skills, education, other qualifications, and duties for
 31 each position."

32 **Description:** The specific WTP personnel job title and position is correlated to the waste
 33 management duties. ~~Dangerous W~~waste management duties relating to WAC 173-303 are
 34 correlated to training courses to ensure training is properly assigned.

35 Only names of WTP personnel who perform duties relating to waste management operations at
 36 the WTP are required to be maintained. ~~Names are maintained as described in the WTP
 37 Dangerous Waste Training Plan.~~ A list of personnel assigned to the WTP is available upon
 38 request.

39 Information on requisite skills, education, and other qualifications for job title and positions are
 40 addressed by providing a reference where this information is maintained (for example, Human
 41 Resources). Specific information concerning job title, requisite skills, education, and other
 42 qualifications for personnel can be provided upon request.

- 43 2. -330(2)(b): "A written description of the type and amount of both introductory and continuing
 44 training required for each position."

Description: In addition to the outline provided in Section 8.1, training courses developed to comply with the introductory-initial and continuing training programs are identified and described in the WTP Dangerous Waste Training Plan Tables 8-1 and 8-2. As discussed above in Section 8.1, the training plan will be updated to include detailed course curricula for the types of training WTP personnel receive. The type and amount of training is specified in the training plan. Tables 8-1 and 8-2 are included as examples of a typical training matrix that shows typical job/titles and positions matched to a training category. The WTP Training Plan will be developed and submitted in accordance with Permit Condition III.10.C.7, and will include dangerous waste management-related job titles and position descriptions, and the type and amount of initial, refresher, and on-the-job training required for each.

Certain job titles/positions identified in Table 8-1 and 8-2 may have some variability of task assignment/responsibility. Personnel assigned specific dangerous waste management duties within a job title/position are only required to take the necessary training specific to those duties.

Note that equivalent training can be used to meet the dangerous waste training requirements outlined in Tables 8-1 and 8-2. Employees can substitute courses for the required training if the course is both similar in nature and quality and accomplishes the duties of the position to which he or she is assigned. Personnel must show by documentation or certification that an employee's training has resulted in training equivalency to the training required.

3. -330(2)(c) and -330(3): "Records documenting that facility personnel have received and completed the training required by this section. The Department may require, on a case-by-case basis, that training records include employee initials or signature to verify that training was received."

Description: Training records are maintained consistent with Permit Attachment 5, Section 5.3 and WAC 173-303-330(2)(c) and (3) in the Hanford Facility Operating Record (WTP portion). At a minimum, training records will consist of course attendance rosters correlating the training received with the personnel who were in attendance.

Note that training records are maintained in accordance with the requirements of the Privacy Act of 1974. Training records for personnel are available for inspection purposes through 59 Federal Register (FR) 17091, which gives federal, state, and local government officers 'routine use' access to training records where a regulatory program being implemented is applicable to a DOE or contractor program.

8.4 Continuing Training

Initial and continuing training programs are also designed to prepare personnel during the operations phase, and to manage and maintain the WTP in a safe, effective, and environmentally sound manner. In addition to preparing personnel to manage and maintain the WTP under normal conditions, the training programs ensure that personnel are prepared to respond in a prompt and effective manner should off normal or emergency conditions occur. Emergency response training is consistent with the description of actions contained in Part III, Operating Unit Group 10, Chapter 7.0, "Contingency-Building Emergency Plan." The introductory-initial and continuing training programs are intended to meet the following objectives:

- Train WTP personnel to perform their duties in a way that ensures the WTP's compliance with WAC 173-303 and this permit.
- Train WTP personnel on dangerous waste management procedures (including implementation of the contingency plan) relevant to the job titles and positions in which they are employed.
- Ensure that WTP personnel can respond effectively to emergencies.

- Ensure that the WTP training program is reviewed annually to meet the requirements in WAC 173-303-330(1)(b).

Continuing training meets the requirements for WAC 173-303-330(1)(b) and includes general facility training and unit specific training, as specified below.

General Hanford Facility Orientation Training: Annual refresher training is provided for general Hanford Facility training. Refer to description [above](#) in [Permit Attachment 5](#), Section [5-18.1](#).

Contingency-Building Emergency Plan Training: Annual refresher training is provided for contingency plan training. Refer to description above in Section 8.1.

Emergency Coordinator Training: Annual refresher training is provided for emergency coordinator training, [including the BED facility specific training](#). Refer to description above in Section 8.1.

Operations Training: Refresher training occurs on various frequencies for operations training (i.e., annual, every other year, every 3 years). When justified, some training [will does](#) not contain a refresher course and [will be is](#) identified as a one-time-only training course.

