

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER VR-301-B

Standing Loss Control Vapor Recovery System for Existing Installations of  
Aboveground Storage Tanks

WHEREAS, the California Air Resources Board (ARB) has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, certification procedures for systems designed for the control of standing loss emissions for aboveground storage tanks in its CP-206, ***Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks*** (Certification Procedure) adopted on May 2, 2008, incorporated by reference in California Code of Regulations, section 94016;

WHEREAS, ARB has established, pursuant to California Health and Safety Code sections 39600, 39601, 39607, and 41954, test procedures for determining compliance with performance standards for standing loss control vapor recovery systems;

WHEREAS, ConVault® (Applicant) requested certification of the Standing Loss Vapor Recovery System for existing installations of aboveground storage tanks (AST) pursuant to the Certification Procedure;

WHEREAS, the Certification Procedure provides that the ARB Executive Officer shall issue an Executive Order if he or she determines that the standing loss control vapor recovery system for existing ASTs conforms to all of the applicable requirements set forth in the Certification Procedure;

WHEREAS, I, James N. Goldstene, Executive Officer, find that the Applicant's Standing Loss Vapor Recovery System conforms with all requirements set forth in the Certification Procedure and results in a vapor recovery system which shall not exceed 2.26 pounds of hydrocarbons per 1,000 gallons of ullage per day when tested pursuant to TP-206.1, ***Determination of Emission Factor for Standing Loss Control Vapor Recovery Systems Using Temperature Attenuation Factor at Gasoline Dispensing Facilities with Aboveground Storage Tanks*** (May 2, 2008);

NOW, THEREFORE, IT IS HEREBY ORDERED that the Applicant's Standing Loss Vapor Recovery System is certified not to exceed 2.26 pounds of hydrocarbon per 1,000 gallons of ullage per day when installed, operated, and maintained as specified herein and in the following exhibits. Exhibit 1 contains an equipment list of the certified components. Exhibit 2 contains the performance standards and specifications and typical installation drawings. Exhibit 3 contains

the manufacturing performance standards and specifications. Exhibit 4 contains the Standing Loss Control Vapor Recovery System warranty.

IT IS FURTHER ORDERED that compliance with the applicable certification requirements, rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, and the Division of Occupational Safety and Health of the Department of Industrial Relations, are made conditions of this certification.

IT IS FURTHER ORDERED that the manufacturers of components listed in Exhibit 1 shall provide a warranty to each of their components certified herein. The warranty shall be passed on to each subsequent purchaser within the warranty period. The warranty shall include the ongoing compliance with all applicable performance standards and specifications and shall comply with all warranty requirements in Section 17.5 of the Certification Procedure. Manufacturers may specify that the warranty is contingent upon the use of trained installers.

IT IS FURTHER ORDERED that the certified Standing Loss Vapor Recovery System shall be installed, operated, and maintained in accordance with **ARB Approved Installation, Operation, and Maintenance Manual**. A copy of this Executive Order and the **ARB Approved Installation, Operation and Maintenance Manual for Standing Loss Control Vapor Recovery System for Existing Installations of Aboveground Storage Tanks** shall be maintained at each Gasoline Dispensing Facility (GDF) where a certified Standing Loss Vapor Recovery System is installed.

IT IS FURTHER ORDERED that equipment listed in Exhibit 1, unless exempted, shall be clearly identified by a permanent identification showing the manufacturer's name, model number, and serial number.

IT IS FURTHER ORDERED that any alteration in the equipment parts, design, installation, or operation of the system certified, hereby is prohibited and deemed inconsistent with this certification, unless the alteration has been submitted in writing and approved in writing by the Executive Officer or Executive Officer delegate.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. Testing the Pressure/Vacuum (PV) Vent valve will be at the option of the local districts. If P/V valve testing is required by the district, the test shall be conducted in accordance with TP-201.1E, **Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves** (October 8, 2003) and Exhibit 2. Notification of testing, and submittal of test results, shall be done in accordance with local district requirements and pursuant to the policies established by that district. Alternative

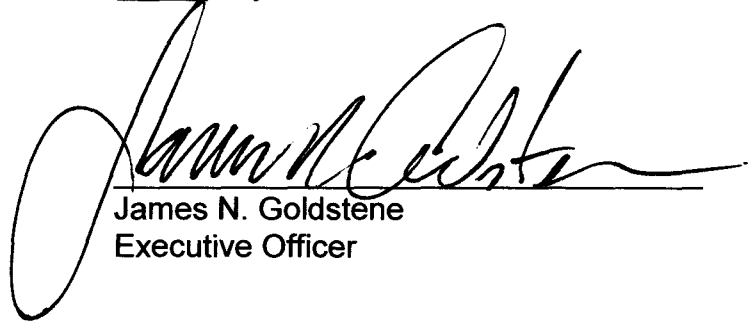
test procedures, including the most recent versions of the test procedures listed above, may be used if determined by the Executive Officer or Executive Officer delegate, in writing, to yield comparable results.

IT IS FURTHER ORDERED that the Standing Loss Vapor Recovery Control System shall be compatible with gasoline in common use in California at the time of certification. The Applicants' Standing Loss Control System is not compatible with gasoline that has methanol content greater than 5 percent, an ethanol content greater than 10 percent, or a methyl tert butyl ether (MTBE) content greater than 15 percent. Any modifications to comply with future California gasoline requirements shall be approved in writing by the Executive Officer or Executive Officer delegate.

IT IS FURTHER ORDERED that the certification of the Standing Loss Control Vapor Recovery System is valid through May 1, 2013.

IT IS FURTHER ORDERED that this Executive Order shall apply to an existing installation of an aboveground storage tank.

Executed at Sacramento, California, this 30<sup>th</sup> day of November 2009.



James N. Goldstene  
Executive Officer

Attachments:

- Exhibit 1      Equipment List
- Exhibit 2      System Specifications
- Exhibit 3      Manufacturing Performance Standards and Specifications
- Exhibit 4      Standing Loss Control Vapor Recovery System Warranty

**Exhibit 1  
Equipment List**

<u>Equipment</u>	<u>Manufacturer/Model Number</u>
<b>A. Pressure/Vacuum Vent Valve</b> (Figure 1A-1)	Husky 5885
<b>B. Protected Aboveground Storage Tanks</b>	Modern Custom Fabrication SuperVault MH Series Serial Number 1XXXXX or 2XXXXX where X = numbers from 0 - 9 (Figure 1B-1)
	Steel Tank Institute Fireguard Protected AST Serial Number XXXXXX where X = numbers from 0 - 9 (Figure 1B-2)
	ConVault Inc. <sup>®</sup> ConVault ASTs Serial Number Z XXXXXX, Z XXXXX, or XXXXXX where Z = letters X = numbers from 0-9 (Figure 1 B-3)
<p>(All other tanks not listed in this exhibit shall be painted with the following types of white paint.)</p>	
<b>C. White Paint</b>	PPG High Performance Coatings (Figure 1C-1) <ul style="list-style-type: none"><li>• Durethane DTM Urethane Mastic White Base Component A (95-3301), and</li><li>• Durethane DTM Urethane Mastic Curing Agent Component B (95-339) mixed at 4.6:1 ratio (see manufacturer's instructions)</li></ul>

