



State of Illinois
Office of the State Fire Marshal

Checklist for Documenting UST Compatibility

KEEP THIS FORM AT THE FACILITY WITH SUPPORTING DOCUMENTATION.

DO NOT MAIL OR FAX TO OSFM.

Facility where equipment is located:

Facility Number: 3011091
 Facility Owner: CITY OF MOLINE
 Facility Name: MUNICIPAL SERVICES GARAGE
 Street Address: 3635 4th AVENUE
 City: MOLINE
 County: ROCK ISLAND

UST Information:

Tank ID Number: 6
 Tank Material: Steel _____
 FRP X
 Single Wall _____ or Double Wall X
 Tank Volume: 10,000
 Tank Product: E-85

Complete the checklist below, listing compatibility determination, method used and description. **All answers must be "YES" and supported with a sufficient description or supporting documentation in order for your UST system to demonstrate compatibility with the blended fuel/biofuel product.**

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
TANK	NO	<input checked="" type="radio"/> YES	B	Xerxes Fiberglass double wall
PIPING	NO	<input checked="" type="radio"/> YES	B	Flexible double wall A.P.T. Polytech P175SC
CONTAINMENT SUMPS	NO	<input checked="" type="radio"/> YES	A/B	STP Sump - TSM-W-4736 DISP Sump - LMM-2313T UL-2447
PUMPING EQUIPMENT	NO	<input checked="" type="radio"/> YES	B	Fc Petro Sub pump # STPAG-75-UL2

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
RELEASE DETECTION EQUIPMENT	NO	YES	B	TANK INT. Sensor - 794380-345 Sump Sensors - 794380-323
SPILL PREVENTION EQUIPMENT	NO	YES	B	OPW- EDGE D/W SPILL CONT. IC-3112D
OVERFILL PREVENTION EQUIPMENT	NO	YES	B	EBW 308 Ball float valve
GASKETS & SEALS	NO	YES		
JOINT ADHESIVES	NO	YES		


Methods:



- A. Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored.
- B. Equipment or manufacturer approval. The manufacturer's approval must 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 or component manufacturer

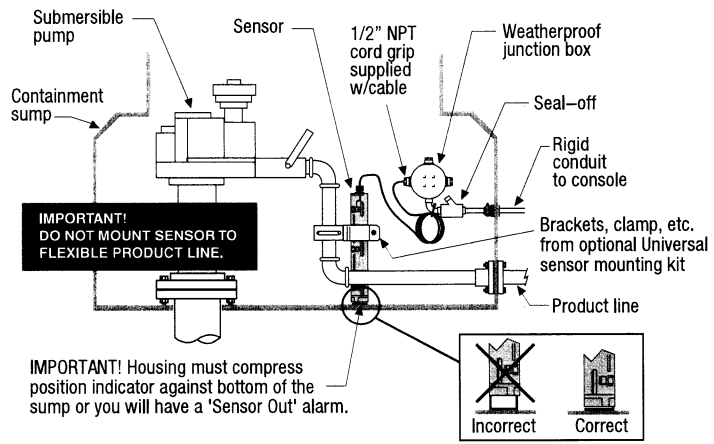
Note: Owners and operators may find American Petroleum Institute's Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations*, useful in complying with the compatibility requirements.



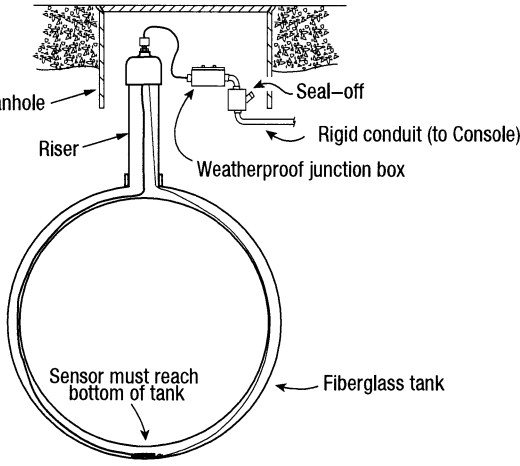
In order to be in compliance with the 2015 federal UST regulation compatibility requirements for storing biofuels, you must keep documentation of compatibility of the UST system components listed on this page as long as you store the fuel.

For your records, 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 biofuels.

