

**LOW-ACTIVITY WASTE PRETREATMENT SYSTEM
ADDENDUM G
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
09/17/2021	8C.2021.8F
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**LOW-ACTIVITY WASTE PRETREATMENT SYSTEM
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1 **G. PERSONNEL TRAINING**

2 This addendum discusses personnel training requirements based on Washington Administrative Code
3 (WAC) 173-303-330, Dangerous Waste Regulations and the Hanford Facility Resource Conservation and
4 Recovery Act (RCRA) Permit, WA7890008967 (Permit).

5 This addendum provides the information necessary to comply with training requirements associated with
6 permitted dangerous waste management activities at Low-Activity Waste Pretreatment System (LAWPS)
7 Operating Unit Group (OUG).

8 **G.1 Introductory and Continuing Training Program**

9 The dangerous waste training program consists of introductory and continuing training programs that are
10 designed to prepare personnel to operate and/or maintain the LAWPS dangerous waste management units
11 (DWMUs) in a safe, effective, and environmentally sound manner. In addition to preparing personnel to
12 manage and maintain LAWPS DWMUs under normal conditions, the training programs ensure that
13 personnel are prepared to respond in a prompt and effective manner should abnormal or emergency
14 conditions occur. Emergency response training is consistent with the description of actions contained in
15 Addendum J, "Contingency Plan."

16 The LAWPS Dangerous Waste Training Plan (DWTP) (TFC-PLN-192), identifies each job title/position
17 and requisite skills, education requirements, and other qualifications for LAWPS personnel.

18 The introductory and continuing training programs contain the following objectives:

- 19
- 20 • Train Hanford Facility personnel to perform their duties in a way that ensures compliance with
21 WAC 173-303.
 - 22 • Train Hanford Facility personnel on dangerous waste management activities (including
23 implementation of the contingency plan) relevant to the job titles/positions in which they are
24 employed.
 - 25 • Ensure Hanford Facility personnel can respond effectively to emergencies.

26 The introductory and continuing training programs meet the requirements of WAC 173-303-330,
27 *Personnel training*, through general Hanford Facility training and Task Specific/Operations training as
28 outlined below.

29 **G.1.1 Introductory Training**

30 Introductory training includes general Hanford Facility training and LAWPS unit-group specific training.
31 General Hanford Facility training is described below. Unit-group specific training is provided to LAWPS
32 personnel allowing those personnel to work unescorted, and in some cases is required for escorted access.
33 Personnel will be supervised until training is complete and cannot perform a task for which they are not
34 trained, except to gain required experience while under the direct supervision of a trained employee, or a
35 professional trainer as described in Section G.2.1.

36 Hanford General Employee Training (HGET): Hanford Facility personnel will receive Hanford Facility
37 training described in Permit Attachment 5, *Hanford Facility Personnel Training Program*. This training
38 provides an orientation on dangerous waste management activities conducted at the Hanford Facility and
39 includes the following:

- 40 • Description of emergency signals and appropriate personnel response.
- 41 • Identification of contacts for information regarding dangerous waste management activities.
- 42 • Introduction to waste minimization concepts.
- Identification of contact(s) for emergencies involving dangerous waste.

- 1 • Familiarization with the applicable portions of the Permit Attachment 4, *Hanford Emergency*
2 *Management Plan* (DOE/RL-94-02).

3 Contingency Plan Training: LAWPS personnel receive training on applicable portions of DOE/RL-94-02
4 in the general LAWPS training. To ensure effective emergency response, personnel receive training on
5 the content of the actions described in Addendum J as well.

6 Emergency Coordinator Training: LAWPS personnel facilitating emergency coordinator duties,
7 WAC 173-303-360, *Emergencies*, such as the Building Warden (BW) within the Hanford Incident
8 Command System (ICS); receive training on implementing Addendum J and ICS BW responsibilities.

9 Task Specific/Operations Training: Dangerous waste management task-specific and operations training
10 (e.g., operator training, shippers training) is determined on a unit-by-unit basis and considers the type of
11 activities performed at the LAWPS Tank-Side Cesium Removal (TSCR). Task-specific and operations
12 training is identified in Table G-1 of this addendum.

13 Non-Low-Activity Waste Pretreatment System Personnel or Visitors: As appropriate for the locations and
14 activities, the Permittees will ensure training to non-LAWPS personnel or visitors is undertaken.
15 Non-LAWPS personnel or visitors include individuals not permanently assigned exclusively to the
16 LAWPS and who do not have dangerous waste management responsibilities or supervision of such
17 activities. These individuals include but are not limited to administrative personnel, regulatory oversight,
18 transient sampling personnel, temporary personnel and other personnel not permanently assigned to
19 LAWPS.

20 **G.1.2 Continuing Training**

21 Refresher training occurs on many frequencies (i.e., annual, biennial, and triennial) for operations
22 training. When justified, some training will not contain a refresher course and will be identified as a
23 one-time-only training course. Frequency of training will be established in the DWTP.

24 **G.2 Description of Training Program**

25 The Training Director is responsible for directing the training program for LAWPS. The job description,
26 duties, requisite skills, minimum education and other qualifications of the Training Director and LAWPS
27 personnel will be described in the LAWPS DWTP.

