



# Dealing with tanks dislocated or damaged by a natural disaster

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Fuel and other tanks dislocated or damaged by a natural disaster constitute a public safety threat.

It is within the jurisdiction and responsibility of local public safety responders to be prepared to deal with such tanks.

Gasoline, fuel oil, diesel oil, and ethanol fuel leaked from tanks are flammable or combustible and create ignition hazards. Gasoline may create an explosion hazard. Any of these fuels damage the environment when they are leaked from a tank.

Pesticide, chlorine, anhydrous ammonia, and other fertilizer tanks can create public safety and environmental threats if leaked.

## Propane tanks

Propane is a liquefied gas under pressure that is used for heating and fuel. It is flammable and can create an ignition hazard and — under some conditions — an explosion hazard. While leaked propane is a public safety threat, it does not create environmental hazards.

Propane tanks range from a few gallons to thousands of gallons in size. There are small tanks for cooking, large tanks for residential heating or farm operations, and very large tanks for industrial purposes.

Propane tanks may be owned by the user or they may be owned by a propane distributor. Large propane tanks that are owned by a distributor likely will have marking indicating the owner. Most other propane tanks will not.

Propane tanks may float or be dislodged by floodwater or wind. They may be carried long distances, and may lodge against buildings, bridges or other locations where they pose a safety risk. They may be dented, upside down, full, leaking, or empty when discovered. In some instances, propane tanks may shift in place, breaking piping or valves, and venting or becoming unstable.

Propane tanks, like farm above-ground storage tanks, should be tied or chained to something substantial or anchored so they cannot float in floodwater.

The Homeland Security Emergency Management (HSEM) Division of the Minnesota Department of Public Safety and the State Fire Marshall (SFM) advise local emergency managers and planners to include local propane dealers in emergency planning. In areas with many propane customers, local emergency planners and responders should bring

local propane dealers into the emergency management structure. Protocols can be worked out ahead of time or at the time of response for:

- reporting location of orphaned or damaged propane tanks;
- confirming that a tank is for propane, and not for anhydrous ammonia or something else;
- determining whether a tank is empty, full or leaking;
- deciding whether to isolate leaking tanks and let them leak to empty;
- retrieving undamaged tanks;
- offloading or venting tanks;
- stabilizing or repairing damaged piping and valves;
- inspecting tanks for return to service;
- returning tanks to their owners; and
- scrapping or disposing of damaged or “orphan” tanks.

HSEM and the SFM may be able to provide advice and assistance to local officials when propane tanks float or are dislodged by flooding, wind storms, or tornadoes.

### **Gasoline, fuel oil, diesel fuel, ethanol and chemical tanks**

HSEM and the SFM advise local emergency managers and planners to pre-identify locations of large liquid petroleum tanks and to prepare for managing potential ignition hazards from flooded or dislodged tanks.

The Minnesota Pollution Control Agency (MPCA) can advise and assist local emergency managers and responders on liquid petroleum and chemical tanks. In a flood, above-ground storage tanks that are outside can float away or tip and, in home basements, heating oil tanks can tip and spill oil. Underground storage tanks in saturated soil can rise to the surface and break through pavement. Floodwater can pour into tanks, displacing petroleum from them. Tornadoes can dislodge above-ground tanks or break piping from tanks.

Before a disaster, particularly a flood, tank owners should prepare their tanks by securing them. They can either empty the tanks to minimize spills should they float, or fill them to keep them from floating. Tank owners can plug vent lines and take other steps described in the MPCA fact sheet [\*Preparing Your Underground Storage Tank for a Flood\*](#).

During and after a flood, the MPCA will advise the tank owner on necessary cleanup of leaked petroleum. Or if the owner is unknown, unavailable or unable, and the situation is serious, the MPCA can send a state contractor to do the necessary cleanup. Sometimes the cost of cleanup is recovered after the owner is found.

After a disaster, the MPCA and its contractors will work with local emergency managers and responders as needed to:

- provide sorbents for local use on transient petroleum sheens from unknown sources;
- decide whether a leaking tank is safe and worth local responders attempting to plug or offload it;
- clean up oil in residential basements where tanks have floated or tipped;
- recover floated orphan tanks, and larger orphan chemical containers; and
- oversee commercial and industrial tank owners as they clean up tank problems

The MPCA can be contacted before an incident to assist in planning by calling (651) 296-6300 or toll free (800) 657-3864. During disaster response, the MPCA can be contacted via the State Emergency Operations Center or the Minnesota Duty Officer (call 800-422-0798 toll free or 651-649-5451 any time).

After a natural disaster, the [Toolbox for Local Units of Government Recovering from a Natural Disaster](#) should be useful. This MPCA Web page has links to fact sheets and guidance on a wide range of topics related to disaster preparedness and response, with emphasis on debris management.

### **Agricultural chemical tanks**

The Minnesota Department of Agriculture (MDA) has similar authority and contractors for agricultural chemical tanks and containers. So, if a tank or container is for fertilizer or a pesticide, including anhydrous ammonia or chlorine, get connected with the MDA. For planning, call Patrick Kelly at 651-201-6387.

Anhydrous ammonia tanks may have fittings similar to propane tank fittings, and if markings are obscured, an ammonia tank and a propane tank might be confused. In agricultural areas, an anhydrous ammonia dealer would be a good member of a local planning and response group.

During disaster response, contact the MDA via the State Emergency Operations Center or the Minnesota Duty Officer (call 800-422-0798 toll free or 651-649-5451).