Checklist Completed By: print name: GLEN DAVIS date completed: 7-12-2018
signature:  position/title: Project Manager

Sensor Description	Position Sensitive Sensor	This Sensor is installed in a containment sump or dispenser pan and will detect the presence of, and differentiate between, hydrocarbons and other liquids.		Sensor Matrix 		
Form Number	794380-323					
Where Used (Typical)	<input checked="" type="checkbox"/> Dispenser Pan <input type="checkbox"/> Annular Space <input checked="" type="checkbox"/> Spill Containment <input type="checkbox"/> Monitoring Well <input checked="" type="checkbox"/> STP Sump <input type="checkbox"/> Oil/Water Separator Tank <input type="checkbox"/> Convault Tank		Category			
Fuel Compatibility	 <input checked="" type="checkbox"/> Gas <input checked="" type="checkbox"/> E-15 <input checked="" type="checkbox"/> Green Diesel <input checked="" type="checkbox"/> Diesel <input checked="" type="checkbox"/> E-85 <input type="checkbox"/> DEF <input checked="" type="checkbox"/> Kerosene <input checked="" type="checkbox"/> E-100 <input checked="" type="checkbox"/> Waste Oil <input checked="" type="checkbox"/> Jet Fuel <input checked="" type="checkbox"/> Bio-Diesel 20 <input checked="" type="checkbox"/> Motor Oil <input checked="" type="checkbox"/> Aviation Gas <input type="checkbox"/> Bio-Diesel 100		<input type="checkbox"/> Discriminating <input checked="" type="checkbox"/> Non-Discriminating <input checked="" type="checkbox"/> Position Sensitive <input type="checkbox"/> Level Sensing <input type="checkbox"/> Static Testing <input type="checkbox"/> Hydrostatic			
Console Compatibility (*International Only¹)	Min. Console Software	Sensor Interface Modules				
		Module Form #	Module Description	# Of Modules Per Console	# Of Sensor Inputs Per Module	Availability
TLS-450PLUS (8600 Series)	6A or Higher	332812-001	Universal Sensor Module (USM)	Up to 4 - TLS-4XX Up to 8 - TLS-4XX w/opt. TLS-XB	16	Sold Separately
TLS-450	4A or Higher	332812-001				
¹ TLS4 (8601 Series)	6A or Higher	330020-750	Universal Sensor Input Output Module (USIOM-AC)	1	12	Included
TLS4i (8601 Series)		330020-750				
¹ TLS4B (8601 Series)		330020-751				
TLS4c (8601 Series)		330020-751				
TLS-350/R/PLUS	124/324 or higher	329356-004	Interstitial Sensor Interface Module	Up to 8	8	Sold Separately
TLS-350J		329356-003	4 Probe / 4 Sensor Interface Module	1	4	Sold Separately
TLS-300i		330230-001	4 Probe / 8 Sensor Interface Module		8	Included
TLS-300C		330513-001	2 Probe / 8 Sensor Options			
Alarm Notification	Normal	Sensor in normal state- no liquid present				
	Sensor Out alarm	Sensor not resting on bottom of containment				
	Fuel alarm	Liquid present in containment area				
	Sensor out	Sensor not communicating to ATG / Console				
Installation Kit	330020-012	Universal Sensor Mounting Kit (Sold separately)				
Specifications		Example Installation				
Operating Principle	Product permeable, reed switch /float					
Product Activation Height	1.52" (3.86cm)					
Operating Temp	0 to +140°F (0 to +60°C)					
Dimensions	12" (30.5cm) high, 2.2" (5.6cm) dia.					
Miscellaneous / Notes	Standard Cable Length: 12Feet (3.66m).					
Third Party Evaluation	http://www.nwglde.org/evals/veeder_root_o.html					
Links	http://www.veeder.com/us/products/tls-automatic-tank-gauge-systems/sensors/dispenser-pan-monitoring-sensors					
Warranty with System	1 Yr Parts & Labor					
Warranty (When purchased separately)	1 Yr Parts Only					