**Exhibit 1  
Equipment List**

**Equipment**

**Manufacturer/Model Number**

Ponderosa Paint Company, Inc.  
(Figure 1C-2)

- Enviro-Clad 2600 DTM/Urethane mastic (component A), color white (100), and
- Enviro-Clad 2600 Catalyst (component B) mixed at 5:3 ratio (see manufacturer's instructions)

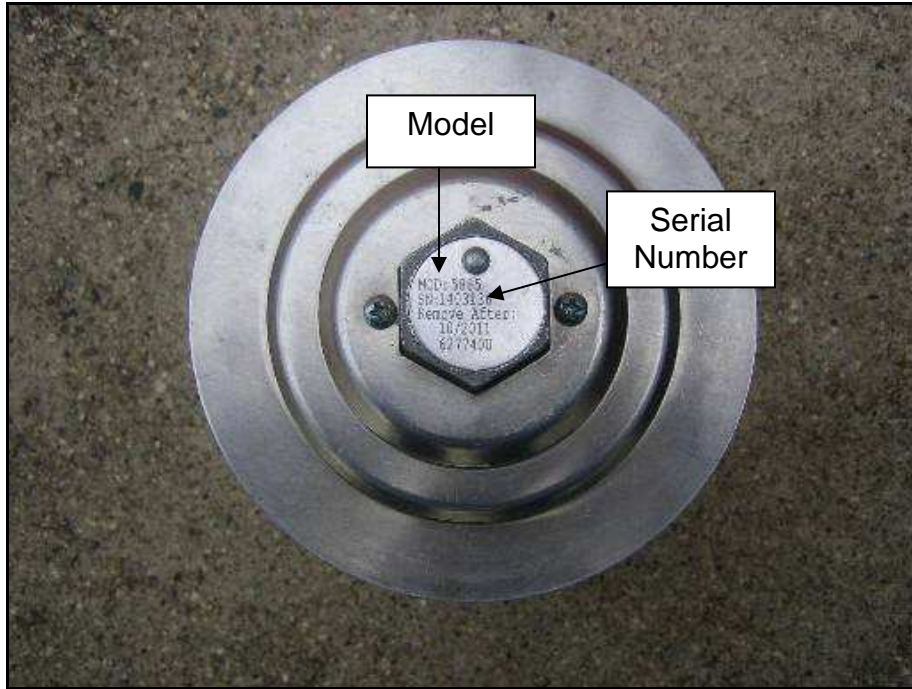
ICI Devoe High Performance Coatings  
(Figure 1C-3)

- Devthane 359H DTM High Build Gloss Aliphatic Urethane Mastic White Base component (DC359F3501), and
- Devthane 379H Aliphatic Urethane Converter component (379C0910) mixed at 4:1 ratio (see manufacturer's instructions)

**Table 1**  
**Components Exempt from Serial Number Identification**

Component Name	Manufacturer
Durethane DTM Urethane Mastic White Base Component A (93-3300 and 93-3301)	PPG High Performance Coatings
Durethane DTM Urethane Mastic Curing Agent Component B (95-339)	
Enviro-Clad 2600 DTM/Urethane mastic (component A), color white (100)	Ponderosa Protective Coating
Enviro-Clad 2600 Catalyst (component B)	
Devthane 359H DTM High Bulid Gloss Aliphatic Urethane Mastic White Base component (DC359F3501)	ICI Devore High Performance Coating
Devthane 379 Aliphatic Urethane Converter component (379C0910)	

**Figure 1A-1  
Husky 5885 Pressure/Vacuum Vent Valve**



**Figure 1B-1  
Modern Custom Fabrication  
SuperVault MH Series Protected Above Ground Storage Tanks**



Label – Metal plaque mounted to AST

**SOUTHWEST RESEARCH INSTITUTE**  
Chemistry and Chemical Engineering Division  
Department of Fire Technology  
San Antonio, Texas  
(210) 522-2424

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Southwest Research Institute (SwRI) is an independent, nonprofit research and development organization founded in 1947 to support industry, business and government.

The manufacturer whose name appears below is qualified under the Listing, Labeling, and Follow-up Inspection Services Program established by SwRI for furnishing insulated and protected aboveground fuel storage tanks for flammable and combustible liquids. The manufacturer is therefore authorized to use this document as proof of their compliance as described below.

**DOCUMENT NO:** 96040-01-03

**PRODUCT:** SuperVault MH Tank

**MANUFACTURED BY:** MODERN CUSTOM FABRICATION, INC.

**LOCATION:** Fresno, CA

**APPLICATION:** Insulated and protected aboveground tanks for storage of flammable and combustible liquids

Representative samples have been tested under SwRI Project Nos. 01-5216-302 and 01-7787-001a in accordance with procedures and guidelines as shown on the label below.

**LABEL MARK:** The Label Mark shown below is the only one licensed for application to this product. The labeling mark and associated labeling information are welded to each tank.

**SuperVault MH**  
Manufactured by Modern Custom Fabrication, Inc.  
Fresno, CA

SwRI ID No. 96040-01-03

**LISTED BY:**  
Southwest Research Institute  
San Antonio, Texas

SwRI is recognized as an NRTL by OSHA and as a testing laboratory and quality assurance/inspection agency by the National Evaluation Service, Inc., ICBO ES, and the Standards Council of Canada.

This product has been evaluated for re-use after exposure to a fire, puncture, or heavy-vehicle impact. Should any of these occur, contact the manufacturer.

This product has been listed after passing a 4-hour Fire Exposure Test, a Hose Stream Resistance Test, a Projectile Penetration Test, a Heavy Vehicle Impact Test, an environmental exposure evaluation, and an additional 2-hour Fire Exposure Test using the same, fully-assembled test tank for all tests.

This tank complies with the requirements of SwRI Test Procedure 95-03, SwRI Test Procedure 93-01, UFC 70-7, UL 2085, and Interstitial Communication Test, and is a recognized listed product by Southwest Research Institute, San Antonio, Texas.

Manufactured under one or more of the following patents: United States Patent Nos. 5,038,458; 5,082,138; 5,092,024; and 5,103,998. Manufactured under License from CBAI Trusco Tank, a division of CBAI Constructors, Inc.

Serial No.

