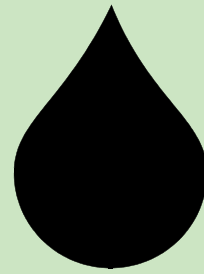


# Groundwater

## AGRI-BUSINESS STEWARDSHIP

*Brought to you by the Michigan Agri-Business Association  
through a grant from the Michigan Groundwater Stewardship Program*



JULY 2009

---

The objective of this document is to provide you with current and helpful information regarding groundwater protection, and the Michigan Groundwater Stewardship Program.

---

### **Managing Liquid Fertilizer Containment and Tank Inspections**

With regards to managing liquid fertilizer containment and tank inspections in Michigan, all farms with bulk storage tanks must be in compliance with Regulation 642 of the Michigan Department of Agriculture's Pesticide and Plant Pest Management Division. Tanks that are required to comply with guidelines set in Regulation 642 include those with capacity greater than 2,500 gallons, a combined capacity greater than 7,500 gallons, or mobile containers remaining on site for more than 30 days.

### **Containment and Compliance**

Farms with bulk storage tanks must have a secondary containment area with dikes that can withstand a full hydrostatic head of any discharged liquid and weight load of material. Put simpler, the dikes must be made of concrete, steel, or earthen berm and be able to withstand 110 percent of the largest tank volume, displacement of liquids from other tanks below the dike, and 6 inches worth of rainfall.

Storage tanks that are not in use must remain locked with valves closed at all times and have fertilizer labeling with lettering at least 4 inches high. Gauges, pumps or other appurtenances must be above ground within the containment area and locked when not in use. If a spill should occur, all liquids in the contained area must be removed using a manual pump.

### **Inspections and Integrity**

Operators of farm storage facilities must inspect and maintain tank facilities on a regular basis to avoid risk of a discharge (Rule 13; 642). All operators of farm storage facilities must have a discharge response plan in case of spills. To ensure integrity of the tanks, observe the following:

- All storage facilities must be built from materials resistant to cracks, punctures and corrosion.
- All valves and outside materials must be compatible with the storage containers themselves.
- All tanks must be made of a material appropriate to the substances being stored, and may not be filled beyond capacity.
- All tanks must be secured to the ground to prevent it from floating during a spill.

Under Regulation 642, all new facilities must be approved for structural integrity by one of the following: Michigan State University; the USDA Natural Resources Conservation Service; a state licensed professional engineer; MidWest Plan Service; or Tennessee Valley Authority.

For questions, call the Michigan Department of Agriculture at (517) 241-2979. For additional contacts and resources, visit the Michigan Agri-Business Association's Web site at [www.miagbiz.org](http://www.miagbiz.org).

---

**Developed and  
Paid for by Nitrogen and Pesticide Fees.  
Distributed by the Michigan Agri-Business Association**

