

Environmental Management Practices



Activity: Chemical Storage and Handling ~ Non Bulk

EMP No. O-5

Description:

Prevent release of pollutants from the handling and storage of chemicals in 55-gallon drums or smaller quantities.



Targeted Activities:

Storage of Chemicals
Handling of Chemicals
Transport of Chemicals



Development EMPs:

- Cover chemical storage areas
- Raise storage area above surrounding ground surface to minimize run-on of stormwater
- Berm storage areas to prevent run-on of stormwater and to keep spills and leaks contained.
- Provide secondary containment of materials in use and storage
- Design storage area to allow easy collection of spills and leaks.
- Provide dead-end sump in loading/unloading docks or areas
- Protect storage area from accidents from vehicles
- Restrict access to storage areas through the use of fencing or enclose storage areas.
- Provide adequate ventilation in cases of spills and leaks
- Provide flame-resistant containers where required
- Construct site storage and handling facilities away from active traffic areas
- Pave storage and handling areas to minimize release to soils and groundwater
 - Use concrete paving when possible
 - Seal joints and cracks
- Provide designated separate area for leaking hazardous cargo:
 - covered and ventilated
 - Dead-end sump to contain spills and leaks
 - Bermed to prevent spread of spills and leaks
 - Impervious based to prevent release to the soil and groundwater
 - Have contingency plan available

Potential Pollutants:

Organic Chemicals
Inorganic Chemicals
Metals
Oils and Grease

Target Environmental Media:

Surface Water
Air
Groundwater
Soil

US Regulatory Requirements & Guidance:

40 CFR 50 -99 Clean Air Act Regulations
40 CFR 110.3 Discharge of Oil
40 CFR 112 Oil Pollution Prevention (SPCC/OPA Plans)
40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance
40 CFR 122-124 NPDES Regulations for Storm Water Discharges
40 CFR 260-262, 268, and 270-272 Hazardous Waste Management
40 CFR 302 Designation, Reportable Quantities and Notification Requirements for Hazardous Substances under CERCLA
40 CFR 372 Toxic Chemical Release Reporting: Community Right-to-Know
49 CFR 171-173, 175, and 177 Department of Transportation (DOT) Regulations
State and Local Regulations as appropriate to the Port

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Operational EMPs:

- Ensure only compatible materials are stored together
- Provide flame resistant lockers for small quantities of materials
- Read and understand material safety data sheets (MSDS) for all chemicals
- Keep storage areas away from high traffic areas
- Ensure all containers are marked and labeled properly
- Immediately contain and stop leaks and spills
- Have spill response materials readily available
 - Materials stored in strategic locations for use in any location
- Clearly mark spill response materials with easy access
 - Develop port-wide spill response plan
- Avoid transfer of materials in close proximity to storm drains
- Label storm drains "No Dumping Storm Drain"
- Use drip pans under hoses and dispensing equipment
- Ensure pavement under transfer/storage area is intact
 - Seal cracks
 - Provide concrete surface where possible
- Minimize quantities of materials stored
- Dispense from upright drums equipped with hand pumps
 - Minimize use of horizontal drums in cradles
- Provide secondary containment for all active drums and containers
- Contain and properly dispose of waste from secondary containment
- Storage areas should be clearly marked noting materials stored, emergency contacts, and spill cleanup procedures

Considerations:

- Develop and implement a spill prevention and response plan
- Maintain adequate supplies of spill response equipment in accessible locations
- Conduct frequent inspection of storage and handling areas:
 - keep consistent and accurate records of inspection efforts
 - keep accurate records of spill and leaks, and cleanup efforts
- Storage structures should be designed to meet local and state fire codes