

Guidelines for Preparing Tank Trucks for Transporting Potable Water

The following procedures are guidelines for using tank trucks or trailers to provide potable water during drought or other emergency conditions. The appropriate Water Quality Control Division regional office should be contacted before a water hauling operation is begun.

Selection

Tank trucks or trailers to be used for transporting potable water should be selected with two considerations in mind: the nature of the truck's normal use and the degree of difficulty in cleaning. Commercial milk or potable water tank trucks are preferred. Trucks designed for the transport of wine, vegetable oil, beer, or other food products may also be used. Trucks that have been used to haul petroleum products or other toxic substances are not acceptable.

Cleaning Procedures

Water trucks: Flush tanks thoroughly with potable water and inspect for particulate matter such as rust and sediment.

Milk trucks: Scrub tanks with detergent, flush thoroughly with potable water, and inspect for cleanliness.

The following cleaning procedures may be employed for tank trucks normally used for hauling such liquids as apple juice, vinegar, wine, yeast, liquid sugar, beer, corn syrup, cottonseed oil, peanut oil, margarine oil, linseed oil, safflower oil, and soybean oil:

1. Open the drain and flush with hot, potable water.
2. Steam with an emulsifying detergent until the tank is clean. If steam is not available, circulate the detergent at a temperature of 180 degrees to 210 degrees Fahrenheit, changing the location of the nozzle to keep the interior continuously wet from top to bottom. Repeat this procedure until the tank is clean.
3. Rinse the tank thoroughly with hot, potable water and drain.

All hoses should be stored off the ground and should be properly capped in storage and transit to prevent contamination. All equipment should be of an approved type for water supply purposes and should be new or obtained from a water supply application. All hoses, pumps and other equipment should be flushed and disinfected before use.

Disinfection Procedures

Disinfection can be accomplished by filling the clean tank with potable water containing at least 50 ppm chlorine and allowing the water to stand for a minimum of 24 hours. The table below indicates the amount of hypochlorite solution (Clorox, Purex or other 5% hypochlorite household bleach) required to produce 50 ppm in various quantities of water. To insure proper mixing, the bleach must be added slowly as the tank is being filled. Do not use scented bleach.

Bleach Requirements for 50ppm	
Capacity of Tank, (gallons)	Bleach Required for 50ppm* (gallons)
500	0.5
1000	1
1500	1.2
2000	2
2500	2.5
3000	3
3500	3.5
4000	4
4500	4.5
5000	5

*Assumes household bleach with five (5) percent available chlorine.

If circumstances disallow a 24-hour waiting period, special instructions for disinfecting the tank with higher chlorine concentrations for shorter periods of time can be obtained from the Division.

Filling Procedure

The source of water must be an approved public water supply. Tanks should be filled and emptied through an air gap to prevent backflow and contamination of the source. Tank inlets or openings should be covered and properly sealed.

Water to be transported via tank truck must carry a free chlorine residual of one (1) ppm at the beginning of each haul. This may be achieved by adding one (1) cup of household bleach to each 1000 gallons of water. The bleach should be added during filling to insure uniform distribution.

Testing

Chlorine residual should be measured frequently to insure that a minimum of 0.2 ppm free chlorine residual is maintained. If time allows, tank water should be analyzed for bacterial contamination prior to use.