Universal Waste Emergency Response Training

Welcome to the Universal Waste Emergency Response training provided to Local Conservation Corps staff and Corpsmembers to ensure the safe handling, and environmental compliance of work activities involved with Universal Waste.

This is a required training by the California Department of Toxic Substance Control.

All persons who are now, or who will work in the E-waste Collection program must complete this training and receive at least a 70% or better score on the quiz to be permitted to work in the E-waste collections program.

This is not a certification training and therefore there is no certificate given. The training must be renewed on an annual basis. This is the second part of the complete training and you should have completed the first training before attempting to take this one.

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Introduction

Employees that manage, handle, move or transport, store, label or perform any work activities associated with Universal Waste are required by law to be trained on the proper handling, storage, labeling and how to respond to emergency release. This is required by the California Code of Regulations.

Title 22 Division 4.5.

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Topics Covered in training

- What is a Universal Waste emergency?
- Who should receive the training?
- Broken fluorescent lamp cleanup procedure.
- Broken CRTs and Glass cleanup procedure.
- Response to leaking batteries.
- Punctured aerosol cans.
- Spilled Mercury
- Storage and labeling of clean up debris’

- Completing the breakage incident log form.

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What are Universal Waste Emergencies?

There are at least five general Universal Waste emergencies. One is when a Mercury containing lamp breaks, or when a Cathode Ray tube, otherwise known as a CRT from a computer monitor (screen) or from an old style TV is broken.

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What are Universal Waste Emergencies? (Cont.)

It also includes when alkaline batteries corrode and leak, or when rechargeable batteries are damaged and leaking, or they burst into flames.

It includes when a Mercury containing device like an old style thermostat is broken.

Or when aerosol cans, which are partially full, have been punctured and is expelling the contents.

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Who Should Receive This Training?

Employees that should receive Universal Waste Emergency Response training include:

- Corpsmembers
- Supervisors and staff
- Maintenance custodians and facility managers

The reason we include maintenance custodians and facility managers is that they may be involved with changing out fluorescent tubes or moving Universal Waste in your facility or be exposed to leaking batteries.

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Broken CRTs and Glass Clean-up Procedures

The procedure for cleaning up CRTs and the CRT broken glass.
Corpsmembers should first isolate the area with a sign or barrier tape around the spill area.

At minimum, you want to prevent any foot traffic in the area where the CRT was broken to prevent lead and glass from being spread throughout the facility.

Your second step is to notify a staff person in charge that a cleanup procedure is needed so they can conduct the following steps.

We ask that, or encourage that Corps have staff members who are trained to conduct the actual cleanup rather than having Corpsmembers do the cleanup. The process is a little bit technical and there would be the need to retrain Corpsmembers on the process, it is better if staff themselves do it.

- The staff Member will retrieve the spill kit, and put on the safety equipment.
- They will carefully package the broken CRT TV, or monitor.
- Carefully clean up broken CRT glass and debris.
- Package and label the glass for offsite disposal.
- Secure any broken CRTs in separate packaging.
- Broken CRTs cannot just be put in with your other stack of CRTs.
- Complete the CRT glass breakage incident log form.

Greater detail of the actual process is in the Broken CRT Cleanup Instructions, which is in the spill kit.

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Broken Fluorescent Lamp Clean-up Procedure

The process is very similar to the broken CRT clean up, except that you're going to isolate the area to prevent any foot traffic from spreading any of the Mercury powder from inside the lamp and the glass, but you also want to turn off the air ventilation system so it's not taken into the air ventilation system. If possible, open up windows to help air out anything that might have become airborne.

The following steps are the same as with the broken CRTs. Notify a staff person that a cleanup is needed. They will retrieve the spill kit, put on their safety equipment; and perform cleanup process.

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Batteries and Mercury Containing Devices and Aerosol cans

At all times when handling these items you must wear the following personal protective equipment: Nitrile gloves, face mask, and face shield. This is at all times when you're handling them. Alkaline batteries if they are leaking should be placed in a zip lock bag to prevent the chemistries from becoming airborne and inhaled, or from getting into your eyes.