Sensor Description		Solid-State Alternative Ethanol Fluid Interstitial Sensor for Double-Wall Fiberglass Tanks		The interstitial sensor for double-wall fiberglass tanks with high alcohol product uses solid-state liquid level sensing technology to detect liquid in the interstitial space of the tank.		Sensor Matrix 	
Form Number		794380-345					
Where Used (Typical)		<input type="checkbox"/> Dispenser Pan <input checked="" type="checkbox"/> Annular Space <input type="checkbox"/> Spill Containment <input type="checkbox"/> Monitoring Well <input type="checkbox"/> STP Sump <input type="checkbox"/> Oil/Water Separator Tank <input checked="" type="checkbox"/> Convault Tank			Category		
Fuel Compatibility		<input checked="" type="checkbox"/> Gas <input checked="" type="checkbox"/> E-15 <input checked="" type="checkbox"/> Green Diesel <input checked="" type="checkbox"/> Diesel <input checked="" type="checkbox"/> E-85 <input checked="" type="checkbox"/> DEF <input checked="" type="checkbox"/> Kerosene <input checked="" type="checkbox"/> E-100 <input checked="" type="checkbox"/> Waste Oil <input checked="" type="checkbox"/> Jet Fuel <input checked="" type="checkbox"/> Bio-Diesel 20 <input checked="" type="checkbox"/> Motor Oil <input checked="" type="checkbox"/> Aviation Gas <input checked="" type="checkbox"/> Bio-Diesel 100			<input type="checkbox"/> Discriminating <input checked="" type="checkbox"/> Non-Discriminating <input type="checkbox"/> Position Sensitive <input type="checkbox"/> Level Sensing <input type="checkbox"/> Static Testing <input type="checkbox"/> Hydrostatic		
							
Console Compatibility (*International Only¹)		Sensor Interface Modules					
	Min. Console Software	Module Form #	Module Description	# Of Modules Per Console	# Of Sensor Inputs Per Module	Availability	
TLS-450PLUS (8600 Series)	6A or Higher	332812-001	Universal Sensor Module (USM)	Up to 4 - TLS-4XX Up to 8 - TLS-4XX w/opt. TLS-XB	16	Sold Separately	
TLS-450	4A or Higher	332812-001					
¹ TLS4 (8601 Series)	6A or Higher	330020-750	Universal Sensor Input Output Module (USIOM-AC)	1	12	Included	
TLS4i (8601 Series)		330020-750					
¹ TLS4B (8601 Series)		330020-751					
TLS4c (8601 Series)		330020-751					
TLS-350/R/PLUS	124/324 or Higher	329356-004	Interstitial Sensor Interface Module	Up to 8	8	Sold Separately	
TLS-350J		329356-003	4 Probe / 4 Sensor Interface Module	1	4	Sold Separately	
TLS-300i		330230-001	4 Probe / 8 Sensor Interface Module		8	Included	
TLS-300C		330513-001	2 Probe / 8 Sensor Options				
Alarm Notification	Normal	Sensor in normal state- optical phase correct - no liquid present					
	Fuel alarm	Optical light phase change					
	Sensor out	Sensor not communicating to ATG / Console					
Installation Kit	330020-012	Universal Sensor Mounting Kit (Sold separately)					
Specifications				Example Installation			
Operating Principle	Optical - looking at phase changes in the light beams by causing them to interact or interfere with one another						
Product Activation Height	Gasoline <0.2" (0.5cm); water <0.2"						
Operating Temp	14 to +140°F (-10 to +60°C)						
Dimensions	4.3" (11cm) length, 1.5" (3.8cm) width, 0.5" (1.3cm) thick						
Miscellaneous / Notes	Standard Cable 25 feet (7.6m) Fits 4 to 10 foot [1.2 to 3m] I.D.fiberglass tanks						
Third Party Evaluation	http://www.nwglde.org/evals/veeder_root_o.html						
Links	http://www.veeder.com/us/products/tls-automatic-tank-gauge-systems/sensors/dispenser-pan-monitoring-sensors						
Warranty with System	1 Yr Parts & Labor						
Warranty (When purchased separately)	1 Yr Parts Only						

