# Division 244 CARB Approved Enhanced Vapor Recovery Systems

## State of California Air Resources Board

#### Executive Order VR-101-V

## **Relating to Certification of Vapor Recovery Systems**

## Franklin Fueling Systems, Inc. Phil-Tite/EBW/FFS Phase I Vapor Recovery System

Whereas, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code Sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks (Phase I EVR system), in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Underground Storage Tanks (CP-201) as last amended July 12, 2021, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

Whereas, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase I EVR systems with emission standards;

Whereas, Franklin Fueling Systems, Inc. (FFS) requested and was granted certification of the Phil-Tite Phase I Vapor Recovery System (Phil-Tite System<sup>1</sup>) pursuant to CP-201 on June 19, 2001, by Executive Order VR-101-A, and last modified on May 31, 2021, by Executive Order VR-101-U;

Whereas, FFS has requested approval of new identification tags for the Defender 705 Series Spill Containers and a new black embossed EBW Adapter ring as modifications to the Phil-Tite System. These tags and ring will be certified as alternative components;

Whereas, CP-201 provides that the CARB Executive Officer shall issue an Executive Order if he or she determines that the vapor recovery system, including modifications, conforms to all of the applicable requirements set forth in CP-201;

Whereas, Executive Order G-21-474 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF) with underground storage tanks; and

Whereas, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find that the Phil Tite System conforms with all the requirements set forth in CP-201, and results in a vapor recovery system which is at least 98.0 percent efficient when tested pursuant to test procedure TP 201.1, Volumetric Efficiency for Phase I Systems (July 26, 2012).

<sup>&</sup>lt;sup>1</sup> As used in this Executive Order, the term, Phil-Tite System, shall include Phil-Tite, EBW and FFS components listed in Exhibit 1 of this Executive Order.

Now, therefore, it is hereby ordered that the Phil Tite/EBW/FFS System including modifications is certified to be at least 98.0 percent efficient when installed and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components. Exhibit 2 contains the performance standards and specifications, typical installation drawings, and maintenance intervals for the Phil Tite System as installed in a gasoline dispensing facility (GDF). Exhibit 3 contains the manufacturing performance specifications. Exhibit 4 contains the manufacturer warranties. Exhibit 5 is the below-grade vaulted tank configuration.

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, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

It is further ordered that each component manufacturer listed in Exhibit 1 shall provide a warranty for the vapor recovery component(s) to the initial purchaser. The warranty shall be passed on to each subsequent purchaser within the warranty period. The warranty shall include ongoing compliance with all applicable performance standards and specifications and shall comply with all warranty requirements in section 16.5 of CP-201. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

It is further ordered that the certified Phil-Tite System shall be installed, operated and maintained in accordance with the CARB-Approved Installation, Operation and Maintenance Manual for the Phil-Tite/EBW/FFS Phase I Vapor Recovery System as certified by Executive Order VR-101-V. A copy of this Executive Order and manual shall be maintained at each GDF where a certified Phil-Tite 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 and model number.

It is further ordered that any alteration in the equipment parts, design, installation, or operation of the system provided in the manufacturers' certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification, unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the CARB Executive Officer or his or her delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

It is further ordered that the following requirements be made a condition of certification. The owner or operator of the Phil-Tite system shall conduct, and pass, the following tests no later than 60 days after startup and at least once every three (3) years after startup testing, using the following test procedures:

- TP-201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012),
- TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003), and
- either TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Device and Spill Container Drain Valve (July 12, 2021); or TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (July 12, 2021) depending on system configuration.

Shorter time periods may be specified in accordance with local district requirements. 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. Local districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternative test procedures, including the most recent versions of the test procedures listed above, may be used if determined by the Executive Officer or his or her delegate, in writing, to yield comparable results. Testing the Pressure/Vacuum (P/V) 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.

It is further ordered that the Phil-Tite System shall be compatible with gasoline in common use in California at the time of certification, including E85 (85 percent ethanol/15 percent gasoline) for specific components listed in Exhibit 1. Any modifications to comply with future California gasoline requirements shall be approved in writing by the Executive Officer or his or her delegate.

It is further ordered that GDF installations permitted for dispensing E85 fuel shall be subject to a throughput limitation of 1.2 million gallons per year (100,000 gallons per month).

It is further ordered that the certification of the Phil-Tite System shall remain valid through June 1, 2025.

It is further ordered that Executive Order VR-101-U issued on May 31, 2021, is hereby superseded by this Executive Order. Phil-Tite Systems certified under Executive Orders VR-101-A to U may remain in use at existing installations up to four years after the expiration date of this Executive Order when the certification is not renewed. This Executive Order shall apply to new installations or major modification of existing Phase I systems.

It is further ordered that Executive Order VR-103-G issued on June 3, 2013, is hereby superseded by this Executive Order. EBW Phase I Vapor Recovery Systems certified under Executive Order VR-103-A through G may remain in use at existing installations up to May 31, 2021.

Executed at Sacramento, California, this \_\_\_\_\_ day of \_\_\_\_\_ 2022.

Catherine Dunwoody, Chief Monitoring and Laboratory Division

#### **EXHIBIT 1**

#### <u>Franklin Fueling Systems (Phil-Tite/EBW/FFS) Phase I Vapor Recovery System Equipment List</u> NOTE:

(Gas/E85) = Identifies that these components are approved for standard gasoline and E85 fuel blends. (Gas) = Identifies that these components are only approved for standard gasoline fuel blends.

Equipment Spill Container (Bhil Tite Series	<u>Manufacturer/Model Number</u> Phil-Tite 85000 and 85000-1 Series (Gas/E85)			
(Phil-Inte Series Spill Containers)	85W0X and 85W0X-1 legend: W represented by: 1=replacement spill container X represented by: 0 = product spill container 0-EXT = product spill container w extension collar 1 = vapor spill container 1-EXT = vapor spill container w extension collar			
Spill Container	EBW Defender 705 Series (Gas/E85)			
Spill Containers)	Defender 705 Series Legend (Gas/E85) 7055XYZAB where XYZAB is represented by: X = containment 4 = singe wall 5 = double wall			
	Y = installation 2 = multiport bucket 5 = direct bury			
	Z = interstitial monitoring method 0 = no sensor/gauge (i.e. single wall) 1 = I2 monitor (float gauge, visual) 2 = TSP-ULS (electronic sensor)			
	A = spill container base thread 0 = NPSM (straight thread) 1 = NPT (taper thread)			
	B = drain valve 1 = with drain valve (typical on product/fill side) 2 = without drain valve (typical on vapor side)			
Spill Container (EBW Series Spill	EBW 7XX-49Y-0Z (Gas)			
Containers)	XX indicates spill bucket gallon size: 05 = 5 Gallon 15 = 15 Gallon			
	Y indicates level and base material: 0 = grade level with cast iron base (5 gallon) 2 = below grade level with cast iron base (5 and 15 gallon)			
	Z indicates drain valve:			

<u>Equipment</u>	<u>Manufacturer/Model Number</u> 1 = drain valve 2 = no drain valve		
Spill Container Lid (Phil-Tite Series Spill Containers)	Phil-Tite 85011 (Gas/E85) (Not required with sump configuration lid, see Figure 2B in Exhibit 2)		
Spill Container Lid (Defender and EBW Series Spill Containers)	EBW	7054401X (Gas/E85) X = Lid Color, Varies	
Replacement Drain Valve (Phil-Tite Series Spill Containers)	Phil-Tite 85400 (Gas/E85)		
Replacement Drain Valve (Defender Series Spill Containers)	EBW	70533729 (Gas/E85)	
Replacement Drain Valve (EBW Series Spill Container)	EBW	70533719 (Gas) 70533729 (Gas/E85)	
Drain Valve Blank Kit (EBW Series Spill Container)	EBW	90022	
Drain Valve Isolation Kit (EBW Series Spill Containers)	EBW	70825501	
Drain Valve Isolation Test Kit (EBW Series Spill Containers)	EBW	90079	
Product Adaptor	Phil-Tite Phil-Tite	e SWF-100-B (Gas) e SWF-100-SS (Gas/E85)	
Vapor Adaptor	Phil-Tite Phil-Tite	e SWV-101-B (Gas) e SWV-101-SS (Gas/E85)	
Riser Adaptor Riser Support Bracket	Phil-Tite Phil-Tite Phil-Tite	e M/F 4X4 (Gas/E85) e M/F 4X4-R (Gas/E85) e M 1600 (Gas/E85)	

Equipment Drop Tube Riser Clamp (Defender Series Spill Containers)	<u>Manufa</u> FFS 70	<u>cturer/Mode</u> 0550901EC (0	<u>I Number</u> Gas/E85)
Dust Cap	Morrisor Morrisor	n Brothers	323C-0100ACEVR (vapor) (Gas/E85) 305C-0100ACEVR (product)(Gas/E85)
	OPW OPW OPW OPW	1711T-EVR 634TT-EVR 634LPC (pro 1711LPC (va	(vapor) (Gas/E85) (product) (Gas/E85) oduct) (Gas) apor) (Gas)
	CompX CompX CompX CompX	CSP1-634LF CSP3-1711L CSP2-634LF CSP4-1711L	PC (product) (Gas) _PC (vapor) (Gas) PC (product) (Gas) _PC (vapor) (Gas)
	EBW EBW EBW EBW	77720102 (p 77720202 (p 30430103 (v 30420006 (v	product) (Gas/E85) product) (Gas/E85) /apor) (Gas/E85) /apor) (Gas/E85)
Pressure/Vacuum Vent Valve	FFS Husky OPW	PV-Zero 407 5885 (Gas/E 723V (Gas/E	7215901 (Gas/E85) E85) E85)
Tank Gauge Port	Veeder-	Root 31202	0-952 (cap and adaptor kit) (Gas/E85)
Components	Morrisor Morrisor Morrisor	n Brothers n Brothers n Brothers	305XPA1100AKEVR (cap and adaptor kit) (Gas/E85) 305-0200AAEVR (replacement adaptor) (Gas/E85) 305XP-110ACEVR (replacement cap) (Gas/E85)
	EBW	90037-E (In	Tank Probe Cap and Adapter Kit) (Gas/E85)
Drop Tube Overfill Prevention Device <sup>1</sup>	Defende Defende	er Series OP\ er Series OP\	/ 70859X9YZ (Gas/E85) / 70869X9YZ (Gas/E85)
		Defender Se X = upper dr 1 = 5 f 2 = 10	eries OPV legend: rop tube length: feet feet
		Y = Tube co 0 = Ga 2 = Ga	mpatibility: as as/E85
		Z = lower dr 1 = 8 f 2 = 10	op tube length: eet feet

<u>Equipment</u>	<u>Manufa</u> EBW EBW	i <u>cturer/Model Number</u> 70849X1Y (Gas) 70849X3Y (Gas/E85)		
		X represented by: 1 = 5 foot length upper drop tube section 2 = 10 foot length upper drop tube section		
		Y represented by: 1 = 8 foot length bottom thread on section drop tube 2 = 10 foot length bottom thread on section drop tube		
Drop Tube <sup>1</sup>	OPW	61-T (various lengths) (Gas)(Phil-Tite Series Spill Containers		
	EBW EBW	7822041X-2 (X = various lengths) (Gas) 7822043X-2 (X = various lengths) (Gas/E85)		
Riser Offset <sup>1</sup>	Phil-Tite	M-6050-X (x = various offsets) (Gas/E85)		
Double Fill <sup>1</sup> Tank Riser Configuration	Phil Tite Defende	e (configuration only) (Gas/E85) er (configuration only) (Gas/E85)		
Tank Bottom Protector <sup>1</sup>	Phil-Tite	e TBP-3516-E (Gas/E85)		
Emergency Vent	Exhibit 5	5 (for below-grade vaulted tank configuration)		
Fuel Lock <sup>1</sup>	McGard FL1 – Stick Only Fuel Lock (125007) (Gas) McGard FL2 – Stick/Sampling Fuel Lock (125008) (Gas)			
Bladder Plug	McGard	PSI104 (Gas)		

<sup>1</sup> If these components are installed or required by regulations of other agencies, only those components and model numbers specified above shall be installed or used.