8.5 Training Program Administration

The WTP Project Training Department is responsible for identifying the appropriate training requirements specified in Attachment 5 and Tables 8-1 and 8-2 to ensure that personnel are trained, qualified, and capable of performing their assigned tasks. Project Training is also responsible for providing the support necessary to ensure that personnel are qualified to safely and effectively meet job requirements.

[The WTP training program verifies that personnel who perform duties on the WTP Facility DWMUs related to WAC 173-303-330\(1\)\(d\) are trained to perform their duties in compliance with WAC 173-303. Actual job tasks, referred to as duties, are used to determine training content, and verification determines that WTP personnel have received the proper training by determining and documenting the duties by job title/position. The training plan documentation contains this process.](#)

[Various evaluation techniques are used to measure a trainee's proficiency level. Examples of evaluation techniques are performance in written and oral exams and careful observation of on-the-job performance. The supervisor determines whether the trainee has mastered the skills at the competency level necessary to perform the tasks described in the job description.](#)

[In addition, all employees are required to complete General Employee Training on an annual basis. This training is subject to regular evaluation to ensure that it fully addresses not only dangerous waste issues, but the myriad of other environmental health and safety considerations at the Hanford Facility.](#)

[Periodically, employees critique formal training sessions using a training evaluation form. If effectiveness reviews result in changes to course materials, the materials are updated, reviewed with subject matter experts, and documented in the operating record.](#)

8.5.1 Qualification of Staff (including OJT)

[Training consists of a combination of self-study, classroom instruction, computer-based training, and on-the-job training \(OJT\) through the use of a qualification card.](#)

[OJT activities involve qualified personnel demonstrating a specific task, allowing the trainee to practice the task under supervision of the qualified OJT instructor. The trainee's knowledge and skills are then evaluated against established standards. This can include written and/or oral examinations, evaluations, and reviews to ensure that they are adequately trained commensurate to their job title\(s\)/position\(s\). Results of examinations, evaluations, and reviews are documented and then placed in each individual's training record.](#)

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2 **8.6 JOB TITLE AND JOB DESCRIPTION**

3 The Job titles and positions are specified in WTP Dangerous Waste Training Plan which will be
4 maintained in the Facility Operating Record, as detailed in Permit Condition II.C and III.10.C.7.

5 **8.7 DOCUMENTATION AND RECORD RETENTION**

6 All personnel training records at the WTP facility will be recorded and maintained in the WTP Unit
7 operating record, (Hanford Facility Operating Record), and will be kept onsite or at the permittee's
8 offices located in Richland, Washington, per recordkeeping requirements in Permit Condition II.I and
9 WAC 173-303-380.

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Table 8-1 Example Waste Treatment Plant Training Matrix

Training Category ¹								
Permit Attachment 5 Training Category	General Hanford Facility Training	Contingency Plan Training	Emergency Coordinator Training	Operations Training				
WTP DWTP ² Implementing Category	Orientation Program	Emergency Management Plan	Emergency Coordinator Training	General Waste Management	Container Management	Tank System Management	Containment Buildings Management	Misc. Unit Management
Example Job Title/Position								
Operators	X	X		X		X	X	X
Shift Operations Manager	X	X	X	X	X	X	X	X
Hazardous Waste Operations (HWO) Manager	X	X		X	X	X	X	X
Operations Manager	X	X	X	X				
Environmental Compliance Officer	X			X				
Waste Service Provider	X			X	X			
Hazardous Waste Operators	X	X		X	X	X	X	X
Laboratory Technician – Hazardous Waste Operations (HWO)	X	X		X	X			
Laboratory Technician	X	X						
Laboratory Manager	X	X	X		X			

¹ Refer to the WTP Dangerous Waste Training Plan for a complete description of coursework in each training category.

² DWTP – Dangerous Waste Training Plan

Table 8-2 Lab Operating Training Matrix

Training Category ¹								
Permit Attachment 5 Training Category	General Hanford Facility Training	Contingency Plan Training	Emergency Coordinator Training	Operations Training				
WTP DWTP ² Implementing Category	Orientation Program	Emergency Management Plan	Emergency Coordinator Training	General Waste Management	Container Management	Tank System Management	Containment Buildings Management	Misc. Unit Management
Example Job Title/Position								
Dangerous Waste Operator	X	X		X	X	X	X	X
Laboratory Technician	X	X		X	X			
Laboratory Manager	X	X	X		X			

¹ Refer to the WTP Dangerous Waste Training Plan for a complete description of coursework in each training category.

² DWTP – Dangerous Waste Training Plan