



DEPARTMENT OF
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Guide to Dangerous Waste Training



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Dangerous Waste Training Overview

This guide takes you through the steps to develop a **training program** and **training plan**. It helps you determine who needs to be involved in the program and what to include in the written plan.

What is a dangerous waste training program?

If you are a large quantity generator (LQG), you must develop a **training program** of classroom instruction or on-the-job training for your facility's employees. This program must:

- Teach employees to perform their duties in a way that ensures the facility complies with the Dangerous Waste Regulations.
- Teach employees dangerous waste management procedures relevant to their positions and job responsibilities, such as:
 - How to create and implement a contingency plan.
 - How to manage containers and tanks properly.
 - What the proper accumulation timeframes are for each type of dangerous waste.
 - How to conduct facility inspections.
 - How to prepare manifests.
 - How to designate a waste.
- Ensure employees are able to respond properly to emergencies.
- Be directed by someone knowledgeable about dangerous waste management procedures and the facility's operations.
- Be written, documented, and available to compliance specialists during inspections.

We designed this publication to provide guidance. You are still responsible for knowing and implementing the full Dangerous Waste Regulations, [Chapter 173-303 in the Washington Administrative Code](#).² You can find LQG personnel training requirements in [WAC 173-303-200\(9\)](#)³ and Treatment, Storage, and Disposal Facilities training requirements in [WAC 173-303-330](#).⁴

² <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303>

³ <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-200>

⁴ <https://apps.leg.wa.gov/wac/default.aspx?cite=173-303-330>

What is a dangerous waste training plan?

You must create and maintain a dangerous waste **training plan** for your facility. The plan must include all of the following:

- The job title, job description, and name of the employee filling each position relating to dangerous waste management.
 - The job description must include the required skills, education, other qualifications, and duties for each position.
- A written description of the type and amount of introductory and continuing training required for each position.
- The records documenting that employees have received and completed the required training.

When should employees be trained?

For any positions involving dangerous waste management at your facility, the dangerous waste training plan must specify that employees need to complete training successfully within six months of starting. This includes existing employees starting a new role involving dangerous waste activities and contractors.

The dangerous waste training plan must also require that untrained employees be supervised until they complete the training program.

Annual training program review

After establishing your program, facility personnel (specified in the training plan) must review the training program annually. They must review all topics in the training program.

Detail how you plan to review the training program in your training plan. These reviews typically address:

- Changes at the facility that impact dangerous waste management and emergency procedures.
- Assurance that employees have the correct training assigned.
- Feedback about the training materials and frequency.
- Results from dangerous waste inspections by the facility, regulators, and other oversight entities, such as the Environmental Protection Agency.
- Changes to the dangerous waste regulations.
- Needs for updating training materials.
- Results from implementing the contingency plan.

Steps to Build a Dangerous Waste Training Plan

Step 1: Identify positions involved with dangerous waste management and other related duties

For example, include positions that:

- Add or remove waste from containers or tanks.
- Operate a recycling still or wastewater treatment unit.
- Perform treatment by generator (TBG) activities such as neutralization or evaporation.
- Transfer waste from one area or container to another.
- Inspect dangerous waste accumulation areas.
- Label containers.
- Prepare waste for transport.
- Designate waste.
- Track and manage dangerous waste records such as inspections, manifests, or training records.
- Implement the contingency plan and emergency procedures.
- Respond to spills.
- Move dangerous waste containers.
- Supervise staff who perform waste management activities.
- Collect samples.

Step 2: Write a job description for each position identified

For each position you identified in Step 1 above, include the job title, job description, and name of the employee filling each job. The job description must include the requisite skills, education, other qualifications, and duties, including the dangerous waste activities performed.

Below are three example job descriptions.

Job Title: Administrative Assistant

Name: Chien-Shiung Wu

Job Description: Tracks and manages manifests. Keeps records, including weekly inspection records, manifests, personnel training plan, and training records. Updates the Contingency Plan annually, including the site emergency contact information and evacuation map.

Required Skills: Ability to conduct administrative procedures in an office work setting.

Education: High school diploma or equivalent.

Job Title: Shop Assistant**Name:** John Herrington

Job Description: Prepares and labels dangerous waste satellite accumulation area drums with dangerous waste and hazard labels, and marks the accumulation start date on full drums of dangerous waste. Transfers them from the satellite accumulation area to the central accumulation area in preparation for pickup. Adds or removes dangerous waste from containers. Operates a solvent recycling still and records activities on a still log. Performs TBG activities (such as neutralization or evaporation) and records batches in TBG log. Informs Shop Manager when satellite containers are full. Fills in for Shop Manager as needed to perform weekly area inspections.

