Chemical Spills

Preparedness and Response
For purposes of this presentation chemical spills can involve:

- Gases
- Liquids
- Solids
Not all spills can be prevented but most can and others can be minimized by:

1. Minimizing the quantity of chemical(s) you have on hand (use and storage)
2. Transporting chemicals properly
3. Storing chemicals according to Safety Data Sheets (SDS)
4. Dispensing chemicals carefully
5. Practicing good housekeeping
When transporting chemicals do the following:

- Evaluate containers prior to transport to make sure they are in good condition and determine what is needed to transport them safely.
- Use carts, safety containers, & bottle carriers as appropriate.
- Use a gas cylinder dolly to transport heavy gas cylinders.
- Purchase chemicals in plastic coated bottles.
Dispensing Chemicals

To help minimize the risk of a spill, follow these guidelines when dispensing liquids:

1. Place containers in trays or basins to catch leaks & spills
2. Pay attention so you don’t overfill containers
3. Use funnels, syringes, and pipettes as appropriate
Chemical spills can be divided into two categories:

1. Low risk that lab workers can clean up if prepared; &
2. All other spills

Being prepared involves:

• Knowing what spills you can clean up;
• Knowing how to properly respond to and clean up the spill; &
• Having the materials necessary to clean up the spill.
Individuals **should not** clean up spills when:

- There are injuries that require immediate attention;
- The identity of the chemical spilled is unknown;
- Highly toxic chemical(s) have been spilled;
- The substance is highly flammable or reactive; or
- The spill has spread to multiple parts of the building or is located outside the individuals lab or shop.
Low Risk Spills

-What to do-

• Alert all other individuals in the area affected by the spill
• Avoid breathing the chemical substance
• Turn off ignition sources
• Wear appropriate protective equipment
• Confine the spill as necessary
• Use appropriate spill kit (should be prepared before hand)
• Collect waste & provide it to Environmental Management
• Clean area with water if a solid or liquid spilled
All Other Spills

-What to do-

• Evacuate the area affected by the spill. This includes notifying all others in the affected area so they can evacuate also

• Call dispatch (801-422-2222)

Do not re-enter the evacuated area until told it is safe to do so by Risk Management.
Every lab that uses or stores solid or liquid chemicals needs to have a spill kit for those substances that they can safely clean up. The spill kit can include:

- Small dustpan & hand broom
- Nitrile gloves
- Vent free anti-fog goggles
- Spill pads or loose sorbents
- 4-mil plastic zippered bags
- Utility gloves
- Container for storage of materials (e.g. 5 gallon bucket)
- Neutralizing materials

Spill kits need to be readily accessible & identifiable.
Some buildings/labs are equipped with a gas monitoring system. If a gas detection alarm is triggered, do the following:

Note: when a red alarm is triggered the orange alarm may remain on.
After reviewing this presentation you should:

1. Determine what spills you will be able to clean up & how;
2. Determine who in the surrounding area you will need to quickly notify when a spill occurs and how you will notify them;
3. Implement any necessary spill prevention measures; &
4. Obtain or build any necessary spill kit(s)
Please share this presentation with your co-workers