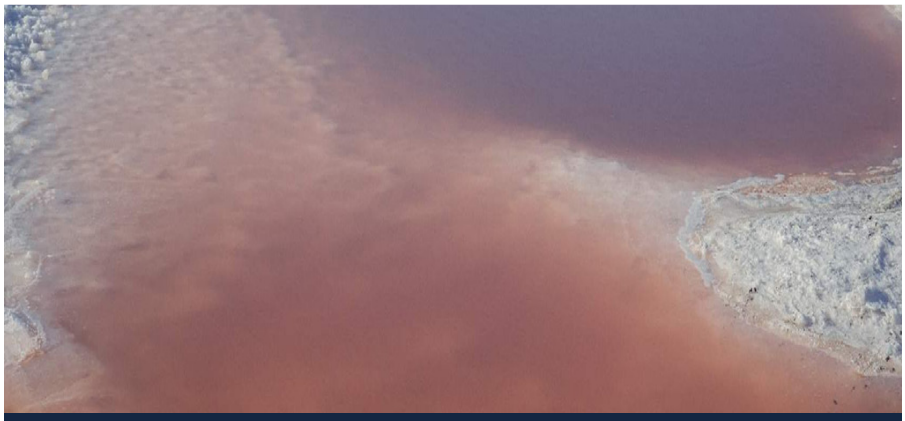
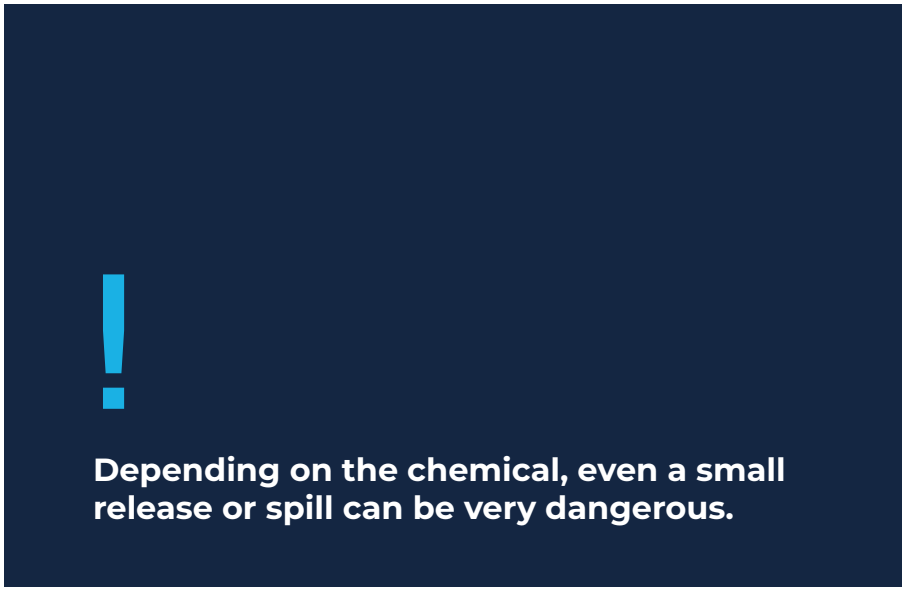


HAZWOPER & THE SPCC
RIG SAFETY MEETING TRAINING

H&P's HAZWOPER & the SPCC Rig Safety Meeting Training provides information about the importance of spill prevention and how to react to hazardous substances if there is a spill.

V5-10.10.24

HAZWOPER & the SPCC



A release can cause fires or explosions, contaminate surface water, harm plants and animals, and be toxic to humans.

All personnel must understand the potential hazards associated with a spill and their role in a response to that spill.

CONTENTS

SPILL PREVENTION

Taking measures to prevent a spill protects us from ever needing to respond to one.

If we can prevent a spill, we won't have to respond to it at all.

Understand the hazards associated with chemicals that you work with on a daily basis by reading and following instructions on labels and safety data sheets (SDS).

Follow all safe storage/handling procedures. Walk through the chemical storage and dispensing areas. Inspect chemical containers, drums, tanks, and piping systems for any signs of damage or leaks.

- Do not leave chemical containers open. They can be knocked over and spilled.
- If a chemical is found in an unlabeled container, do not use it.
- Report any potential chemical hazards to your supervisor.

