

# **CONTROLLING CHEMICAL HAZARDS**

**Guidance Sheet** 

### CONTAINMENT

## **CONTROL APPROACHES 3**

### Access

- » Control staff entry to the work area.
- » Work area and equipment should be clearly labelled.

### **Design and Equipment**

- » You need to use closed systems to a standard normally used in industry. Limited breaching of containment is allowed, for example taking quality control samples.
- » Design the closed system to allow easy maintenance.
- » Where possible, keep equipment under negative pressure to stop leaks.
- » Discharge extracted air to a safe place away from doors, windows and air inlets.
- » Get information from the supplier on all parameters needed to safely operate the system.
- » Follow any special procedures that are needed before the system is opened or entered, e.g., purging and washing.
- » Don't enter any confined space until it has been checked for hazardous materials and oxygen content.
- » Oilfield chemicals, production fluids and wastes must be stored in accordance with provincial regulations. In some case this requires the construction and use of secondary containment facilities. (See Further Reading and References below)



### **Examination and testing**

- » Visually check all equipment at least once a week for signs of damage.
- » Have equipment thoroughly examined and tested against its performance standard. This is generally at least every 2 years.
- » Keep records of all examinations and tests for at least five years.



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### **Cleaning and housekeeping**

- » Clean equipment and the work area daily. Clean other equipment and the workroom regularly once a week is recommended.
- » Store packages/containers in a safe place, and dispose of empty packages/containers safely.
- » Put lids on containers immediately after use.
- » Deal with any spills immediately.
- » For dusts, don't clean up with a dry brush or compressed air, use a vacuum system or wet cleaning.
- » For liquids, contain or absorb (with granules or mats).

### Personal protective equipment (PPE)

- Chemicals in hazard group S can damage the skin and eyes, or enter the body through the skin and cause harm.
  Supplemental protective equipment (e.g., gloves, face shields, aprons) is required (GS Skin Contact and GS Gloves).
  Check the safety data sheets to see what personal protective equipment is necessary.
- » Fire resistant/retardant work wear is required for all oilfield work. (GS Fire Resistant Clothing)
- » Respiratory protective equipment (RPE) shouldn't be needed for routine tasks. It may be needed for some cleaning and maintenance activities, e.g., dealing with spills. Be aware that some maintenance activity may involve entry into confined spaces. Decide if supplied air is needed when RPE is used.
- » Ensure PPE is kept in a clean condition and replaced when necessary.

### Training

- » Give your workers information on the harmful nature of the chemicals.
- » Provide them with training on: operating the process; following maintenance procedures; when and how to use PPE; and how to detect and deal with leaks.

### Supervision

» Have a system to check that control measures are in place and are being followed.

### **EMPLOYEE CHECKLIST FOR MAKING BEST USE OF CONTROLS**

- □ Make sure any ventilation system is switched on and working.
- Look for signs of leaks, wear or damage of any equipment used. If you find any problems, tell your supervisor. Do not carry on working if you think there is a problem.
- □ Wash your hands before and after eating, drinking or using the lavatory.
- **D** Do not use solvents to clean your skin.
- **Clear up spills immediately.**
- **□** For liquids, contain or absorb spills with granules or mats.
- □ For solids, use vacuum cleaning or wet mopping.
- Dispose of spills safely.
- **Use**, maintain and store any PPE provided in accordance with instructions.