

Water Truck Guidelines

Preparing for Potable Water Use

The purpose of these guidelines is to provide basic instructions to those who need to employ truck delivery of potable water during an emergency. A high degree of care must be exhibited at all times in undertaking this operation.

The four procedures to perform in preparing a tank truck for potable water use and transportation are:

1. Cleaning
2. Disinfecting *Cleaning procedures will vary upon the nature of the previous use of the tank.*
3. Filling *Disinfection and filling procedures will be the same regardless of the previous use.*
4. Testing

Selection

Tank trucks to be used for the transportation of potable water should be selected with two considerations in mind: Nature of the truck's normal use; and the Degree of difficulty of cleaning. First choice should be commercial milk trucks and military style water trucks; and secondly, trucks that have sanitary designs for transporting food stuffs such as wine, vegetable oil, etc. Trucks that have been used to haul petroleum products or other toxic substances are not acceptable. The water tank shall comply with the Idaho Food Code, IDAPA 16.02.19, Chapter 5-3 Mobile Water Tank and Mobile Food Establishment Water Tank.

Cleaning Procedures

For milk trucks and military style water trucks, tanks should be scrubbed with clean water and flushed thoroughly, then inspected for cleanliness including the absence of particulate matter such as rust and sediment.

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

1. Open the drain and flush with hot water.
2. Steam with an emulsifying detergent until the tank is clean. Where steam is not available, inspected for cleanliness including the absence of particulate matter such as rust and sediment.
3. The following cleaning procedures may be employed for tank trucks normally used for hauling such liquids as apple juice, vinegar, wine, yeast, liquid sugar, corn syrup, cottonseed oil, peanut oil, margarine oil, linseed oil, safflower oil, and soybean oil: Circulate the detergent at a temperature of 180° to 210° F. changing the location of the nozzle to keep the interior continuously wet from top to bottom. For milk trucks and military style water trucks, tanks should be scrubbed with clean water and flushed thoroughly, then return the solution to the supply tank and recirculate until clean.
4. Rinse the tank thoroughly with hot water and drain.

All hoses to be used should be stored off the ground at all times and should be properly capped in storage and transit to prevent contamination. All equipment to be used 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.

All cleaning procedures used should be in conformance with state safety regulations.

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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. All hoses, pumps and other equipment should be disinfected in the same manner. This water may not be discharged directly into a stream since the chlorine may be toxic to fish. The table below indicates the amount of unscented household bleach (sodium hypochlorite) required to produce 50 ppm in various quantities of clear water. To insure proper mixing, the bleach must be added slowly as the tank is being filled.

Capacity of Tank	Gallons of Bleach
	Required for 50 ppm*
500	1/2
1000	1
1500	1 1/2
2000	2
2500	2 1/2
3000	3
3500	3 1/2
4000	4
4500	4 1/2
5000	5

* - Assumes household bleach with 0.42 lbs. available chlorine/gallon. If a stronger solution is available, the quantities may be reduced proportionately.

Filling Procedures

The source of supply water must be an existing approved public water supply. Tanks should be filled and emptied through an air gap. Tanks 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 the haul. This may be achieved by adding 1/4 cup of household bleach to each 1000 gallons. It must be added slowly during filling to insure uniform distribution.

Testing

- Tank water should be analyzed for bacterial contamination prior to use.
- Chlorine residual should be measured frequently to insure that a minimum of 0.1 ppm free chlorine residual is maintained.
- Test paper and swimming pool kit required for checking residual.

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