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# Spills and Other Emergencies

Are you truly prepared ?



# Objectives

- Discuss basic emergency response terms as it relates to industrial waste water.
- Describe basic preparedness actions.
- Evaluate existing plans and anticipated response actions for functional performance and regulatory compliance.
- Discuss integration expectations with any incoming external response resources.



# Limitations and Expectations

- This presentation will be an overview and will provide basic awareness.
- It should provoke some thought and prompt you to evaluate your existing protocols.
- It should move you to answer the question are you truly prepared for emergencies and spills.
- It will not provide all answers but will offer insight as to where information and resources can be found.



# Definitions and Preparedness

- **Disaster:** A sudden event, such as an accident or a natural catastrophe, that causes great damage or loss of life.
- **Emergency:** A serious, unexpected, and often dangerous situation requiring immediate action



# Definitions and Preparedness

- **Emergency Preparedness** is the discipline of dealing with and avoiding risks.
  - Process of ensuring that an organization has complied with the preventive measures.
  - Is in a state of readiness to contain the effects of a forecasted disastrous event to minimize loss of life, injury, and damage to property.
  - Can provide rescue, relief, rehabilitation, and other services in the aftermath of the disaster.
  - Has the capability and resources to continue to sustain their essential functions without being overwhelmed by the demand placed on them.



# Definitions and Preparedness

- **Plan**

- A scheme, program, or method worked out beforehand for the accomplishment of an objective: *a plan of attack*.
- A systematic arrangement of elements or important parts; a configuration or outline.
- A drawing or diagram made to scale showing the structure or arrangement of something.
- A program or policy stipulating a service or benefit.



# Definitions and Preparedness

- **Preparedness planning**
  - Activities needed to ready a system for actions and response.







# Preparedness and Management





# A Good Day





# A Bad Day





# A Worse Day





# Emergency Action Plans

- The Resource Conservation and Recovery Act (RCRA)
  - Hazardous waste treatment or disposal facility is required to have a facility emergency plan that explains the procedures to be taken at the hazardous waste treatment or disposal facility in the event of a spill of its hazardous wastes.



# Emergency Action Plans

- The Clean Water Act may require a facility to have an emergency plan to assure against a spill into a river or other body of water.
- There is usually an emergency plan required of the facility to make sure a concentrated batch of strong, undiluted chemicals doesn't get into the sewer.



# Emergency Action Plans

- OSHA requires each facility with certain amounts of hazardous chemicals to have an Emergency Action Plan.
- If enough or large enough amounts of certain hazardous chemicals are stored on-site at a facility, OSHA also has a special standard named the Process Safety Management Standard.



# Emergency Action Plans

- OSHA Requires:

**1910.38(c) *Minimum elements of an emergency action plan.*** An emergency action plan must include at a minimum:

- Procedures for reporting a fire or other emergency
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;





# Emergency Action Plans

- Procedures to account for all employees after evacuation;
- Procedures to be followed by employees performing rescue or medical duties; and
- The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.



# Emergency Action Plans

- OSHA requires employees to be trained about the hazardous chemicals stored, processed, and used on-site, as outlined in Hazardous Waste Operations and Emergency Response HAZWOPER training (29 CFR 1910.120).
  - The reasoning behind this is that if hazardous substances are located at a facility, they might spill or leak, requiring a cleanup.
  - Employees at the facility must have training on how to handle a spill of any size. Training is a legal requirement.



# Discussion

- Are you or were you aware of the information discussed on the previous slides?
- If a spill happened at your facility, what would happen?
- Do the employees involved know their specific individual duties?
- How would you describe your spill response readiness?



# Spill Prevention and Response

- In your plan do you have?
  - Description of discharge practices, including non-routine batch discharges.
  - Up to date list of stored chemicals and complete collection of Safety Data Sheets?
  - Procedure for immediately notifying the POTW of slug load/accidental discharges, including any discharges which would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five days;



# Spill Prevention and Response

- In your plan do you have:
  - Procedure to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off
  - Worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency responses.



# Spill Prevention and Response

Are you prepared to respond to spills with your current resources?

Can you comply with 29 CFR 1910.120?

## **1910.120(e)(1)(ii)**

Employees shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.



# Spill Prevention and Response





# Spill Prevention and Response







# Spill Prevention and Response

- Spill Control Plan... Does it include??
  - Responsible Official:
  - Title:
  - Telephone:
  - Titles of persons responsible for overseeing daily implementation of plan:
  - Telephone numbers to call when a spill occurs
    - Agency or Departments required reporting
  - Spill information hot line (your chemical supplier probably has an 800 number or uses a national spill information hotline)



# Spill Prevention and Response

- Fire Department
- Police Department
- Spill response team:
- Spill clean up contractors:
- Training (who is responsible for training, who requires training, frequency)
- Inventory of materials of concern
- Organized by hazard class (toxic, flammable, etc.)
- Organized by location (chemical storage area 1, cold storage room, laboratory, fueling station, etc.)
- Spill control information:



# Spill Prevention and Response

- Spill Control Plan... Does it include??
- Map of site with areas where spills are most likely to occur, drains (floor and storm), valves, pumps and switches, and other control structures to contain spills, paved areas and drainage patterns for outdoor spills, and spill containment and clean up equipment. Include sanitary and storm sewers, ditches, drains and streams on site and on adjacent property.
- Procedures for managing spills (by category or location)
  - Toxic
  - Flammable
  - Biological
  - Maintaining materials on-site to avoid waste water treatment plant issues



# Spill Prevention and Response

- Capturing Spills
  - Are you sure of your existing response systems?
  - What about large spills or releases that require external resources?
  - Are you prepared to interface with outside resources?
    - What are external resources expectations when they arrive and interface with you?



# Incident Command System

- What is an Incident Command System?

ICS is a standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional boundaries.



# Unified Command

- Unified Command:
  - is a structure that brings together the "Incident Commanders" of all major organizations involved in the incident in order to coordinate an effective response while at the same time carrying out their own jurisdictional responsibilities.





# Management of Domestic Incidents

- Homeland Security Presidential Directive 5 (HSPD-5) directed the Secretary of Homeland Security to:
  - Develop and administer a National Incident Management System (NIMS).
  - Develop the National Response Framework (NRF).





# Overview and Summary

- Are you able to?
  - Discuss basic emergency response terms as it relates to industrial waste water.
  - Describe basic preparedness actions.
  - Evaluate existing plans and anticipated response actions for functional performance and regulatory compliance.
  - Discuss integration expectations with any incoming external response resources.





# Wrap-Up

- Questions or Comments?

thanks