

Demonstrating UST System Compatibility with Alternative Fuels

Completing all sections in this checklist will help you determine if you possess the required information to demonstrate compatibility of your underground storage tank (UST) system with regulated substances containing more than 10 percent ethanol or more than 20 percent biodiesel (hereafter referred to as alternative fuels).

OAR 340-150-0135 states that UST owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the system. In OAR 340-150, an UST system is defined as an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any. Owners and operators who store regulated substances that contain more than 20 percent biodiesel or more than 10 percent ethanol, such as 15 percent ethanol or E15, must notify DEQ 30 days before storing the fuel. Owners and operators must also keep records demonstrating that their UST system is compatible with the substance stored.

You can demonstrate compatibility in one of two ways:

- an independent laboratory certification or listing of component approval for use with the fuel you intend to store; or,
- a manufacturer's statement of approval to use the component with the fuel you intend to store.

You must demonstrate compatibility for these parts of the UST system:

- **tank**
- **piping**
- **containment sumps**
- **turbine pumps**
- **release detection equipment**
- **spill equipment**
- **overfill equipment.**

Note that OAR 340-150:

- does not require owners and operators to demonstrate the compatibility of dispensers or associated above ground equipment.
- does not require owners and operators to demonstrate the compatibility of pipe dope or sealants used in UST system construction. But pipe dope or sealants used anywhere in your UST system must be compatible with the regulated substance stored in the UST system. If pipe dope or sealant is incompatible with the regulated substance, owners and operators may not use that UST system to store the incompatible substance. Pipe dope is used to seal together threaded connections. Sealants are generally used to seal together non-threaded joints.

UST system owners and operators may find American Petroleum Institute's Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations* useful in complying with compatibility requirements.

Mail the complete checklist with all supporting documentation to:

Oregon DEQ – UST Duty Officer

700 NE Multnomah St #600

Portland, OR 97232

Or email to UST.DutyOfficer@deq.oregon.gov

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Facility Owner:

Facility ID:

Facility Name:

Facility Street Address, City, State, Zip Code:

Instructions: Complete the checklist on the next page for **each tank** containing an alternative fuel. Support all answers with a sufficient description or documentation to show that your system meets the compatibility requirement for the alternative fuels you intend to store.

To comply with the OAR 340-150 regulation compatibility requirements for storing alternative fuels:

- document how you meet the requirement by demonstrating compatibility or using an alternative, and
- keep the documentation as long as you store the substance.

You should update this checklist each time you repair or replace components of your UST system to ensure you have all the required compatibility documentation while storing alternative fuels.

A = demonstration using an independent laboratory certification or listing of component approval for use with the fuel you intend to store.

This must be a certification or listing that specifically includes analysis and testing of the component **applicable to use with the type and blend of regulated substance you listed at the top of this page.**

Many independent laboratory certifications or listings for UST system components **do not** include testing for use with alternative fuels. You may find your system's component is listed or certified by an organization, such as UL, and the listing or certification states the component meets certain performance criteria. But if that listing or certification criteria does not specifically reference the component's performance with the substance you intend to store, then it does **not** meet the criteria necessary to demonstrate the component is compatible with the regulated substance you intend to store. Many components have UL listings or certifications that are applicable for use only with gasoline-ethanol blends containing from 0 to 10 percent ethanol.

You can find more information on *UL Fuel Compatibility Tool*; www.ul.com/apps/ul-fuel-compatibility-tool. If you cannot locate an appropriate listing or certification, a manufacturer's statement of compatibility may be available.

B = demonstration is a manufacturer statement of approval to use the component with the fuel you intend to store.

This must:

- be an affirmative statement in writing;
- be from the equipment or component manufacturer; and
- state the range of blends (for example, 0-30 percent ethanol; 0-85 percent ethanol; 0-100 percent biodiesel) the equipment or component is compatible with.

A manufacturer's written statement and compatibility claim are the responsibility of the manufacturer; EPA does not review them. An inspector may accept them as adequate demonstration of compatibility of the component for use with a regulated substance, if they meet the criteria above.

You can find many manufacturer statements at:

- Petroleum Equipment Institute's *UST Component Compatibility Library*: www.pei.org/ust-component-compatibility-library
- ASTSWMO Emerging Fuels Task Force *Fuel Compatibility Tool*: astswmo.org/ust-compatibility-tool/

You must attach each proof of compatibility to this document

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Tank Permit Number	Tank Capacity in Gallons		Type Of Regulated Substance You Intend To Store, Including The Alternative Fuel Percentage:	
UST System Components	Documentation Demonstrating Compatibility With The Substance Listed Above?		A or B	Description Of Component Type, Model Number, And National Laboratory Certification, Listing Or Manufacturer Approval
Tank	No	Yes		
Piping (carries product from the tank including flex connectors and shear valves)	No	Yes		
Containment Sumps (a sump the product piping enters, including entry boots)	No	Yes		
Turbine Pump (includes the submersible pump or suction pump, depending on the type of system)	No	Yes		
Release Detection Equipment—Tank (includes, but not limited to, automatic tank gauging probes and float sensors)	No	Yes		
Release Detection Equipment—Piping (includes line leak detectors; and if using interstitial monitoring, secondary containment and sump sensors)	No	Yes		
Spill Equipment (for example, spill buckets)	No	Yes		
Overfill Prevention Equipment (includes, but not limited to, ball float valves, flapper valves or automatic shutoff devices, and probes for high-level alarms, if not listed elsewhere on this form)	No	Yes		
You must attach each proof of compatibility to this document				