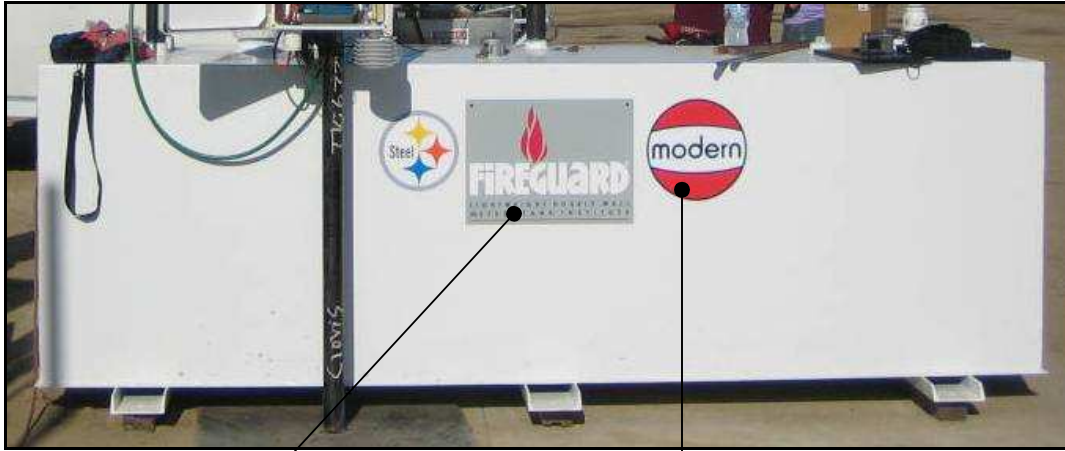
“MH” Series

“Serial Number: 1XXXXX or 2XXXXX” where X=number from 0 to 9

SuperVault MH Tank Document of Compliance for Modern Custom Fabrication, Inc. of Fresno, CA



**Figure 1B-2**  
**Steel Tank Institute**  
**Fireguard Protected Above Ground Storage Tanks**



Fireguard name plaque

Manufacturing plant plaque  
not required on Fireguard  
Protected AST

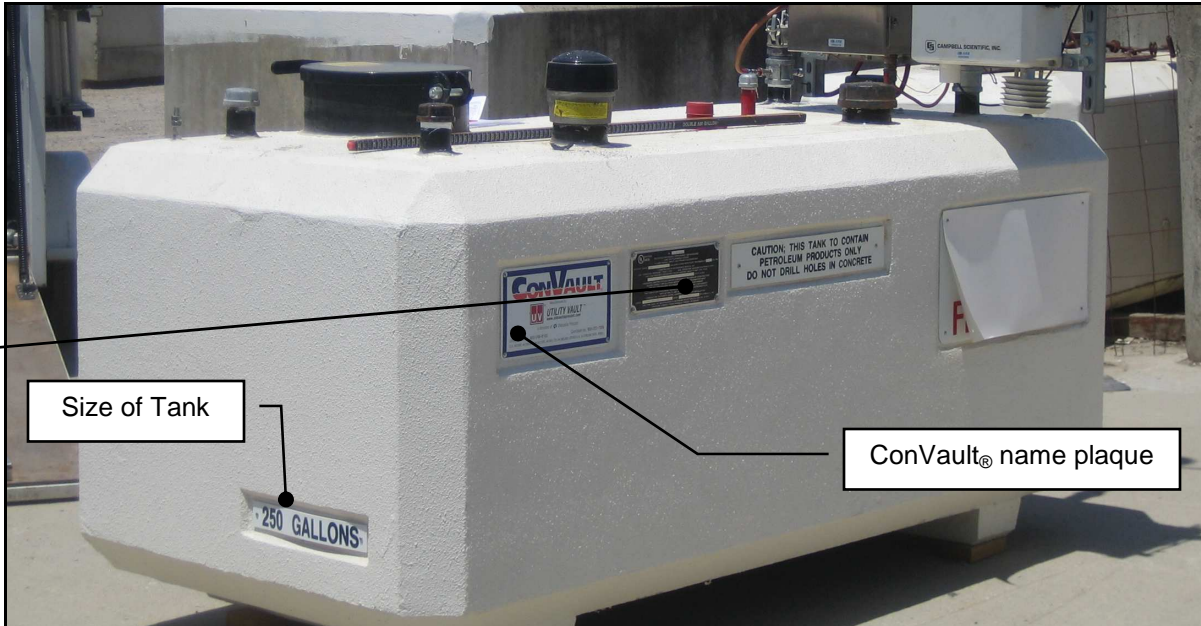
Serial Number:  
"XXXXXX" where X=  
number from 0-9

Steel Tank Institute  
FIREGUARD Serial No. XXXXXX

Sticker attached to  
Fireguard AST

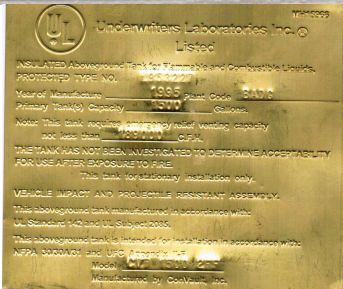
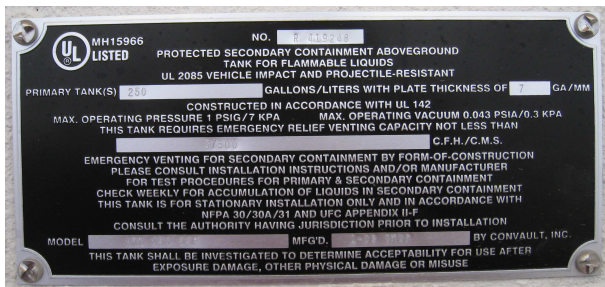
Figure 1B-3

ConVault® Inc  
ConVault Aboveground Storage Tanks



Size of Tank

ConVault® name plaque



Labels – 2 Variations of Metal Plates Mounted to AST

Serial Number - Z XXXXXX, Z XXXXX, or XXXXXX  
where Z = Letters  
X = numbers from 0-9

Plate Location and Format - Varies

Model Number Designation

1	2	3	4	5	6	7	8
W	R or C	M or N	' D or E	125-12K	1, 2, 3 or 9	S or C	' or F

Item	Tank Feature	Nomenclature
1	Warranty Type*	W = New Warranty
2	Primary Containment	R= rectangular, C = cylindrical,
3	Secondary Containment*	M = metallic, N = nonmetallic,
4	Compartment Configuration	Blank = single, D = dual, side-by-side, E= multi, end-to-end
5	Capacity, normal	125 gallon to 12,000, for multi-compartment may use 4K/4K/4K e.g.
6	Warranty Period*	9 < 10 yr, 1 = 10 yr, 2 = 20 yr, 3 = 30 yr
7	Fittings Layout	S = Standard layout, C = Custom Layout
8	Spill Container	Blank = none, F = Integral Spill Container

\*Warranty Type, Secondary Containment and Warranty Period for 10 years or less were added to the Model number after 12/31/1996.

**Figure 1C-1**  
**PPG High Performance Coatings Durethane® DTM White Base paint (Component A) and Durethane® DTM Curing Agent (Component B)**



**Figure 1C-2**  
**PPC™ Enviro-Clad 2600 White (100) paint Base (A) and Enviro-Clad 2600 Catalyst (B)**



Figure 1C-3  
ICI Devoe® High Performance Coatings Devthane® 359H DTM White paint  
(DC359F3501) and Devthane™ 379 Converter (379C0910)



## **Exhibit 2 System Specifications**

This Exhibit contains the installation, maintenance and compliance standards and specifications applicable to existing installations of the Standing Loss Control vapor recovery systems installed in gasoline dispensing facilities (GDF) using aboveground storage tanks (AST).