Requisite Skills: At least two years of experience working at a paint shop.

Education: An Associate of Science or Associate of Arts degree.

Job Title: Shop Manager**Name:** Mae Jemison

Job Description: Calls the dangerous waste hauler to schedule waste pickup. Signs the manifests. Provides annual dangerous waste training to employees. Performs and documents weekly dangerous waste accumulation area inspections and general facility inspections. Completes the Dangerous Waste Annual Report. Responds to spills.

Requisite Skills: At least three years of experience managing a manufacturing or related business.

Education: A Bachelor's degree in business management or associated field, US Department of Transportation (DOT) training.



Figure 1: Job descriptions must specify which workers can perform each dangerous waste activity, such as adding waste to containers.

Step 3: Identify training levels or job position trainings

Consider each position involved with dangerous waste management, one at a time. Identify the type and amount of introductory and continuing training required for each position based on their respective job duties.

One optional approach uses training levels to determine which staff fit into categories that may need varying levels of trainings. An example of training levels is shown below.

Level one

Employees with minimal dangerous waste or records contact. For example:

- Administrative assistants
- Touch-up painters

Positions that require:

- Adding waste to containers.
- Maintaining copies of records for five years.
- Responding to emergencies.

Level two

Employees who supervise level one workers or employees with extensive dangerous waste contact. For example:

- | | |
|------------------------|------------------------------|
| • Shop assistants | • Mechanics |
| • Paint gun operators | • Solvent still operators |
| • Machinists | • Evaporation unit operators |
| • Plating line workers | • TBG operators |
| • Silk screen washers | • Fork lift operators |

Positions that require:

- Accessing satellite accumulation areas.⁵
- Transferring wastes from satellite accumulation areas to final accumulation areas.
- Labeling dangerous waste containers, used oil containers, spent antifreeze containers, used shop rag containers, and universal waste containers for bulbs and batteries.

⁵ A way to prevent improper waste additions and control the process that generates the waste can be to require satellite accumulation area training for all staff with unrestricted access to satellite accumulation areas.

- Operating a solvent still or wastewater treatment unit.
- Performing TBG activities.
- Updating emergency contact information and evacuation maps.

Level three

Employees who supervise level two workers or would respond to a hazardous materials emergency. For example:

- Shop managers
- Environmental health and safety managers
- Emergency responders or coordinators
- Dangerous waste generation area supervisors

Positions that require:

- Inspecting accumulation areas and emergency response equipment.
- Filling out and signing manifests.
- Responding to spills and emergencies.
- Providing cleanup oversight.
- Training new employees.



Figure 2: Each worker needs complete training for any tasks they will be responsible for, such as labeling dangerous waste.

Step 4: Write training elements for each level

Determine which training elements employees must receive based on their position or training level.

Below are some example training levels and elements. You will need to determine the specific requirements for your facility's operations.

Level one

- Employees understand that all dangerous waste containers must be kept closed except when adding or removing wastes. This includes universal waste lamps, spent antifreeze, and used oil containers
- Employees are familiar with emergency equipment and procedures.
- Employees understand recordkeeping requirements for manifests, training records, waste profiles, and waste designation records.

Level two

- Everything in level one.
- Employees are familiar with satellite accumulation area requirements.
 - Employees understand that satellite accumulation containers must be marked with the accumulation start date on the date the accumulation area reaches 55 gallons.
 - Employees understand that when a satellite accumulation area reaches 55 gallons, all the waste area containers in that satellite area must be dated and transferred to the final accumulation area within three days.
- Employees understand that containers holding dangerous waste must be labeled or marked with:
 - The words "Hazardous Waste" or "Dangerous Waste,"
 - The hazards associated with the waste (for example, "toxic" or "flammable"), and
 - The accumulation start date (except for the satellite accumulation containers).
- Employees understand that large quantity generators of dangerous waste have 90 days from the accumulation start date to ship waste off site.
- Employees understand they must record the amounts of solvent recycled in a solvent still recycling log, and that all other container management requirements apply (such as keeping solvent containers closed and labeling accumulated undistilled solvent as dangerous waste and with the hazard).

- Employees performing TBG activities understand they must maintain a log showing the date and amount of waste treated, and that all other container management requirements apply.
- Forklift operators moving dangerous waste containers have the required certifications to operate a forklift.