Rechargeable batteries, as many of you seen on the news, can be quite flammable. They literally explode into flames. I strongly recommend that all rechargeable batteries are left within the devices that they are not removed. You may end up with some of them in your collection program. So how do you handle them safely? First off, the battery terminals must be taped over, and the reason for this is when lithium ion battery terminals come in contact with other battery terminals there can be a discharge of energy and heat buildup which can cause them to burst into flames.

If that should ever happen, it is suggested that persons clear the area immediately, particularly if that battery is in with another bucket of batteries.

How they are handled and the only way to handle them is to take tongs and bury that battery into a container that is filled with sand. Do not to use hands to transport the battery because they can explode.

Also, when you're out doing your E-waste collection events, you want to try to keep all of your devices that have rechargeable batteries in them out of direct sun. This is particularly the case in areas in the southern part of the state where the temperatures can get quite hot. You want to have canopies or put tarps over your big boxes and pallets so that the items are kept out of direct sun.

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Batteries and Mercury Containing Devices and Aerosol Cans (Cont.)

For punctured aerosol cans, those can be flammable because of the propellants which are in there, and they can potentially contain a whole plethora of toxic chemicals. So any cans which have sprung a leak should be contained in a cardboard box, and it should be moved outdoors until the content are completely expelled.

Any Mercury containing items in glass should be scooped up and placed in a small plastic container which can be taped closed and then labeled “Contains Mercury’.

Partially filled aerosol cans, mercury containing devices and batteries all go to a hazardous waste recycler. The E-waste of course is going to go to the E-waste recycler.

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Incident Logs

The reason for filling these out are threefold you if you are out in the field, and you are doing a collection at a business, and a CRT falls and breaks you will want to document it and show that you did the proper cleanup while on the premises. If in your own warehouse and stacking CRTs, and the shrink-wrap is not secure so the CRTs fall over and break, you want to make a log.
Getting the name of the core Member is that there might be a need to do additional training over and above these two modules, which has to do with the safe handling of Universal Waste. That training will cover how to properly stack E-waste, how to do shrink wrapping, how to do all the necessary steps that allow you to work safely within your warehouse with E-waste.
It may be possible if a core member has forgotten what some of those safe handling techniques that they need to be reviewed which is why we asked for the name. The other reason to fill out this form is obviously you are going to be using items out of the spill kit and your supervisor needs to know that the spill kit needs to be restocked.

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Refer to the Written Procedures

I mentioned there are written procedures found in the spill cleanup kits which provide the detailed instructions on how to do the cleanups on fluorescent tubes breakage and also on broken CRT class cleanup.

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Review What You Have Learned

We are at the end of this training. To review what you learned.

- What is a Universal Waste emergency? It is when any of the seven items which are considered as Universal Waste are broken or are leaking.

- Who should be trained? All Corpsmembers, and staff need to be trained on how to respond to an emergency spill.

- We talked a little bit about the fluorescent lamp cleanup procedure, and the broken CRTs and glass cleaning procedure. As a Corpsmember, you have two areas of responsibility. #1 is to make sure that the area is cordoned off, so that foot traffic does not go through and track the broken or spilled items throughout the facility. #2 notify your supervisor that a spill cleanup needs to be completed.

- We talked about response to leaking batteries and punctured aerosol cans and spilled Mercury, and how those should be handled.

- I covered the storage and labeling of the cleanup debris.

- I also talked a little bit about the incident log form and reason for filling it out.

If you have any additional questions about this training, please contact your supervisor.

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Quiz

You will now be given a quiz to ensure you understood what was learned today, and that will be able to respond to Universal Waste emergencies such as broken Mercury containing lamps, broken CRTs, leaking batteries, leaking aerosol cans, as well as any spilled Mercury.

You must receive a passing score of 70% or better on both Universal Waste Emergency Response Quiz, and the Universal Waste Safety Training which you took before this module in order to be able to work in the E-waste collection program.

So good luck with the test. Thank you for your time.