28 Training elements of WAC 173-303-330(1)(e) applicable to LAWPS operations include the following:

- 29 • Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment.
- 30 • Communications or alarm systems.
- 31 • Response to fires or explosions.
- 32 • Shutdown of operations.
- 33 • Key parameters for automatic waste feed cut-off systems.

34 Proper design of the training program ensures LAWPS personnel will be trained to perform their duties
35 compliant with the Permit and with WAC 173-303 requirements. Actual job tasks, referred to as duties,
36 include the above-referenced elements and are used to determine training requirements. As such, LAWPS
37 personnel will receive training appropriate to the duties they perform. This enables employees to know
38 how to respond to emergencies, handle mixed/dangerous waste properly, and perform their work/duties in
39 a safe manner.

1 **G.2.1 Qualification of Personnel**

2 Qualification of facility personnel relies on a combination of required education and experience, training
3 courses (classroom and computer based), required reading, and on-the-job training. Training is
4 determined and assigned based on job duties described in this addendum. Documentation for completion
5 of training (e.g., course roster, qualification card, on-the-job training card, qualification checklist,
6 required reading, etc.) is retained in the LAWPS Operating Record.

7 Various evaluation techniques are used to measure a trainee's satisfactory completion of training.
8 Examples of evaluation techniques are performance in written and oral exams and careful observation of
9 on-the-job performance. Periodically, employees critique formal training sessions using a training
10 evaluation form. The evaluator determines whether the trainee has mastered the skills at the competency
11 level necessary to perform the tasks described in the job description.

12 On-the-job training is hands-on training for the job duty provided under instruction of a trained employee
13 or a professional trainer who serves as the course instructor. On-the-job training is assigned a course
14 number with course completion being proof of training.

15 Training to meet the dangerous waste training program requirements is required to be completed within
16 6 months of assignment to dangerous waste duties at the Hanford Facility, or to a new job/title position at
17 the Hanford Facility, whichever is later. While training courses (classroom and computer based) can be
18 completed within 6 months, on-the-job training may take longer than 6 months to complete due to facility
19 inactivity, complexity of requirements, complexity of tasks being performed, and pursuant to collective
20 bargaining agreements. In no case will untrained personnel be allowed to complete job duties described in
21 this addendum unless overseen by trained personnel.

22 **G.2.2 Review of the Training Program**

23 All employees are required to complete HGET on an annual basis. This training is subject to biennial
24 evaluation by HGET Approval Authorities who review, and revise HGET lessons when deemed
25 necessary.

26 The Permittee's dangerous waste training program is reviewed through an iterative process of continuous
27 improvement.

28 The following information is evaluated as part of this review:

- 29 • Changes to the Dangerous Waste Regulations.
- 30 • Changes to the RCRA Permit.
- 31 • Procedural changes.
- 32 • Issues and opportunities for improvement identified by internal assessments.
- 33 • Issues or areas of noncompliance identified as a result of events or regulatory inspections.
- 34 • Deficiencies in staff performance of job tasks.
- 35 • Feedback on training content.

36 Changes, problems or opportunities for improvement may be addressed by revising course content, retrain
37 frequency or delivery method. Periodically, employees critique formal training sessions using a training
38 evaluation form. Each dangerous waste training course undergoes a full review at least every three years
39 even if none of the conditions above indicate the need to revise the training program.

40 Training matrices included in the DWTP will indicate regularly scheduled (required) refresher training
41 frequencies of individual courses for the express purpose of ensuring a regimented review of course
42 material at a topical level on a specified interval.

1 Included in the review of training is an annual review of training matrices identifying minor changes
2 (e.g. course numbers). Minor changes will be submitted as permit modification following the
3 requirements in WAC 173-303-830(4)(a)(i), consistent with identifying changes in the DWTP which are
4 not a decrease in the type or amount of training given to employees.

5 **G.3 Description of Training Plan**

6 The training plan documentation is maintained outside of the Permit, but documentation is included in the
7 LAWPS OUG Operating Record. Therefore, changes made to the training plan documentation are not
8 subject to the permit modification process. However, the training plan documentation is prepared to
9 comply with WAC 173-303-330(2).

10 Documentation prepared to meet the training plan will consist of hard copy and/or electronic media. The
11 training plan documentation will consist of one or more documents and/or a training database with all the
12 components identified in the core document.

13 The WAC 173-303-330 requirements for training are satisfied by this addendum. A description of how
14 training plan documentation will meet the three items in WAC 173-303-330(2) is as follows:

15 **WAC 173-303-330(2)(a):** "...the job title, the job description, and the name of the employee filling each
16 job. The job description must include the requisite skills, education, other qualifications, and duties for
17 each position."

18 Description: The specific LAWPS personnel job title/position is correlated to the waste management
19 duties. Waste management duties relating to WAC 173-303 are correlated to training courses to verify
20 that training is properly assigned.

21 Only names of LAWPS personnel who carry out job duties relating to Treatment, Storage, or Disposal
22 (TSD) unit waste management operations at the LAWPS will be maintained. A list of personnel assigned
23 to the LAWPS will be made available upon request.