Table 1
Components Exempt from Identification Requirements

Component Name	Manufacturer	Model Number
Drop Tube	OPW EBW EBW	61-T Straight Drop Tube (Gas) 7822041X-2 (X = various lengths) (Gas) 7822043X-2 (X = various lengths) (Gas/E85)
Dust Caps	Morrison Brothers	323C-0100ACEVR (vapor)* (Gas/E85) 305C-0100ACEVR (product)* (Gas/E85)
	Veeder-Root	312020-952 (cap & adaptor) (Gas/E85)
Tank Gauge Port Components	Morrison Brothers	305XPA1100AKEVR (cap and adaptor kit) (Gas/E85) 305-0200AAEVR (replacement adaptor) (Gas/E85) 305XP-1100ACEVR (replacement cap) (Gas/E85)
	EBW	90037-E (In Tank Probe Cap and Adaptor Kit) (Gas/E85)
Riser Adaptor	Phil-Tite	M/F 4X4 (Gas/E85) M/F 4X4-R (Gas/E85)
Riser Offset	Phil-Tite	M-6050-X (X = various offsets) (Gas/E85)
Riser Support Bracket	Phil-Tite	M-1600 (Gas/E85)
Spill Container Lid	Phil-Tite EBW	85011 (Gas/E85) 7054401X (Gas/E85)
Sump/Sump Lids	Varies	Varies (Gas/E85)
Drop Tube Riser Clamp	FFS	70550901EC (Gas/E85)
Replacement Drain Valve	EBW	EBW 70533729 EBW 70533719
Drain Valve Blank Kit	EBW	90022
Fuel Lock	McGard	FL1, FL2

\* Morrison Brothers dust caps identified as 323C EVR and 305C EVR respectively.

The component in Table 2 may not be installed as a new or replacement part on or after September 1, 2002. This component, if installed prior to September 1, 2002, may be used for the remainder of it's useful life.

#### Table 2

Component Name	Manufacturer	Model Number
Drop Tube	Emco Wheaton	A0020 (various lengths) (Gas)

## **Component Identification and Location**





Phil-Tite Model 85000 Series Spill Containers



Defender 705 Series Spill Containerdouble wall (Gas/E85 Compatible)



Defender 705 Series Spill Containersingle wall (Gas/E85 Compatible)

#### **Component Identification and Location**



(New Tag Front) Defender Series Spill Container (Gas/E85 Compatible)



(New Tag Back) Defender Series Spill Container (Gas/E85 Compatible)

## **Component Identification and Location**





## Spill Container EBW 7XX-49Y-0Z









Phil-Tite SWF-100-SS Fill Adaptor





Phil-Tite SWF-101-SS Fill Adaptor

#### **Component Identification and Location**

#### FFS PV-Zero P/V Vent Valve (Gas/E85) (Model and Serial Number on White Tag)



#### OPW 723V P/V Vent Valve (Gas/E85)



#### Husky 5885 P/V Vent Valve (Gas/E85) (Husky Name on Bottom Flange)



## **Component Identification and Location**



EBW Model 70849X1Y Overfill Prevention Device (Gas Compatible)



EBW 70849X3Y Autolimiter (Gas/E85 Compatible)

#### **Component Identification and Location**



Defender OPV series 70859X9YZ (Gas/E85 compatible)

## **Component Identification and Location**



Defender OPV series 70869X9YZ (Gas/E85 compatible)



OPW 634-TT-EVR Product Dust Cap (Gas/E85 Compatible)

OPW 1711-T-EVR Vapor Dust Cap (Gas/E85 Compatible)



OPW 634LPC Product Dust Cap (Gas Compatible)



OPW 1711LPC Vapor Dust Cap (Gas Compatible)



EBW 77720102 Product Dust Cap (Gas/E85)



EBW 30430103 Vapor Dust Cap (Gas/E85)



EBW 77720202 Product Dust Cap (Gas/E85 Compatible)



EBW 30420006 Vapor Dust Cap (Gas/E85)

#### **Component Identification**





Morrison Brothers 323C EVR Vapor Dust Cap (Gas/E85 Compatible) Morrison Brothers 305C EVR Product Dust Cap (Gas/E85 Compatible)



Phil-Tite TBP-3516-E (Gas/E85) Series Tank Bottom Protector

## **Component Identification and Location**





CompX CSP1-634LPC Product Dust Cap

CompX CSP3-1711LPC Vapor Dust Cap (Gas Only)



CompX Tank Commander Lid Locks onto CSP1-634LPC and CSP3-1711LPC Dust Caps





CompX CSP2-634LPC Product Dust Cap

CompX CSP4-1711LPC Vapor Dust Cap (Gas Only)



CompX Tank Commander Lid Locks onto CSP2-634LPC and CSP4-1711LPC Dust Caps



McGard Fuel Lock Installation Position<sup>1</sup>



McGard Fuel Lock (FL1 on Left, FL2 on Right)

<sup>&</sup>lt;sup>1</sup> Optional component, but if installed this picture shows the correct installation location in the pipe just below the Product Rotatable Adaptor in the drop tube.

### Exhibit 2

#### Installation, Maintenance and Compliance Specifications

This Exhibit contains the installation, maintenance and compliance standards and specifications applicable to the Franklin Fueling System (FFS) Phase I system installed in a gasoline dispensing facility (GDF). Table 2-1 summarizes the compliance standard and specification with the corresponding test method. Table 2-2 describes the maintenance interval for the FFS Phase I System components.

#### **General Specifications**

- 1. Typical installations of the FFS Phase I system and system components are shown in Figures 2A through 2N.
- 2. The FFS Phase I system shall be installed, operated and maintained in accordance with the CCARB Approved Installation, Operation and Maintenance Manual for the Franklin Fueling Systems, Inc. Phil-Tite/EBW/FFS Phase I Vapor Recovery System.
- 3. Any repair or replacement of system components shall be done in accordance with the CCARB Approved Installation, Operation and Maintenance Manual for the Franklin Fueling Systems, Inc. Phil-Tite/EBW/FFS Phase I Vapor Recovery System.
- 4. Unless otherwise specified in this Executive Order (EO), the FFS Phase I system shall comply with the applicable performance standards and performance specifications in CP-201.
- 5. Installation, maintenance and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by FFS certified technicians. Additional certifications may be required in accordance with District requirements.

#### Pressure/Vacuum Vent Valves For Storage Tank Vent Pipes

- 1. No more than three certified pressure/vacuum vent valves (P/V valves) listed in Exhibit 1 shall be installed on any GDF underground storage tank 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. Compliance determination of the P/V valve performance specifications in items 2a and 2b for the FFS PV-Zero P/V vent valve shall be conducted with the valve remaining in its installed position on the vent line(s). The PV-Zero portion of the CCARB-Approved Installation, Operation and Maintenance Manual for the Franklin Fueling Systems Phil-Tite/EBW/FFS) Phase I Vapor Recovery System outlines the equipment needed to test the valve in its installed position.

- 4. 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 2F. 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.
- 5. Each P/V valve shall have permanently affixed to it a yellow, gold, or white colored label with black lettering stating the following specifications:

Positive pressure setting: 2.5 to 6.0 inches H<sub>2</sub>O

Negative pre77 with this requirement shall be demonstrated in accordance with TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003).

1. The vapor adaptor poppet shall not leak when closed. Compliance with this requirement shall be verified by the use of commercial liquid leak detection solution, or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists.)

#### Vapor Recovery and Product Adaptor Dust Caps

Dust caps with intact gaskets shall be installed on all Phase I tank adaptors.

#### Spill Container Drain Valve

The spill container drain valve is configured to drain liquid directly into the drop tube and is isolated from the underground storage tank ullage space. The leak rate of the drain valve shall not exceed 0.17 CFH at 2.00 inches  $H_2O$ . Depending on the presence of the drop tube overfill prevention device, compliance with this requirement shall be demonstrated in accordance with either TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003), or TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Device and Spill Container Drain Valve (October 8, 2003).

#### Drop Tube Overfill Prevention Device

- 1. The Drop Tube Overfill Prevention Device (overfill device) is designed to restrict the flow of gasoline delivered to the underground storage when liquid levels exceed a specified capacity. The drop tube overfill device is not a required component of the vapor recovery system, but may be installed as an optional component of the system. Other requirements may apply.
- The leak rate of the overfill device shall not exceed 0.17 CFH at 2.00 inches H<sub>2</sub>O when tested as in accordance with TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Device and Spill Container Drain Valves (October 8, 2003).
- 3. The discharge opening of the fill pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank as shown in Figures 2A and 2D.

#### **Riser Adaptor**

For "Phil-Tite" series spill container installations, the Riser Adaptor shall provide a machined surface on which a gasket can seal and ensures that the seal is not compromised by an improperly cut or improperly finished riser. A Threaded Riser adaptor shall be installed on the following required connections. As an option, the adaptor may be installed on other connections.

- a. Product Spill Container (required)
- b. Vapor Recovery Spill Container (required)
- c. Tank Gauging Components (required)

For "Defender Series" spill container installations, the Riser Adaptor should only be used with the NPSM (straight thread) base. The Riser Adaptor should not be used with the Defender Series Base with NPT (tapered thread) base. This is applicable for both the vapor and fill/product sides. Field conditions will dictate which base to use. If the existing riser is not cut square, those conditions will require the riser adaptor.

#### Vapor Recovery Riser Offset

- 1. The vapor recovery tank riser may be offset from the tank connection to the vapor recovery Spill Container provided that the maximum horizontal distance (offset distance) does not exceed twenty (20) inches. One example of an offset is shown in Figure 2E.
- A vapor recovery riser shall be offset up to 20 inches horizontal distance with use of commercially available, four (4) inch steel pipe fittings, a Phil-Tite Model M-6050 Vapor Riser Offset, or a combination of the two products. An example of a Phil-Tite Model M-6050 configuration is shown in Figure 2E.

#### Tank Gauge Port Components

The tank gauge adaptor and cap are paired. Therefore, an adaptor manufactured by one company shall be used only with a cap manufactured by the same company.

#### Warranty

Each manufacturer listed in Exhibit 1 shall include a warranty tag with the certified component(s). The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

#### **Connections and Fittings**

All connections and fittings not specifically certified with an allowable leak rate shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution (LDS), or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists).