### **General Specifications**

1. Typical white paint application of the Standing Loss Control system to existing AST is shown in Figure 2A-1.
2. All Standing Loss Control Vapor Recovery System for ASTs shall be installed, operated, and maintained in accordance with the **ARB-Approved Installation, Operation, and Maintenance Manual for the Standing Loss Control Vapor Recovery System for Existing Installations of Aboveground Storage Tanks**.
3. Any repair, removal, or replacement of system components shall be done in accordance the **ARB-Approved Installation, Operation, and Maintenance Manual for the Standing Loss Control Vapor Recovery System of Existing Aboveground Storage Tanks**.
4. The Standing Loss Control system shall comply with the applicable performance standards and specifications in CP-206.
5. Any existing ASTs listed in the "Vapor Recovery System Equipment List" section of Exhibit 1 are exempt from the application of white paint.

### **Installation of Standing Loss Control Vapor Recovery System for Existing ASTs**

#### **White Paint for Existing AST**

1. Only the white paint listed in Exhibit 1 shall be applied to any GDF AST unless the exemption expressed in item 5 above applies.
2. Prior to the application of the white paint, the surface of the AST shall be prepared per the paint manufacturer's specifications listed in **ARB-Approved Installation, Operation, and Maintenance Manual for the Standing Loss Control Vapor Recovery System for Existing Installations of Aboveground Storage Tanks**.

3. The white paint shall be applied per the manufacturer's specifications. The surface of the tank must be painted white except for the application of the manufacturer's name/model numbers and safety decals.
4. Each GDF owner/operator shall maintain the following documentation for compliance determination:
  - a. Record of Receipt of Sale that demonstrates the purchase date and amount of product purchased.
  - b. Record of the name of personnel applying white paint to include the date of application, surface preparation description (i.e. scraping, sanding, abrasive blasting, primer etc.), method of application (i.e. brush, roller, air/airless sprayer), average ambient temperature (°F) during application, and atmospheric observations during application (i.e. sunny, cloudy, rain, etc.). An example of a Standing Loss Control Installation Record is shown in Figure 2A-3.
  - c. Record of the name of personnel that installed the P/V vent valve.
  - d. Technical Data Sheet and/or Material Safety Data Sheet of the white paint that describes the surface preparation, application, and material safety of the white paint.

### **Maintenance for Existing ASTs**

1. Each GDF owner/operator shall keep records of maintenance performed at the facility. Such record shall be maintained on site or in accordance with district requirements or policies. Additional information may be required in accordance with district requirements or policies. The records shall include the maintenance or test date, repair date to correct test failure, maintenance or test performed, affiliation, telephone number, and name of individual conducting maintenance or test. An example of a Standing Loss Control Maintenance Record is shown in Figure 2A-4.
2. Maintenance shall be conducted in accordance with the maintenance section of **ARB-Approved Installation, Operation, and Maintenance Manual for the Standing Loss Control Vapor Recovery System for Existing Installations of Aboveground Storage Tanks.**

### **Compliance Requirements for Existing ASTs**

- A. Pressure/Vacuum Vent Valves for Aboveground Storage Tank Vent Pipes

1. No more than three certified pressure/vacuum (P/V) vent valves listed in Exhibit 1 shall be installed on any GDF AST system.
2. Compliance determination of the following P/V valve performance specifications shall be at the option of the districts:
  - a. The leak rate of each P/V valve shall not exceed 0.05 cubic feet per hour (CFH) at 2.00 inches of H<sub>2</sub>O positive pressure and 0.21 CFH at -4.00 inches of H<sub>2</sub>O negative pressure as determined by TP-201.1E, ***Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003)***.
  - b. The positive pressure setting is 2.5 to 6.0 inches of H<sub>2</sub>O and the negative pressure setting is 6.0 to 10.0 inches of H<sub>2</sub>O as determined by ***TP-201.1E, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003)***.
3. A manifold may be installed on the vent pipes to reduce the number of potential leak sources and P/V valves installed. Vent pipe manifolds shall be constructed of steel pipe or an equivalent material that has been listed for use with gasoline. If a material other than steel is used, the GDF operator shall make available information demonstrating that the material is compatible for use with gasoline. One example of a typical vent pipe manifold is shown in Figure 2A-2. This shows only one typical configuration; other manifold configurations may be used. For example, a tee may be located in a different position, or fewer pipes may be connected, or more than one P/V valve may be installed on the manifold.
4. Each P/V valve shall have permanently affixed to it a yellow or gold-colored label with black lettering stating the following specifications:

Positive pressure setting: 2.5 to 6.0 inches H<sub>2</sub>O  
Negative pressure setting: 6.0 to 10.0 inches H<sub>2</sub>O  
Positive Leakrate: 0.05 CFH at 2.0 inches H<sub>2</sub>O  
Negative Leakrate: 0.21 CFH at -4.0 inches H<sub>2</sub>O

**Table 2-1**

**Gasoline Dispensing Facility Compliance Standards and Specifications**

<b>Component</b>	<b>Test Method</b>	<b>Standard or Specification</b>
P/V Valve <sup>1</sup>	TP-201.1E	Positive pressure setting: 2.5 to 6.0 inches H2O Negative pressure setting: 6.0 to 10.0 inches H2O Positive Leak rate: 0.05 CFH at 2.0 inches H2O Negative Leak rate: 0.21 CFH at -4.0 inches H2O
White Paint <sup>1</sup>	Documentation Verification	Receipt of Sale Certified Technician or Paint Applicator Date of Application Surface Preparation Method of Application Average Ambient Temperature Atmospheric Observations Technical Data Sheet/MSDS

<sup>1</sup> Compliance determination is at the option of the district.

