

INTERIM NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

AGRICULTURAL SECONDARY CONTAINMENT FACILITY

(No.)

CODE 710

DEFINITION

Permanently located above ground facilities designed to provide secondary containment of on-farm oil products.

PURPOSE

To minimize the risk of accidental release of stored oil products used in agricultural operations to support one or more of the following purposes:

- Control excessive release of organics into groundwater and surface waters
- Control excessive suspended sediment and turbidity into surface water.

CONDITIONS WHERE PRACTICE APPLIES

This practice is applicable to agricultural areas where:

- Oil product storage facilities are used or will be used for agricultural purposes.
- Spillage of liquid would pose a threat to soil contamination; and excessive organics into groundwater and surface water.
- Soils and topography are suitable for construction

On-farm oil products, such as diesel fuel, gasoline, lube oil, hydraulic oil, adjuvant oil, crop oil, vegetable oil, or animal fat, as identified by U.S. EPA's Oil Spill,

Prevention, Control, and Countermeasure (SPCC) regulation (40 CFR 112 Oil Pollution Prevention).

This practice does not apply to the removal of existing tanks.

CRITERIA

Design, construction, and siting shall comply with all federal, state, and local laws and regulations. The owner or operator shall be responsible for securing all required permits or approvals and for performing in accordance with such laws and regulations.

Farms with storage capacity of more than 10,000 gallons, or that have had an oil spill need a Spill Prevention, Control, and Counter-measure (SPCC) Plan certified by a licensed Professional Engineer as required by EPA.

Prevent outside runoff water from entering the facility.

General containment

Containment systems shall be manufactured or fabricated for the purpose of containing oil, fuel, or other regulated liquid.

Non-mobile tanks shall be anchored to the bottom of the secondary containment facility to prevent the tank from floating in the event of a catastrophic leak or accidental spill.

Tanks shall be located on a clean hard surface where leaks can be detected and the surface shall extend a minimum distance of two feet beyond the outside dimensions of the tank. A similar surface shall be beneath the vehicle filling area.

Conservation practice standards are reviewed, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

Containment structures exposed to rain will have provisions for accumulated rain water removal. Types of water removal systems can be sump and pump or a valve and sealed outlet pipe. All accumulated rain water will be tested for contamination before removal from the containment structure.

Storage tanks shall be protected from accidental contact by vehicles, tractors, and other farm equipment.

Provide adequate ventilation in roofed structures to prevent the buildup of excess fumes and development of vacuum or pressure exceeding the design pressure as a result of filling, emptying, or atmospheric temperature changes.

Sized Containment

Appropriately, sized secondary containment shall be double walled tanks or an impermeable structural barrier containing 110% capacity of the largest storage tank. Structural design of the containment facility shall be in accordance with conservation practice standard Waste Storage Facility (code 313) with the exception of earthen dikes that have a settled height of 3 feet or less above natural ground. Those dikes are required to have a minimum top width of 4 feet, a minimum side slope of 2:1, and a minimum combined side slopes of 4:1. Dikes with a settled height between 3 and 6 ft. are required to have a minimum top width of 6 feet, a minimum side slope of 2:1, and a minimum combined side slopes of 4:1. Uncovered containment must be able to hold 110% capacity of the largest container plus the 25-year 24-hour rainfall event.

Safety

Storage facilities shall be properly marked with signs. A No Smoking sign shall be placed near the fueling area. Fill ports shall be painted with the proper paint code; Gasoline-Red, Diesel-Yellow, and Kerosene-Brown.

Provide security measures to limit unauthorized access to the storage tanks and secondary containment structure(s).

CONSIDERATIONS

Evaluate the potential risk to water quality associated with agricultural oil, fuel, and/or liquid storage planned or present on the farm. Avoid areas:

- Closer than 300 feet from a well.
- Closer than 25 feet to on farm traffic and 75 feet to major off farm traffic patterns.
- Closer than 10 feet to any building.

Secondary containment facilities may be roofed, sided or otherwise covered to prevent rain, snow, and debris from accumulating in the outside barrier of the containment.

Tanks should have a level gauge and all piping and connections to tanks should be at the top centerline of the tanks to avoid leaks. Locate piping and controls above ground and within the secondary containment structure.

Install automatic shutoff valves on electrically operated dispensers.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use. As a minimum, include in the engineering plans, specification and reports the following:

1. Plan view of system layout.
2. Structural details of all components.
3. Locations, sizes, and type of pipelines and appurtenances.
4. Requirements for foundation and preparation and treatment.
5. Safety features, roof covers, fencing ladders, and safety signs.
6. Location of utilities and notification requirements.

OPERATION AND MAINTENANCE

A list of the storage tank's capacity and product it contains will be maintained for each secondary containment structure.

Storage tanks shall be inspected monthly.

Look for:

- Leaks.
- Rust or corrosion.
- Accumulation of trash or weeds.
- Proper labeling and signage.
- Condition of valves, fittings and hoses.
- Collected precipitation.

Perform maintenance as needed. Records of inspection and repair will be kept.

REFERENCES

Underwriters Laboratories, Standard No. 142, "Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids"

Environmental Protection Agency, The Spill Prevention, Control, and Countermeasure (SPCC) rule - <http://www.epa.gov/emergencies/content/spcc/index.htm>