

## **OBJECTIVES**

- Manufacturing
- □ Material Handling
- □ Vehicle Maintenance
- □ Construction
- □ Commercial Activities
- □ Roadways
- Waste Containment
- ☐ Housekeeping Practices



# **ENGINEERING DEPARTMENT**

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#### **DESCRIPTION:**

Containment dikes are temporary or permanent earth or concrete berms or retaining walls that are designed to hold spills. Diking, one of the most common types of containment, is an effective method of pollution prevention for aboveground liquid storage tanks and rail car or tank truck loading and unloading areas. Diking can provide one of the best protective measures against the contamination of stormwater because it surrounds the area of concern and holds the spill, keeping spill materials separated from the stormwater outside of the diked area.

#### **APPROACH:**

- Containment dikes should be large enough to hold an amount equal to the largest single storage tank at the particular facility plus the volume of rainfall or 10% of total tank volume.
- Materials used to construct the dike should be strong enough to safely hold spilled materials. Materials used usually depend on what is available onsite and the substance to be contained. The material may consist of earth (i.e., soil or clay), concrete, synthetic materials (liners), metal, or other impervious materials.
- Containment dikes may need to be designed with impervious materials to prevent leaking or contamination of stormwater, surface, and ground water supplies.
- Uncontrolled overflows from diked areas containing spilled materials or contaminated stormwater should be prevented to protect nearby surface and ground waters. Therefore, dikes should have either pumping systems or vacuum trucks available to remove the spilled materials.

#### LIMITATIONS:

- ▶ May be too expensive for small facilities.
- Could collect contaminated stormwater, possibly resulting in infiltration of stormwater to ground water.

#### **MAINTENANCE:**

Inspections should be conducted during or after significant storms or spills to check for washouts or overflows. In addition, regular checks of containment dikes (i.e., testing to ensure that dikes are capable of holding spills) are recommended.

### **TARGETED POLLUTANTS**

- □ Sediment
- □ Nutrients
- Heavy Metals
- Toxic Materials
- ☐ Oxygen Demanding Substance
- Oil & Grease
- ☐ Floatable Materials
- □ Bacteria & Viruses
- High Impact
- Medium Impact
- □ Low or Unknown Impact

# IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training
- High
- Medium
- □ Low