**Table 2-2**

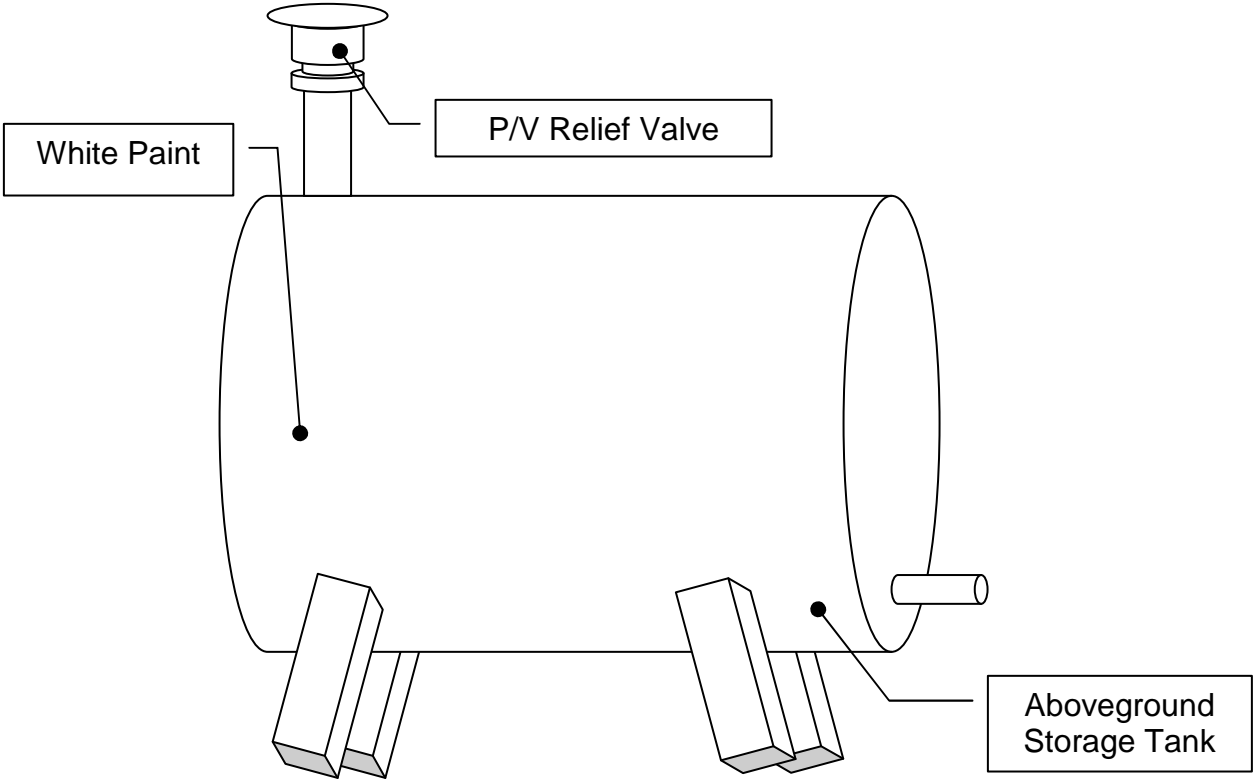
**Maintenance Intervals for Standing Loss Control System Components  
(Reference Exhibit 1 for a list of certified components)**

<b>Manufacturer</b>	<b>Component</b>	<b>Maintenance Interval</b>
Husky	P/V Vent Valve	Annual*
All Manufacturers	White Paint	Annual*
Modern Custom Fabrication	Protected AST	Weekly*
Steel Tank Institute	Protected AST	Periodically/Monthly*
ConVault Inc ®	Protected AST	Periodically/Monthly *

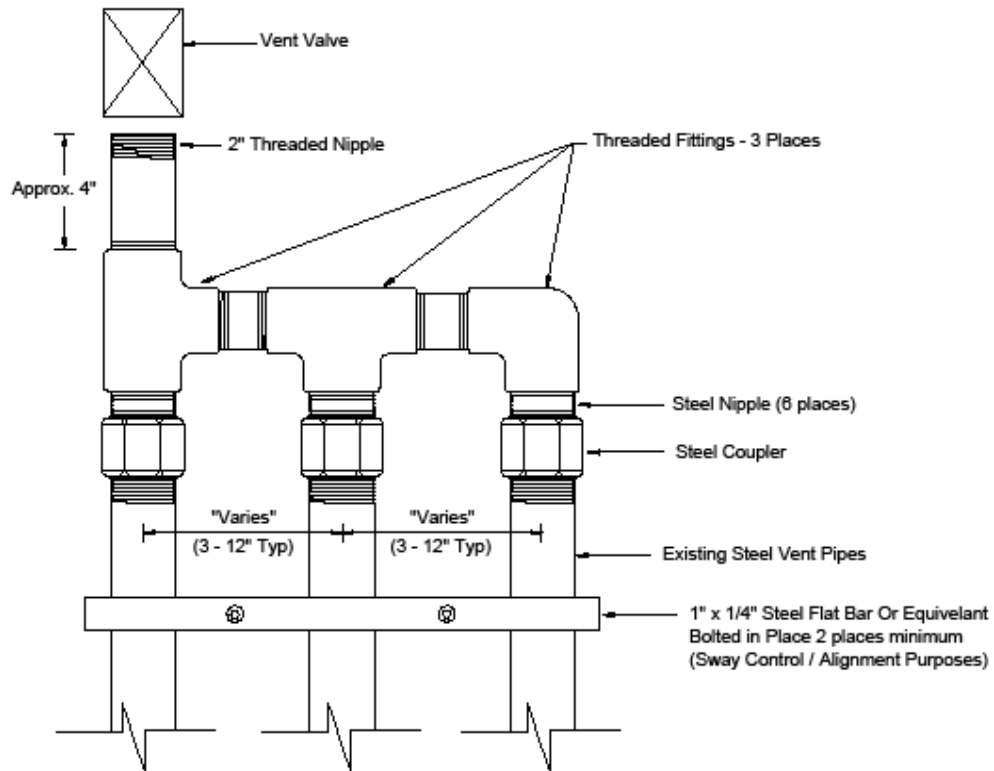
**\* See ARB – Approved Installation, Operation, and Maintenance Manual for the Standing Loss Control Vapor Recovery System for Existing Installations of Aboveground Storage Tanks for more details.**



**Figure 2A-1**  
**Typical installation of the Standing Loss Control system to an existing AST**



**Figure 2A-2  
Pressure/Vacuum Vent Valve Manifold Example**



**Note:** This shows one typical configuration; other manifold configurations may be used. For example, a tee may be located in a different position, or fewer pipes may be connected, or more than one P/V valve may be installed on the manifold.

**Figure 2A-3  
Example of a GDF Standing Loss Control Installation Record**

<b>AST Manufacturer, Model, Serial Number, or other ID Information</b>	<b>Product Purchase Date and Quantity of Product Purchased</b>	<b>Date of Application</b>	<b>Method of Surface Preparation and Application (for White Paint Only)</b>	<b>Average Ambient Temperature and Atmospheric Observations (for White Paint Applications)</b>	<b>Name and Contact Information of Person/Company Installing P/V Valve and/or Preparing and Applying Paint</b>

**Figure 2A-4  
Example of a GDF Standing Loss Control Maintenance Record**

<b>Date of Maintenance/ Test/Inspection/ Failure</b>	<b>Repair Date to Correct Test Failure</b>	<b>Maintenance/Test/Inspection Performed and Outcome</b>	<b>Affiliation</b>	<b>Name and Contact Information of Person/Company Conducting Maintenance or Test(s)</b>

### **Exhibit 3**

## **Manufacturing Performance Standards and Specifications**

The Standing Loss Control Vapor Recovery System and all components shall be manufactured in compliance with the performance standard and specifications in CP-206, as well as the requirements specified in this Executive Order. All components shall be manufactured as certified; no change to the equipment, parts, design, materials or manufacturing process shall be made unless approved in writing by the Executive Officer. Unless specified in Exhibit 2 or in the **ARB approved Installation, Operation and Maintenance Manual for the Standing Loss Control Vapor Recovery System for Existing Installations of Aboveground Storage Tanks**, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a Gasoline Dispensing Facility (GDF).