Level three

- Everything in levels one and two.
- Employees understand they must inspect the final accumulation area weekly.
 - Record any problems on the inspection log, including the date and actions taken to correct the problem.
- Employees understand they must regularly inspect emergency response equipment.
- Employees know the location(s) of emergency response equipment and how to use it.



Figure 3: It needs to be clear which employees are trained in specific procedures, such as emergency response.

Step 5: Develop the required trainings

Using the list of training elements in Steps 3 and 4 above, develop the training courses for your dangerous waste training plan.

Training elements

You can use a training outline to identify the topic areas to teach your employees, and then use the outline as a guide to correlate the topics with the staff that conduct the work. Below are some example training elements.

Dangerous waste container management

- Keep containers closed except when adding or removing waste.
 - Lock and secure funnels to the containers.
 - Remove non-locking funnels after adding or removing waste and close container.
 - Securely fasten drum rings.
- Separate rows of containers with 30 inches of aisle space.
- Check that containers are in good condition, including free from rust, dents, and leaks.
- Keep the secondary containment in good condition and free from standing liquids.

Labeling

- Label or mark containers with the following:
 - The words “Hazardous Waste” or “Dangerous Waste.”
 - All hazards of the waste (such as “Ignitable,” “Corrosive,” “Reactive,” or “Toxic”).
 - The accumulation start date (except for waste in satellite accumulation areas).

Label size

- Lettering must be legible from a distance of twenty-five feet or the lettering size must be a minimum of one-half inch in height. The only exception is for containers one gallon (or four liters) and under.
- The accumulation start date must be listed on all containers regardless of size.

Satellite accumulation

- Know the location(s) of any satellite accumulation area(s).
- Know who the designated operators are for each satellite accumulation area.
- The designated operator(s) must:
 - Make sure no more than 55 gallons accumulate in each satellite area.

- Make sure satellite accumulation containers have “Hazardous Waste” or “Dangerous Waste” labels.
- Make sure satellite accumulation containers have major hazard labels (such as “Flammable,” “Corrosive,” “Toxic,” or “Reactive”).
- Immediately date containers with the accumulation start date when the satellite area reaches 55 gallons.
- Move the containers to the final accumulation area within three days of reaching 55 gallons.

Accumulation start dates

- Label all non-satellite containers with the date waste first started accumulating in the container.
- Date satellite containers when full (or amount of waste accumulated in the satellite area reaches 55 gallons).
- Ship dangerous waste off site to a permitted hazardous waste facility or treat it on site within 90 days.
- Call your facility’s vendor to schedule a pickup when the date on the container shows the waste is approaching the 90-day mark of being on site.

Weekly inspections

- Conduct weekly inspections of the central accumulation areas.
- Log weekly accumulation area inspections.
- Note problems and any actions taken to correct them on the log, along with the date of the corrections.
- Inspect emergency response equipment and spill kits to ensure the necessary supplies are available and still viable.
- Keep copies of the weekly inspection logs for a minimum of five years.

Training methods

There are many different ways to train your staff. Below are common types of training that many facilities include in their dangerous waste training plans.

Classroom training

Classroom training allows the instructor or instructors to interact with students and answer questions that may come up. This interactive approach allows instructors with personal experience to provide perspective on the presentation materials.

Classroom trainings can be difficult to schedule frequently enough for both new and existing staff. They are a good option when many of your staff need to take the training to continue to do their work.



Figure 4: Classroom training can be a good option when a lot of your staff need to take the training.

Computer-based training

Computer-based training uses a computer program or computer-based presentation your staff can review individually. This type of training works well for simple, easy-to-relay concepts that require little discussion.

Computer-based trainings allow for more flexibility as they can be completed at any time and do not need to be scheduled by your facility. For example, staff may review computer-based presentations, attend webinars online, or take automated tests on the material.

On-the-job training

On-the-job training works well for complicated tasks that require staff to learn the work they will be doing with hands-on experience. Below are some examples of on-the-job training.

Example for set procedures

A trainee can review the facility's procedures under supervision of an already-trained employee, who then schedules a review of the trainee to ensure they understand the procedures.

Example for emergency procedures

Staff already trained in your facility's emergency procedures can conduct a mock emergency and have the trainee work through them.

Example for weekly container inspections

Generally, the inspection is conducted by the trainee with an already-trained employee's supervision.

