

Alternative Fuel Installation/Conversion Information

GENERAL INFORMATION:

Federal and West Virginia laws require that regulated underground storage tank (UST) systems be constructed or lined with material that is compatible with the substance stored. One primary purpose of state and federal regulation is to set forth specific requirements for underground storage tank to prevent product releases. Components and equipment used for storing/dispensing conventional motor fuels may not have adequate compatibility with many of the new motor fuels such as ethanol blended motor fuel with greater than 10% ethanol (E10) and biodiesel fuels greater than 20% (B20). These higher fuel blends can degrade many non-metallic materials, such as natural rubber, polyurethane, older adhesives, certain elastomers and polymers used in flex piping, bushings, gaskets, meters, and filters. They can also degrade soft metals such as zinc, brass, aluminum, lead and copper.

The conversion to high percent ethanol and biodiesel blend fuels requires time and effort to evaluate existing equipment, verify compatibility and order/install alternative fuel compatible components. Before delivery of alternative fuels to the UST system it's components must satisfy compatibility requirements. The following components should be compatible with the substance stored.

- ~ Tank or internal Tank lining
- ~ Spill bucket and containment sump
- ~ Overfill prevention equipment
- ~ Drop tubes
- ~ Fill and riser caps
- ~ Line leak detector
- ~ Release detection floats, sensors and probes
- ~ Piping and flexible connectors
- ~ Sealants (Including pipe, dope, and thread sealants
- ~ Fitting, gaskets, O-rings, bushings, couplings, and boots
- ~ Suction pump and components
- ~ Submersible turbine pump and components
- ~ Product shear valve
- ~ Dispensers and hanging hardware

The "Underground Storage Tank Alternative Fuel Installation/Conversion Application" is designed for use as an addendum to the "WV Underground Storage Tank System Install/Upgrade Request" form and the "Notification for Underground Storage Tanks" form for installation/upgrades of UST systems that will store alternative fuels or as a document for conversion of existing systems to store alternative fuels.

Complete the "Underground Storage Tank Alternative Fuel Installation/Conversion Application" only if you are proposing to install or convert a UST system that will store alternative fuel blends greater than 10% ethanol or any biodiesel derivatives greater than B20. This form is to be submitted in addition to all other forms used for installation/upgrades and notifications if the fluid stored is a specified alternative fuel. For further information on submitting UST forms please contact Jenna Palmer at 304-926-0499 ext. 1817 or at jenna.d.palmer@wv.gov

RESPONSIBILITY CHECK LIST:

UST owners and operators should follow the below checklist when installing a new UST system, or converting an existing UST system, for storage of gasoline ethanol blends containing greater than 10% ethanol, or biodiesel-blended fuel containing greater than 20% biodiesel.

- Determine the compatibility and complete the "Underground Storage Tank Alternative Fuel Installation/Conversion Application".
- Inform the facility's UST insurance carrier of plans to convert to a gasoline-ethanol blend exceeding 10% ethanol or biodiesel exceeding 20%. The UST insurance carrier may have additional requirements.
- Obtain an amended certificate of insurance indicating UST coverage for ethanol or biodiesel blend stored and submit the amended insurance certificate to the WVDEP.
- Submit and updated and signed "Notification for Underground Storage Tanks" form showing the change to storage of alternative fuels
- Submit a "WV Underground Storage Tank System Install/Upgrade Request" form if you are converting a UST system to store alternative fuels and had to upgrade or replace a UST system component during the conversion.
- Check that all visible fitting and connections at the top of the tank are tight (no vapors escape and no water gets in)
- Verify the appropriate vent top (pressure vacuum/updraft) is present for the type of product being stored.
- Fill labeling - Identify fill port and paint access cover according to API RP 1637
- Maintain compatibility records for the life of the equipment or component for all new or replaced equipment/components and for UST systems storing alternative fuels

Alternative Fuel Installation/Conversion Information

DEFINITIONS:

"*Alternative Fuel*" means a fuel other than gasoline or diesel used for powering motor vehicles. For the purpose of the Underground Storage Tank Alternative Fuel Installation/Conversion Application alternative fuel refers to gasoline-ethanol blends containing greater than 10% alternative fuel, or biodiesel blended fuel containing greater than 20% biodiesel.

