

The HAZWOPER Regulation Simplified

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Introduction

The Hazardous Waste Operations and Emergency Response (HAZWOPER) standard found at 29 CFR 1910.120 was published as a Final Rule in the Federal Register on March 6, 1989 (FR 54:9294-336) and went into effect one year later on March 6, 1990. The HAZWOPER standard was incorporated into the Construction Safety Orders at 29 CFR 1926.65 on June 30, 1993. The EPA also promulgated the standard in 40 CFR 311.

OSHA was required by congress through the Superfund Amendments and Reauthorization Act of 1986 (SARA), Title I, to promulgate a standard for the protection of workers during hazardous waste operations, including emergency response to releases of hazardous substances.

The HAZWOPER standard covers three distinct groups of workers. The following is taken from the Abstract of the Final Rule; *This rule will regulate the safety and health of employees involved in clean-up operations at uncontrolled hazardous waste sites being cleaned-up under government mandate, in certain hazardous waste treatment, storage, and disposal (TSD) operations conducted under RCRA, and in any emergency response to incidents involving hazardous substances.*

HAZWOPER identifies specific training requirements for each of the three specific groups of workers. The level of training required depends on the role and responsibilities the worker is expected to perform. The standard identifies different types of workers each having their own requirements for the length of training and the competencies expected of them. This session will present an overview of the different training requirements for each type of worker along with some of the common misconceptions.

Hazardous Waste Site Workers

The first group of workers identified by the standard is the Hazardous Waste Site worker. Typically, the cleanup worker is remediating a site after a hazardous substance release has occurred and the location and level of hazardous substances on the site are well-characterized. The training requirements for the hazardous waste site worker are found at 1910.120(e). Three different types of workers are clearly identified in this section.

1. General Site Workers, 1910.120(e)(3)(i) – General Site Workers are those employees *engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards*. These workers must receive 40 hours of instruction off the site, and a minimum of three days supervised field experience.
2. Occasional Site Workers, 1910.120(e)(3)(ii) – Occasional Site Workers are those employees *on site only occasionally for a specific limited task and who are unlikely to be exposed over permissible exposure limits and published exposure limits*. These employees are to receive 24 hours of instruction off the site, and a minimum of one day supervised field experience.
3. Management and Supervisors, 1910.120(e)(4) – These are employees who directly supervise General or Occasional site workers. They are required to have the same training as the employees they are supervising plus an additional eight hours of specialized training.

A discussion of the difference between a General and Occasional site worker is important. The names given to these two distinct workers are somewhat unfortunate, as most people classify workers, and thus the training requirements, based solely on the amount of time a worker spends at the site. This approach generally leads to the conclusion that most workers need the 40-hour General Site Worker course. This is not going to be the case in all situations and can lead to unnecessary expenditures of resources in both time and money.

The difference between a General Site Worker and an Occasional Site Worker becomes apparent in 1910.120(e)(3)(iii). In this section we find that the difference is in the need to wear respiratory protection. The standard clearly allows a worker trained to the Occasional Site Worker level (24 hours of training, plus one day field experience) to *regularly* work on site as long as the site has been monitored and fully characterized and all exposures are under published exposure limits.

This point is important in deciding the proper level of HAZWOPER training necessary for the waste site worker. If hazardous waste site workers will not be exposed above Permissible Exposure Limits (PELs) or other published exposure limits, and thus no respiratory protection is necessary, workers can receive 24 hours of training equal to the Occasional Site Worker and *regularly* work at hazardous waste sites.

If it becomes necessary for a previously trained Occasional Site Worker to wear respiratory protection, the standard allows a worker to receive an additional 16 hours of training plus two additional days of supervised field experience to bring the certification to the General Site Worker level. Once trained to the General Site Worker level, an employee can be exposed above PELs, and thus wear appropriate respiratory protection.

This works the other direction as well. That is, a worker who is only on-site occasionally, but would be exposed to levels above PELs, thus requiring respiratory protection, would have to be trained to the General Site Worker (40-hour) level. Training to the Occasional Site Worker level does not allow the worker to be exposed above the PEL and thus could not wear respiratory protection and could not work on the site even occasionally.

