

Environmental Management Practices



Activity: Bulk Storage and Handling ~ Liquid

EMP No. O-4

Description:

Prevent releases from bulk liquid storage and handling facilities

Targeted Activities:

Bulk chemical storage
Bulk chemical delivery
Bulk chemical on- and off-loading



Development EMPs:

- Ensure adequate secondary containment for catastrophic failures
- Provide separating mechanisms, such as oil/water separators, to keep spills and leaks from stormwater
 - Maintain oil/water separators as discussed in EMP O-6
- For petroleum products, install diversion valve and oil/water separator
 - For other chemicals, appropriate treatment systems should be installed
- Provide concrete bases for bulk storage facilities
- Provide liners under storage facilities to ensure that no releases to groundwater occur
 - Provide monitoring between storage tanks and liner to determine if leaks occur
- Provide overflow protection and alarms.
- Develop emergency spill response plan
- Provide adequate storage for tank wash down and cleaning waters
- Ensure cleaning waters are not discharged to storm drain
- Provide floating covers to minimize air releases
- Provide vapor recovery systems
- Cover chemical on- and off-loading areas
- Have dead end sump to capture spills and leaks
- Ensure tank materials are compatible with chemicals to be stored

Potential Pollutants:

Oil and Grease
Fuels
Organic Chemicals
Inorganic Chemicals

Target Environmental Media:

Air
Surface Water
Ground Water
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 264-265 Preparedness, Prevention and Contingency (PPC) Plan
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
40 CFR 401 Effluent Limitation Guidelines
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:

- Develop routine inspection and maintenance program
- Provide berms to minimize run-on of stormwater
- Provide oil/water separators for the stormwater system
- Maintain oil/water separators as discussed in EMP O-6
- Inspect tanks for leaks in accordance with state and local regulations
- Inspect hoses, couplings, and appurtenant equipment regularly
- Test high level alarms regularly
- Inspect overfill protection devices
- Have spill response equipment available
- Conduct spill response training and drills
- Test stormwater from detention area prior to discharge to minimize discharge of contaminants
- Ensure hoses are purged before uncoupling
- Ensure chemicals stored are compatible with tank material

Considerations:

- Provide consistent employee training on spill response procedures
- Conduct frequent routine inspections
- Conduct thorough maintenance program and keep accurate records
- Maintain adequate supplies of spill response equipment in accessible locations