"*Authorized Representative*" means a person that has legal authority to represent the owner of a UST system.

"*Biodiesel*" means an alternative fuel derived from vegetable oils and animal fats for use as a diesel fuel replacement.

"*Compatibility*" refers to the storage tank system components to maintain its respective physical and chemical properties on contact with the alternative fuel blend for the design life of the tank system.

"*Ethanol*" means a liquid fuel that is produced from the starch of plant material, most often corn, and can be used in it pure for (E100) or blended with petroleum (E15).

"*Operator*" means any person in control of, or having responsibility for, the daily operation of the UST system

"*Owner*" means:

- a. In the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for storage, use or dispensing of regulated substances;
- b. In the case of any underground storage tank system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use; or
- c. A person who has assumed legal ownership of the underground storage tank through the provision of a contract of sale or other legally binding transfer of ownership.

"*UL Listed*" Underwriters Laboratories, which certifies performance standards for a variety of industrial items, including UST systems equipment and components.

"*Manufacturers Certification*" means approval of a component by a manufacturer to be compatible with the alternative fuel for which the component will be used for. This approval must be in writing, indicate an affirmative statement of compatibility, specify a range of alternative fuel blends the component is compatible with, and be from the equipment manufacturer.

"*Underground Storage Tank or UST system*" means any one of combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground.

INSTRUCTIONS FOR COMPLETING THE UNDERGROUND STORAGE TANK ALTERNATIVE FUEL INSTALLATION/CONVERSION FORM

PART 1

Owner Information - Enter the first and last name, physical address, telephone number, and email address of the tank owner. Provide the company's name. If tank owners name is the same as the company, enter same under company name. If an authorized representative is filling out the form, provide the authorized representatives first and last name, phone number and email address.

PART 2

Facility Information - Enter the facility identification number, facility name, physical address and telephone number. Provide the operator's first and last name and email address. If this is a new facility, enter NEW under facility ID.

PART 3

Tank Information

- a. **Tank ID** - Enter the facility's name for the tank/compartments being installed or converted. (i.e. T1, T2, etc).
- b. **Install Date** - Indicate if the tank is a new install or a conversion of an existing tank by checking the appropriate box. If the tank was previously installed and is now being converted to hold alternative fuel blends, enter the date of installation
- c. **Capacity** - Enter the tank's capacity in gallons. If the form is being filled out for a single compartment of a multiple compartment tank, provide the capacity of the single compartment followed by the capacity of the tank as a whole. (all compartments combined.)
- d. **Tank Type** - Enter the construction material of the tank by checking the appropriate box.
- e. **Compartments** - Indicate if the tank has multiple compartments by checking the appropriate box. If the tank has multiple compartments, enter the number of compartments in the blank space provided.
- f. **Blend** - Indicate the type of fuel that will be held in the tank/compartments. Check the appropriate box to indicate E15, E85, or Other. If other is selected, use the blank space to provide the blend ratio. Biodiesel blends greater than B20 should be reported in the blank space provided.
- g. **Compatibility** - Fill in the following information for each component in the component list for part of this form. Please see below for instructions.

New or Existing

If the component is new and has been installed to meet compatibility standards with the blend of fuel being stored check new.

If the component is existing and is not being replaced check existing. All existing and new components must meet the compatibility requirements for the alternative fuel stored.

Model/Brand

List the model and brand of the component. If the model or brand of the component is unknown, write unknown in the blank box in place of the model/brand.

Equipment/Manufacturer

List the equipment manufacturer. If the manufacturer is unknown write unknown in the blank box in place of the model/brand.

UL Listed or Verified by the Manufacturer for the Fuel Stored

This section is used to verify if the component is compatible with the fuel stored. Check the appropriate box. Please see descriptions below.

UL Listed

Underwriters Laboratories has certified that this component meets the performance standards and is compatible with the alternative fuel being used with the UST system component.

Verified

The equipment manufacturer has verified that the component is compatible with the alternative fuel. If claiming manufacturer verification you must submit manufacturer's certifications.