24 Detailed information concerning job title, requisite skills, education, and other qualifications for
25 personnel will be found in the DWTP documentation and will be made available upon request.

26 **WAC 173-303-330(2)(b):** "A written description of the type and amount of both introductory and
27 continuing training required for each position."

28 Description: In addition to the outline provided in Section G.1, the type, amount, and description of both
29 introductory and continuing training relevant to positions and job duties for LAWPS personnel required
30 in the Permit will be included in the LAWPS DWTP, TFC-PLN-192 (as amended). Certain positions may
31 have some variability of task assignment/responsibility. Personnel assigned specific waste management
32 duties within a position are only required to take the necessary training specific to that duty.

33 **WAC 173-303-330(2)(c):** "Records documenting that facility personnel have received and completed the
34 training required by this section. The department may require, on a case-by-case basis, that training
35 records include employee initials or signature to verify that training was received."

36 Description: The Permittees will maintain documentation for completion of training (e.g., course roster,
37 qualification card, on-the-job training card, qualification checklist, required reading, etc.) in the LAWPS
38 OUG Record in accordance with Permit Condition II.C.5.

39 Note that training records are maintained in accordance with the requirements of the *Privacy Act of 1974*.
40 Training records for personnel are available for inspection purposes through 59 Federal Regulations (FR)
41 17091, which gives federal, state, and local government officers "routine use" access to training records
42 where a regulatory program being implemented is applicable to a Department of Energy (DOE) or
43 contractor program.

Table G-1 Personnel Training

Course	Course Title/Description	Frequency									
			NCO – Operations	NCO – TSCR Operator	Environmental Field Representative	Shift Operations Manager/Operations Engineer	Building Emergency Director (BED)	Dangerous Waste Training Program Director	Nonescorted Visitors and Other Nonresident Personnel who are not Facility Residents	Escorted Visitors and Other Nonresident Personnel who are not Facility Residents	
000001	Hanford General Employee Training <i>Standard alarms, chemical spills, security, hazards, signs, escorts, badge requirements, and overall safety.</i>	Initial	X	X	X	X	X	X	X	X	X
000019 (000001 refresher)	Hanford General Employee Training Refresher <i>Standard alarms, chemical spills, security, hazards, signs, escorts, badge requirements, and overall safety.</i>	Annual after Initial	X	X	X	X	X	X			
351306	TSCR Operator Qualification <i>Operations of TSCR systems including start up and shut down, and facility-specific emergency response, abnormal operating, alarm response procedures.</i>	Initial		X							
351316	TSCR Operator Requalification <i>Operations of TSCR systems including start up and shut down, and facility-specific emergency response, abnormal operating, alarm response procedures.</i>	Biennial after Initial		X							
350340	Tank Operations Contractor (TOC) Base Operations Initial (OJT/PD) <i>Interplant Relationships, Operational Requirements, and Emergency Response.</i>	Initial	X	X							

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350342 (350340 requalification)	Base Operations Requalification (PD) <i>Interplant relationships, Operational requirements, and Emergency response.</i>	Biennial after Initial	X	X						
350560	TOC Waste Handling, Segregation, and Packaging <i>Waste management, Waste handling, Waste generation, Satellite Accumulation, Waste Clean-up.</i>	Initial	X	X	X	X				
350561 (350560 refresher)	TOC Waste Handling, Segregation, and Packaging Refresher – CBT <i>Waste management, Waste handling, Waste generation, Satellite Accumulation, Waste Clean-up.</i>	Annual after Initial	X	X	X	X				
358003	TOC Facility Orientation and FEHIC – CBT <i>Basic Operations, Safety, and Security, Waste Minimization, Emergency response, Hazard communications.</i>	Annual	X	X	X	X	X		X	
35E001	TOC Emergency Response Organization Initial Training (Classroom) <i>Hierarchy of the Emergency Management Documents, Development of Emergency Action Levels, Operational Emergencies, Protective Actions, Responsibilities of the Emergency Coordinator within RCRA Contingency Plan.</i>	Initial					X			

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35E002 (35E001 refresher)	TOC Emergency Response Organization Refresher Training (Classroom) <i>Hierarchy of the Emergency Management, documents, development of emergency action levels, operational emergencies, protective actions, responsibilities of the emergency coordinator within RCRA Contingency Plan.</i>	Annual after Initial					X			
35E003	Tank Farms Emergency Response Organization for Support Personnel <i>Roles and Responsibilities of the emergency response organization, event scene mitigation and set-up, emergency response procedures, conditions that require Hanford incident command system, event discoverers responsibilities.</i>	Annual	X	X						
35E006	TOC Event Scene Response Training <i>Event discoverer actions, activation of the Hanford incident command system, event scene operations, emergency response organization roles and responsibilities.</i>	Biennial	X	X						

*The training frequency may be extended if required training cannot be obtained such as during declared national emergency. Completion of a course that has been determined by company process to be equivalent is also acceptable.

**CBT = Computer Based Training; OJT = On the Job Training; PD = Performance Demonstration; NCO = Nuclear Chemical Operator

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