#### **Double Fill Configuration**

A Defender and or Phil-Tite Double Fill Configuration shall be allowed for installation provided that no more than two fill points are installed on any single underground storage tank and that no offset of the vapor recovery riser pipe is installed. An example of this configuration is shown in Figure 2C.

#### Maintenance Records

Each GDF operator or owner 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, name and Certified Technician Number of individual conducting maintenance or test. An example of a Phase I Maintenance Record is shown in Figure 20.

Table 2-1
<b>Gasoline Dispensing Facility Compliance Standards and Specifications</b>

Component / System	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Overfill Prevention Device	TP-201.1D	$\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	$\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O
P/V Valve <sup>1.</sup>	TP-201.1E	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
Vapor Recovery System	TP-201.3	As specified in TP-201.3 and/or CP-201
Connections and fittings certified without an allowable leak rate	Leak Detection Solution or bagging	No leaks

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

Table 2-2Maintenance Intervals for System Components<sup>2</sup>

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Manufacturer	Component	Maintenance Interval
All Models	Dust Caps	Annual
All Models	In Tank Gauge Port Probe Cap and Adaptor Kit	Annual
FFS	Drop Tube Overfill Prevention Device 70849X1Y series Drop Tube Overfill Prevention Device 70849X3Y series Drop Tube Overfill Prevention Device 70859X9YZ series Drop Tube Overfill Prevention Device 70869X9YZ series	Annual
FFS	782 Straight Drop Tube	Annual
Husky	Pressure/Vacuum Vent Valve	Annual
FFS	Pressure/Vacuum Vent Valve	Annual
OPW	Pressure/Vacuum Vent Valve	Annual
OPW	61-T Straight Drop Tube	Annual
FFS	Spill Container (all models)	Every 3 years
FFS	SWF-100-B Product Adaptor SWF-100-SS Product Adaptor	Annual
FFS	SWV-101-B Vapor Adaptor SWV-101-SS Vapor Adaptor	Annual

<sup>&</sup>lt;sup>2</sup> Maintenance must be conducted within the interval specified from the date of installation and at least within the specified interval thereafter.

#### Figure 2A

# Typical Product Side Installation of Phil-Tite System Using EBW Autolimiter II 70849X Series (Defender OPV series 70859X9YZ, 70869X9YZ alternate component)<sup>3</sup>



<sup>&</sup>lt;sup>3</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2B Alternate Phil-Tite Sump Configuration<sup>4</sup>



<sup>&</sup>lt;sup>4</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2C Typical Defender/Phil-Tite Double Fill Configuration



Figure 2D Typical Product Installation of Defender Series Spill Container Using Defender OPV series 70859X9YZ, 70869X9YZ(EBW Autolimiter II 70849X Series optional)<sup>5</sup>



<sup>&</sup>lt;sup>5</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

#### Figure 2E Typical Phil-Tite Model M-6050 Vapor Recovery Riser Offset



**Note:** These figures represent instances where a vapor recovery riser has been offset in order to construct a two-point Phase I vapor recovery system. The figure on the right illustrates an offset using a 90-degree elbow. However, in some instances, elbows less than 90 degrees may be used. All fittings and pipe nipples shall be 4-inch diameter similar to those of the spill container and rotatable Phase I adaptors in order to reduce back pressure during a gasoline delivery.
### Figure 2F Typical Vent Pipe Manifold



**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 2G Typical Product Side Installation of Defender Series Spill Container: Single Wall Direct Bury Configuration<sup>6</sup>



<sup>&</sup>lt;sup>6</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2H Typical Product Side Installation of Defender Series Spill Container: Double Wall Direct Bury Configuration with I<sup>2</sup> Monitor<sup>7</sup>



<sup>&</sup>lt;sup>7</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2I Typical Product Side Installation of Defender Series Spill Container: Double Wall Direct Bury Configuration with TSP-ULS Liquid Sensor<sup>8</sup>



<sup>&</sup>lt;sup>8</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2J Typical Vapor Recovery Side Installation of Defender Series Spill Container Single Wall Direct Bury Configuration



Figure 2K Typical Vapor Recovery Side Installation of Defender Series Spill Container Double Wall Direct Bury Configuration with I<sup>2</sup> Monitor



Figure 2L Typical Vapor Recovery Side Installation of Defender Series Spill Container Double Wall Direct Bury Configuration with TSP-ULS Liquid Sensor





<sup>&</sup>lt;sup>9</sup> McGard FL1 or FL2 Fuel lock (Optional- Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2N Typical Vapor Recovery Installation using EBW system



## Figure 20

## Example of a GDF Phase I Maintenance Record

Date of Maintenance/ Test/Inspection/ Failure	Repair Date to Correct Test Failure	Maintenance/Test/Inspection Performed and Outcome	Affiliation	Name and Certification Technician Number of Individual Conducting Maintenance or Test(s)	Telephone Number

## **EXHIBIT 3**

### Manufacturing Performance Standards and Specifications

The Franklin Fueling Systems system and all components shall be manufactured in compliance with the performance standards and specifications in CP-201, 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 or his delegate. Unless specified in Exhibit 2 or in the CCARB approved Installation, Operation and Maintenance Manual for the Phil-Tite/EBW/FFS Phase I Vapor Recovery System, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a GDF.

#### Pressure/Vacuum Vent Valves for 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 valve was tested to, and met, these specifications.
- 3. Each P/V valve shall have permanently affixed to it a yellow, gold, or white colored label with black lettering listing the positive and negative pressure settings and leak rate standards listed in Table 3-1. The lettering of the positive and negative pressure settings and leak rate standards on the label shall have a minimum font size of 20.

### **Rotatable Product and Vapor Recovery Adaptors**

- 1. The rotatable product and vapor recovery adaptors shall not leak.
- 2. The product adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3A of CP-201.
- 3. The vapor recovery adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3B of CP-201.
- 4. Each product and vapor recovery adaptor shall be tested at the factory to, and met, the specifications listed in Table 3-1 and shall have affixed to it a card or label listing these performance specifications and a statement that the adaptor was tested to, and met such specifications.

## **Spill Container and Drain Valves**

Each Spill Container Drain Valve shall be tested at the factory to, and met, the specification listed in Table 3-1 and shall have affixed to it a card or label listing the performance specification and a statement that the valve was tested to, and met such performance specification.

#### **Drop Tube Overfill Prevention Device**

Each Drop Tube Overfill Prevention Device shall be tested at the factory to, and met, the specification listed in Table 3-1 and shall have affixed to it a card or label listing the performance specification and a statement that the device was tested to, and met, such performance specification.

Component	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Rotatable Phase I Adaptors	Micrometer	Cam and Groove Specifications (CP-201)
Overfill Prevention Device	TP-201.1D	≤0.17 CFH at 2.00 inches H <sub>2</sub> O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	≤0.17 CFH at 2.00 inches H₂O
Pressure/Vacuum Vent Valve	TP-201.1E	$\begin{array}{l} \mbox{Positive Pressure: } 2.5 \mbox{ to } 6.0 \mbox{ inches } H_2O \\ \mbox{Negative Pressure: } 6.0 \mbox{ to } 10.0 \mbox{ inches } H_2O \\ \mbox{Leak rate: } \le 0.05 \mbox{ CFH at } +2.0 \mbox{ inches } H_2O \\  \le 0.21 \mbox{ CFH at } -4.0 \mbox{ inches } H_2O \end{array}$

# Table 3-1Manufacturing Component Standards and Specifications

#### **EXHIBIT 4**

#### **Manufacturer Warranties**

This exhibit includes the manufacturer warranties for all components listed in Exhibit 1, including replacement parts and subparts. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

#### Franklin Fueling Systems Warranty Statement and Tag

Franklin Fueling Systems (FFS) Enhanced Vapor Recovery (EVR) products are offered for sale under the brand names of Healy, INCON, Phil-Tite, EBW, and Franklin Fueling Systems (collectively referred to as "FFS EVR products"). FFS EVR products are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CCARB) for the duration of the warranty period, as indicated in the related CCARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CCARB EO.

FFS warrants that FFS EVR products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for FFS EVR products, (b) design changes to FFS EVR products, (c) performance specifications of the FFS EVR products, and (d) duration of the warranty period of FFS EVR products.

FFS EVR products are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CCARB Approved Installation, Operation, and Maintenance Manuals by certified technicians or an owner/operator as defined in the related CCARB EO and to generally accepted industry standards.

FFS reserves the right to make changes in the design or to make additions or improvements with respect to FFS EVR products without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CCARB.

FFS reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CCARB. Any such change or cancellation will be effective for products sold by FFS after the date of such change or cancellation. No agents, distributors, dealers, or employees of FFS are authorized to make modifications to this warranty or to make additional warranties with respect to any FFS EVR products. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of FFS and shall not be relied upon.

FFS warrants the workmanship and materials of FFS EVR products to be free of defects, at the time of sale by FFS, for a period of one year (12 months) from the date of installation. When warranty for FFS EVR products cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for FFS EVR product cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by FFS (for location of date of manufacture on components, see related CCARB EO Exhibit 1 – Equipment List). In all cases, installation date or purchase date will require providing formal documentation to FFS as evidence of applicable warranty coverage or date of manufacture will be used to determine

duration of warranty period. Formal documentation may include, but is not limited to, FFS authorized service company and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

FFS shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-FFS replacement parts, the unauthorized addition of non-FFS items to FFS EVR products, and the unauthorized alteration of FFS EVR products will void warranty. FFS shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the FFS EVR products have been operated with any accessory, equipment, or a part not specifically approved by FFS and not manufactured by FFS to FFS design and specifications.

FFS EVR product warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). FFS EVR product warranty shall not apply to acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific FFS written warranty, FFS does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any FFS EVR product.

Other than those FFS EVR products specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), FFS EVR product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for FFS EVR product warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from FFS. FFS will honor warranty claims processed through FFS authorized service companies and distributors only. FFS will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to FFS's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

INCON branded products:
Franklin Fueling Systems, Inc.
ATTN: Warranty Department
34 Spring Hill Road
Saco, ME 04072 USA

All other FFS EVR Products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 3760 Marsh Road Madison, WI 53718 USA

Franklin Fueling Systems, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to FFS's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by FFS.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator.
Component Model Number :
Component Date of Manufacturer :
Component Install Date :
Facility Name :
Facility Address :
Installer Name :
Installer Signature :

#### Morrison Bros. Co. Warranty Statement and Tag

WARRANTY— All Morrison products are thoroughly tested before shipment and meet all applicable performance standards and specifications of related ARB executive orders and vapor recovery procedures of CP-206 (Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks) or CP-201 (Certification Procedure for Vapor Recovery Systems at Dispensing Facilities). This warranty shall include the ongoing compliance with all applicable performance standards and specifications for the duration of the warranty. Only material found to be defective in manufacture will be repaired or replaced. Claims must be made within one year from the date of installation, and Morrison Bros. Co. will not allow claims for labor or consequential damage resulting from purchase, installation or misapplication of the product. This warranty will include the initial purchaser and any subsequent purchasers of the initial equipment within the warranty period. This warranty registration must remain with the equipment and be provided to the end user. If a warranty claim needs to be pursued, a copy of this information and the invoice of these products to the purchaser must be supplied to Morrison for verification.