Unknown

Check unknown if you are unable to identify the equipment manufacturer, do not know if the equipment is UL listed, or do not have manufacturer's certification.

Not Applicable

Check the NA box if this component is not present and will not be installed or converted in the tank system.

INSTRUCTIONS FOR COMPLETING THE UNDERGROUND STORAGE TANK ALTERNATIVE FUEL INSTALLATION/CONVERSION FORM

PART 4

Pipe Information

- a. Check yes or no to indicate if there is a sump present for submersible/piping connection.
- b. *Product Pipe Information* - Indicate if the piping connecting the tank to the dispenser is newly installed or an existing pipe by checking the appropriate box.
- c. *Product Pipe Configuration* - Indicate whether the piping is single walled or double walled by checking the appropriate box.
- d. *Type* - Indicate if the pipe is steel or fiberglass by checking the appropriate box. If the piping material is something other than steel or fiberglass check other and write in the piping material.
- e. *Compatibility* - Fill in the information for each component located in the component list in Part 4 of this application. For further instruction on how to fill in this section please refer to Part 3 section g of these instructions.

PART 5

Dispenser Information

- a. *Dispenser Number*- Indicate the dispenser number that the piping connects to.
- b. *Dedicated Dispenser Hose* - Indicate if there will be a dispenser hose that is dedicated for only the use of the alternative fuel by checking the appropriate box.
- c. *Blended Dispenser* - Indicate if this is a blended dispenser or not by checking the appropriate box
- d. *Sump Under Dispenser* - Indicate if there is a sump located under the dispenser by checking the appropriate box.
- e. *Compatibility* - Fill in the information for each component located in the component list in Part 5 of this application. For further instruction on how to fill in this section, please refer to Part 3 Section g of these instructions.

PART 6

Owner Certification

It is mandatory that the owner or an authorized representative of the owner confirms that all information is accurate in the "Underground Storage Tank Alternative Fuel Installation/Conversion Application" form. Please carefully read and understand the content of the form before signing. For any components that have been manufacturer verified, please attach a copy of the verification to the document. All manufacturer verified components must have this additional documentation to verify compatibility. The approval must be in writing, indicate an affirmative statement of compatibility, specify a range of alternative fuel blends the component is compatible with, and be from the equipment manufacturer.

Please retain a copy of the form for your records. Compatibility records must be maintain for the life of the equipment or component for UST systems storing alternative fuels.

UNDERGROUND STORAGE TANK ALTERNATIVE FUEL INSTALLATION/CONVERSION APPLICATION



Environmental Enforcement
601 57th Street SE
Charleston, WV 25304
Telephone: 304-926-0470; Fax 304-926-0457

FOR DEP USE ONLY
Reviewer _____
Date _____

West Virginia Department of Environmental Protection

For new installs or upgrades, submit this form with the WV UST System Installation Request Form and the Notification Form For Underground Storage Tanks if your tank will hold alternative fuels at greater than E10 or B20. This form must be submitted 30 days prior to the install or conversion of your tank system.

1. Owner Information

Name:		Company Name:	
Address:			
County:	Zip:	Phone:	E-Mail:
Rep Name:	Rep Phone:	Rep E-Mail:	

2. Facility Information

Facility ID:		Facility Name:	
Address:			
County:	Zip:	Phone:	
Operator Name:		Operator Email:	

Storage Tank & Piping Information - Sections 3 - 5 should be completed in full by the storage tank system owner or owner's authorized representative. When citing manufactures approval for a UST component, you must provide a copy of the manufacturer's certification for the component. The approval must be in writing, indicate an affirmative statement of compatibility, specify the range of alternative fuel blends the component is compatible with, and be from the equipment manufacturer.

