

What will EPA look for during an UST inspection?

You must demonstrate your UST system is made of materials that are compatible with gasoline containing greater than 10 percent ethanol and diesel containing greater than 20 percent biodiesel, or you may not use the system to store those fuels. During an UST inspection, EPA will review your records, looking to ensure that your UST equipment is compatible with the ethanol blend or biodiesel blend stored. EPA recommends you keep the independent laboratory compatibility certifications and manufacturer statements of compatibility for equipment listed in the 2011 guidance.

Document that your UST equipment is compatible with the biofuels you store in your UST system.

Maintain records and make them available during inspections.

Why is biofuels compatibility important?

Ensuring UST systems are compatible with substances stored in them helps protect our environment from UST releases.

The law requires UST owners and operators to ensure their UST systems are compatible with substances, such as petroleum or hazardous substances, stored in the system. Owners and operators who choose to store gasoline or diesel mixed with ethanol or biodiesel must meet the compatibility requirement in 40 CFR 280.32.

For More Information

EPA's June 2011 biofuels guidance

- www.epa.gov/oust/compend/biofuels-compat-guidance.pdf

Additional Resources

EPA, states, and industry groups developed several biofuels compatibility resources.

- EPA Biofuels Compendium
www.epa.gov/oust/altfuels/bfcompend.htm
- California State Water Resources Control Board
www.waterboards.ca.gov/water_issues/programs/ust/alt_comp_opt/soc.shtml
- Petroleum Equipment Institute Compatibility Statements
www.pei.org/compatibility
- Steel Tank Institute
www.steeltank.com/Publications/E85BioDieselandAlternativeFuels/ManufacturerStatementsofCompatibility/tabid/468/Default.aspx
- Underwriters Laboratories Online Certification Page
<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

Underground Storage Tank Biofuel Blend Compatibility

For Underground Storage Tank Owners And Operators Who Choose To Store Ethanol Or Biodiesel Fuels

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EPA developed this brochure to help underground storage tank (UST) owners and operators demonstrate compliance with EPA's compatibility requirement when storing gasoline blends containing greater than 10 percent ethanol or diesel blends containing greater than 20 percent biodiesel.

What is biofuels compatibility?

Biofuels compatibility means that when storing biofuels, the materials and equipment making up UST systems continue to maintain chemical resistance and physical strength. If the materials and equipment are not compatible, biofuels could cause degradation that could lead to a release.

When do you need to demonstrate compatibility?

You must show that you are using compatible equipment if you are storing ethanol blends greater than 10 percent and biodiesel blends greater than 20 percent. Be sure your petroleum service contractor uses equipment that is compatible with biofuels when:

- New USTs are brought into service;
- Existing USTs are converted to biofuels service; or
- Repairs are made to UST equipment listed in the next column.

In addition, check with the manufacturers of your UST equipment, local and state agencies, or the resources listed on the reverse side of this brochure if you need more guidance on compatibility.

What UST equipment can be affected by storing biofuels?

According to EPA's 2011 [Guidance On Compatibility Of UST Systems With Ethanol Blends Greater Than 10 Percent And Biodiesel Blends Greater Than 20 Percent](#), these parts of the UST system may be affected by storing biofuels:

- Tank or internal tank lining
- Piping
- Line leak detector
- Flexible connectors
- Drop tube
- Spill and overfill prevention equipment
- Submersible turbine pump and components
- Sealants (including pipe dope and thread sealant), fittings, gaskets, o-rings, bushings, couplings, and boots
- Containment sumps (including submersible turbine sumps and under dispenser containment)
- Release detection floats, sensors, probes
- Fill and riser caps
- Product shear valve

These UST system parts must be compatible if used in systems that store gasoline containing greater than 10 percent ethanol or greater than 20 percent biodiesel.

State and local UST regulations may be more stringent than the federal UST regulations. Check with your state and local agencies for additional requirements.

The federal UST compatibility regulation in 40 CFR 280.32 requires that "Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system."

How do UST owners and operators demonstrate compatibility?

In the 2011 guidance, EPA discussed three ways to demonstrate compatibility:

- Use components that are certified or listed by a nationally recognized, independent testing laboratory (for example, Underwriters Laboratories) for use with the fuel stored;
- Use components approved by the manufacturer to be compatible with the fuel stored. EPA considers acceptable forms of manufacturer approvals to:
 - Be in writing;
 - Indicate an affirmative statement of compatibility;
 - Specify the range of biofuel blends the component is compatible with; and
 - Be from the equipment manufacturer, not another entity (such as the installer or distributor); or
- Use another method determined by the implementing agency to sufficiently protect human health and the environment. EPA will work with states as they evaluate other acceptable methods.