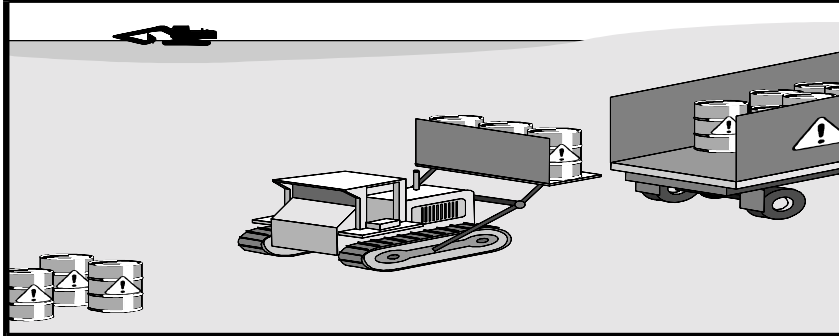


ACTIVITY: Waste Handling and Disposal

ICP – 08



Targeted Constituents

Significant Benefit
 Partial Benefit
 Low or Unknown Benefit

<input type="radio"/> Sediment	<input checked="" type="radio"/> Heavy Metals	<input checked="" type="radio"/> Floatable Materials	<input checked="" type="radio"/> Oxygen Demanding Substances
<input type="radio"/> Nutrients	<input checked="" type="radio"/> Toxic Materials	<input checked="" type="radio"/> Oil & Grease	<input checked="" type="radio"/> Bacteria & Viruses
<input type="radio"/> Construction Wastes			

Implementation Requirements

High
 Medium
 Low

<input type="radio"/> Capital Costs	<input checked="" type="radio"/> O & M Costs	<input type="radio"/> Maintenance	<input checked="" type="radio"/> Training
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Description

Prevent or reduce the discharge of pollutants to stormwater from waste handling and disposal by tracking waste generation, storage, and disposal; reducing waste generation and disposal through source reduction, re-use, and recycling; and preventing run-on and runoff from waste management areas. This management practice is likely to create a significant reduction in heavy metals, toxic materials, floatable materials, oxygen demanding substances, oil and grease, bacteria and viruses.

Approach

Many of the approaches presented in BMPs CP-06: Spill Prevention and Control, CP-07: Solid Waste Management, CP-08: Hazardous Waste Management, ICP-05: Outdoor Loading/Unloading and Storage of Materials, and ICP-06: Outdoor Container Storage of Liquids are applicable to ICP-08: Waste Handling and Disposal.

- Maintain usage inventory to limit waste generation.
- SARA Title III, Section 313 requires reporting for over 300 listed chemicals and chemical compounds. This requirement should be used to track these chemicals although this is not as accurate a means of tracking as other approaches.
- Track waste generated:
 - Characterize waste stream.
 - Evaluate the process generating the waste.
 - Prioritize waste streams using: manifests, biennial reports, permits, environmental audits, SARA Title III reports, emission reports, NPDES monitoring reports.
 - Inventory reports.
 - Data on chemical spills.
 - Emissions.
 - Shelf life expiration.

- Use raw material and production data and review: composition sheets, materials safety data sheets (MSDS), batch sheets, product or raw material inventory records, production schedule, operator data log.
- To eliminate or substitute some raw materials to reduce waste generation.
- Use design data and review: process flow diagram, materials and applications diagram, piping and instructions, equipment list, plot plan.
- Modify the process or equipment to reduce waste generation or contain waste more safely there by limiting potential stormwater impacts.
- Production planning and sequencing to limit exposure of hazardous or other waste to rainfall during transfer or disposal.
- Recycle materials whenever possible.
- Maintain list of and the amounts of materials disposed. This is also required for all SARA Title II listed materials.
- Segregate and separate waste to facilitate recycling.
- Check industrial waste management areas for spills and leaks.
- Cover, enclose, or berm industrial wastewater management areas whenever possible to prevent contact with run-on or runoff.
- Equip waste transport vehicles with spill containment equipment.
- Minimize spills and fugitive losses such as dust or mist from loading systems.
- Ensure that sediments or wastes are prevented from being tracked off-site.
- Stencil storm drains on the facility's property with prohibitive message regarding waste disposal limitations. Messages may include notice that the drain is a "separate storm sewer system" or that it goes to the facility pre-treatment plant.
- For a quick reference on disposal alternatives for specific wastes see Table ICP-12-1 presented in the Employee/Subcontractor Training BMP fact sheet.

Education

- Thoroughly train employees in proper handling and disposal of wastes at the site/facility. This should include periodic review of the material safety data sheets.
- Educate employees and subcontractors on hazardous waste storage and disposal procedures.
- Educate employees and subcontractors of potential dangers to humans and the environment from hazardous wastes.

- Instruct employees and subcontractors on safety procedures for common construction site hazardous wastes.
- Instruct employees and subcontractors in identification of hazardous and solid waste.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Designate a foreman or supervisor to oversee and enforce proper solid waste management procedures and practices.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.

Storage Procedures

- Ensure that adequate hazardous waste storage volume is available.
- Ensure that hazardous waste collection containers are conveniently located.
- Designate hazardous waste storage areas on site, away from storm drains or watercourses.
- Use containment berms in fueling and maintenance areas and where the potential for spills is high.
- Store hazardous materials and wastes in covered containers and protected from vandalism.
- Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.
- Clearly mark on all hazardous waste containers which materials are acceptable for the container.
- Place hazardous waste containers in secondary containment.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Do not mix wastes, as this can cause chemical reactions, make recycling impossible, and complicate disposal.

Disposal Procedures

- Regularly schedule hazardous waste removal to minimize on-site storage.
- Arrange for regular waste collection before containers overflow.
- Use only reputable, licensed hazardous waste haulers.

- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
 - Recycle any useful material such as used oil or water-based paint.
- Maintenance**
- None except for maintaining equipment for material tracking program and permanent oil/water separators.
 - Foreman and/or construction supervisor should monitor on-site hazardous waste storage and disposal procedure.

Limitations

- Hazardous waste that cannot be re-used or recycled must be disposed of by a licensed hazardous waste hauler.
- Major contamination, large spills, and other serious hazardous waste incidents require immediate response from specialists.
- Demolition activities and potential pre-existing materials, such as asbestos, are not addressed by this program.

Primary References

California Storm Water Best Management Practice Handbooks, Industrial Handbook, CDM et.al. for the California SWQTF, 1993.

Subordinate References

Publications That Can Work For You!; California Department of Toxic Substances Control, Sacramento, CA, 1991 (A list and order form for waste minimization publications from the State).

Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans, and Best Management Practices, EPA 832-R-92-006, USEPA, 1992.

Distribution List - Pollution Prevention Information Clearinghouse, USEPA, 1992.