3. Tank Information

Tank ID _____	<input type="checkbox"/> New Tank <input type="checkbox"/> Existing Tank	→ Date Installed _____	Capacity _____ (gallons)
Tank Type: <input type="checkbox"/> Steel <input type="checkbox"/> Fiberglass <input type="checkbox"/> Other _____		Fuel Blend(>E10): <input type="checkbox"/> E15 <input type="checkbox"/> E85 <input type="checkbox"/> Other _____	
Compartmentalized: <input type="checkbox"/> Yes <input type="checkbox"/> No Count: _____		Biodiesel Blend (>B20) _____ (fill in with blend label)	

Components	New or Existing Component	Model/Brand	Equipment Manufacturer	UL Listed or Verified by Manufacturer for the Fuel Stored
Storage tank	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Internal Tank Lining	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
ATG Probe, Float / Sensor	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Tank Interstitial Sensor	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Spill Bucket	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Drop Tube	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Overfill Auto Shutoff Valve	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Ball Float Valve	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA

Please see next page to supply piping information that is connected to this tank/compartment.

**UNDERGROUND STORAGE TANK ALTERNATIVE FUEL
INSTALLATION/CONVERSION APPLICATION**

Facility ID: _____

Tank ID: _____

4. Pipe Information				
Product Pipe Information: <input type="checkbox"/> New <input type="checkbox"/> Existing <input type="checkbox"/> Mixed (New & Existing) Existing Install Date _____				
Product Pipe Configuration: <input type="checkbox"/> Single wall <input type="checkbox"/> Double wall Type: <input type="checkbox"/> Steel <input type="checkbox"/> Fiberglass <input type="checkbox"/> Other _____				
Components	New or Existing Component	Model/Brand	Equipment Manufacturer	UL Listed or Verified by Manufacturer for the Fuel Stored
Product Pipe	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Pipe Fitting / Valve Material	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Pipe Sealant / Adhesive	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Gasket / Seals	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Flex Connector / Swing Joint	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Submersible Turbine Pump	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Mechanical Line Leak Detector	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Electronic Line Leak Detector	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Tank Sump	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Tank Sump Sensor	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Sump Penetration Fittings	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Transition Sump	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Transition Sump Sensor	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA

Please see next page to supply dispenser information that this piping is connected to.

**UNDERGROUND STORAGE TANK ALTERNATIVE FUEL
INSTALLATION/CONVERSION APPLICATION**

Facility ID: _____

Tank ID: _____

5. Dispenser Information - If needed, attach an additional completed copy of section 5 for each additional dispenser unit installed to the storage tank system via the same piping.

Dispenser Number: _____	Dedicated Dispenser Hose: <input type="checkbox"/> Yes <input type="checkbox"/> No	Blended Dispenser: <input type="checkbox"/> Yes <input type="checkbox"/> No		
	Sump Under Dispenser: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Components	New or Existing Component	Model/Brand	Equipment Manufacturer	UL Listed or Verified by Manufacturer for the Fuel Stored
Dispenser	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Suction Pump	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Dispenser Pump	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Dispenser Sump Sensor	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Sump Penetration Fittings	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Flex Connector	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Emergency (Shear) Valve	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Gasket / Seals	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Blending Valve	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Check Valve	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Meter	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Fuel Filters	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Break-Away Device	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Nozzle(s) / Swivel(S)	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA
Hose(s)	<input type="checkbox"/> New <input type="checkbox"/> Existing			<input type="checkbox"/> Listed <input type="checkbox"/> Unknown <input type="checkbox"/> Verified <input type="checkbox"/> NA

Please see next page to certify that the information in this form is accurate..

UNDERGROUND STORAGE TANK ALTERNATIVE FUEL
INSTALLATION/CONVERSION APPLICATION

Facility ID: _____

Tank ID: _____

6. Owner Certification - (Required)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in Section 1 through 5 of this Storage Tank Alternative Fuel form and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. My signature represents to the WVDEP that I own the UST's or are a representative of the tank owner having legal authority to sign on behalf of the owner.

Owner/ Authorized Representative Name (*Print*)

Telephone Number

Owner/Authorized Representative Signature

Date

Retain a copy of this form for your information and send it to the following address:

Underground Storage Tanks
Environmental Enforcement
601 57th Street SE
Charleston, WV 25304
Telephone: 304-926-0470; Fax 304-926-0457

Please attach manufacturers certifications for each component that is verified by the manufacturer to be compatible with alternative fuels. Failure to submit the appropriate documentation may result in the request for alternative fuels to be denied. As necessary, the WVDEP may request additional information to determine if UST components are compatible with alternative fuels.