### **Pressure/Vacuum Vent Valve of Aboveground Storage Tank Vent Pipes**

1. Each Pressure/Vacuum Vent Valve (P/V valve) shall be performance tested at the factory for cracking pressure and leak rate at each specified pressure setting and shall be done in accordance with **TP-201.1E, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves** (October 8, 2003).
2. Each P/V valve shall be shipped with a card or label stating the performance specifications listed in Table 3-1, and a statement that the P/V valve was tested to, and met, these specifications.
3. Each P/V valve shall have permanently affixed to it a yellow or gold label with black lettering listing the positive and negative pressure settings listed in Table 3-1. The lettering of the label shall have a minimum font size of 20.

### **White Paint Coating of Aboveground Storage Tank Surface**

1. Each white paint coating batch shall be performance tested at the factory to verify it meets the manufacturer's quality assurance/quality control standards consistent with ISO 9001, Underwriter Laboratory (UL), and/or American Standards for Testing and Materials (ASTM) guidelines for the paint/coating industry.
2. Each white paint coating will be shipped with an original receipt of sale, technical data sheet, and material safety data sheet.

### **Modern Custom Fabrication SuperVault MH Series Protected Above Ground Storage Tanks (SuperVault)**

1. All primary and secondary walls on the SuperVault ASTs will be constructed with a minimum 3/16" thick steel and contain a 6" interstice (interior wall space). The 6" interstice will be filled with a light weight concrete mixture per manufacturer's specifications.
2. All SuperVault ASTs will be tested during the fabrication process by applying 5 psi of positive pressure internally and externally applying a leak detecting solution to all seams and joints. This test is performed on both the primary and the secondary tanks per manufacturer's specifications.
3. An ultrasonic paint test will be conducted to ensure that the final paint thickness (mil) meets factory specifications.
4. All SuperVault ASTs will be affixed with a brass data plate indicating the manufacturer, model, serial, and the "SwRI" logo indicating compliance with other national standards
5. A quality control inspector will conduct the final visual check on the SuperVault AST before delivery.

### **Steel Tank Institute Fireguard Protected Above Ground Storage Tanks (Fireguard)**

1. All primary and secondary walls on the Fireguard Protected ASTs will be constructed with a minimum 1/8" (10 gauge) thick steel and contain either a 3" or 6" interstice (interior wall space). The interstice will be filled with a propriety concrete mixture per manufacturer's specifications.
2. All Fireguard Protected ASTs will be tested during the fabrication process by applying 1.5" to 5" of positive pressure to the primary as well as the interstice to verify the leak integrity per manufacturer's specifications.
3. All Fireguard Protected ASTs will be affixed with the "*Fireguard*" logo indicating the Protected AST series. Also, a separate vinyl adhesive sticker will be on each Fireguard Protected AST indicating the serial number.

### **ConVault® Above Ground Storage Tanks**

1. All primary tank steel plates will be constructed with a minimum of 1/8" for tanks with 1,000 gallon capacity or less and with a minimum of 3/16" for tanks 1,500 or larger. All parts of steel tank must be constructed in accordance with UL 142 Standard. Primary tank shall be pressure tested to 5 psig for a period of 24 to 48 hours.
2. Secondary containment of ConVault® tank shall be manufactured with a minimum of 1/4" Styrofoam, 30 mil thick High Density Polyethylene (HDPE) liner and 6" thick reinforced concrete. Concrete shall have a minimum of 4,000 psig compressive strength for tanks 2,000 gallon and smaller and 5,000 psig for tank larger than 2,000 gallon. Secondary containment should be vacuum tested to 10 inch mercury in accordance with the manufacturer and UL approved testing procedures.
3. All primary tanks shall be pressure tested both at the steel fabricating plant and at the pre-casting plant. The secondary containment at pre-casting plant shall be vacuum tested. Additional tests performed on the concrete will include: a slump test, an air entrainment on wet concrete and a compressive concrete strength test for the duration of 7 days, 14 days and 28 days.
4. All connections to the primary tank should be either powder coated in accordance with manufacturer Powder Coating Specifications or made of stainless steel to resist corrosion.
5. All ConVault® tanks will be affixed with an metal plate indicating the manufacturer, tank model and UL serial number indicating compliance with national fire codes and standards.
6. A quality control inspection will be performed on each tank during the manufacturing process and also prior to the tank delivery. The inspection is performed by quality a control personnel that is independent of production personnel. To ensure quality control standard checklists are utilized for inspection. There are separate checklists for the steel tank, pre-casting of vault, and installation of the tank.

**Table 3A-1  
Manufacturing Performance Standards and Specifications**

<b>Component</b>	<b>Test Method</b>	<b>Standard or Specification</b>
Pressure/Vacuum Vent Valve	TP-201.1E	Positive pressure setting: 2.5 to 6.0 inches H2O Negative pressure setting: 6.0 to 10.0 inches H2O Positive Leakrate: 0.05 CFH at 2.0 inches H2O Negative Leakrate: 0.21 CFH at -4.0 inches H2O
White Paint Coating	Manufacturer's QA/QC	Batch Factory Tested Shipped with receipt of sale, technical data sheet, and material safety data sheet
Modern Custom Fabrication SuperVault MH Series	Manufacturer's QA/QC	Leak test on primary and secondary tank Ultrasonic paint test Brass data plate indicating AST specifications
Steel Tank Institute Fireguard Protected AST	Manufacturer's QA/QC	Leak test on primary and secondary tank Vinyl adhesive sticker indicating model and serial number
ConVault, Inc® Convault Protected AST	Manufacturer's QA/QC	Leak test on primary and secondary containment UL Metal plate indicating model and serial number



**Exhibit 4**  
**Standing Loss Control Vapor Recovery System Warranty**

This limited warranty is given by Standing Loss Control System manufacturer to the purchaser of the system or products. Standing Loss Control Systems or products are warranted to be free from defect in material and workmanship under normal use, service, proper installation, and maintenance per manufacturer specifications.

**A. Husky pressure/vacuum vent valve 5885**

<b>WARRANTY</b>
-----------------

**VAPOR PRODUCTS** – Husky Corporation will, at its option, repair, replace, or credit the purchase price of any Husky manufactured product which proves upon examination by Husky, to be defective in material and/or workmanship for a period of one (1) year of installation or fifteen (15) months from the manufacture date of shipment by Husky, whichever occurs first. The warranty period on repaired or replacement vapor recovery products is only for the remainder of the warranty period of the defective product.

**CONVENTIONAL PRODUCTS** – Husky Corporation will, at its option, repair, replace, or credit the purchase price of any Husky manufactured product which proves upon examination by Husky, to be defective in material and/or workmanship for a period of one (1) year from the manufacture date of shipment by Husky.

Buyer must return the products to Husky, transportation charges prepaid. This Warranty excludes the replaceable bellows, bellows spring assembly, spout assembly and scuff guard, unless (i) damage is obvious when the product is removed from shipping carton and (ii) the defective product is returned to Husky prior to use. This warranty does not apply to equipment or parts which have been installed improperly, damaged by misuse, improper operation or maintenance, or which are altered or repaired in any way.