Ditching, drainage, primary and secondary containment, location and maintenance of safety and shut off valves, warning devices and use of blowout preventor (BOP) controls and equipment will be discussed and implemented **BEFORE THEY BECOME NECESSARY**.

Emergency Spill Containment Kit

A review of the **emergency spill containment kit's** equipment and its proper use should be conducted regularly.

Drillers should read and understand this SPCC plan and stress the importance of all rig personnel being alert for spills or discharges.

What are SPCC Plans? SPCC stands for Spill Prevention, Control and Countermeasure.

SPCC Plans ensure that containment and other countermeasures are in place that would prevent oil spills that could reach navigable waters.

Under EPA's Oil Pollution Prevention regulation, rig locations/facilities must detail and implement spill prevention and control measures in their SPCC Plans.

A spill contingency plan is required as part of the SPCC Plan if a facility is unable to provide secondary containment (e.g., berms surrounding the oil storage tank).

The SPCC Plan must be available to EPA for on-site review and inspection during normal working hours.

INSPECTIONS & RECORDS

Before drilling commences, the Rig Manager should inspect all fuel and oil storage tanks, and the hoses, lines and valves leading to and away from fuel, oil, and mud tanks. All leaks will be properly noted, and immediate arrangements will be made for repair.

The Rig Manager is to see that all ditches are dug properly around all tanks where there is a possibility of seepage or drainage, and to see that all ditches are unobstructed and will handle any flow to the secondary containment pits.

All employees should observe spill containment ditches and dikes at all times during the drilling operation and ensure that they are properly maintained.

A visual inspection of the storage tanks and lines should be made daily by the Rig Manager or daylight driller and all leaks or potential leaks should be properly noted in the daily tour report. After, immediate arrangements should be made for repairs.

The SPCC Plan provides an appropriate guideline and record of inspection form which can be used to track all necessary inspections made by rig managers and drillers.

DRAINAGE

A series of drainage ditches must be dug to course the flow of liquids back to the secondary containment facilities.

If the rig is located near navigable waters or wetlands, additional spill precautions may be necessary, such as secondary containment basins or diversionary structures prior to drilling operations. Fluid accumulations are removed by vacuum trucks. Uncontaminated rainwater may be drained or pumped into area drainage ditches with the consent, of the operator.

In an emergency requiring drainage, a visual inspection for oil on the water is used to determine if contamination exists. Contamination can be seen as:

Sheen on Surface Water

Sludge or Emulsion in Water

Upon discovery of contamination, supervisors and/or the operator should be notified and appropriate containment, recovery or flushing procedures are initiated. The responsibility and decision-making rests with the operator responsible for the well.

BULK STORAGE TANKS

Periodic integrity testing should be conducted on all bulk fuel storage containers and associated valves and piping.

Secondary containment consists of earthen dikes, if required, around selected areas along with a series of drainage ditches to carry any spill or runoff to the secondary containment pit.

Tanks must be examined for leaks or seepage before drilling operation begin, and on a daily basis thereafter.

What Is HAZWOPER?

HAZWOPER stands for **Haz**ardous **W**aste **Op**erations and **E**mergency **R**esponse.

HAZWOPER requirements apply to:

- Workers on hazardous waste cleanup sites and facilities that treat, store, and/or dispose of hazardous waste.

- Employees that work in general industry that are storing and/or using hazardous chemicals.

HAZWOPER defines the requirements of an Emergency Response Plan and the training that is required by that plan in the case of a chemical release or spill.

LEVELS OF TRAINING

HAZWOPER calls for different levels of training depending on the role a person will play in an emergency involving a chemical release or spill.

First Responder: Awareness Level

These personnel are not trained to be involved in the containment, control, or cleanup of a hazardous substance release.

Your Role - As a First Responder at the Awareness Level, your role includes:

- Recognizing that a chemical substance has been or is being released
- Determining the chemical's identity (only if safe to do so)
- Protecting yourself and others by evacuating the area
- Calling for assistance, whether that is an internal response team or an external agency such as the Fire department
- Securing the area to prevent unauthorized personnel from entering the area near the chemical release

First Responder: Operations Level

First responders at the operations level are individuals who respond to releases, or potential releases, of hazardous substances for protecting nearby people, property, or the environment.

These first responders contain the release from a safe distance, keep it from spreading, and prevent hazardous substance exposure. They are trained to respond in a defensive fashion without trying to stop the release.

