



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0254 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Tramont Manufacturing

Manufacturer's Technical Representative: Frank Langenecker

Mailing Address: 3701 North Humboldt BLV, Milwaukee, WI 53212

Telephone: (414) 967-8800 Email: frank@tramont.com

Product Information

Product Name: Tramont UL-142 Fuel Day Tanks

Product Type: Stand Alone UL-142 Fuel Tank

Product Model Number: See Attachments

(List all unique product identification numbers and/or part numbers)

General Description: Carbon steel UL-142 standalone fuel day tanks with integral and remote base pumping systems.

Mounting Description: Rigid Base Mounted:

Applicant Information

Applicant Company Name: Tramont Manufacturing

Contact Person: Frank Langenecker

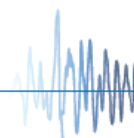
Mailing Address: 3701 North Humboldt BLV, Milwaukee, WI 53212

Telephone: (414) 967-8800 Email: frank@tramont.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant: Frank K Langenecker Date: 12/21/16

Title: Vice President Engineering Company Name: Tramont





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: Larson Engineering, Inc.

Name: Kevin Schultz California License Number: S-5608

Mailing Address: 3524 Labore Road, White Bear Lake, MN 55110

Telephone: (651) 481-9120 Email: kschultz@larsonengr.com

Supports and Attachments Preapproval

- ☐ Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- ☒ Supports and attachments are not preapproved

Certification Method

- ☒ Testing in accordance with: ☒ ICC-ES AC156
- ☐ Other (Please Specify): _____

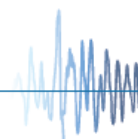
Testing Laboratory

Company Name: Environ Laboratories

Contact Name: John Homan

Mailing Address: 9725 Girard Avenue South, Minneapolis, MN 55431

Telephone: (952) 888-7795 Email: john.homan@element.com





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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 1.44

S_{DS} (Design spectral response acceleration at short period, g) = 2.00

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = See attachment

Overall dimensions and weight (or range thereof) = See attachment

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☐ Manufacturer's Catalog

☐ Other(s) (Please Specify): _____

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature: _____

Date: April 12, 2017

Print Name: Timothy J. Piland

Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.00

z/h = 1

Condition of Approval (if applicable): _____

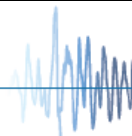


Table 1. Certified Components

Tramont Corporation: Rigid Base Mounted UL-142 Steel Double Walled Fuel Tanks

Model #	Gallons	Empty Weight [lbs]	Full Operating Weight [lbs]	Length [in]	Width [in]	Height [in]	Wall Thickness	Max Stiffener Spacing [in]	Max Tie Rod Spacing [in]	UUT
UOTRS-10, UOTRX-10	10	157	228	16	36	12	12 ga	18"	18"	1
UOTRS or UOTRX-10 to UOTRS or UOTRX-350	10 to 350	157 to 1091	228 to 3576	16 to 51	36 to 48	12 to 50	12 ga	18"	18"	Inter
UOTRS-350, UOTRX-350	350	1091	3576	51	48	50	12 ga	18"	18"	2
Remote Enclosure Duplex	N/A	80 to 219	N/A	24	18	4	10 ga	N/A	N/A	3

Note: UOTRS includes tank with control system, UOTRX is tank only with various pipe fittings.