E-85 Spill bucket



Below Ground Products Fuel Compatibility Matrix

Updated 12/15

OPW Product Number	Description	Standard Fuels: ≤15% Ethanol Gasoline ≤5% Bio-Diesel*	High Ethanol Content Gasoline: 15-100% Ethanol	High Biodiesel Content 5-20% Biodiesel*	Av-Gas / Jet Fuel	Kerosene / Fuel Oil
CXXA Double Wall Piping	Double Wall Primary Piping	X	X	X	X	X
DPC-2150/DPC-2200	Double Wall Pipe Couplings	X	X	X	X	X
SPC-0150, SPC-0200, SPC-0300	Single Wall Pipe Coupling	X	X	X	X	X
SPC-0075, SPC-0100	Single Wall Coupling Male NPT	X	X	X	X	X
SMA-1515, SMA-1520, SMA-2020, SMA-3030	E-Coated Male Adaptors	X	X	X	X	X
STF-1515, STF-2020, STF-2215, STF-2020	E-Coated Swivel Tees	X	X	X	X	X
SEF-1515, SRE-2015, SEF-2020, SEF-3030	E-Coated Swivel Elbows	X	X	X	X	X
SBC-2150, SBC-2200	Stainless Steel Swivel Bolt On Coupling	X	X	X	X	X
SMA-7575, SMA-1010	Swivel Male Adaptor (Brass or Zinc Plated)	X			X	X
SFA-7575, SFA-1010	Swivel Female Adaptor (Brass or Zinc Plated)	X			X	X
1-2100 Series / Multiports	Spill Containers	X	X	X	X	X
101BG-Series	Spill Containers	X	X	X	X	X
1-3100 Series (Edge)	Double Wall & Single Wall Spill Container Series	X	X	X	X	X
60V Series	Vapor Line Shear Valve	X	X	X	X	X
10 Series	Emergency Shut Off Valve	X	X	X	X	X
10 Plus Series	Emergency Shut Off Valve	X	X	X	X	X
10P-0152E85	E85 UL Approved Emergency Shut Off Valve	X	UL	X	X	X
61SALP-1020-EVR	Fill Swivel Adaptor	X	X	X	X	X
633T-8076	Fill Adaptor	X	X	X	X	X
61VSA-1020-EVR	Vapor Swivel Adaptor	X	X	X	X	X
1611AVB-1625	Vapor Adaptor	X	X	X	X	X
634TT-7085-EVR	Fill Cap	X	X	X	X	X
1711T-7085-EVR	Vapor Cap	X	X	X	X	X
634LPC-040	Low Profile Fill Cap	X	X	X	X	X
1711LPC-0300	Low Profile Vapor Cap	X	X	X	X	X
62M Series	Monitoring Probe Cap	X	X	X	X	X
61SO Series	Overfill Valve	X			X	X
61SOM Series	Overfill Valve Anodized	X	X		X	X
6111 & 61TP Series	Tank Bottom Protectors	X			X	X
61T Series	Drop Tubes	X			X	X
71SO Series	Overfill Valve	X			X	X
71SOM Series	Overfill Valve	X	X		X	X
233 Series	Extractor Valve	X	X	X	X	X
FCXX Series	Stainless Flex Connectors	X	X	X	X	X
53VML/30MV Series	Ball Floats	X	X	X	X	X
523V Series	Pressure Vacuum Vent	X	X	X	X	X
623V Series	Pressure Vacuum Vent	X	X	X	X	X

* Bio-Diesel must meet ASTM Standard for fuel quality to maintain compatibility with products above

UL - Emergency valve has UL or UL Approval for greater than 15% Ethanol Content ≤ Refers to less than or equal to the fuel standard rating for percentage of content



E-85
STP + Dispenser Jumps

Jonathan Radloff
Petroleum Branch Manager
Seneca Companies
7241 Gaines St Ct,
Davenport, IA 52806

Dear Mr. Radloff,

Franklin Fueling Systems certifies that Fuel Ethanol, also known commercially as E85, containing 51 % to 83 % ethanol by volume is compatible with APT TSM-W-4736 and APT LMM-2313T. Franklin Fueling Systems has based this approval on the ASTM D5798 standard within the UL 2447 listing.

Per ASTM D5798 within the scope section 1.3 This specification formerly covered Fuel Ethanol (Ed70-Ed85) for Automotive Spark-Ignition Engines, also known commercially as E85. The nomenclature "fuel ethanol" has been changed to "ethanol fuel blends" to distinguish this product from denatured fuel ethanol Specification D4806. To facilitate blending of ethanol fuel blends that meet seasonal vapor pressure requirements, a new lower minimum ethanol content has been established.

The APT containments listed above, TSM-W-4736 and LMM-2313T, are both listed under Franklin Fueling Systems UL2447 listing which incorporates the ASTM D5798 in the general information section for Fuel Rating – Automotive Fuels. For more information on ASTM D5798 follow the link below:

<https://www.astm.org/Standards/D5798.htm>

Sincerely,

A handwritten signature in black ink, appearing to read 'Loren Swatheim', written over a white background.