Training on emergency equipment and procedures

In your dangerous waste training plan, show how your program ensures appropriate employees know how to respond to emergencies effectively and are familiar with emergency procedures, equipment, and systems. This includes:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment.
- Key parameters for automatic waste feed cut-off systems, if the facility has them.
- Procedures for using communications or alarm systems.
- Appropriate response to fires, explosions, leaks, or spills.
- Appropriate response to groundwater contamination incidents.
- Procedures for shutting down facility operations.
- Other aspects of dangerous waste management or emergency procedures and operations.

For many facilities, some of the above requirements will apply to all positions facility-wide.

However, some facilities are so extensive or specialized that personnel will be strictly assigned to a set area or specific machinery only. In that case, personnel may not need to be trained for all aspects of emergency equipment, systems, and procedures facility-wide.

If an employee is not trained for facility-wide activity, the dangerous waste training plan should clearly specify the limits of each employee's activity and related training requirements.

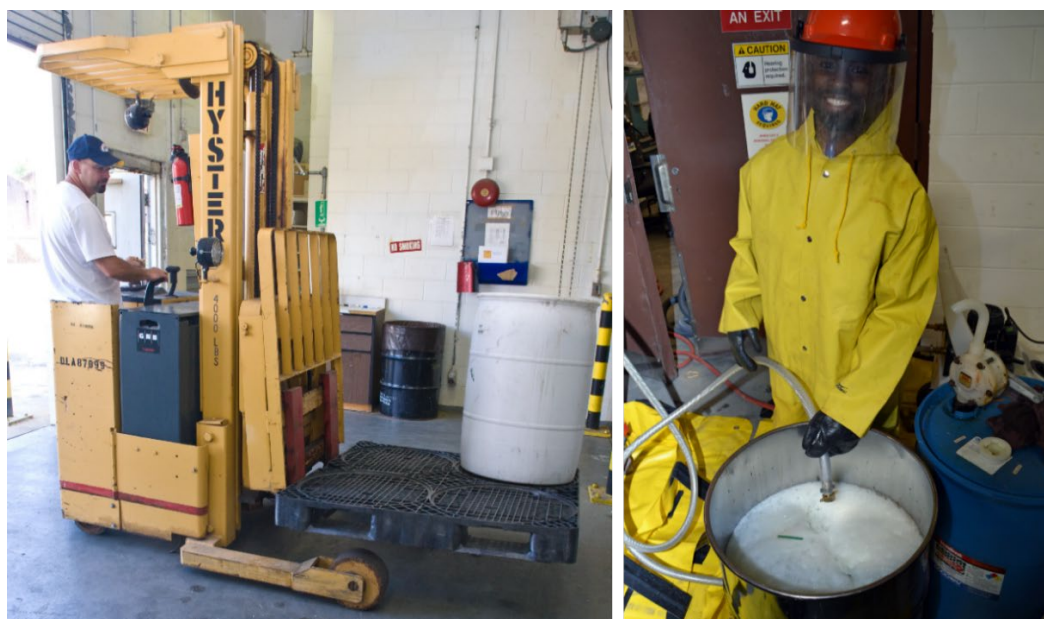


Figure 5: Workers must be properly trained for all equipment they use, such as forklifts and dangerous waste containers.

Other training requirements

Your training plan must describe the content, frequency, and techniques used in initial and continuing training. This will ensure employees are prepared to operate and maintain the facility safely, and in a way that complies with all dangerous waste regulations.

Explain how the facility ensures each employee will be trained on procedures relevant to their position and assigned tasks. Below are some training categories that are common in dangerous waste training plans.

- 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER).
- Annual 8-hour HAZWOPER refresher.
- First Aid and CPR.
- Dangerous waste documents and records retention.
- Contingency plan and emergency response.
- US Department of Transportation regulations.
- Generator knowledge, waste designation, and waste analysis plan training.
- Dangerous waste regulations.
- Sampling.
- Inspection procedures.
- Proper operation of any machinery used in dangerous waste management (such as forklift certifications).
- Proper personal protection equipment (such as using the correct type of gloves for the chemicals handled).
- Chemical and physical characteristics of the wastes the employees are managing (such as toxic, flammable, corrosive, or reactive).

Step 6: Develop a training outline

One way of developing a training outline is by using a training matrix. A training matrix identifies which trainings are required for each job title or position. It lists all job titles or positions on one axis and every training course required to meet the dangerous waste regulations on the other axis. Where a position description or job duty intersects with a training course, an “X” is used to indicate the training course is required. Ensure you document the required frequency of the training in your outline.