Installation Date:			
Name Of Installer/Contractor			
Installation Company: Name			
Address			
City	State	Zip	
Business At Installation Site: I	Name		
Address			
City	State	Zip	
Morrison Product(s) I.D Numb	ers With Date	e Of Manufacture _	

Date of manufacture can be found on the product identification label applied to the finished product. This warranty registration must remain with the equipment and be provided to the end user. If a warranty claim needs to be pursued, a copy of this information and the invoice of these products to the purchaser must be supplied to Morrison for verification.

## **OPW STANDARD PRODUCT WARRANTY TAG**

Notice: FlexWorks by OPW, Inc., VAPORSAVER<sup>™</sup> and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection is the sole responsibility of the customer and/or its agents and must be based on physical specifications and limitations, compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

OPW warrants solely to its customer (the initial purchaser and any subsequent purchasers within the warranty period) that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated:

PRODUCT	WARRANTY PERIOD		
FlexWorks Primary Pipe	10 years from date of manufacture		
All Products and replacement parts installed in the State of California Certified to California CP-201 and/or CP-206 Standards*	1 year from-date of installation (proof of purchase from certified contractors/technicians required) OPW warrants ongoing compliance with the standards and specifications for the duration of the warranty period required by the State of California; this limited warranty is under the condition the equipment was installed and maintained by trained and certified contractors/technicians unless noted in Installation Manual		
All other Products and replacement parts	1 year from date of manufacture**		
*Products certified to California CP-201 and/or CP-206 Standards have been factory tested and met all applicable performance standards and specifications and will have an OPW registration card enclosed/attached to the product			

OPW's exclusive obligation under this limited warranty is, at its option, to repair, replace or issue credit (in an amount not to exceed the list price for the product) for future orders for any product that may prove defective within the applicable warranty period. (Parts repaired or replaced under warranty are subject to prorated warranty coverage for remainder of the original warranty period). Complete and proper warranty claim documentation and proof of purchase required. All warranty claims must be made in writing and delivered during the applicable warranty period to OPW at OPW 9393 Princeton-Glendale Road Hamilton, Ohio, USA 45011, Attention: Customer Service Manager. No products may be returned to OPW without its prior written authority.

This limited warranty shall not apply to any FlexWorks or VAPORSAVER™ product unless it is installed by an OPW attested installer and all required site and warranty registration forms are completed and received by OPW within 60 days of installation. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER™ or other OPW product: unless all piping connections are installed with a nationally-recognized or state-approved leak detection device in each tank and dispenser sump (which are not for storage and from which all discharge hydrocCARBons must be removed, and the systems completely cleaned, within 24 hours); unless testable sumps utilize FlexWorks pipe and access fittings; unless a sump inspection log or an EPA recommended/required checklist is maintained and the results are furnished to OPW upon request: and unless OPW is notified within 24 hours of any known or suspected product failure and is provided with unrestricted access to the product and the site. This limited warranty also shall not apply to any product which has been altered in any way, which has been repaired by anyone other than a service representative authorized by OPW, or when failure or defect is due to: improper installation or maintenance (including, without limitation, failure to follow FlexWorks Quick Reference Manual Installation Guide and all product warning labels); abuse or misuse; violation of health or safety requirements; use of another manufacturer's, or otherwise unauthorized, substances or components; soil or other surface or subsurface conditions; or fire,

flood, storm, lightning, earthquake, accident or any other conditions, events or circumstances beyond OPW's control.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

OPW shall have no other liability whatsoever, whether based on breach of contract, negligence, gross negligence, strict liability or any other claim, including, without limitation, for special, incidental, consequential or exemplary damages or for the cost of labor, freight, excavation, clean-up, downtime, removal, reinstallation, loss of profit, or any other cost or charges. No person or entity is authorized to assume on behalf of OPW any liability beyond this limited warranty. This limited warranty is not assignable.

\*\* Date of manufacture on this product is located (*location will be specific to each component*)



North America Toll Free - TELEPHONE: (800) 422-2525 - Fax: (800) 421-3297 - Email: domesticsales@opw-fc.com

9393 Princeton-Glendale Road Hamilton, Ohio 45011 International – TELEPHONE: (513) 870-3315 or (513) 870-3261 -Fax: (513) 870-3157 - Email: intlsales@opw-fc.com www.opwglobal.com

#### **Comp X TANK Commander Warranty Statement and Tag**

Seller warrants to the initial and subsequent purchasers, for a period of one year from date of installation, that the Products sold hereunder will, at the time of delivery: (a) comply with the CARB CP-201 standards and specifications for the duration of the warranty period for such Products in effect at the time of shipment or such other specifications as are expressly agreed upon by Seller and Buyer in writing; (b) be adequately contained, packaged, and labeled; and (c) conform to any promises and affirmations of fact made on the container and label. In the event that any such Products fail to conform to the foregoing warranty, Seller will, at its option, repair or replace such nonconforming Products, or credit Buyer for an amount not to exceed the original sales price of such Products. Shipping costs incurred in returning such nonconforming Products to Seller shall be borne by Seller, but Seller shall in no event be liable for any inspection, handling, or packaging costs incurred by Buyer in connection with such Products. Buyer's negligence, misuse, improper installation, or unauthorized repair or alteration, shall void this warranty. The TANK Commander Warranty tag is located on the inside cover of the product.

#### Warranty Tag

TANK Commander TC-1

1 year warranty from date of installation

Date of manufacture \_ /\_ /\_ \_\_\_

The CompX TANK Commander product was factory tested and meets the standards and specifications to which it was certified by the California Air Resources Board (CCARB) as indicated in the related CCARB Phase I EVR Executive Orders.

#### Husky Corporation Warranty Statement and Tag

**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.

**EVR PRODUCTS** – With respect to EVR products installed in California, for a period of one (1) year from the date of installation, Husky warrants that the product will be free from defects in materials and workmanship (if the installation date is in question or indeterminable, Husky will warrant the product for 12 months from sale by Husky). Husky confirms that the warranty is transferable to a subsequent purchaser within the warranty period. However, the warranty does not follow the product from its initial installation location to succeeding locations. Husky confirms these products are warranted to meet the performance standards and specifications to which it was certified by CCARB for the duration of the warranty. EVR products must be installed per CCARB Executive Order and must follow the Husky Installation Instructions or the warranty is void. The warranty tag included with the EVR product must be provided to the end user at installation. A completed warranty tag and installation documentation is required to be returned with the product to be eligible for warranty consideration.

**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.

- This	<ul> <li>WARRANTY TAG</li> <li>Husky Corporation</li> <li>2325 Husky Way</li> <li>Pacific, Mo 63069</li> <li>(800) 325-3558</li> </ul>	Husky General Fueling Products:
2 2 2 2 2 1	Station Name: Date: Store #: Date: City: State: Service Contractor: Service Tech: Distributor: No warranty accepted without warranty tag filled out completely and attached to product.	Model #: Serial #: Installation Date: Manufacturer Lot #: Work order # (if applicable): RGA #: Form #009179-6 03/2013

# FOR REFERENCE ONLY

_	Reason for Return (check all applicable):		
	Leaking Fuel Around Spout	□ Failed Pressure Decay Test	
	Leaking Fuel In Trigger Area	Leaking Fuel at Hose Inlet	
$\frown$	□ Keeps Shutting Off	Mechanical Malfunction	
$\left( \circ \right)$	□ Will Not Shut Off	Dispenses Fuel Without Pulling Lever	
$\bigcirc$	Notes / Comments:		
EVR product data can be at the fact Vacuum Sett Please prov	s installed in California are warranted for 1 found on the product data tag attached to the ory and met all applicable performance standar ing: 6.0 - 10.0 in W.C. and Leak Rate: 0.05 CF ide installation documention such as a purchas	year from the date of installation. Manufacturing product. Husky confirms the product was tested ds in CP-201 including Pressure Setting: 2.5-6.0 in W.C. H @ +2.0 in W.C. and 0.21 CFH @ -4.0 in W.C. e order, an invoice or a receipt at time of claim.	

BACK VIEW

#### **Veeder-Root Warranty Statement and Tag**

This warranty applies only when the product is installed in accordance with Veeder-Root's specifications. This warranty will not apply to any product which has been subjected to misuse, negligence, accidents, systems that are misapplied or are not installed per Veeder-Root specifications, modified or repaired by unauthorized persons, or damage related to acts of God. Veeder-Root is not liable for incidental, consequential, or indirect damages or loss, including, without limitation, personal injury, death, property damage, environmental damages, cost of labor, clean-up, downtime, installation and removal, product damages, loss of product, or loss of revenue or profits. This warranty applies to the initial purchaser and any subsequent purchaser for the duration of the warranty period. THE WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND THERE ARE NO OTHER EXPRESS, IMPLIED, OR STATUTORY WARRANTIES. WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

#### CAP AND RING ADAPTOR

We warrant that this product shall be free from defects in material and workmanship and is compliant with all applicable performance standards and specifications for which it has been certified, for a period of one (1) year from the date of installation. During the warranty period, we or our representative will repair or replace the product, if determined by us to be defective, at the location where the product is in use and at no charge to the purchaser.

## Warranty Card Language

### EQUIPMENT WARRANTY

Veeder-Root warrants that this product shall be free from defects in material and workmanship and is compliant with all applicable performance standards and specifications for which it has been certified, for a period of one (1) year from date of installation.

Date of manufacture:

This component was tested at the time of manufacture and meets all the applicable performance standards and specification to which it was certified: EO VR-101 and EO VR-102.

For detailed warranty terms see EO VR101 or EO VR-102 warranty exhibits on the CARB Web site at *http://www.CARB.ca.gov/vapor/eo-evrphasel.htm* 

## **McGard Warranty Statement and Tag**

McGard Fuel Locks are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CCARB) for the duration of the warranty period, as indicated in the related CCARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CCARB EO.

McGard warrants that McGard Fuel Lock products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for McGard Fuel Locks, (b) design changes to McGard Fuel Locks, (c) performance specifications of the McGard Fuel Locks, and (d) duration of the warranty period of McGard Fuel Locks.

McGard Fuel Locks are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CCARB Approved Installation, Operation, and Maintenance Manuals by certified technicians as defined in the related CCARB EO and to generally accepted industry standards.

McGard reserves the right to make changes in the design or to make additions or improvements with respect to McGard Fuel Locks without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CCARB.

McGard reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CCARB. Any such change or cancellation will be effective for products sold by McGard after the date of such change or cancellation. No agents, distributors, dealers, or employees of McGard are authorized to make modifications to this warranty or to make additional warranties with respect to any McGard Fuel Locks. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of McGard and shall not be relied upon.

McGard warrants the workmanship and materials of McGard Fuel Locks to be free of defects, at the time of sale by McGard, for a period of one year (12 months) from the date of installation. When warranty for McGard Fuel Locks cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for McGard Fuel Locks cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by McGard (date of manufacture is engraved on side of lock body). In all cases, installation date or purchase date will require providing formal documentation to McGard as evidence of applicable warranty period. Formal documentation may include, but is not limited to McGard authorized service company

and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

McGard shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-McGard replacement parts, the unauthorized addition of non-McGard items to McGard Fuel Locks, and the unauthorized alteration of McGard Fuel Locks will void warranty. McGard shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the McGard Fuel Locks have been operated with any accessory, equipment, or a part not specifically approved by McGard and not manufactured by McGard to McGard design and specifications.