First responders at the operations level must receive at least 8 hours of training or have had sufficient experience to objectively demonstrate competency at the awareness level plus several additional aspects including, but not limited to:

1. Hazardous substance terminology and risk assessment;
2. Selecting and using proper personal protective equipment (PPE);
3. Performing basic control, containment and/or confinement operations; and
4. Understanding relevant standard operating procedures (SOPs)

Do not attempt to clean up any hazardous substance. Always contact the appropriate Haz-Mat professionals if there is a spill.

LEVELS OF TRAINING (CONT.)

Hazardous Materials Technicians

Hazardous materials technicians, also called emergency response technicians, are individuals who respond to releases or potential releases by approaching the point of release to plug, patch, or otherwise stop the release of a hazardous substance.
Hazardous materials technicians must receive at least 24 hours of initial training equal to the first responder operations level, and they must demonstrate that they can also:

- Understand hazard and risk assessment techniques and basic terminology and behavior;
- Implement the emergency response plans and relevant procedures;
- Select and use specialized PPE;
- Function within Incident Command System (ICS);
- Use field survey instruments and equipment to classify, identify and verify known and unknown materials; and
- Perform advanced control, containment, and/or confinement operations.

Hazardous Materials Specialists

Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazmat technician; however, they require a more directed or specific knowledge of the various substances involved. They would also act as the site liaison with the authorities.

Hazmat specialists must receive at least 24 hours of training equal to the technician level and must be able to demonstrate competency in certain additional aspects of emergency response, such as:

- Understanding, developing, and/or implementing all emergency plans and procedures;
- Using advanced field survey instruments and equipment;
- Performing specialized control, containment, and/or confinement operations; and
- Possessing specific knowledge of hazardous substances and emergency response.

Incident Commander

On-scene incident commanders have overall responsibility for managing the emergency by establishing objectives, planning strategies, and implementing tactics. ICs must receive at least 24 hours of training and be competent to perform the first-responder operations-level duties and the following additional requirements:

- Know and understand the hazards and risks of general emergency concepts;
- Have knowledge of the Federal Regional Response Team; and
- Know, understand, and be able to implement all company, local, and State emergency response plans and procedures, and the ICS.

HAZARDOUS SUBSTANCE

Your facility may contain hundreds of hazardous substances and chemicals.

Again, as a First Responder at the Awareness Level, you need to recognize and report a spill or release of any chemical and let the responding personnel determine the severity of the release and the appropriate response.

Hazardous substances are a potential health hazard to those who are overexposed. This is why it is essential that you protect yourself and others from the chemical release by evacuating the immediate area.

A hazardous substance might also damage the environment if it reaches soil, surface water, or forms a cloud of toxic vapor.

RECOGNIZING A CHEMICAL RELEASE

Recognizing that a chemical release generally requires only the awareness that something is not right or is out of place.

Do you see liquid dripping from a pipe, pump, or a tank? Liquid might be pooling on the ground around a drum or in the containment of a tank.

Do you detect an unusual smell? This can often be the first sign of a chemical release and may be cause for further investigation until a visual confirmation can be made of the chemical release. Depending on the chemicals used in your workplace, a smell may be enough to warrant the initiation of the emergency response plan and evacuation procedures.

Do you hear an unusual sound such as a hissing (releasing gas) or a dripping (releasing liquid)? This may be cause for further checking until a visual confirmation can be made of a chemical release.

If instruments show a loss of pressure or flow in a system, this could be the indication of a chemical release and is worth an investigation by trained personnel.

PROTECT YOURSELF AND OTHERS

Once you have determined that a release of a hazardous chemical has occurred, report it to others in the immediate area so that they can evacuate with you.

Signal an alarm to warn the other employees and retreat to a predetermined assembly area or place of refuge that is a safe distance from the spill or release.

REPORTING THE SPILL

Once you have identified a spill and safely evacuated the spill's immediate area, it is safe to call for help.

- Contact the appropriate response personnel by following the procedures outlined in the Emergency Response Plan.
- Provide information to the emergency response coordinator to include:
- Location of release
- Identity and quantity of released material
- Whether or not the area has been evacuated
- Ask for instructions on what you should do until help arrives.

DANGERS OF A RELEASE

Be aware of the potential hazards associated with a release.

