

CHEMICAL EMERGENCY RESPONSE - 24



SAFETY & HEALTH OPERATING PROCEDURE #24

REVISION HISTORY

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CHEMICAL EMERGENCY RESPONSE **AND CONTROL OF** **SMALL QUANTITY HAZARDOUS SUBSTANCE RELEASES**

REFERENCE: (a) WAC Chapter 296-824, Emergency Response
(b) WAC Chapter 296-800-160, Personal Protective Equipment
(c) WAC Chapter 296-842, Respirators

1.0 PURPOSE AND SCOPE

A spill control procedure is required in work areas where chemicals and other hazardous substances are used, handled or stored. The information given here is intended as a general guideline to cover the minimum actions for safe work practices when responding to the release of a hazardous material in County locations, such as a warehouse, shop, storage area or field setting. The scope of this guideline includes those releases, or spills, that are

CHEMICAL EMERGENCY RESPONSE - 24

categorized as “incidental”. An example of a release under this guideline would be a chemical spill of approximately 5 gallons or less that can be controlled with limited action and simple measures, such as with the use of absorbent material. *Other control measures, equipment, and management systems can be employed for specific situations, as long as they are designed to be effective in practice.*

NOTE: This document is in effect from the date indicated until superseded or rescinded by the Risk Management Division Safety Office.

2.0 DEFINITIONS

A **Hazardous Substance** is any biological, radiological, or chemical substance that can have adverse effects on humans.

A **Release** is a spill, leak, or other type of hazardous substance discharge.

An **Incidental Release** is a release that can be safely controlled at the time of the release and does not have the potential to become an **uncontrolled release**.

An **uncontrolled release** is a release where significant safety and health risks could be created. Releases of hazardous substances that are either incidental or couldn't create a safety or health hazard (i.e., fire, explosion, or chemical exposure) aren't considered to be uncontrolled releases.

Examples of conditions that could create a **significant** safety and health risk:

- Large-quantity releases
- Small-releases that could be highly toxic
- Airborne exposures that could exceed a WISHA permissible exposure limit or a published exposure limit and employees are not adequately trained or equipped to control the release

Limited action is:

Action necessary to:

- Secure an operation during emergency responses
- **or**
- Prevent an incident from increasing in severity.

Examples include shutting down processes and closing emergency valves.

An **Immediately Dangerous to Life or Health (IDLH)** condition is any atmospheric condition that would:

- Cause an immediate threat to life
- Cause permanent or delayed adverse health effects

CHEMICAL EMERGENCY RESPONSE - 24

- Interfere with an employee's ability to escape

3.0 PROCEDURE

The following are the minimum steps to take when responding to an incidental release:

1. Keep all non-essential personnel away
2. Identify the material that has been released
3. Take appropriate measures to prevent the spilled or leaking material from entering storm drains, sanitary sewers, or contaminating critical equipment or property, including electrical equipment
4. If an IDLH condition is either suspected or confirmed, evacuate the area immediately until it is safe to re-enter
5. Contact your supervisor and the Risk Management Division Safety Office (425.388.3549) as soon as possible
6. Determine the type of personal protective equipment required to use during the control and clean-up operations
7. If time permits, obtain the Material Safety Data Sheet and review the hazardous properties, spill control procedures, and incompatibilities to other chemicals that are present, including unfinished or raw metals (at some point during the evaluation process and before clean-up commences, consult the MSDS for technical data that may assist in mitigation)
8. Clean up the material, containerize and label, and dispose of in a manner approved local, state, and federal agencies. If necessary, consult with county departments that have individuals who have a familiarity with hazardous materials
9. Do not allow non-essential personnel to return to the location of a spill until it has been determined safe to do so by an authorized individual (ex. trained responder, supervisor or manager, professional emergency personnel)
10. Complete a statement of the event using the "Supervisor's Accident/Incident Investigation Report" and submit a copy to the Safety Office (M/S 610)
11. If warranted, conduct a "lessons learned" meeting with all affected personnel to identify procedural deficiencies, develop process improvements, and institute measures to prevent recurrence

4.0 SPILL CONTROL EQUIPMENT AND MATERIALS

The following is the recommended *personal protective equipment* to have available for spill control events. The list can be modified to allow for different types of hazards or conditions.

NOTE: Only trained, fit-tested and medically qualified individuals may use half and full face piece air-purifying cartridge respirators.

CHEMICAL EMERGENCY RESPONSE - 24

- Hard hat (only when conditions pose a hazard to the head)
- Eye protection (ANSI-approved safety glasses, goggles, face shield)
- Hand protection (chemical resistant and or nitrile gloves)
- Protective suit (ex. Tyvek™ coveralls)
- Shoe covers
- Respiratory protection (filtering face piece; half-mask or full face air-purifying cartridge respirators)

The following is the recommended **spill control materials and equipment** to have available for spill control events. The list can be modified to allow for different types of hazards or conditions.

- Sufficient absorbent material for the anticipated quantity of spill
- Absorbent “socks” and “pillows” or sufficient to divert or contain the largest anticipated quantity of spill
- Absorbent products must be for the intended type of material (ex. universal fluids or oil/petroleum)
- Non-sparking shovel and dust pan
- Paper towels or pads
- Plastic bags and ties
- Bag labels
- Other spill control products that may be stocked depending on the contamination potential are: skimmers, curbsguards, sandbags, pipesocks, drainguards, and basin inserts

5.0 TRAINING REQUIREMENTS

All personnel responsible to respond to incidental spills are required to successfully complete training that is relevant to the types of hazards they may encounter. At a minimum the training topics must cover the following points:

- Understand what hazardous substances are and their associated risks.
- Recognize the presence of hazardous substances in an emergency.
- Can identify the hazardous substances, when possible.
- Understand the potential consequences of hazardous substances in an emergency.

Training shall be conducted by a qualified internal or external individual and must be documented with the date of training, the individual’s name, and the training topics covered. Training is required initially and follow-up or periodic training conducted when there are changes to personnel or the condition of the hazard changes.

CHEMICAL EMERGENCY RESPONSE - 24

6.0 REPORTING SPILLS

All spills that require the use of products from the spill control station or kit must be reported using the "Supervisor's Accident/Incident Investigation Report" and a copy sent to the Safety Office Complete (M/S 610) as soon as possible after the occurrence.

IMPORTANT: In addition to the safety precautions associated with the control and clean-up procedures described in this document, certain reporting requirements may be necessary with regulatory agencies, such as the WA State Department of Ecology (DOE). For example, if an incidental spill includes oil or fuel that enters a waterway, then DOE must be contacted. These reporting requirements are not covered in this procedure and are to be managed by the individual department as appropriate.