

What if my UST system is not compatible with biofuels?

You may find that some of your UST system equipment is not compatible with the biofuel you want to store. If it is not compatible, you may not store this fuel in your UST system unless you upgrade it to be compatible with the fuel.

How do I upgrade an incompatible UST system to store biofuels?

If you determine that your UST system is incompatible with biofuels, you may be able to store them if you choose to replace the incompatible equipment. It is very likely that you have tanks and piping that are already compatible with biofuel blends up to 100 percent; in this case you could use targeted retrofits to upgrade the containment sumps, pumping equipment, release detection equipment, spill equipment, and overfill equipment. This may require less investment than replacing the entire UST system because it may not require digging up and replacing the concrete slab over the UST to replace the tank or piping.

You may also choose to install a new UST system compatible with the fuel you wish to store. UST systems compatible with up to 100 percent ethanol or 100 percent biodiesel are available. Owners and operators wishing to install new systems to store these fuels should ensure that they require compatible equipment to be installed because it may not be the installer's default option.

If you do not have a compatible UST system and you do not choose to install a new one or undertake targeted retrofits to replace incompatible equipment, then you may not store biofuels containing over 10 percent ethanol or over 20 percent biodiesel in your UST system.

For More Information

EPA's 2015 Federal UST Regulation
<http://www.epa.gov/ust/revising-underground-storage-tank-regulations-revisions-existing-requirements-and-new>

Additional Resources

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

- EPA's Alternative Fuels And USTs
<http://www.epa.gov/ust/alternative-fuels-and-underground-storage-tanks-usts>
- California State Water Resources Control Board
www.waterboards.ca.gov/water_issues/programs/ust/alt_comp_opt/soc.shtml
- Petroleum Equipment Institute UST Component Compatibility Library
www.pei.org/ust-component-compatibility-library
- 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>

UST System Compatibility With Petroleum-Biofuel Blends:

A Brief Guide To The 2015 Federal UST Regulation For Owners And Operators Of USTs Located On Tribal Lands



U.S. Environmental Protection Agency
Office of Underground Storage Tanks
<http://www.epa.gov/ust>
EPA-510-F-15-002
September 2015

EPA developed this brochure to help owners and operators of underground storage tanks (UST) on tribal lands meet compatibility requirements in the 2015 federal regulation when storing gasoline blends containing greater than 10 percent ethanol or diesel blends containing greater than 20 percent biodiesel. We refer to these blends as biofuels. The information in this pamphlet pertains to storing these types of biofuels.

What is biofuels compatibility?

Compatibility means that when storing fuels, the materials and equipment comprising your UST system continue to perform as they were intended to. If a biofuel is incompatible with your UST system, it could cause components in your UST system to change how they were intended to perform. For example, components could become harder, softer, brittle, or swell or shrink. Any changes to materials in your UST system caused by incompatibility with a biofuel could lead to a release to the environment.

What are the UST system compatibility requirements to store biofuels?

The 2015 UST regulation requires an UST system be compatible with the substance stored within the UST system.

It also adds three additional requirements for owners of USTs choosing to store certain biofuel blends: gasoline containing greater than 10 percent ethanol; diesel blends containing greater than 20 percent biodiesel; or any other substance identified by EPA in the future, such as a new type of biofuel that may enter the marketplace. These are the requirements:

- **Notify EPA before switching to store a biofuel in your UST system**



Beginning on October 13, 2015, owners and operators of USTs on tribal lands must notify EPA at least 30 days before switching to

store a biofuel. If you install a new UST system, you must notify EPA within 30 days after bringing the UST into use and identify on the notification form what fuel is being stored. If you are storing a biofuel, EPA may then contact you to help determine the compatibility of the UST system.

- **Demonstrate that your UST system is compatible with the biofuel**

Owners and operators storing a biofuel must demonstrate compatibility of the UST system through one of these options:

- Certification or listing of UST system equipment or components by a nationally recognized independent testing lab for use with the fuel stored. Underwriters Laboratory (UL) is the most common.

or

- A written statement of approval for use with the biofuel from the manufacturer of the equipment or component. The statement must include the entire range of biofuel blends for which the component is compatible.

- **Keep records of UST system compatibility**

Owners and operators must maintain records demonstrating the compatibility of the UST system with the biofuel being stored as long as the UST system stores biofuel.

What parts of the UST system need to be demonstrated to be compatible with biofuels?

These parts of the UST system must be demonstrated compatible to store biofuels:

- tanks;
- piping;
- containment sumps;
- pumping equipment;
- release detection equipment;
- spill equipment;
- overfill equipment.

For more information to help you determine if you have the necessary documentation to demonstrate these parts of your UST system are compatible with the fuel you store, see EPA's alternative fuels and USTs website: <http://www.epa.gov/ust/alternative-fuels-and-underground-storage-tanks-usts>.

What will EPA look for during an UST inspection on tribal lands?

If you are storing a biofuel, EPA will review your records to ensure that your UST system is compatible with the fuel being stored. EPA will check your documentation for a certification or listing or manufacturer approval, which demonstrates that each part of the system is compatible with the fuel you are storing.