**Consolidate Emergency Response/Contingency Plan Training: Instructor Guide**

**Section 3: Using Emergency Response Equipment**

Slide #1

Title Slide

Slide #2

1. Meet the Consolidated Emergency Response/Contingency Plan (CERC) annual training requirement for coordinating with emergency response agencies.
2. Enabling Objectives:
	1. Respond to an “incidental spill” effectively, efficiently, and economically.
	2. Recognize “emergency response” situations.
	3. Be familiar with spill equipment on-hand: pads, shop towels, wringer, neutralizing agents, eyewash, PPE, fire extinguisher.

Slide #3

1. We use hazardous materials daily in maintenance, repair, and cleaning activities. Some are dangerous to human and environmental health because of the large quantity or toxicity.
2. Though we do our best to handle hazmat safely to prevent spills, leaks, and other mishaps – accidents do happen. Most accidental spills and leaks are minor and within our response capabilities.
3. We must know how to use the spill response equipment we have on-hand to effectively and economically control, clean-up a spill, or otherwise neutralize a hazard.

Slide #4

1. The California Health & Safety Code requires units that generate hazardous wastes create and maintain a Contingency Plan.
	1. The CERC Plan meets this requirement, and includes several sections including and Emergency Equipment Inventory
2. Section G discusses the unit’s emergency equipment available for use in the event of a spill or release.

Slide #5

1. Section G of your unit’s CERC Plan discusses the equipment required for a spill response.

1. It lists an inventory of our spill response equipment on-hand.
	1. This inventory includes absorbents, booms, pad wringer, spill containment devices, drip pans, personal protection equipment, communication equipment (whistle, horn, siren, inter-com, etc.).
2. It outlines what equipment must be inspected weekly to ensure it is stocked and ready to use when needed.
	1. Equipment must be re-stocked, replaced, or repaired as needed.

Slide #6

1. Sometimes a spill occurs, but is not considered an emergency situation. These spills are called incidental spills.
2. The unit is capable of controlling and cleaning up an Incidental spill.
3. Units are required to have adequate spill response equipment and knowledge.
4. Unit personnel should be familiar with hazards present and able to adequately protect against them.

Slide #7 and #8

1. You must have adequate spill response and clean-up equipment on hand when handling hazmat, but especially when pouring, spraying, or transferring hazmat.
2. When cleaning up spills, use a limited number of shop towels, pads, or oil mops repeatedly by wringing them out. This will reduce waste.
3. Spills need to be cleaned immediately from shop floors, hangar decks, soil, secondary containment areas, flight line, or just wherever they occur.
4. The following is a list of items recommended to be at your site.
	1. Shop Towels
	2. Absorbent Pads
	3. Absorbent Socks
	4. Pad Wringer
	5. POL Mops
	6. Mercury Spill Kit
	7. Neutralizers
5. Mercury Spill Kits should be on-hand if test equipment, thermometers, gauges, etc are used that contain Hg.
6. Neutralizers should be on-hand:
	1. Acids: neutralize with a weak alkali (sodium bicarbonate or baking soda).
	2. Alkalis: neutralize with a weak acid (boric acid).

Slide #9

1. One of the most important steps in a spill response is spill containment.
2. Waste Accumulation Sites have permanent containment in the form of concrete bermed containment cells.
3. For temporary containment, shop towels and pads can be rolled up and used for berming or diking spills.
4. Towels and pads could also be used to divert spills away from storm and sewer drains or to block the drain to prevent the spill from causing further or increased contamination.
5. Berm: raised barrier separating two areas
6. Dike: a barrier preventing passage
7. Dam: retaining spilled material
8. Divert: to redirect the flow of a spill

Slide #10

1. Demonstrate berming, diking, diverting, and blocking techniques with towels and pads.
2. Point out storm drains and sanitary sewers in your work area that may be affected by a spill.
3. Demonstrate the use of permanent secondary containment in your work area, i.e., the drain valves at your waste site or above ground storage tanks.

 *\*NOTE\* You will need pads and towels for this demonstration*.

Slide #11

1. You may have to use a fire extinguisher in the event of a fire.
2. To use an extinguisher, remember the **PASS** technique: **Pull, Aim, Squeeze, Sweep**
	1. **Pull** the pin at the top of the extinguisher that keeps the handle from being accidentally pressed.
	2. **Aim** the nozzle toward the base of the fire.
	3. **Squeeze** the handle to discharge the extinguisher while standing about 8 feet away from the fire.
	4. **Sweep** the nozzle back and forth at the fire’s base.

