

## LIQUID STORAGE TANKS AND SECONDARY CONTAINMENT PROGRAM

Version 5

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## 1. Basic Requirement

1.1. Liquid storage tanks must be identified and secondary containment must be provided for any liquid container of product or material that has the potential to cause a adverse effect to persons, property, products or the environment.

## 2. Requirements

- 2.1. A list of all above ground, below ground, temporary and mobile storage tanks is maintained.
- 2.2. Identify for each tank, the size, the material of construction, type of construction, design specifications, the original fabrication date and subsequent relocation and remodel dates.
- 2.3. All changes and modifications to storage tanks are properly engineered and changes approved by business unit operating management.
- 2.4. Establish schedule to evaluate the structural integrity of existing tanks in accordance with regulatory requirement or engineering standards to determine that they are suitable for present and continued use.
- 2.5. A plot plan is maintained showing the location of each tank holding hazardous or flammable liquids in relation to property lines, buildings, public roads, mainline railroad tracks, parks, schools, institutions and sources of ignition (such as vaporizers, incinerators, driers, etc.) to determine if they meet current code requirements. Note prevailing winds on the plan.
- 2.6. A list of secondary containment systems for each aboveground tank is maintained. This list includes the volumetric capacity, materials of construction (asphalt, concrete, native clay, bentonite, synthetic liners) and the method of drainage. Secondary containment capacity is the capacity of the largest tank plus 10%. Secondary containment is impermeable to the product stored. Where impermeable secondary containment is not provided, a management plan must be developed to appropriately manage risks and establish a schedule for upgrades.
- 2.7. A list of items and conditions that affect product containment and safety is maintained. Typical items include insulation, atmospheric vents, pressure/vacuum relief devices, rupture disks, tank lining, and high/low liquid level sensing gauges, excess flow alarms, break-away connections, pressure sensing alarms and products stored. Hazardous and non-hazardous materials are separated. Incompatible products are not stored in the same containment area.
- 2.8. Where multiple tanks are protected by a common system the secondary containment capacity equals the capacity of the largest tank plus 10%. Take into consideration the space occupied by the tanks.

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- 2.9. Provisions for draining or pumping both storm water and spilled products from within the secondary containment area do not affect the integrity of the secondary containment structure.
- 2.10. Location of emergency valves is outside of the secondary containment. These valves must be designed so that they can be locked closed.
- 2.11. All secondary containment shall be routinely inspected and maintained to ensure their security.

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