Refresher Training

Employees trained to the General Site Worker, Occasional Site Worker, or the Supervisor level shall receive eight hours of refresher training annually on the elements listed in the standard for each level of worker. The refresher training is also to include a critique of incidents that have occurred in the past year that can serve as case studies for training. The refresher training requirement is found at 1910.120(e)(8).

In practice, this refresher is a “one size fits all,” and all workers take the same eight hour class. Given the discussion above, and the different responsibilities of the General Site Worker, Occasional Site Worker, and the Supervisor, the case can be made that the refresher should be customized to the different levels in order to cover the different responsibilities expected for each type of worker.

We have now discussed one of the three groups of employees under HAZWOPER and we have identified five different trainings.

1. General Site Worker – 40 hours of classroom instruction plus three days supervised field experience
2. Occasional Site Worker – 24 hours of classroom instruction plus one day supervised field experience
3. Management and Supervisor – Trained to the level of the employees supervising plus an additional 8-hours of specialized training
4. Occasional to General crossover – Sixteen hours of classroom training plus two days additional supervised field experience
5. Refresher training – Eight hours of annual refresher training. As discussed above, the annual refresher should be tailored to the specific duties and not a “one size fits all,” expanding this list another two places.

Operations at Treatment, Storage and Disposal Facilities

The training requirements for the next group of workers, those at Treatment, Storage, and Disposal Facilities (TSDF), are found at 1910.120(p)(7). We find that these workers are required to receive 24 hours of initial training to allow them to *perform their assigned duties and functions in a safe and healthful manner so as not to endanger themselves or other employees.*

These employees are also required to receive an 8-hour annual refresher.

This now adds two additional distinct trainings to our previous list. We have now discussed seven unique training courses under the HAZWOPER standard.

Emergency Responders to Hazardous Substances Releases

The final group of workers identified in the HAZWOPER standard are those employees engaged in emergency response. The emergency responder is generally working in conditions where the site has not been fully characterized as was the case with the site worker and is working under urgent conditions. Section (q) of the standard is where we find the requirements for emergency responders.

We can see in section (q)(6) that the level of training for emergency responders is based on the duties expected to be performed. Five distinct levels of emergency responder are identified with each level having different roles, responsibilities and training requirements.

1. First Responder Awareness (FRA) Level, 1910.120(q)(6)(i) – These are individuals *who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release.* No time requirement is given by OSHA for the training.
2. First Responder Operations (FRO) Level, 1910.120(q)(6)(ii) – These are individuals *who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purposes of protecting nearby persons, property, or the environment from the effects of the release. They are trained in a defensive fashion without actually trying to stop the release.* The Regulation stipulates that these individuals are to receive at least eight hours of training.

From the two definitions above we see that both FRA and FRO trained employees take defensive actions only. Neither level is trained to stop the release. Where the FRA individual will witness a release and take no further action than notifying the authorities, the FRO trained individual *responds* to the release from another area and takes action to prevent the effects of the release from a safe distance without actually entering the immediate area of the release.

3. Hazardous Materials Technician, 1910.120(q)(6)(iii) – These are *individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance.* These individuals are to receive at least 24 hours of training equal to the FRO level in addition to other competencies specified.
4. Hazardous Materials Specialist, 1910.120(q)(6)(iv) – These are individuals *who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities.* These individuals are to receive at least 24 hours of training equal to the technician level as well as additional competencies specified.

Similar to the FRO individual, both the Technician and Specialist *respond* to emergencies from outside the immediate release area. Unlike the FRO trained individual, Technicians and Specialists are trained to take offensive measures to actually stop the release. Technicians are the ones who perform the “dirty-work” in a response. Technicians will suit-up with chemical protective equipment such as suits, boots, gloves, and respiratory protection, to enter the immediate area of the release to perform rescue, stop the release, and perform the initial clean-up.

The Specialist is expected to have competencies in areas not required of the Technician. The competencies required for the Specialist include knowing how to implement the *local* emergency response plan as well as knowledge of the *State* emergency response plan, while the Technician is

expected to know how to implement the *employer's* emergency response plan only. As we read previously, the Specialist would act as the site liaison with Federal, local and other government authorities. In this role, it would seem reasonable that the Specialist understand the local and state emergency response plan as well as the employers'. The Specialist is also expected to be able to develop a site safety and control plan.