Slide #12

1. Regardless of whether you can extinguish a fire on your own, Call 911 or pull the alarm!
2. Contact the Miramar Fire Dept for fire extinguisher assistance at 307-4059 (not 911).

Slide #13

1. If you use acids or bases in your workplace, you are required to have an eye wash and safety shower. They may be together or stand alone.
2. They are required for any environment that exposes workers to "injurious corrosive materials."
	1. Waste Accumulation Sites
	2. Work areas where acids or bases are handled
3. They must be “immediately” available or within 10 seconds of walking
4. When using, the eye wash/shower must flow freely for at least fifteen minutes to ensure adequate flushing of the eyes or decontamination of the person.
5. Contact Station Safety for assistance in obtaining or managing your eye wash/shower.

Slide #14, #15, and #16

1. Spill response equipment is used to “protect” the environment. However, we need to also protect ourselves when responding to a spill. Personal Protective Equipment, or PPE, is what we wear to protect ourselves.
2. PPE comes in many forms and varieties. We are going to cover just a few of the basics that are most generally used when handling hazmat or hazwaste.
3. Gloves: There are many types of gloves available today to protect against a wide variety of hazards. The nature of the hazard and the operation involved will affect the selection of gloves. The variety of potential occupational hand injuries makes selecting the right pair of gloves challenging. It is essential that employees use gloves specifically designed for the hazards and tasks found in their workplace because gloves designed for one function may not protect against a different function even though they may appear to be an appropriate protective device. Review the hazmat’s Safety Data Sheet (SDS) to determine what type of glove is required. Some types of gloves include:
	1. Butyl Rubber, Nitrile, Latex, Viton, etc.
	2. Disposal or Re-usable.
4. Eye Protection: Eye protection protects against splash hazards, dust, dirt, metal or wood chips, and flying objects. Types include:
	1. Goggles
	2. Safety Glasses
	3. Face Shield (worn w/goggles or safety glasses)
5. Aprons: Aprons provide nominal body protection. They only protect the front of your and are primarily worn to protect against splashes. Like gloves, aprons can be made of different material so be sure to review the hazmat’s SDS when choosing an apron.
	1. Butyl Rubber, Nitrile, or Plastic
6. Tyvek™ Coveralls: Coveralls provide increased body protection when compared to an apron. There are two types of coveralls available for use:
	1. Non-coated: protect against dusts and particulates
	2. Coated: protect against sprays, mists, droplets, and light splashes
7. Safety Boots: The most common safety shoe is the steel toe boot. The primary purpose of steel toe boots is to protect the feet, especially the toes, from impact. Today, steel toe boots are not always made of steel, since other materials can serve the same purpose with benefits like lighter weight and easier production, but they are still often referred to as steel toe boots. Today these boots are required for some jobs in America, according to ANSI/ASTM regulations.
8. Chemical Over-Boots: Chemical over-boots are a Non-absorbent polyester boot that is worn over your shoes. Its use is for chemical splash protection.
9. Remember, always select the correct PPE when working with hazmat and cleaning up spills. PPE should:
	1. Protect against specific workplace hazards.
	2. Fit properly and be reasonably comfortable to wear.
	3. Provide unrestricted vision and movement.
	4. Be durable and cleanable.
	5. Allow unrestricted functioning of any other required PPE
10. Maintain PPE in good working condition by cleaning it after use and storing it properly between uses. The PPE you are using should come with instructions for cleaning and storing.
11. Discard and replace degraded and unserviceable PPE. The PPE you are using should come with instructions on when and how to discard the item.

Slide #17

1. *Now, demonstrate donning/doffing the PPE used in the various operations at your unit.*
2. *Demonstrate PPE and skin decontamination (cleaning) with warm water and a mild detergent.*
3. *Demonstrate the proper storage of PPE, i.e., respirators, aprons, eye protection, and gloves.*

*\*NOTE\* You will need examples of the PPE provided to your unit (i.e., gloves, aprons, eye protection, etc)*

Slide #18

1. Let’s review.
	1. Use PPE when working with hazmat. Make sure you have PPE appropriate to the hazmat you are handling.
	2. Use care when pouring, spraying, or dispensing hazmat.
	3. Keep shop towels and absorbent pads nearby.
	4. Clean up incidental spills immediately.
	5. Call 911 in case of emergencies!
	6. Sign-in on the Training Roster.

Slide #19

1. Contact your unit’s Hazardous Waste Coordinator or your Group’s Environmental Compliance Coordinator for hazmat assistance.
2. Unit and Group Coordinators should contact the Environmental Department’s CETEP Coordinator at 307-1306 for questions regarding this presentation and/or for training assistance.