

## STORMWATER BMPS: SPILL CLEAN UP

### **AFFECTED FACILITIES**

These BMPs apply at all municipal and county facilities where fuels, oils, lubricants, anti-freeze, solvents, cleaners, detergents, degreasers, paints, thinners, lacquers, stains, acids, caustics, fertilizers, herbicides, pesticides and other chemicals are handled, stored, used, re-packaged or transferred. These BMPs also apply at all field locations where municipal employees may be involved in spill clean up. If any spill, release or leak of any quantity of any such chemical occurs, these procedures must be followed to promptly clean-up the release.

### **BACKGROUND**

Spill and leaks, if not properly controlled, can adversely impact storm waters and receiving waters. Due to the type of work or the materials involved, many activities that occur either at a municipal facility or field operations have the potential for accidental spills or leaks. Proper spill response planning and preparation enables employees and contractors to effectively respond to problems when they occur and minimize the discharge of pollutants to the environment.

Activities with high potential for spills include:

- Chemical transfer
- Equipment and Vehicle Fueling
- Fertilizer Application
- Pesticide Application
- Painting/Staining/Striping

### **BEST MANAGEMENT PRACTICES**

- Handle, use, store, re-package and transfer all chemicals indoors or under cover from the weather where possible.
- As soon as a spill or leak is discovered, notify your supervisor or another employee. If the material is hazardous or of sufficient quantity, it may require specially trained personnel to clean up.
- Use “Dry” methods for spill clean up. Do not “wash-down” or “hose-down” spills or leaks.
- For spills or leaks of solid materials (powders, granulated materials, etc.) sweep up with a broom.
- Use the “3 Step Method” for cleaning up spills of non-hazardous liquids:
  - 1) Spread absorbents (loose, sheets, pigs, or socks) on spill.
  - 2) Sweep up the absorbed material.
  - 3) If residues still remain, mop up and dispose of dirty mop water in sanitary sewer.
- Clean up spills thoroughly and promptly. Delaying clean up allows for spreading of wastes by wind, rain and vehicle traffic and it is a safety hazard. If the spill response cannot be done immediately, assign someone to guard the area or hang “WARNING” tape to prevent foot or vehicle traffic.
- If the spill or leak threatens to enter or flow into a storm drain inlet or surface water body, contain the spill before attempting to clean it up. For liquids, place absorbent pigs or socks in its pathway. Place absorbent pigs or socks around all threatened storm drain inlets before starting the clean up.
- If a leaking portable container is discovered, either transfer the contents to another container, place the entire leaking container inside another larger container or, if it can be done safely, roll or turn the container so the hole is at the top. Then move the contained container indoors.
- If a spill or release escapes the boundaries of the facility or enters a body of surface water, notify the local fire department and the State of Colorado spill notification hotline,

(877) 518-5608, immediately upon discovery. (See: <https://www.colorado.gov/pacific/cdphe/wq-environmental-spills>.)

- If a spill or leak is of a hazardous substance exceeds 1 quart or an unknown substance of any amount, notify the Boulder County Sheriff's Dispatch at 303-441-4444, Boulder County's EERT or the city's designated emergency responder.
- Clean or dispose of all clean-up equipment and supplies properly. Some clean-up wastes may be "hazardous wastes" and will require disposal at a specially permitted hazardous waste disposal facility.
- Comply with the facility Spill Prevention, Controls and Countermeasure Plan (SPCC) requirements where applicable (large volume fuel or oil storage facilities). See 40 CFR 112.

#### **REQUIRED STRUCTURES AND EQUIPMENT**

- Facilities that handle or transfer of industrial-type chemicals outdoors should be equipped with permanent or temporary secondary containment devices like berms or dikes around the handling area to catch spills where possible.
- Locate spill kits or lockers within close proximity to the location where industrial-type chemicals are handled outdoors. Stock each kit or locker with adequate equipment and supplies to clean up the expected worst-case spill or leak of the materials being handled at the facility. Facilities handling many different types of materials or chemicals may require different kinds of spill response equipment and supplies. Also stock adequate personal protective equipment (PPE) to equip the spill responders (minimum of 2 responders per clean-up).
- Place signs near and on spill kits and lockers so that all employees know the location(s) of these supplies.

#### **INSTALLATIONS REQUIRED FOR NEW CONSTRUCTION OR RENOVATIONS**

- Construct impervious berms or secondary containment around areas where materials are stored, handled, transferred routinely. Make sure these berms or dikes are adequate to contain the maximum quantity of a single spill or leak plus a simultaneous heavy rain fall.

#### **REQUIRED EMPLOYEE TRAINING**

- Train all current employees working at facilities that handle, store, transfer, use or re-package the types of materials identified and who might be called upon to assist in a clean-up of a spill, leak or release on this BMP.
- Train employees on the proper methods for disposal of hazardous and non-hazardous wastes. Make sure employees and contractors know that clean-up of some hazardous materials like solvents and thinners may generate a "hazardous waste" that cannot be disposed along with normal solid waste.
- Train new hires and job transferees who will work at facilities that handle, store, transfer, use or re-package the types of materials identified on this BMP.
- Conduct refresher training for all employees who work at facilities that handle, store, transfer, use or re-package the types of materials identified on this BMP as needed.
- Contracts should stipulate that all contracted employees are trained in stormwater pollution prevention BMPs.
- Ensure that employees and contractors know the location(s) of each spill kit or locker at their facility and on the correct use of spill response equipment and supplies.
- Train employees on the proper personal protective equipment (PPE) to be used for each type of clean up. Training similar to OSHA "Hazard Communication" (49 CFR 1910.1200) and/or "Hazardous Waste Operations and Emergency Response" (49 CFR 1910.120q) may be useful.

- Train all employees on good housekeeping. See “*BMPs: Good Housekeeping & Spill Prevention*” for details.
- If the facility has an SPCC Plan, train all employees and contractors who handle hazardous waste, oil or fuel on the requirements of the SPCC Plan.

#### **REQUIRED MAINTENANCE**

- Inspect each spill kit or locker monthly and after each spill response episode. Repair or replace any equipment that is worn or not suitable for service. Replace any supplies that have been consumed.
- Inspect all secondary containments structures like berms and dikes for cracks, gaps or damage weekly. Repair problems as soon as possible.
- Maintain an up-to-date book containing all Material Safety Data Sheets for all materials that might require clean up.

#### **RECORDS**

- Keep records of all spill clean-up operations. Record the date, time, material spilled, the cause of the spill and an estimate the amount spilled and the amount cleaned-up. Send a copy of the report to the city storm water coordinator.
- Keep records of employees trained.
- Keep records of Material Safety Data Sheets for all materials stored onsite.

#### **REFERENCES**

1. Colorado’s Phase II Municipal Guidance, October 2001
2. *California Stormwater BMP Handbook*, January 2003
3. *Knoxville (TN) BMP Manual, Activities & Methods*, January 2001
4. *City of Tacoma: Surface Water Management Manual (Vol. IV Source Control BMPs)*, January 2003
5. *Municipal Facility Runoff Control Plan* (City of Lakewood, CO)
6. *Best Management Practices for Industrial Storm Water Pollution Control* (Santa Clara Valley, CA)