McGard Fuel Lock warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). McGard Fuel Lock warranty shall not apply to vandalism, theft, acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific McGard written warranty, McGard does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any McGard Fuel Lock.

Other than those McGard Fuel Locks specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), McGard Fuel Lock product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for McGard Fuel Lock warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from McGard. McGard will honor warranty claims processed through McGard authorized service companies and distributors only. McGard will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to McGard's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

McGard LLC, ATTN: Warranty Department, 3875 California Road, Orchard Park, NY 14127 USA

McGard, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to McGard's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by McGard.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator. Component Model Number: Component Date of Manufacturer: Component Install Date: Facility Name:

Facility Address:

Installer Name:

Installer Signature:

## Exhibit 5

## VAULTED ABOVEGROUND STORAGE TANK CONFIGURATION (Optional)

This exhibit allows an alternate tank storage configuration for the Phase I EVR system. A vaulted aboveground storage tank (AST) may be installed in substitute for a conventional underground storage tank (UST). The figures in this exhibit provide examples of typical vaulted AST configurations.

## **General Specifications**

Alternate typical vaulted AST configurations for the Phase I EVR Systems are shown in Figures 5-1, 5-2, 5-3, and 5-4.

Unless otherwise specified in this Executive Order (EO), the vaulted AST configuration shall comply with the applicable performance standards and performance specifications in CP-201. The emergency vent shall be a certified vent listed in the Phase I EVR Executive Orders for ASTs and shall be installed, operated, maintained and meet any performance requirements specified in the applicable AST Executive Order.



Figure 5-1: Front Sectional Views of Typical Vaulted AST



Figure 5-2: Top Sectional View of Typical Vaulted AST

Figure 5-3: End Sectional View of Typical Vaulted AST





Figure 5-4: Sectional Views of Typical Vaulted AST (Ventilation)

Figure 5-4a: Typical Exhaust

### State of California AIR RESOURCES BOARD

#### **EXECUTIVE ORDER VR-102-V**

#### **Relating to Certification of Vapor Recovery Systems**

## OPW Phase I Vapor Recovery System (Including Remote-Fill and Remote-Additive Configuration)

WHEREAS, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code Sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks, in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201), as last amended June 4, 2019, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase I vapor recovery systems with emission standards;

WHEREAS, OPW Fueling Components, Inc. (OPW) requested and was granted certification of the OPW Phase I Vapor Recovery System (OPW System) pursuant to CP-201 by Executive Order VR-102-A, first issued on October 10, 2002, and last modified on June 3, 2020, by Executive Order VR-102-U;

WHEREAS, Executive Order G-01-032 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF); and

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find that the OPW Phase I Vapor Recovery System (including components that are compatible with E85 fuel blends), as amended to include the components listed above, conforms with all of the requirements set forth in CP 201, and results in a vapor recovery system which is at least 98.0 percent efficient as tested in accordance with test procedure TP-201.1, Volumetric Efficiency for Phase I Systems (July 26, 2012).

NOW THEREFORE, IT IS HEREBY ORDERED that the OPW System is certified to be at least 98.0 percent efficient when installed and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components. Exhibit 2 contains the performance standards and specifications, typical installation drawings, and maintenance intervals for the OPW System as installed in a GDF. Exhibit 3 contains the manufacturing specifications. Exhibit 4 contains the manufacturer warranties. Exhibit 5 is the below-grade vaulted tank configuration. Exhibit 6 is the Required Items for Conducting TP-201.1C/TP-201.D on a Remote Fill System. 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, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

IT IS FURTHER ORDERED that each component manufacturer listed in Exhibit 1 shall provide a warranty for the vapor recovery component(s) to the initial purchaser. 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 16.5 of CP 201. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer's warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

IT IS FURTHER ORDERED that the certified OPW system shall be installed, operated, and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manual (Manual). Equipment shall be inspected annually per the procedures identified in the Manual. This inspection requirement shall also apply to systems certified by Executive Orders VR-102-A to U. A copy of this Executive Order and the Manual shall be maintained at each GDF where a certified OPW 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 provided in the manufacturer's certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification, and is subject to enforcement action, unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the CARB Executive Officer or his or her delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

IT IS FURTHER ORDERED that the following requirements be made a condition of certification. The owner or operator of the OPW system shall conduct and pass the following tests no later than 60 days after startup and at least once every three (3) years after startup testing, using the following test procedures. Shorter time periods may be specified by the District.

- TP-201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012);
- TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003); and
- Depending on the system configuration, either TP 201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003) or TP 201.1D, Leak Rate of Drop

Executive Order VR-102-V, OPW Phase I Vapor Recovery System

Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

Districts may specify the sequencing of the above tests. Notification of testing and submittal of test results shall be done in accordance with District requirements and pursuant to the policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternate test procedures, including the most recent versions of test procedures listed above, may be used if determined by the CARB Executive Officer or his or her delegate, in writing, to yield equivalent results. Testing the Pressure/Vacuum (P/V) vent valve will be at the option of the Districts. If P/V vent 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.

IT IS FURTHER ORDERED that the OPW system shall be compatible with gasoline in common use in California at the time of certification, including E85 (85% ethanol/15% gasoline) for specific components listed in Exhibit 1. Any modifications to comply with future California gasoline requirements shall be approved in writing by the CARB Executive Officer or his or her delegate.

IT IS FURTHER ORDERED that GDF installations permitted for dispensing E85 fuel shall be subject to a throughput limitation of 1.2 million gallons per year (100,000 gallons per month).

IT IS FURTHER ORDERED that Executive Order VR-102-U, issued on June 3, 2020, is hereby superseded by this Executive Order. OPW Phase I Vapor Recovery Systems certified under Executive Orders VR-102-A through U may remain in use at existing installations for up to four year after the expiration date of this Executive Order when the certification is not renewed.

IT IS FURTHER ORDERED that this Executive Order shall apply to new installations or major modification of existing Phase I Systems.

IT IS FURTHER ORDERED that this Executive Order shall expire on June 1, 2025.

Executed at Sacramento, California, this <u>31st</u> day of May 2021.

Counsordy

Catherine Dunwoody, Chief Monitoring and Laboratory Division

## Exhibit 1

## **OPW Phase I Vapor Recovery System Equipment List**

(GAS/E85) = Identifies that these components are approved for standard gasoline & <b>Spill Containers<sup>1</sup></b> Direct Bury Spill Container OPW 1-Series ( (Figure 1-1) 1-2100 Series 1WW-21XXY-ZEVR -G 1-2200 Series 1WW-22XQZ-G	& E85 fuel b (GAS/E85	)
Spill Containers <sup>1</sup> Direct Bury Spill Container OPW 1-Series ( (Figure 1-1) 1-2100 Series 1WW-21XXY-ZEVR -G 1-2200 Series 1WW-22XQZ-G	(GAS/E85	)
1-3100 Series 1WW-3VVUTZ-G	Direct Bury Spill Container OPW 1-Series (GAS/E85) (Figure 1-1) 1-2100 Series 1WW-21XXY-ZEVR -G 1-2200 Series 1WW-22XQZ-G 1-3100 Series 1WW-3VVUTZ-G	
<ul> <li>1-Series legend</li> <li>WW A or Blank (Aluminum Cover) C (cast Iron or Ductile) SC (Sealable Cover, Cast Aluminum PC (Plow Ring Rain Tight Cast Iron only)</li> <li>PSC (Plow Ring Sealable Cover, Ca 2200 only)</li> <li>XX 00 (5 Gal)</li> <li>X 0 (5 Gal)</li> <li>Y C (Cast Iron Base) Blank (composite base)</li> <li>Z D (drain valve) P (plug)</li> <li>VV 1 (5 gallon) 15 (15 gallon) 7 (5 gallon, steel cover)</li> <li>U 0 (no gauge) 1 (float gauge) 2 (sensor) 3 (float and sensor) 4 (alternate sensor)</li> <li>T 1 (single wall, cast iron 2100 style b 2 (double wall) 3 (single wall, cast iron 3100 style ba</li> <li>Q 0 (flange adaptor, cast iron base)</li> </ul>	n) Ductile, ast Alumin pase) ase)	1-2000 hum, 1-
4 (no flange, 4" thread cast iron base G Color (varies)	e)	

<sup>&</sup>lt;sup>1</sup> Drain valves are an optional component for OPW 1-Series product spill containers. If a drain valve is not installed in the OPW 1-Series product spill container, then either an OPW factory installed drain plug or OPW field drain plug kit 1DP-2100 must be installed.

## **OPW Phase I Vapor Recovery System Equipment List**

Spill Containers       Multiport Spill Container OPW 1-Series (GAS, (Figure 1-2))         1-2100SH Series       1-2100Y-ZSH         P700 Series       P7MM-HHKK         P500 Series       P5MM-ZHHBJJJ         P5MM-NN-HHKK       1-Series legend         MM       11 (Composite Base)         11C (Cast Iron Base)       61 (Cast Iron Base)	Manufacturer/Model Number			
P700 Series P7MM-HHKK P500 Series P5MM-ZHHBJJJ P5MM-NN-HHKK 1-Series legend MM 11 (Composite Base) 11C (Cast Iron Base) 61 (Cast Iron Base)	′E85)			
1-Series legend MM 11 (Composite Base) 11C (Cast Iron Base) 61 (Cast Iron Base) 61C (Cast Iron Base)				
MM 11 (Composite Base) 11C (Cast Iron Base) 61 (Cast Iron Base) 61C (Cast Iron Base)				
NN Blank (5 gallon)				
HH EVR (Enhanced Vapor Recovery)				
KK DV (drain valve) PL (plug)				
Y C (Cast Iron Base) Blank (composite base)				
Z D (drain valve) P (plug)				
JJJ -14 (14 center spacing) BUCKET (16 or larger center spacing)	)			
Replacement Drain Valve Kit OPW 1DK-2100 (GAS/E85)				
Replacement Drain Plug KitOPW1DP-2100 (can be used with any OPW 1-Series Spill Containers) (Figure 1-3 and Figure 1-4)				
Dust CapsOPW634LPC (product) (GAS/E85) (Figure 1-5)OPW1711LPC (vapor) (GAS/E85) (Figure 1-6)				