The dangerous waste training plan should have a brief description of what each training course teaches. Complete course descriptions are not required to be included in the dangerous waste training plan, but need to be kept at the facility so they are available during inspections.

A sample training matrix is shown below for an example of its structure.

Table 1: Sample training matrix. Your training matrix should include course titles, training frequency, job titles, and notations of which job titles need to complete which courses.

Course Number	Course Title	Frequency	Type of Training	Administrative Assistant	Fork Lift Operator	Dangerous Waste Designator	Shop Assistant
1010	40-Hour HAZWOPER Training	One Time	Classroom	Not required	Required	Required	Required
1011	8-Hour HAZWOPER Refresher	Annual	Classroom	Not required	Required	Required	Required
1012	Dangerous Waste Overview	One Time	CBT ⁶	Required	Required	Required	Required
1013	Dangerous Waste Record Keeping	Annual	CBT	Required	Not required	Required	Required
1014	Satellite Accumulation	Annual	CBT	Required	Required	Required	Required
1015	Hazardous Waste Container Management	Biennial after initial	Classroom	Not required	Not required	Not required	Required
1016	Central Accumulation Area Inspections	Annual	CBT	Not required	Not required	Not required	Required
1017	First Aid CPR	Biennial after initial	Classroom	Required	Required	Required	Required
1018	Emergency Equipment	Annual	Classroom	Required	Required	Required	Required
1019	Emergency Response	Annual	OJT ⁷	Required	Required	Required	Required
1020	Waste Analysis Plan	Annual	Classroom	Not required	Not required	Required	Not required
1021	Waste Designation	Biennial after initial	Classroom	Not required	Not required	Required	Not required
2022	Forklift Operation and Certification	One time	Classroom and OJT	Not required	Required	Not required	Not required

Step 7: Describe training documentation and records retention practices

Your dangerous waste training plan should describe your recordkeeping system. This documents that your employees received and successfully completed all required training for their position descriptions and job duties.

You must maintain records documenting that facility personnel have received and completed the training. All training records for current employees must be kept until facility closure. Training records for former employees must be kept for at least three years from the date they last worked at the facility.

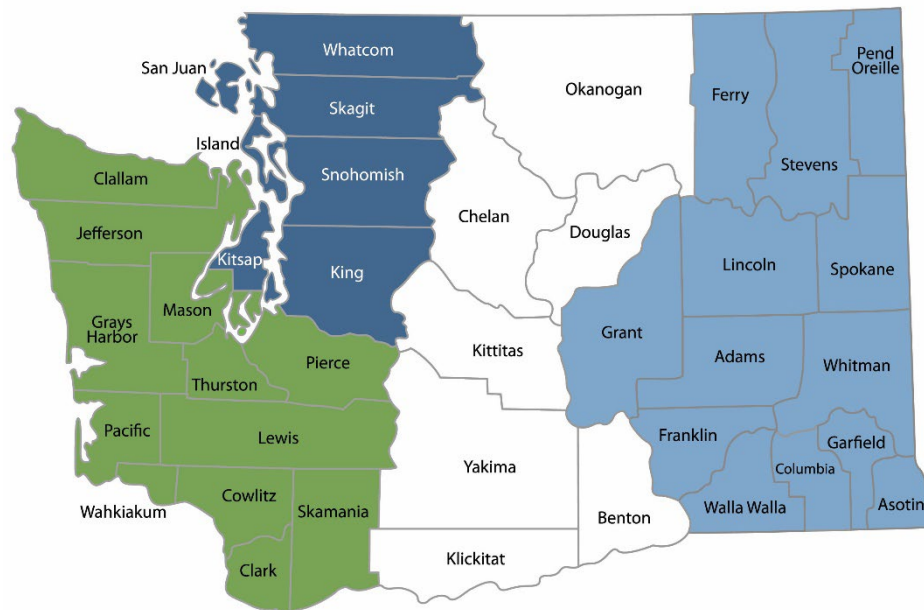
⁶ Computer-based training

⁷ On-the-job training

Get More Help

For assistance, please contact a hazardous waste specialist at one of the following Ecology offices.

Department of Ecology Regional Offices



Southwest Region
360-407-6300

Northwest Region
206-594-0000

Central Region
509-575-2490

Eastern Region
509-329-3400

Northwest Regional Office, Shoreline: 206-594-0000

Counties: Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom

Southwest Regional Office, Lacey: 360-407-6300

Counties: Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum

Central Regional Office, Union Gap: 509-575-2490

Counties: Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima

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