Table 2. Certified Subcomponents

Day Tank Mounted Options

					Tank Mounted	Remote Mounted
					OSHPD Apprvd	
Equipment Description	Mfr	Mfr #	Desc	UUT	Tanks	Remote
Pump	Oberdorfer	N61K10G01	2 gpm, 3/8" NPT	2	X	X
Pump	Oberdorfer	N991	2gpm, 1/4" NPT	1,3	X	X
Pump	Oberdorfer	N992	4 gpm		X	X
Pump	Oberdorfer	N993	7 gpm		X	X
Pump	Oberdorfer	N994	10 gpm		X	X
Pump	Oberdorfer	N970	19 gpm		X	X
Pump	Oberdorfer	N990	23 gpm	2,3	X	X
Pump	Oberdorfer	N1100	30 gpm	2	X	X
Motor	Marathon Elec	5KH32FN5586X	1/3 Hp, 1725 rpm, 115 VAC, 1 ph	2	X	X
Motor	Leeson	A4C17DB2H	1/3 Hp, 1725 rpm, 115/208-230 VAC, 1 ph	1,3	X	X
Motor	Leeson	C4C17DK18H	1/2 Hp, 1725 rpm 115/208-230 VAC, 1 ph		X	X
Motor	Leeson	C4C17DK19H	3/4 Hp, 1725 rpm 115/208-230 VAC, 1 ph		X	X
Motor	Leeson	C6C17DK11F	1 Hp, 1725 rpm, 115/208-230 VAC, 1 ph		X	X
Motor	Leeson	C6K17DK16E	1.5 Hp, 1725 rpm, 115/208-230 VAC, 1 ph	2,3	X	X
Motor	Baldor	36-3301	1.5 Hp, 1200 rpm, 208 VAC, 1 ph	2	X	
Motor	Eaton	ECX09	Motor Starter	1,2,3	X	X
Motor	Tramont	2116-22887	Motor Starter Mount	3		X
Control System	MEC	System 2000 Plus	Controller, Single	1	X	X
Control System	MEC	System 2000 Plus	Controller, Duplex	2,3	X	X
Control System	Tramont	2300004	Pump Running / Critical High Plug-in Relay	1,2	X	X
Control System	Madison Switch	92400	Float Switch	1,2	X	
Control System	Rochester	9340-8140	Level Sensor	1,2	X	
Control System	Krueger Sentry	H-1.5	Visual Level Gauge	1,2	X	
Control System	Tramont	#2425	Steel Weatherproof Tank Cover	1,2,3	X	X
Vent	OEM	4023	1 1/4" Mushroom Vent	1	X	
Vent	OEM	4025	2" Mushroom Vent	2	X	
Vent	GTC	Series 100-2	2" NPT Emergency Vent	1	X	
Vent	GTC	Series 100-3	3" NPT Emergency Vent		X	
Vent	GTC	Series 100-4	4" NPT Emergency Vent	2	X	
Valve, Solenoid	GC Valve	S201GF02V5CG4E	3/8" NPT, 120 VAC, N. C. Solenoid Valve		X	X
Valve, Solenoid	GC Valve	S201GF02V5DG4E	1/2" NPT, 120 VAC, N. C. Solenoid Valve		X	X
Valve, Solenoid	GC Valve	S201GF02V5EG5E	3/4" NPT, 120 VAC, N. C. Solenoid Valve		X	X
Valve, Solenoid	GC Valve	S201GF02V5FG9E	1" NPT, 120 VAC, N. C. Solenoid Valve		X	X
Valve, Solenoid	GC Valve	S201GF02L7DG4	1/2" NPT, 120 VAC, N. O. Solenoid Valve S.S.	1,3	X	X
Valve, Solenoid	GC Valve	S202GF02L7DG4	1/2" NPT, 120 VAC, N. O. Solenoid Valve S.S.		X	
Valve, Solenoid	GC Valve	S201GF02V5DG4ME	1/2" NPT, 120 VAC, N. C. Solenoid Valve w/ MO		X	X
Valve, Solenoid	GC Valve	S201GF02V5EG5ME	3/4" NPT, 120 VAC, N. C. Solenoid Valve w/ MO		X	X
Valve, Solenoid	GC Valve	S201GF02V5FG9ME	1" NPT, 120 VAC, N. C. Solenoid Valve w/ MO	2,3	X	X

Unit Under Test (UUT)
Summary Sheet**Manufacturer:** *Tramont Corporation***Model Line:** *10 Gallon Day Tank***Model Number:** *UOTRS-10, UOTRX-10***Product Construction Summary:**

Tramont 10 Gallon Day Tank, 12 gauge, formed and welded cold rolled carbon steel double walled tank with painted finish.

Options/Subcomponent Summary:

See Table 2 for certified subcomponents.

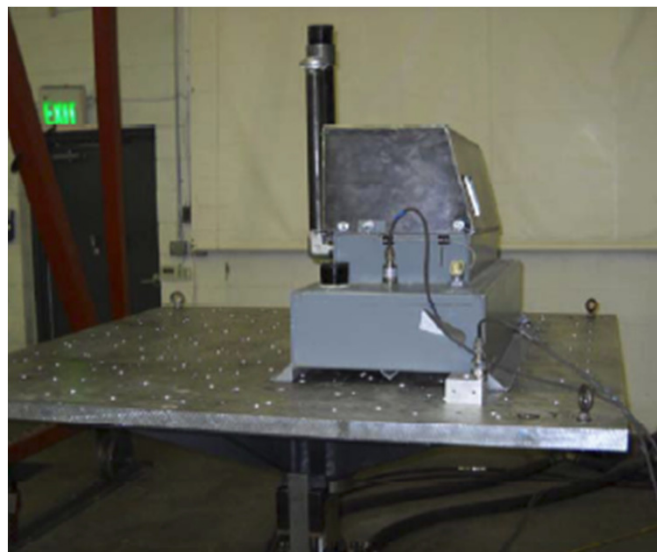
Tested Empty and Full.