## **OPW Phase I Vapor Recovery System Equipment List**

<u>Equipment</u>	Manufacturer/Model Number		
Dust Caps	OPW	634TT-EVR (product) (GAS/E85)	
(continued)	OPW	(Figure 1-7) 1711T-EVR (vapor) (GAS/E85)	
	CompX	CSP1-634LPC	
	CompX	(Figure 1-9) CSP3-1711LPC (vapor)	
	CompX	(Figure 1-10) CSP2-634LPC (product)	
	CompX	(Figure 1-11) CSP4-1711LPC (vapor) (Figure 1-12)	
Product Adaptor	OPW 61 OPW 61	ISALP (Figure 1-13) SALP-MA (GAS/E85) (Figure 1-15)	
Vapor Adaptor	OPW 61 OPW 61	IVSA (Figure 1-14) VSA-MA (GAS/E85) (Figure 1-16)	
Pressure/Vacuum Vent Valve	FFS OPW Husky	PV-Zero (Gas/E85) (Figure 1-17) 723V (Gas/E85) (Figure 1-18) 5885 (Gas/E85) (Figure 1-19)	
Jack Screw Kit	OPW 61	JSK-4410 (Only used with Composite Base	
	OPW 61	JSK-44CB (Only used with Cast Iron Base	
	OPW 61	JSK-4RMT (Only Used on Remote-Fill	
	Co OPW 71 OPW 71	onfiguration) (Figure 1-20) IJSK-44MA (GAS/E85) (Figure 1-21) IJSK-4RMT (GAS/E85) (Figure 1-21)	
Face Seal Adaptor	OPW FS OPW FS	SA-400 SA-400-S (GAS/E85) (Figure 1-22)	
Drop Tube	OPW 61 OPW 61	IT (various lengths) IT-SS (various lengths) (GAS/E85)	

<u>Equipment</u>	Manufacturer/Model Number		
Drop Tube Overfill Prevention D	evice <sup>2</sup> OPW 61SO (Figure 1-23) OPW 61SOM-412C-EVR (GAS/E85) OPW 71SO (Figure 1-24) OPW 71SO Testable (Figure 1-25) OPW 71SOM-412C (GAS/E85) (Figure 1-26)		
	FFS Defender OPV series 70859X9YZ (Gas/E85 compatible) FFS Defender OPV series 70869X9YZ (Gas/E85 compatible) (Figure 1-27) Defender Series OPV legend: X = upper drop tube length: 1 = 5 feet 2 = 10 feet		
	Y = Tube compatibility: 0 = Gas 2 = Gas/E85		
	Z = lower drop tube length: 1 = 8 feet 2 = 10 feet		
Multiport	OPW (Configuration Only)		
Remote Fill	OPW (Configuration Only)		
Remote Additive Fill	OPW (Configuration Only)		
Tank Bottom Protector <sup>2</sup>	OPW/Pomeco 6111-1400		
Tank Gauge Port Components <sup>2</sup> (	OPW 62M (Cap and Adaptor) (Figure 1-28) OPW 62M-MA (GAS/E85) (Figure 1-29) Morrison Brothers 305XPA1100AKEVR (GAS/E85) (cap & adaptor kit) Morrison Brothers 305-0200AAEVR (GAS/E85) (replacement adaptor) Morrison Brothers 305XP-110ACEVR (GAS/E85) (replacement cap)		

<sup>&</sup>lt;sup>2</sup> If these components are installed or required by regulations of other agencies, only those components and model numbers specified above shall be installed or used.

Fuel Lock <sup>2</sup>	Veeder-Root 312020-952 (cap & adaptor) McGard FL1 – Stick Only Fuel Lock (125007) (GAS) (Figure 1-30) McGard FL2 – Stick/Sampling Fuel Lock (125008) (GAS) (Figure 1-30)
Bladder Plug	McGard PSI104
Emergency Vent	Exhibit 5 (for below-grade vaulted tank configuration)

# Table 1-1 Components Exempt from Identification Requirements

Component Name	Manufacturer	Model Number
Product Adaptor	OPW	61SALP-MA (GAS/E85)
Vapor Adaptor	OPW	61VSA-MA (GAS/E85)
Replacement Drain Valve	OPW	1DK-2100
Replacement Drain Plug Kit	OPW	1DP-2100
Jack Screw Kit	OPW	61JSK-4410* 61JSK-44CB* 61JSK-4RMT* OPW 71JSK-44MA (GAS/E85) OPW 71JSK-4RMT (GAS/E85)
Tank Gauge Port Component (Cap and Adaptor)	Morrison Brothers Veeder-Root OPW	305XPA1100AKEVR (cap & adaptor kit) 305-0200AAEVR (replacement adaptor) 305XP-110ACEVR (replacement cap) Veeder-Root 312020-952 (cap & adaptor) 62M-MA (GAS/E85)
Drop Tube	OPW	61-T 61T-SS (various lengths) (GAS/E85)
I ank Bottom Protector	UPW/Pomeco	6111-1400
Sump / Sump Lids / Spill Container Covers	Varies	Varies
Fuel Lock	McGard	FL1, FL2

\* OPW 61JSK MFG date shall be stamped on each jack screw.
Figure 1-1 Direct Bury Spill Container OPW 1-Series (GAS/E85)



Figure 1-2 Multiport Spill Container OPW 1-Series (GAS/E85)



Figure 1-3 1DP-2100 Drain Plug Kit



Figure 1-4 1DP-2100 Field Installed Drain Plug



Figure 1-5 OPW 634LPC Product Dust Cap

### Figure 1-6 OPW 1711LPC Vapor Dust Cap



Figure 1-7 OPW 634-TT-EVR Product Dust Cap

Figure 1-8 OPW 1711-T-EVR Vapor Dust Cap



Figure 1-9 CompX CSP1-634LPC Product Dust Cap

Figure 1-10 CompX CSP3-1711LPC Vapor Dust Cap





CompX Tank Commander Lid Locks onto CSP1-634LPC and CSP3-1711LPC Dust Caps



Figure 1-11 CompX CSP2-634LPC Product Dust Cap

Figure 1-12 CompX CSP4-1711LPC Vapor Dust Cap



CompX Tank Commander Lid Locks onto CSP2-634LPC and CSP4-1711LPC Dust Caps



### Figure 1-13 OPW 61SALP Product Adaptor





Figure 1-14 OPW 61VSA Vapor Adaptor





Figure 1-15 OPW 61SALP-MA Product Adaptor (GAS/E85)





Figure 1-16 OPW 61VSA-MA Vapor Adaptor (GAS/E85)





### Figure 1-17 FFS PV-Zero P/V Vent Valve (Gas/E85) (Model and Serial Number on White Tag)



Figure 1-18 OPW 723V P/V Vent Valve (Gas/E85)



Figure 1-19 Husky 5885 P/V Vent Valve (Gas/E85) (Husky Name on Bottom Flange)



Figure 1-20 OPW 61JSK Jack Screw

# MFR Date Model OPW OPW

### Figure 1-21 71JSK-44MA Jack Screw Kit (GAS/E85) 71JSK-4RMT Jack Screw Kit (GAS/E85)



Figure 1-22 OPW FSA-400-S Face Seal Adaptor (GAS/E85)





Figure 1-23 OPW 61SO Overfill Prevention Devices



### Figure 1-24 OPW 71SO Overfill Prevention Devices



Figure 1-25 71SO Testable Drop Tube



### Top View of 71SO Testable Drop Tube





Figure 1-26 OPW 71SOM-412C Overfill Prevention Device

Figure 1-27 Defender OPV series 70859X9YZ (Gas/E85 compatible)



70859X9YZ (Gas/E85)



Defender OPV series 70869X9YZ (Gas/E85) KIWA Label Figure 1-28 OPW 62M Cap and Adaptor (Only Cap is identified)



Figure 1-29 OPW 62M-MA Tank Gauge Port Component (GAS/E85)



Figure 1-30 McGard Fuel Lock (FL1 on Left, FL2 on Right)



McGard Fuel Lock Installation Position<sup>3</sup>



<sup>3</sup> Optional component, but if installed this picture shows the correct installation location in the pipe just below the Product Rotatable Adaptor in the drop tube.

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### Exhibit 2

### Installation, Maintenance, and Compliance Standards and Specifications

This exhibit contains the installation, maintenance and compliance standards, and specifications applicable to an OPW system installed in a gasoline dispensing facility (GDF).

### **General Specifications**

- 1. Typical installations of the OPW system are shown in Figures 2-1 and 2-2.
- 2. Typical installation of the OPW remote fill system is shown in Figures 2-4 and 2-5. Typical installation of the OPW remote additive fill system is shown in Figure 2-6.
- 3. The OPW system shall be installed, operated, and maintained in accordance with the CARB-Approved Installation, Operation, and Maintenance Manual for the OPW Phase I Vapor Recovery System. Table 2-1 lists the maintenance intervals of OPW system components.
- Any repair or replacement of system components shall be done in accordance with the CARB-Approved Installation, Operation, and Maintenance Manual for the OPW Phase I Vapor Recovery System.
- 5. The OPW system shall comply with the applicable performance standards and performance specifications in Table 2-2.
- 6. Installation, maintenance, and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by OPW Certified Technicians.

### Pressure/Vacuum Vent Valves For Storage Tank Vent Pipes<sup>1</sup>

- 1. No more than three certified pressure/vacuum vent valves (P/V valves) listed in Exhibit 1 shall be installed on any GDF underground storage tank 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).

<sup>&</sup>lt;sup>1</sup> The requirement that the vent pipe manifold be installed at a height not less than 12 feet above the grade stated in Executive Orders VR-102-A through VR-102-E is rescinded.

- 3. Compliance determination of the P/V valve performance specifications in items 2a and 2b for the FFS PV-Zero P/V vent valve shall be conducted with the valve remaining in its installed position on the vent line(s). The PV-Zero portion of the IOM outlines the equipment needed to test the valve in its installed position.
- 4. 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 2-7. 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.
- 5. Each P/V valve shall have permanently affixed to it a yellow, gold, or white colored label with black lettering stating the following specifications:

Positive pressure setting: 2.5 to 6.0 inches  $H_2O$ Negative pressure setting: 6.0 to 10.0 inches  $H_2O$ Positive Leakrate: 0.05 CFH at 2.0 inches  $H_2O$ Negative Leakrate: 0.21 CFH at -4.0 inches  $H_2O$ 

### Rotatable Product and Vapor Recovery Adaptors

- 1. Rotatable product and vapor recovery adaptors shall be capable of at least 360-degree rotation and have an average static torque not to exceed 108 pound-inch (9 pound-foot). Compliance with this requirement shall be demonstrated in accordance with TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003).
- 2. The vapor adaptor poppet shall not leak when closed. Compliance with this requirement shall be verified by the use of commercial liquid leak detection solution or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists.)

### Vapor Recovery and Product Adaptor Dust Caps

Dust caps with intact gaskets shall be installed on all Phase I tank adaptors.

### Product Spill Container Drain Valve

The spill container drain valve, if installed shall be configured to drain liquid directly into the drop tube and shall be isolated from the underground storage tank ullage space. The leak rate of the drain valve shall not exceed 0.17 CFH at 2.00 inches  $H_2O$ . Depending on the presence of the drop tube overfill prevention device, compliance with this requirement shall be demonstrated in accordance with either TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003), or TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

### Product Spill Container Drain Plug (Optional)

The product spill container drain plug, either an OPW factory or field installed OPW 1DP-2100 drain plug, shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution (LDS) when the vapor space of the fill pipe is subjected to a positive gauge pressure.

### Drop Tube Overfill Prevention Device

- 1. The Drop Tube Overfill Prevention Device (overfill device) is designed to restrict the flow of gasoline delivered to the underground storage tank when liquid levels exceed a specified capacity. The overfill device is not a required component of the vapor recovery system, but may be installed as an optional component. Other regulatory requirements may apply.
- 2. The leak rate of the overfill device shall not exceed 0.17 CFH at 2.00 inches H<sub>2</sub>O when tested in accordance with TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).
- 3. For the 71SO Testable overfill prevention device, the threaded test plug shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution (LDS) when the vapor space of the underground storage tank is subjected to a positive gauge pressure.
- 4. The discharge opening of the fill pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank as shown in Figure 2-1.