5. On Scene Incident Commander, 1910.120(q)(6)(v) – Incident Commanders *assume control of the incident scene beyond the first responder awareness level*. They shall receive at least 24 hours of training equal to the First Responder Operations level and be competent in areas specified in the standard.

Within the definition of the Incident Commander it is clear that if an employer has employees trained beyond the FRA level and those employees are expected to respond to a release you need at least one individual trained to the Incident Commander level so they can assume control of the scene.

The Incident Commander should be someone with leadership ability and some authority to make things happen. The Incident Commander will assume control of the scene and should have experience in a position of responsibility.

Refresher Training

1910.120(q)(8) – Employees trained to one of the five levels discussed above, *shall receive annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly*.

Looking closely at the requirements for refresher training under section (q) it can be seen that no time requirement is given. It can also be seen that this requirement can be met by demonstrating competency in the role those employees are expected to perform. The refresher training under section (q) is not the same training required under section (e) discussed earlier for the Hazardous Waste Site Worker.

The refresher for an emergency responder would consist of instruction based on the level of responsibility the worker has been trained. A FRA or FRO trained individual would review only those defensive actions they would be expected to take. A technician or specialist trained worker would review offensive actions to take as part of the response team that is going to take action to stop the release. Even among the five emergency response levels it becomes clear that each level of responder should have a different refresher that is targeted to their roles and responsibilities as an emergency responder and like the earlier refresher, this is also not conducive to a “one-size fits all.”

Summary of HAZWOPER Training

As can be seen from the above discussion, the answer of the appropriate level of HAZWOPER training is not an easy one, nor necessarily a clear one. The type of training is dependent on the type of job you will be performing. The first step is to be clear which section of the HAZWOPER standard is relevant for the task you will be performing:

1. Hazardous Waste Site Worker – 1910.120(e)
2. TSDF Worker – 1910.120(p)
3. Emergency Responder – 1910.120(q)

Once you are in the correct section of the standard the length and content of the training will be dictated by the need for respiratory protection in the case of the Hazardous Waste Site Worker, or the level of responsibility and expected action for the emergency responder.

Refresher training should also be based on the correct section of the standard. The Hazardous Waste Site Worker as well as the TSDF Worker is a mandated 8 hours. The Emergency Responder refresher does not have a mandatory time given. All refreshers have an annual requirement and as discussed previously, should be based on the role and responsibility expected of the worker.

Now that we have discussed the Hazwoper standard and various training levels we can see that we have identified a minimum of thirteen unique training requirements. As has been discussed, an argument can be made that the refreshers should be stand-alone and unique for each different role and responsibility. If this is done, our training list becomes eighteen.

A Summary Table of the various HAZWOPER Trainings and citations:

Training Level	Regulation	Time Requirement
General Site Worker	1910.120(e)(3)(i)	40 Hours + 3 days on-site
Occasional Site Worker	1910.120(e)(3)(ii)	24 Hours + one day on-site
Supervisor	1910.120(e)(4)	Additional 8 hours
Occasional to General Crossover	1910.120(e)(3)(iv)	16 Hours + 2 days additional on-site
Site Worker Refresher	1910.120(e)(8)	8 Hours
TSDF Worker	1910.120(p)(7)(i)	24 Hours
TSDF Worker Refresher	1910.120(p)(7)(i)	8 Hours
First Responder Awareness	1910.120(q)(6)(i)	Non specified
First Responder Operations	1910.120(q)(6)(ii)	8 Hours
Hazardous Material Technician	1910.120(q)(6)(iii)	24 Hours
Hazardous Materials Specialist	1910.120(q)(6)(iv)	24 Hours
On Scene Incident Commander	1910.120(q)(6)(v)	24 Hours
Emergency Response Refresher	1910.120(q)(8)(i)	Non specified

Bibliography

Federal Register #: 54:9294-336, *Final Rule, Hazardous Waste Operations and Emergency Response*, March 6, 1989

OSHA Directive CPL 02-02-059, *Inspection Procedures for the Hazardous Waste Operations and Emergency Response Standard, 29 CFR 1910.120 and 1926.65, Paragraph (q): Emergency Response to Hazardous Substances Releases*, April 24, 1998

29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response*

OSHA Publication 3114, 1997 (Revised), US Department of Labor, *Hazardous Waste Operations and Emergency Response*