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
228	16	36	12	>33 Hz	>33 Hz	>33 Hz

UUT Highest Passed Seismic Test Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2010	ICC-ES AC 156	2.00g	1	1.5	3.20g	2.40g	1.34g	0.54g

Test Mounting Details:

Component maintained structural integrity and functionality after shake table tests.

Rigid base mounted to the test table fixture using (4) 3/8" diameter SAE Grade 8 Bolts.

Unit Under Test (UUT)
Summary Sheet**Manufacturer:** *Tramont Corporation***Model Line:** *350 Gallon Day Tank***Model Number:** *UOTRS-350, UOTRX-350***Product Construction Summary:**

Tramont 350 Gallon Day Tank, 12 gauge, formed and welded cold rolled carbon steel double walled tank with painted finish.

Options/Subcomponent Summary:

See Table 2 for certified subcomponents.

Tested Empty and Full.

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
3576	51	48	50	19.24	33.19	23.99

UUT Highest Passed Seismic Test Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2010	ICC-ES AC 156	2.00g	1	1.5	3.20g	2.40g	1.34g	0.54g

Test Mounting Details:

Component maintained structural integrity and functionality after shake table tests.

Rigid base mounted to the test table fixture using (6) 3/8" diameter SAE Grade 8 Bolts.

**Unit Under Test (UUT)
Summary Sheet****Manufacturer:** *Tramont Corporation***Model Line:** *Remote Base Enclosure***Model Number:** *N/A***Product Construction Summary:**

Tramont Remote Base Enclosure, 10 gauge, formed and welded cold rolled carbon steel enclosure with painted finish.

Options/Subcomponent Summary:

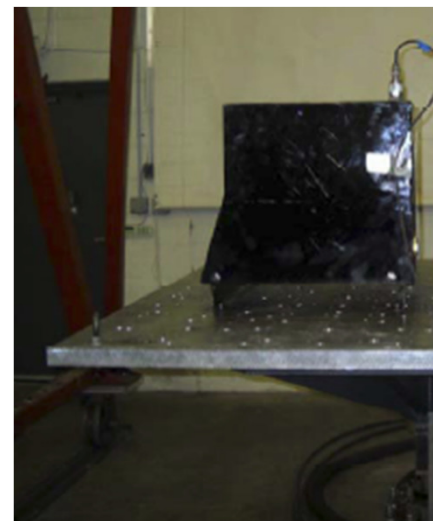
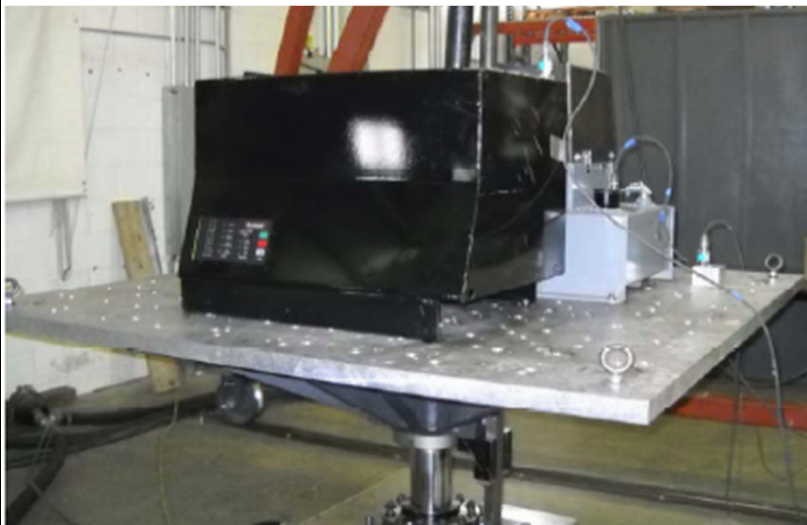
See Table 2 for certified subcomponents.

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
219	24	18	4	19.74	30.41	>33 Hz

UUT Highest Passed Seismic Test Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2010	ICC-ES AC 156	2.00g	1	1.5	3.20g	2.40g	1.34g	0.54g

Test Mounting Details:

Component maintained structural integrity and functionality after shake table tests.

Rigid base mounted to the test table fixture using (4) 3/8" diameter SAE Grade 8 Bolts.