The warranty provisions contained herein apply only to original purchasers who use the equipment for commercial or industrial purposes. There are no other warranties of merchantability, fitness for a particular purpose, or otherwise, and any other such warranties are hereby specifically disclaimed.

Husky assumes no liability for labor charges or other costs incurred by Buyer incidental to the service, adjustment, repair, return, removal or replacement of products. Husky assumes no liability for any incidental, consequential, or other damages under any warranty, express or implied, and all such liability is hereby expressly excluded.

Husky reserves the right to change or improve the design of any Husky fuel dispensing equipment without assuming any obligations to modify any fuel dispensing equipment previously manufactured.

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Husky Corporation • 2325 Husky Way • Pacific, MO 63069 • Phone: (800) 325-3558 • Fax: (636) 825-7300 • [www.husky.com](http://www.husky.com)

## **B. White Paint**

### **1. PPG High Performance Coatings – Durethane DTM Urethane Mastic White Base and Curing Agent**

“WARRANTY: PPG warrants, for one year after the date of purchase, that this product will conform to PPG’s applicable published specifications. This is the only warranty that PPG makes and all other express or implied warranties, including without limitation, any other warranty of fitness for a particular purpose or use, are disclaimed by PPG. PPG, at its cost and as its sole liability, will, at the purchaser’s option, furnish replacement product or refund the purchase price paid for any of this product which fails to conform to this warranty. In no event will PPG be liable under any theory of recovery (whether based on negligence of any kind or strict liability) for any indirect, special, incidental, or consequential damages in any way related to this product. This product is designed for application only by professionally trained personnel, using proper equipment, and is not intended for sale to the general public.”

### **2. Ponderosa Paint Company – EnviroClad 2600 Base and Catalyst**

“Manufacturer warrants this product to be free of defects in materials and workmanship for a period of one year from date of manufacture or one year from date of registration of installation not to exceed 15 months from date of manufacture by Ponderosa Paint Company. If this product is found to be defective, liability shall be limited to the refund of the purchase price or replacement of product.”

### **3. ICI Devoe High Performance Coatings – Devthane 359H DTM White High Build Gloss Aliphatic Urethane Mastic and Devthane 379 Aliphatic Urethane Converter**

The Glidden Company (ICI Paints) does hereby warrant to the purchaser that for a period of one year, the ICI Paints coating materials (Coatings) will not fail as a result of a defect in the Coatings provided that the Coatings have been applied, maintained and used in strict accordance with all specifications, instructions, chemical resistance table and directions issued by ICI Paints and set forth in ICI Paints’ instructions contained on its product labels and data sheets.

## C. Protected Aboveground Storage Tank (AST)

### 1. Modern Custom Fabrication - SuperVault MH Series Protected AST

***SUPERVAULT MH  
LIMITED WARRANTY  
MULTI-HAZARD RATED PROTECTED  
ABOVEGROUND FUEL STORAGE TANKS  
FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS***

Manufacturer warrants, to the original Tank Owner at the original installation site, its **SuperVault MH** protected aboveground fuel storage tanks against;

- (i) the release of stored product from any secondary containment tank;
- (ii) the failure of the primary tank as a result of non-corrosion related cracking, collapse or breakup; and
- (iii) internal corrosion if the product is stored within the tank at ambient temperatures and consists of gasoline, gasohol, jet fuel, av.-gas, kerosene, diesel fuel, bio-diesel, new or used motor oil, E-5, E-10, E-15 E-85, 100% ethanol, 100% methanol, anti-freeze or other product compatible with steel for a period of thirty (30) years from the date of delivery when installed, operated and maintained in accordance with local, state, and federal regulations, Manufacturer's published instructions and marking, and the conditions set forth herein. In addition, the Manufacturer warrants the tank against failure due to defective materials and workmanship for a period of one (1) year following the date of delivery of the tank.

This warranty does not cover damage resulting from accident, misuse, abuse, storage of contaminated product, acts of God, failure to perform reasonable care or maintenance, repairs and/or modifications made by non-authorized\* persons, or the affixing or attachment of any unauthorized\* fixture or equipment to the tank. This warranty is limited to the materials and workmanship of the tank only and does not warrant internal or external coatings, decals, signs, vents, or any hardware or equipment installed on or used with the tank. To maintain this warranty, the owner must conduct visual inspections for leaks at least once each week, and keep a written record of these inspections or in the case of remote installations on a schedule approved by the manufacturer. Tank Owner must immediately notify the Manufacturer and Reseller, if any, of any deficiencies encountered in the tank.

Manufacturer's liability under this warranty shall be limited to, at the Manufacturer's option, (a) repair of the defective tank, or (b) delivery of a replacement tank to the original point of sale, or (c) refund of the original purchase price of the tank. Manufacturer is not responsible or liable for special, incidental, or consequential damages of any kind or for costs due to loss of use, loss of profits or revenue, or unauthorized\* removal, repair, or replacement.

This warranty may be transferred at the Manufacturer's sole discretion if the tank is sold to a new Owner but remains at its original installation location. All warranty transfers must be pre-approved in writing by the Manufacturer.

\*All authorizations must be in writing from the Manufacturer to the Tank Owner.

**THE FOREGOING CONSTITUTES THE MANUFACTURER'S TOTAL AND EXCLUSIVE OBLIGATION AND TANK OWNER'S SOLE AND EXCLUSIVE REMEDY AND MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY SPECIFIC PURPOSE.**

Tank Owner:

Installation Site Address:

Serial Number(s):

Purchase Date:

Manufacturer: Modern Custom Fabrication, Inc., P.O. Box 11925, Fresno, CA 93775

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

## 2. Steel Tank Institute - Fireguard Protected Aboveground Storage Tank

### Fireguard® LIMITED WARRANTY Limitations of Liability and Disclaimer

#### What is Covered by this Warranty

Provided that the conditions set forth below are satisfied, the steel tank manufacturer identified with the tank (hereinafter referred to as "Warrantor") warrants the Fireguard® tank for 30 years following delivery of the tank to the tank owner at the time of the original installation ("the Owner"), against any of the following events which may occur, provided the event occurs under operating conditions covered by this Warranty: (i) against release of stored product from any secondary containment tank; (ii) against failure of the primary tank caused by non-corrosion related cracking, breakup or collapse; and (iii) against internal corrosion as long as the product stored within the tank is compatible with steel. In addition, the Warrantor warrants the tank against failure due to defective materials and workmanship for up to 1 year following the delivery of the tank to the Owner.

