



Ohio Department of Health
Bureau of Environmental Health
Residential Water and Waste Water Program

Acceptable Water Hauling Tank Materials

Revised December 2011

On April 1, 2011 there were revisions to Ohio Administrative Code (OAC) 3701-28-16 regarding the requirements for water hauling tanks used for delivering water to private water systems. In regards specifically to the materials used in constructing the water hauling tanks, the following material are acceptable: stainless steel, an aluminum product material meeting the approved grade requirements, a material that meets NSF Standard 61 or compose of plastic meeting FDA 21CFR Part 177 INDIRECT FOOD ADDITIVES: POLYMERS .

A listing of NSF approved plastic tanks, materials, and coatings can be found at the NSF web-site www.nsf.org/contact.

Metal Tanks

Acceptable metal water hauling tanks include stainless steel, approved grades of aluminum, or existing, non-stainless steel or other metal tanks that are coated on the inside with a NSF approved epoxy coating. These are the same epoxy coatings used on the inside of public water tanks. Although coating the inside of a non-stainless tank is acceptable, this process is not recommended. There is no standard listing of approved stainless steel tanks.

Aluminum may now be used as a material for water hauling tank construction without the requirement to obtain variance from the local health department. There are some specific caveats in order for aluminum to be acceptable under OAC chapter 3701-28-16.

Other than compounds used for water treatment, there are no aluminum products listed on NSF standard 61. However, NSF Standard 51 certifies specific products that may include aluminum in their construction for contact with food. NSF Standard 51 does not certify the aluminum. The aluminum used in the tank products must be one of the following grades which has been adopted from NSF Standard 51 for the requirements in OAC 3701-28-16 (5)(b)(i)(ii).

Aluminum Wrought Alloys
1000-6000 series

Aluminum Casting Alloys

218, 308, 319, 332, 356, 360, 413, B443, 514, 520, 713

No other alloys are acceptable for contact with food. NSF does not test the alloys for compliance but relies on accurate information from the manufacturer.

Aluminum tanks will not be found on any NSF listing and it may be difficult (or impossible) to determine the specific grade on older tanks. New tanks should have at least manufacturer records available specifying which grade of aluminum was used in the construction of the tank.

Plastic Tanks

Plastic water hauling tank shall meet NSF Standard 61 or be composed of materials meeting FDA 21 C. F. R. Part 177 INDIRECT FOOD ADDITIVES: POLYMERS. Plastic water hauling tanks that are manufactured in a non-NSF certified factory, by the same company, are considered acceptable by ODH for hauling water if the chemical composition of the tank material and the manufacturing processes are identical.

The use of plastic tanks that do not have NSF 61 certification manufactured with polymer products meeting FDA 21 CFR Part 177 "INDIRECT FOOD ADDITIVES: POLYMERS requirements for contact with food" is now regarded as acceptable without a variance from the local health department. "FDA 21 CFR Part 177 "INDIRECT FOOD ADDITIVES: POLYMERS" describes the acceptable chemical composition of the plastics used in the manufacture of containers for food and water contact. Please note that 21CFR Part 177 INDIRECT FOOD ADDITIVES: POLYMERS does not include a list of acceptable tanks or actual manufactured products. This information can be review at: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=177>

Check the NSF listing of certified products to verify tank model numbers and capacity. If the plastic tank product is not listed on NSF Standard 61 then the local health department should request product verification on the tank being used.

Fittings and Hoses

Fittings and hoses for water hauling trucks shall meet Ohio Administrative Code (OAC) rule 3701-28-16 (F) (7) and should meet NSF Standard 61.

Products listed under NSF Standard 61 are tested for chemical leaching and safety for contact with drinking water. If component products are available that meet Standard 61 then these should be used.

The continued use of older water hauling hoses *in good condition* that currently do not meet the required NSF standard is allowed if they were installed prior to 2001 and when water is flushed through the hoses for approximately 1 minute prior to filling the customer hauled water tank. As the hoses and other components wear out and need replacement, then they must be replaced by components meeting the applicable NSF standards. The determination for component replacement will be made at the discretion of the local health department during the annual health department inspection. There may be some specific components where that type of device is not listed on any of the NSF standards. In those circumstances the local health department will have to use their best professional judgment for acceptability of the water hauling truck with those fittings or devices.

Older Water Hauling Tanks

There have been concerns raised that many older tanks were purchased as salvage and may have been used to haul toxic materials in the past. The past use of all older water hauling tanks has to be taken into consideration when inspecting them. If there is a concern about the past history of any water hauling tank then the responsibility for providing that information is up to the tank owner. Therefore, the local health department inspector should use the best professional judgment in considering the acceptability of existing water hauling tanks and verify possible past uses when there is a question.

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