

APPENDIX 7F

**Emergency Plan for
Accidental Spillage of
Chemical on Site**

7F. EMERGENCY PLAN FOR ACCIDENTAL SPILLAGE OF CHEMICALS ON SITE

1. Spill Prevention and Precaution

General Precaution

- Any minor maintenance facilities should be located away from local streams and should be on hard standings within a bunded area, and sumps and oil interceptors should be provided.
- Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken with the areas appropriately equipped to control these discharges.
- Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials. Washing the chemicals away is not acceptable as they will contaminate the local stream courses and the mudflat in the nearshore area.
- Storage of oils/chemicals/waste within the works area should be limited to absolute minimum volume and are to be removed from sites at the earliest opportunity.
- Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.
- Chemical waste containers should be suitably labelled to notify and warn the personnel who are handling the wastes to avoid accidents.
- Storage area should be selected at location away from local stream courses and the coastal area and adequate space should be allocated to the storage area.
- Avoid disorder and storage of unnecessary materials in works area.
- Prevent obstructions and tripping hazards.
- Lock all dangerous goods and chemical stores.

Storage Precautions

- Use solid and impermeable enclosure walls or storage shelves.
- Reduce the danger of falling of stacked containers.
- Provide tightly closed lips to avoid leakage of chemical wastes to further reduce the danger of container falling.
- Store compatible chemical wastes in the same storage area.
- Inspect the storage area to detect if any leaking or defective containers on a regular basis.
- Check the conditions of the storage containers regularly.
- Identify and provide suitable notices in storage area.
- Store large and heavy containers on the floor as far as possible or avoid storage of these containers higher than 2 feet from the floor.
- Keep chemical waste containers below eye level.
- Provide adequate space for handling of the containers.
- Maintain a log of chemical wastes.
- Separate incompatible chemicals from each other.

Transfer and Transport Precautions

- Consider the size of the container to avoid overfilling.
- Use pumps to transfer chemical wastes instead of simple pouring.
- Provide containment structure to hold the chemical wastes when leakage or spillage of chemical waste occurs.
- Use suitable carriers to transfer the chemical waste containers from one location to another.
- Employ licensed waste collectors to be responsible for chemical waste transport.

2. Responses Action

Workers should be aware of emergency telephone numbers and locations of spill kits. The response actions to an accident would include the following steps:

- Keep untrained personnel away from the spillage area or evacuate all personnel and call the emergency service if the spills are highly toxic and volatile.
- Allow only trained persons who have equipped with protective clothing and equipment to enter the spillage area for clean up.
- Transfer the spills back into containers using suitable equipment wherever practicable.
- Use suitable absorbing materials to clean up the spills and dispose the absorbing materials as chemical wastes.
- Use suitable solvent to clean the spillage area after removing the spills.
- Inform Environmental Protection Department, Fire Services Department and Police in the case where the spillage of chemicals would cause serious contamination of an area or risk of pollution.
- Prepare necessary protective devices, safety equipment, containers and clean up materials for emergency use.
- Train staff to handle the spillage of chemicals.
- Evaluate the potential hazard of the chemical wastes.

3. Spill Clean Up and Disposal

- Control the leakage of the chemical wastes and absorb the spills using suitable absorbing materials
- Use acidic or alkaline solution for neutralisation wherever appropriate
- Take special precautions for flammable wastes and wastes in powder form
- Keep and label the clean up wastes
- Clean the spillage area and equipment used in the response actions
- Dispose the clean up wastes as chemical wastes
- Safety equipment and personal protective equipment for handling of chemical wastes would be similar to that for handling of chemicals.

The equipment includes:

- Fire extinguishers
- Brush, dustpan, mop and bucket
- Dry sand tissue and toweling
- Containers including plaster bags, drums, etc
- Absorbing materials
- Pumps
- Sampling devices

Personal protective equipment:

- Safety helmet and goggles
- Gloves which can resist chemical reaction
- Protective boot and clothing
- Respirators and gas masks
- First-aid kits
- Face visor