#### Conditions to Warranty Effectiveness

The limited warranties set forth herein are subject to the following conditions:

1. The Fireguard® tank must be: (i) The Original Aboveground Installation within the Continental United States of America, Alaska, Hawaii, and the Commonwealth of Puerto Rico or Canada; (ii) the tank was fabricated by the Warrantor so as to meet the Fireguard® Specifications; and (iii) the tank was installed and maintained in accordance with the applicable Fireguard® specifications and the applicable Fireguard® Installation Instructions that were in effect on the date of shipment by the Warrantor, any subsequent maintenance procedures of which the Owner has written notice, and any applicable governmental codes and regulations. Refer to the Installation Instructions on the back of this document for technical requirements concerning relocation of this tank by the original owner, in order to retain warranty eligibility. Tanks remaining in their original installation location will retain warranty eligibility if the facility where the tank is installed is sold to a new owner.
2. This Limited Warranty is not valid unless, and until, the Warranty Validation Card is fully completed by the Owner and returned to Steel Tank Institute (STI) within 30 days after the date of tank installation, or 90 days after the Warrantor's shipment of the tank, whichever comes first.
3. Upon discovery of a suspected tank failure or leak by the Owner, the Owner shall give the Warrantor written notice of the suspected tank failure or leak and permit the Warrantor or its designated representative to inspect the tank site prior to, during and after excavation of the tank. The tank owner bears the responsibility to identify that the cause of the failure is from one of the events within the Conditions covered by the Warranty.
4. Upon the Warrantor's determination that the tank failure or leak is covered by this Limited Warranty, the Warrantor at its sole option shall: (1) repair the tank; or (2) replace it with a tank of approximately the same size, design, quality of material and workmanship specified for the original tank; or (3) refund the purchase price of the original tank. If the Warrantor is unable to repair or replace the tank, it shall refund the original purchase price of the tank.

#### What is Not Covered by this Warranty

Warrantor does not warrant any piping system or any other attachments connected with the tank. Under no circumstances, shall the Warrantor be liable for (1) the cost of repair or replacement of any piping system or other attachments to the tank; or (2) labor costs or other installation costs for tank repair or replacement; or (3) damage to the tank or other property resulting from the accumulation of water in the tank; or (4) damage caused by other improper operating or maintenance practices; or (5) tank failure due to defective materials and workmanship later than one year following delivery of the tank to the Owner. This Warranty does not cover STI Generator Base Tanks.

#### Limitation of Liability and Exclusion of Other Remedies and Damages

The foregoing remedy of repair, replacement or refund shall constitute the sole and exclusive remedy to the Owner. Under no circumstances, shall the liability of the Warrantor, or its affiliates or subsidiaries, under this warranty, exceed the purchase price of the tank.

IN NO EVENT SHALL THE WARRANTOR, OR ITS AFFILIATES OR SUBSIDIARIES, BE LIABLE FOR CLAIMS OF PERSONAL INJURY OR FOR SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE, LOSS OF USE OF THE TANK OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF THE SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COST, CLAIMS OF CUSTOMERS OF THE OWNER FOR SUCH DAMAGES, OR FOR DAMAGE TO PROPERTY, WHETHER SUCH CLAIM SHALL BE FOR BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE OR STRICT LIABILITY, AND WHETHER SUCH CLAIM ARISES OUT OF OR RESULTS FROM THIS LIMITED WARRANTY, OR EXPRESS OR IMPLIED WARRANTIES, OR FROM THE DESIGN, MANUFACTURE, SALE, DELIVERY, RESALE, INSTALLATION, TECHNICAL DIRECTION OF INSTALLATION, INSPECTION, REPAIR, OPERATION OR USE OF THE TANK.

#### Consumer Notice

The exclusion of indirect or consequential damages and the limitation of implied warranties herein may not be applicable to purchasers who are deemed "consumers" and who reside in states that do not allow the limitation of implied warranties or the exclusion of indirect or consequential damages otherwise applicable to consumers. Moreover, if you are deemed a "consumer", you may have specific legal rights in addition to those set forth in this warranty, which rights vary from state to state.

#### Disclaimer of Other Warranties

**THE FOREGOING LIMITED WARRANTY IS THE ONLY WARRANTY MADE. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

#### Financial Assurance

Warrantor may have purchased insurance to cover some of its warranty obligations under this Limited Warranty. Such insurance would provide financial assurance for Warrantor's warranty obligations, but would not insure the Owner directly. If the Warrantor has purchased such insurance coverage, the Owner may request that the Warrantor provide a certificate of insurance to evidence Warrantor's purchase of such insurance.

Effective with installations on or after January 1, 2007.

### 3. ConVault® Aboveground Storage Tank



*The Industry Leader In Aboveground Fuel Storage Systems*

## LIMITED WARRANTY

ConVault Inc. warrants each CONVAULT® tank against defects in material or workmanship to the original owner from the date of purchase, for a period of twenty (20) years or thirty (30) years depending on model number of the tank. ConVault agrees to repair or replace any defective unit without charge provided that the tank is operated and maintained in accordance with the manufacturer's Owner's Manual except as set forth below. **FAILURE TO INSTALL, AND TEST IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION AND TESTING, OR REPAIRS OR MODIFICATIONS BY NON-AUTHORIZED PERSONS WILL VOID THIS WARRANTY.** If the ConVault® tank is moved from its original installation, it must again be installed in accordance with manufacturer's specifications and ConVault, Inc. must be notified of the move and the new location.

CONVAULT® tanks are designed under current laws and regulations for storage of gasoline, diesel, methanol, ethanol motor oils, and other petroleum-based products. CONVAULT® tanks are not designed for storage of corrosives, toxic materials, or chemicals. This Limited Warranty is not valid unless and until the warranty validation card is fully completed by the ultimate purchaser and returned to ConVault, Inc. within thirty (30) days after the date of installation or ninety (90) days after the Licensee's shipment as reflected on the warranty validation card, whichever comes first. To continue this warranty in effect, the user has a duty to conduct visual inspections at least weekly to check for leaks and to maintain the CONVAULT® tank in accordance with its Owner's Manual. The primary tank must be inspected monthly for the presence of water and any water found must be removed. In the event leaks are determined, ConVault, Inc. must be contacted within two (2) working days at the following toll free number: 800-222-7099. This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, acts of God, or the affixing of any attachment not provided with the product. This warranty is limited to the tank only and does not include paint, signs and decals, air vents, pump, and/or pump components. Small cracks in concrete result from normal expansion and contraction and are not covered by warranty. Such cracks will not affect primary or secondary containment or fire retardation abilities of the tank.

**THIS WARRANTY IS LIMITED TO REPLACEMENT OR REPAIR OF THE CONVAULT® TANK AT THE OPTION OF CONVAULT, INC. AND EXCLUDES ANY OTHER OR FURTHER REMEDIAL MEASURES. NO RESPONSIBILITY OR LIABILITY IS ASSUMED FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

You may obtain warranty service by contacting any dealer of ConVault, Inc. To perform warranty service, the CONVAULT® tank must be accessible by forklift or crane. ConVault, Inc. will not be liable for any costs or damages resulting from lack of accessibility.

There are no warranties, which extend beyond the face hereof.

\* CONVAULT® primary tanks may be pressurized up to 3 psig for testing purposes only, provided, however, that after flammable or combustible liquids have been placed in the tank, the tank shall be pressurized using inert gases such as Nitrogen. If any additional testing is required, please contact ConVault, Inc. for instructions prior to testing.

*\*\*You may fill out the Warranty Validation Card on line at <http://www.convault.com>. \*\**