### Face Seal Adaptor<sup>2</sup>

The Face Seal Adaptor shall provide a machined surface on which a gasket can seal and ensures that the seal is not compromised by an improperly cut or improperly finished riser. A Face Seal Adaptor shall be installed on the following required connections. As an option, the adaptor may be installed on other connections.

- a. Product Spill Container (required)
- b. Tank Gauging Components (required)
- c. Vapor Recovery Spill Container (optional)
- d. Rotatable Adaptors (optional)

### **Double Fill Configuration**

OPW Double Fill Configuration shall be allowed for installation provided that no more than two fill and two vapor return points are installed on any single underground storage tank and that no offset of the vapor recovery riser pipe is installed. An example of an OPW Dual Fill configuration is shown in Figure 2-3.

<sup>&</sup>lt;sup>2</sup> Face Seal Adaptor is not required with double wall 1-3100 and 1-2200 series spill containers.

### **Remote Fill Configuration**

- 1. No liquid condensate traps are allowed with this configuration.
- 2. For new installations and existing installations undergoing major modifications, the\_Phase I vapor return piping from the remote vapor access point to the tank shall have a minimum slope of one-eighth (1/8) inch per foot of pipe run. A slope of one-quarter (1/4) inch or more per foot of pipe run is recommended wherever feasible. For existing installations, the Phase I vapor return piping from the remote vapor access point to the tank shall be installed so that any liquid in the line will drain toward the storage tank.
- 3. For new installations and existing installations undergoing major modifications, the\_Phase I vapor return piping from the remote vapor access point to the tank shall have a minimum nominal internal diameter of four inches (4" ID). For existing installations, the Phase I vapor return piping from the remote vapor access point to the tank shall have a minimum nominal internal diameter of three inches (3" ID).
- 4. The submerged fill pipe riser shall be fitted with a 4" pipe cap or if the submerged fill pipe riser is used as a port to manually gauge the fuel level in the UST (sticking port), a 62M cap and adaptor, as specified in Exhibit 1, shall be installed.

### **Remote Additive Fill Configuration**

Any gasoline additive can be used only if prior to use, OPW provides a written response that the additive is compatible with the OPW Phase I system. OPW can be contacted at:

www.opwglobal.com/TechSupport/TechnicalServiceAssistance.aspx

### Vapor Recovery Riser Offset

- 1. The vapor recovery tank riser may be offset from the tank connection to the vapor recovery Spill Container provided that the maximum horizontal distance (offset distance) does not exceed 20 inches. One example of an offset is shown in Figure 2-8.
- 2. The vapor recovery riser shall be offset up to 20 inches horizontal distance with use of commercially available, 4 inch diameter steel pipe fittings.

### Tank Gauge Port Components

The tank gauge adaptor and cap are paired. Therefore, an adaptor manufactured by one company shall be used only with a cap manufactured by the same company.

### <u>Warranty</u>

Each manufacturer listed in Exhibit 1 shall include a warranty tag with the certified component(s). The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

### **Connections and Fittings**

All connections and fittings not specifically certified with an allowable leak rate shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution (LDS) or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists).

### Maintenance Records

Each GDF operator or owner 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, name and Certified Technician Number of individual conducting maintenance or test. An example of a Phase I Maintenance Record is shown in Figure 2-9.

# Table 2-1Maintenance Intervals for System Components3(Reference Exhibit 1 for list of certified components)

Manufacturer	Component	Maintenance Interval
OPW	Pressure/Vacuum Vent Valve	Annual
Husky	Pressure/Vacuum Vent Valve	Annual
FFS	Pressure/Vacuum Vent Valve	Annual
All Manufacturers	Tank Gauge Components	Annual
OPW	Dust Caps (all models)	Annual
CompX	Dust Caps (all models)	Annual
OPW	61-T Straight Drop Tube	Annual
OPW	Rotatable Phase I Adaptors	Annual
All Manufacturers	Drop Tube Overfill Prevention Valve	Annual
OPW	Spill Containers (all models)	Annual

## Table 2-2 Gasoline Dispensing Facility Compliance Standards and Specifications

Component / System	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Overfill Prevention Device	TP-201.1D	≤0.17 CFH at 2.00 in H₂O
Spill Container Drain Valve	TP-201.1C or TP- 201.1D	≤0.17 CFH at 2.00 in H <sub>2</sub> O
P/V Valve <sup>4</sup>	TP-201.1E	Positive pressure setting: 2.5 to 6.0 in $H_2O$ Negative pressure setting: 6.0 to 10.0 in $H_2O$ Positive Leakrate: 0.05 CFH at 2.0 in $H_2O$ Negative Leakrate: 0.21 CFH at -4.0 in $H_2O$
Gasoline Dispensing Facility	TP-201.3	As specified in TP-201.3 and/or CP-201
Connections and fittings certified without an allowable leak rate	Leak Detection Solution or Bagging	No leaks

<sup>&</sup>lt;sup>3</sup> Maintenance must be conducted within the interval specified from the date of installation and at least within the specified interval thereafter.

<sup>&</sup>lt;sup>4</sup> Compliance determination is at the option of the district.

Figure 2-1 Typical Product Installation Using OPW System<sup>5</sup>



<sup>&</sup>lt;sup>5</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2-2 Typical Product Installation Using OPW Spill Bucket and Defender Series OPV Drop Tube Overfill Prevention Device<sup>6</sup>



<sup>&</sup>lt;sup>6</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.



Figure 2-3 Typical Vapor Installation Using OPW System

Figure 2-4 Typical OPW/POMECO Double Fill Configuration



Figure 2-5 Typical Remote-Fill Access Point Configuration



Figure 2-6 Typical Remote-Fill Tank Top Configuration



Figure 2-7 Typical Remote Additive Fill Configuration



### Figure 2-8 Typical Vent Pipe Manifold



**Note:** 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.



Figure 2-9 Typical Vapor Recovery Riser Offset

**Note:** This figure represents one instance where a vapor recovery riser has been offset in order to construct a two-point Phase I vapor recovery system. The above figure illustrates an offset using a 90-degree elbow. However, in some instances, elbows less than 90 degrees may be used. All fittings and pipe nipples shall be 4-inch diameter similar to those of the spill container and rotatable Phase I adaptors in order to reduce back pressure during a gasoline delivery.

Figure 2-10 Example of a GDF Phase I Maintenance Record

Date of Maintenance/ Test/Inspectio n/Failure	Repair Date To Correct Test Failure	Maintenance/Test/Inspection Performed and Outcome	Affiliation	Name and Certified Technician Number of Individual Conducting Maintenance or Test	Telephone Number

### Exhibit 3 Manufacturing Performance Standards and Specifications

The OPW system and all components shall be manufactured in compliance with the performance standards and specifications in CP-201, 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 or Executive Officer Delegate. Unless specified in Exhibit 2 or in the CARB-Approved Installation, Operation, and Maintenance Manual for the OPW Phase I Vapor Recovery System, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a GDF.

### Pressure/Vacuum Vent Valves for Storage Tank Vent Pipes

- 1. Each pressure/vacuum vent valve (P/V valve) shall be tested at the factory for cracking pressure and leak rate at each specified pressure setting when tested 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 valve was tested to, and met, these specifications.
- 3. Each P/V valve shall have permanently affixed to it a yellow, gold, or white label with black lettering listing the positive and negative pressure settings and leak rate standards listed in Table 3-1. The lettering of the positive and negative pressure settings and leak rate standards on the label shall have a minimum font size of 20.

### Rotatable Product and Vapor Recovery Adaptors

- 1. The rotatable product and vapor recovery adaptors shall not leak.
- 2. The product adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3A of CP-201.
- 3. The vapor recovery adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3B of CP-201.
- 4. Each product and vapor recovery adaptor shall be tested at the factory to, and met, the specifications listed in Table 3-1 and shall have affixed to it a card or label listing these performance specifications and a statement that the adaptor was tested to, and met, such specifications.

### **Spill Container and Drain Valves**

Each Spill Container Drain Valve shall be tested at the factory to, and met, the specification listed in Table 3-1 and shall have affixed to it a card or label listing the performance specification and a statement that the valve was tested to, and met, such performance specification.

### **Drop Tube Overfill Prevention Device**

Each Drop Tube Overfill Prevention Device shall be tested at the factory to, and met, the specification listed in Table 3-1 and shall have affixed to it a card or label listing the performance specification and a statement that the device was tested to, and met, such performance specification.

Component	Test Method	Standard or Specification	
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque	
Rotatable Phase I Adaptors	Micrometer	Cam and Groove Specifications (CP-201)	
Overfill Prevention Device	TP-201.1D	≤0.17 CFH at 2.00 inches H <sub>2</sub> O	
Spill Container Drain Valve	TP-201.1C or TP-201.1D	$\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O	
Pressure/Vacuum Vent Valve	TP-201.1E	Positive Pressure: 2.5 to 6.0 inches $H_2O$ Negative Pressure: 6.0 to 10.0 inches $H_2O$ Leak rate: $\leq$ 0.05 CFH at +2.0 inches $H_2O$ Leak rate: $\leq$ 0.21 CFH at -4.0 inches $H_2O$	

Table 3-1Manufacturing Component Standards and Specifications
### **EXHIBIT 4**

#### **Manufacturer Warranties**

This exhibit includes the manufacturer warranties for all components listed in Exhibit 1, including replacement parts and subparts. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

#### Franklin Fueling Systems Warranty Statement and Tag

Franklin Fueling Systems (FFS) Enhanced Vapor Recovery (EVR) products are offered for sale under the brand names of Healy, INCON, Phil-Tite, EBW, and Franklin Fueling Systems (collectively referred to as "FFS EVR products"). FFS EVR products are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CARB) for the duration of the warranty period, as indicated in the related CARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CARB EO.

FFS warrants that FFS EVR products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for FFS EVR products, (b) design changes to FFS EVR products, (c) performance specifications of the FFS EVR products, and (d) duration of the warranty period of FFS EVR products.

FFS EVR products are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manuals by certified technicians or an owner/operator as defined in the related CARB EO and to generally accepted industry standards.

FFS reserves the right to make changes in the design or to make additions or improvements with respect to FFS EVR products without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CARB.

FFS reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CARB. Any such change or cancellation will be effective for products sold by FFS after the date of such change or cancellation. No agents, distributors, dealers, or employees of FFS are authorized to make modifications to this warranty or to make additional warranties with respect to any FFS EVR products. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of FFS and shall not be relied upon.

FFS warrants the workmanship and materials of FFS EVR products to be free of defects, at the time of sale by FFS, for a period of one year (12 months) from the date of installation. When warranty for FFS EVR products cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for FFS EVR product cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by FFS (for location of date of manufacture on components, see related CARB EO Exhibit 1 – Equipment List). In all cases, installation date or purchase date will require providing formal documentation to FFS as evidence

of applicable warranty coverage or date of manufacture will be used to determine duration of warranty period. Formal documentation may include, but is not limited to, FFS authorized service company and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

FFS shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-FFS replacement parts, the unauthorized addition of non-FFS items to FFS EVR products, and the unauthorized alteration of FFS EVR products will void warranty. FFS shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the FFS EVR products have been operated with any accessory, equipment, or a part not specifically approved by FFS and not manufactured by FFS to FFS design and specifications.