Loren Swatheim
Director, Global Technical Service
Franklin Fueling Systems



May 18, 2018

Jonathan Radloff
Petroleum Branch Manager
Seneca Companies
7241 Gaines St Ct,
Davenport, IA 52806

E-85
STP + Dispenser sumps

Dear Mr. Radloff,

Franklin Fueling Systems certifies that the use of E85 is compatible with APT TSM-W-4736 and APT LMM-2313T. Franklin Fueling Systems has based this approval on the ASTM D5798 standard within the UL 2447 listing.

Per ASTM D5798 within the scope section 1.3 This specification formerly covered Fuel Ethanol (Ed70-Ed85) for Automotive Spark-Ignition Engines, also known commercially as E85. The nomenclature "fuel ethanol" has been changed to "ethanol fuel blends" to distinguish this product from denatured fuel ethanol Specification D4806. To facilitate blending of ethanol fuel blends that meet seasonal vapor pressure requirements, a new lower minimum ethanol content has been established.

<https://www.astm.org/Standards/D5798.htm>

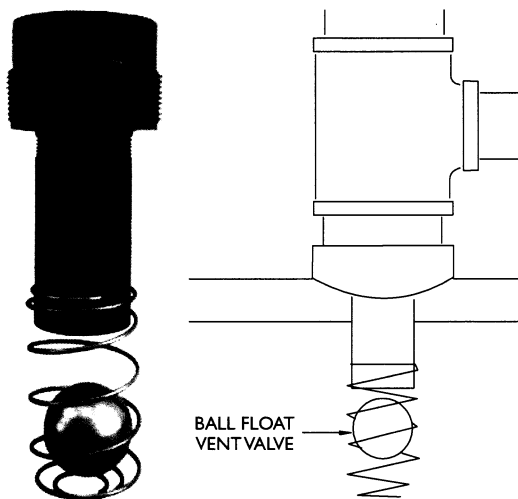
UL2447 is a third party test conducted on our sumps for use with AG fuels including E85. For more information on ASTM D5798 follow this link

Sincerely,

A handwritten signature in black ink, appearing to read 'Nick Bitz', written over a horizontal line.

Nick Bitz
Technical Service Engineer
Franklin Fueling Systems

308 BALL FLOAT VENT VALVES



The EBW ball float vent valves are used in conjunction with extractor vent valves in the Stage I vapor riser or tank vent line on underground storage tanks. The ball float vent valve will restrict vapor venting should a full tank condition occur and protects against product mixing and vapor locks due to vent pipe flooding.

EBW 3" ball float vent valves are designed to comply with the California Enhanced Vapor Recovery program CP-201 requirements for 3" nominal vapor return piping. All ball floats are made of materials fully compatible with alcohol/gas blends and biofuels (E-85, Biodiesel, B-20).

WARNING: EBW 308 Series float vents should not be used with suction pump systems. For use on gravity drop systems only. Do not use with pump-off unloading. Do not use with coaxial Stage I vapor recovery drop tubes.

2" BALL FLOAT ADVANTAGES

- Epoxy-coated steel nipple to prevent dissimilar metals from contacting each other.
- Stainless steel ball float is corrosion-resistant for long life.

2" BALL FLOATS

Model	Nipple Length	Bleed Hole	Thread
	In	In	
308020003	3.00	0.06	NPT
308020205	5.12	0.06	NPT
308020107	7.00	0.06	NPT
308020112	12.00	0.06	NPT
308020116	16.00	0.06	NPT
308020119	19.00	0.06	NPT
308023003	3.00	0.06	BSPT
308023107	7.00	0.06	BSPT
308023112	12.00	0.06	BSPT
308023116	16.00	0.06	BSPT
308023119*	19.00	0.06	BSPT

*Does not include Installation Cage.

3" BALL FLOAT ADVANTAGES

- Both 2" and 3" NPT include E-coated steel adapters.
- Stainless steel ball float is corrosion-resistant for long life.

3" BALL FLOATS

Model	Nipple Length	Bleed Hole	Thread
	In	In	
308030005	5.00	0.06	NPT
308030011	11.00	0.06	NPT
308030012	12.00	0.06	NPT
308030014	14.00	0.06	NPT
308030018	18.00	0.06	NPT
308030021	21.00	0.06	NPT

ADAPTERS

Model	Size	Thread
	In	
30822802	2.00	NPT
30822803	3.00	NPT