- Remove potential ignition sources by turning off machinery, forklifts, etc.
- Beware of the potential of a toxic cloud that could be created by toxic materials, corrosive fumes, reactions, etc., from a chemical release. Stay upwind of any type of chemical release.
- Some chemicals might react with chemicals that are stored or used nearby. For example, an acid might burn through a steel drum of oil and cause a reaction such as an explosion, fire, or release of toxic fumes.
- Some chemicals might just be mildly irritating and cause your eyes to water or make you sneeze.
- Other chemicals may only have mild hazards and just create a mess and a loss of production.

IDENTIFYING THE CHEMICAL

Part of being a First Responder at the Awareness Level is understanding the types or classifications of a chemical that has been released or spilled.

Identifying the released chemical or material can be very helpful to the responding personnel. Make the effort to identify the material only if it is safe to do so.

- Try to see what container, tank, or piping system the material is coming from.
- Is the drum or tank labeled with the name of its contents? Is the piping labeled or color coded?
- Is the material being released in the form of a solid, a liquid, or a gas?
- Does it have a particular smell?
- Describe the color of the material.

RECOGNIZE CHEMICAL SUBSTANCES

Recognizing a hazardous chemical is primarily done with signs, labels, or placards.

If a container, tank, piping system, etc., has a sign with the words danger, or warning, there is a good chance that a hazardous chemical is contained within that drum, tank, or piping system. Use signs, labels, or placards to determine if a material is a hazardous substance.

GHS Labels

National Fire Protection Association (NFPA) or Hazardous Material Information System (HMIS) Labels

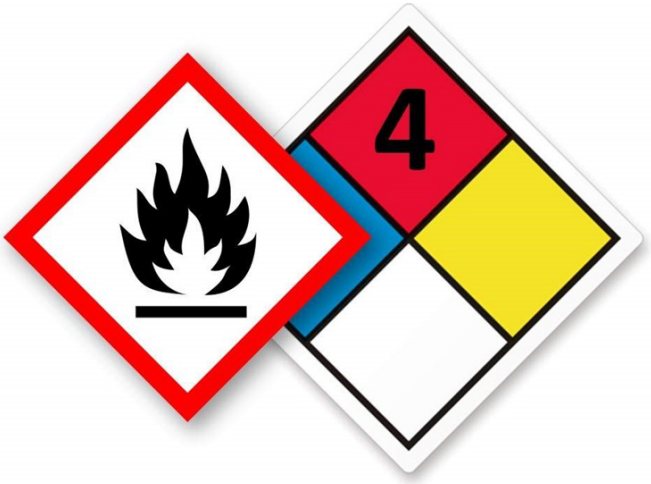
Department of Transportation (DOT) Placards

Any of these will aid in identifying a poison, toxic, flammable, reactive, or corrosive material.

Any of these will aid in identifying a poison, toxic, flammable, reactive, or corrosive material.

Flammable materials will often be labeled with a red sticker containing the picture of a flame.
Also, the number in the red portion of the NFPA label will be a 3 or 4.

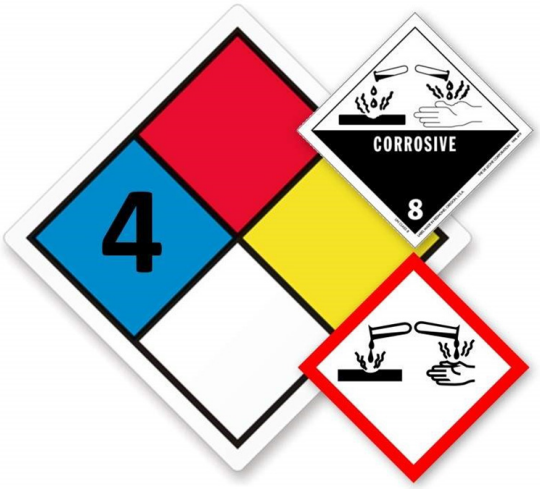
Examples include gasoline, acetone, and propane.



If the material is reactive, the yellow portion of the NFPA label will contain a number 3 or 4. This material is usually reactive with water.

A corrosive material, such as an acid or caustic, is marked with a black and white DOT label that shows a bar and a hand being destroyed by a dripping chemical.

The NFPA label will have a 3 or 4 in the blue portion.



