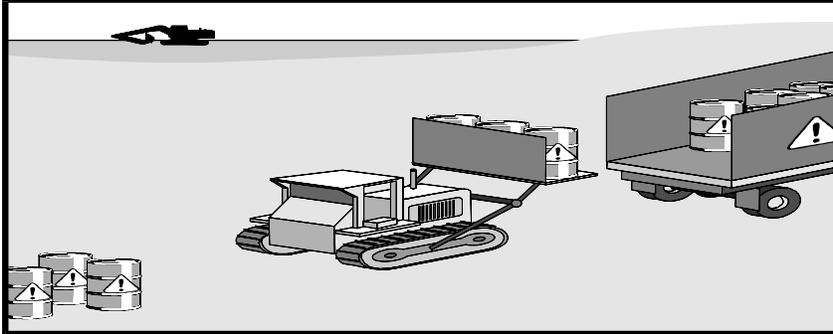


**ACTIVITY:** Waste Handling and Disposal

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.