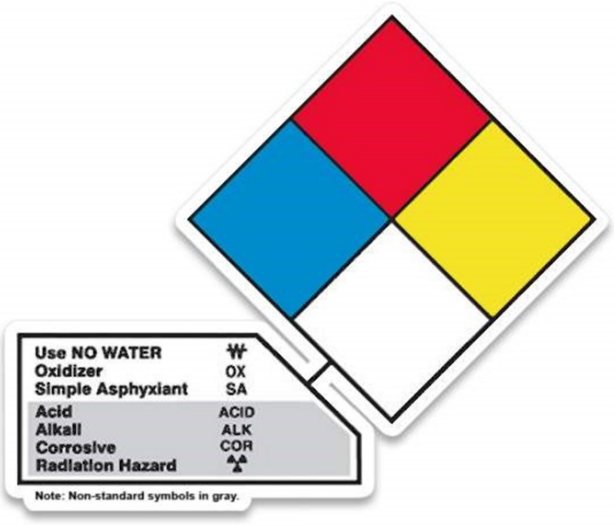
Toxic materials include carcinogens, sensitizers, those that target specific organs, etc. These are usually labeled as a poison by DOT placards and the NFPA label will have a 3 or 4 in the blue area.

The white area of the NFPA label displays any special hazards. There are 3 standard, symbols including:

~~W~~ = indicates unusual activity with water and is a caution about the use of water in either firefighting or spill control response.

OX = indicates that the material is an oxidizer.

SA = indicates that the material is a simple asphyxiant gas.



SECURE THE AREA

Once you have reported the spill or release to the response personnel, you need to secure the area around the release to keep unauthorized personnel out while waiting for the response team to arrive.

Use caution tape, rope, cones, barricades, etc., to create a safe zone around the area.

Your emergency response plan might call for the use of specific equipment, however, you may be required to barricade with whatever is available.

CHEMICAL EXPOSURE

It is important that you understand how chemicals can harm you so that you can better protect yourself and others during a release, and you can identify symptoms of overexposure so that those people can receive early and proper treatment.

Skin & Eye Contact

- Irritation (i.e., itchiness, blisters) caused by solvents, degreasers, soaps.
- Burns caused by corrosives.
- Internal reactions (i.e., toxins) caused by hydrocarbon solvents.
- Allergic reactions (i.e, hives) caused by chromates or nickel.

Inhalation

Depending on the exposure, breathing a chemical might cause:

- Headache
- Nausea
- Dizziness
- Lung damage
- etc.

Swollowing

This usually means contact with food or smoking, not openly drinking a hazardous chemical.

Typical reactions include:

- Nausea
- Vomiting
- Dizziness
- Liver or kidney damage

To avoid exposure to chemicals, never touch a released or spilled chemical (remember, you are not a trained responder). Evacuate the area as soon as possible to avoid inhalation exposure, as this will be the most likely exposure to a chemical during a release.

RESPONSE PERSONNEL

Up to this point, the First Responder at the Awareness Level has been in control of the spill scene. Once response personnel arrive, they will take over the responsibility of the incident. Authorized personnel will respond to the incident according to their level of training.

- They will analyze the incident to determine the hazards, needed PPE, and an appropriate response.
- They will contain the spill and prevent it from impacting the environment, then when safe to do so, they will stop the leak.
- Once everything is under control, they will cleanup the spill, then decontaminate equipment, PPE, and personnel is required.
- Finally, if required, they will report the spill to appropriate agencies.

NON-HAZARDOUS SPILLS

Some spills do not require the Emergency Response Plan because the material is not hazardous to human health, is not endangering the environment, and is in a small enough quantity so that it is easy to control and clean.

Incidental or small spills do not require an emergency response. Some examples might be a can of paint, small bottle of acetone, lubricating oil, etc.

These are chemicals that are normally handled on a day-to-day basis by the employees in that department. They work with the chemical, so they know how to manage small spills and when a spill might be too large for them to manage.

In any case, if you are not sure if a chemical is hazardous or you are not sure how to clean up a chemical release, do not attempt to do it. Call for help.

THINGS TO REMEMBER

As a First Responder at the awareness level, you are not trained to be involved in the containment, control, or cleanup of a hazardous substance release.

1. **If we can prevent a spill, we wont have to respond to it at all.**
2. **You must understand the hazards associated with the chemicals you work with on a daily basis.**
3. **Identifying the released chemical or material can be very helpful to the responding personnel.**

Always protect yourself and others against exposure to a hazardous substance, then call for assistance from a trained Haz-Mat professional.