FFS EVR product warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). FFS EVR product warranty shall not apply to acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific FFS written warranty, FFS does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any FFS EVR product.

Other than those FFS EVR products specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), FFS EVR product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for FFS EVR product warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from FFS. FFS will honor warranty claims processed through FFS authorized service companies and distributors only. FFS will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to FFS's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

INCON branded products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 34 Spring Hill Road Saco, ME 04072 USA

All other FFS EVR Products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 3760 Marsh Road Madison, WI 53718 USA Franklin Fueling Systems, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to FFS's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by FFS.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator.
Component Model Number :
Component Install Date :
Facility Name :
Facility Address :
Installer Name

#### Morrison Bros. Co. Warranty Statement and Tag

WARRANTY— All Morrison products are thoroughly tested before shipment and meet all applicable performance standards and specifications of related ARB executive orders and vapor recovery procedures of CP-206 (Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks) or CP-201 (Certification Procedure for Vapor Recovery Systems at Dispensing Facilities). This warranty shall include the ongoing compliance with all applicable performance standards and specifications for the duration of the warranty. Only material found to be defective in manufacture will be repaired or replaced. Claims must be made within one year from the date of installation, and Morrison Bros. Co. will not allow claims for labor or consequential damage resulting from purchase, installation or misapplication of the product. This warranty will include the initial purchaser and any subsequent purchasers of the initial equipment within the warranty period. This warranty registration must remain with the equipment and be provided to the end user. If a warranty claim needs to be pursued, a copy of this information and the invoice of these products to the purchaser must be supplied to Morrison for verification.

Installation Date:				
Name Of Installer/Contractor				
Installation Company: Name				_
Address				_
City	State	Zip		
Business At Installation Site: N	Name			_
Address				_
City	State	Zip	· · · · · · · · · · · · · · · · · · ·	
Morrison Product(s) I.D Numb	ers With Date (	Of Manufacture		

Date of manufacture can be found on the product identification label applied to the finished product. This warranty registration must remain with the equipment and be provided to the end user. If a warranty claim needs to be pursued, a copy of this information and the invoice of these products to the purchaser must be supplied to Morrison for verification.

# **OPW STANDARD PRODUCT WARRANTY TAG**

Notice: FlexWorks by OPW, Inc., VAPORSAVER<sup>™</sup> and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection is the sole responsibility of the customer and/or its agents and must be based on physical specifications and limitations, compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

OPW warrants solely to its customer (the initial purchaser and any subsequent purchasers within the warranty period) that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated:

PRODUCT	WARRANTY PERIOD	
FlexWorks Primary Pipe	10 years from date of manufacture	
All Products and replacement parts installed in the State of California Certified to California CP-201 and/or CP-206 Standards*	1 year from-date of installation (proof of purchase from certified contractors/technicians required) OPW warrants ongoing compliance with the standards and specifications for the duration of the warranty period required by the State of California; this limited warranty is under the condition the equipment was installed and maintained by trained and certified contractors/technicians unless noted in Installation Manual	
All other Products and replacement parts	1 year from date of manufacture**	
*Products certified to California CP-201 and/or CP-206 Standards have been factory tested and met all		
applicable performance standards and specifications and will have an OPW registration card		
enclosed/attached to the product		

OPW's exclusive obligation under this limited warranty is, at its option, to repair, replace or issue credit (in an amount not to exceed the list price for the product) for future orders for any product that may prove defective within the applicable warranty period. (Parts repaired or replaced under warranty are subject to prorated warranty coverage for remainder of the original warranty period). Complete and proper warranty claim documentation and proof of purchase required. All warranty claims must be made in writing and delivered during the applicable warranty period to OPW at OPW 9393 Princeton-Glendale Road Hamilton, Ohio, USA 45011, Attention: Customer Service Manager. No products may be returned to OPW without its prior written authority.

This limited warranty shall not apply to any FlexWorks or VAPORSAVER<sup>™</sup> product unless it is installed by an OPW attested installer and all required site and warranty registration forms are completed and received by OPW within 60 days of installation. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER<sup>™</sup> or other OPW product: unless all piping connections are installed with a nationally-recognized or state-approved leak detection device in each tank and dispenser sump (which are not for storage and from which all discharge hydrocarbons must be removed, and the systems completely cleaned, within 24 hours); unless testable sumps utilize FlexWorks pipe and access fittings; unless a sump inspection log or an

EPA recommended/required checklist is maintained and the results are furnished to OPW upon request; and unless OPW is notified within 24 hours of any known or suspected product failure and is provided with unrestricted access to the product and the site. This limited warranty also shall not apply to any product which has been altered in any way, which has been repaired by anyone other than a service representative authorized by OPW, or when failure or defect is due to: improper installation or maintenance (including, without limitation, failure to follow FlexWorks Quick Reference Manual Installation Guide and all product warning labels); abuse or misuse; violation of health or safety requirements; use of another manufacturer's, or otherwise unauthorized, substances or components; soil or other surface or subsurface conditions; or fire, flood, storm, lightning, earthquake, accident or any other conditions, events or circumstances beyond OPW's control.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

OPW shall have no other liability whatsoever, whether based on breach of contract, negligence, gross negligence, strict liability or any other claim, including, without limitation, for special, incidental, consequential or exemplary damages or for the cost of labor, freight, excavation, clean-up, downtime, removal, reinstallation, loss of profit, or any other cost or charges. No person or entity is authorized to assume on behalf of OPW any liability beyond this limited warranty. This limited warranty is not assignable.

\*\* Date of manufacture on this product is located (location will be specific to each component)



North America Toll Free - TELEPHONE: (800) 422-2525 - Fax: (800) 421-3297 - Email: domesticsales@opw-fc.com

9393 Princeton-Glendale Road Hamilton, Ohio 45011

International – TELEPHONE: (513) 870-3315 or (513) 870-3261 - Fax: (513) 870-3157 - Email: intlsales@opw-fc.com www.opwglobal.com

### **Comp X TANK Commander Warranty Statement and Tag**

Seller warrants to the initial and subsequent purchasers, for a period of one year from date of installation, that the Products sold hereunder will, at the time of delivery: (a) comply with the ARB CP-201 standards and specifications for the duration of the warranty period for such Products in effect at the time of shipment or such other specifications as are expressly agreed upon by Seller and Buyer in writing; (b) be adequately contained, packaged, and labeled; and (c) conform to any promises and affirmations of fact made on the container and label. In the event that any such Products fail to conform to the foregoing warranty, Seller will, at its option, repair or replace such nonconforming Products, or credit Buyer for an amount not to exceed the original sales price of such Products. Shipping costs incurred in returning such nonconforming Products to Seller shall be borne by Seller, but Seller shall in no event be liable for any inspection, handling, or packaging costs incurred by Buyer in connection with such Products. Buyer's negligence, misuse, improper installation, or unauthorized repair or alteration, shall void this warranty. The TANK Commander Warranty tag is located on the inside cover of the product.

# Warranty Tag

TANK Commander TC-1 1 year warranty from date of installation Date of manufacture \_ /\_ /\_ \_\_\_\_ The CompX TANK Commander product was factory tested and meets the standards and specifications to which it was certified by the California Air Resources Board (CARB) as indicated in the related CARB Phase I EVR Executive Orders.

#### Husky Corporation Warranty Statement and Tag

**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.

**EVR PRODUCTS** – With respect to EVR products installed in California, for a period of one (1) year from the date of installation, Husky warrants that the product will be free from defects in materials and workmanship (if the installation date is in question or indeterminable, Husky will warrant the product for 12 months from sale by Husky). Husky confirms that the warranty is transferable to a subsequent purchaser within the warranty period. However, the warranty does not follow the product from its initial installation location to succeeding locations. Husky confirms these products are warranted to meet the performance standards and specifications to which it was certified by CARB for the duration of the warranty. EVR products must be installed per CARB Executive Order and must follow the Husky Installation Instructions or the warranty is void. The warranty tag included with the EVR product must be provided to the end user at installation. A completed warranty tag and installation documentation is required to be returned with the product to be eligible for warranty consideration.

**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.

Sin	WARRANTY TAG Husky Corporation 2325 Husky Way Pacific, Mo 63069 (800) 325-3558	Husky General Fueling Products:
	Station Name: Date: Store #: Date: City: State: Service Contractor: Service Tech: Distributor: No warranty accepted without warranty tag filled out completely and attached to product.	Model #: Serial #: Installation Date: Manufacturer Lot #: Work order # (if applicable): RGA #: Form #009179-6 03/2013
\	FRONT	VIEW

	FOR REFERENC	CEONLY			
/ _	Reason for Return (check all applicable):				
	Leaking Fuel Around Spout	□ Failed Pressure Decay Test			
	Leaking Fuel In Trigger Area	□ Leaking Fuel at Hose Inlet			
$\frown$	□ Keeps Shutting Off	Mechanical Malfunction			
$( \bigcirc )$	□ Will Not Shut Off	□ Dispenses Fuel Without Pulling Lever			
$\bigcirc$	Notes / Comments:				
EVR products data can be at the facto Vacuum Sett Please prov	s installed in California are warranted for I year found on the product data tag attached to the proc ory and met all applicable performance standards ir ing: 6.0 - 10.0 in W.C. and Leak Rate: 0.05 CFH @ 4 ide installation documention such as a purchase or o	from the date of installation. Manufacturing duct. Husky confirms the product was tested t CP-201 including Pressure Setting: 2.5-6.0 in W.C., 22.0 in W.C. and 0.21 CFH @ -4.0 in W.C. Jer, an invoice or a receipt at time of claim.			

BACK VIEW

### Veeder-Root Warranty Statement and Tag

This warranty applies only when the product is installed in accordance with Veeder-Root's specifications. This warranty will not apply to any product which has been subjected to misuse, negligence, accidents, systems that are misapplied or are not installed per Veeder-Root specifications, modified or repaired by unauthorized persons, or damage related to acts of God. Veeder-Root is not liable for incidental, consequential, or indirect damages or loss, including, without limitation, personal injury, death, property damage, environmental damages, cost of labor, clean-up, downtime, installation and removal, product damages, loss of product, or loss of revenue or profits. This warranty applies to the initial purchaser and any subsequent purchaser for the duration of the warranty period. THE WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND THERE ARE NO OTHER EXPRESS, IMPLIED, OR STATUTORY WARRANTIES. WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

### CAP AND RING ADAPTOR

We warrant that this product shall be free from defects in material and workmanship and is compliant with all applicable performance standards and specifications for which it has been certified, for a period of one (1) year from the date of installation. During the warranty period, we or our representative will repair or replace the product, if determined by us to be defective, at the location where the product is in use and at no charge to the purchaser.

### Warranty Card Language

#### EQUIPMENT WARRANTY

Veeder-Root warrants that this product shall be free from defects in material and workmanship and is compliant with all applicable performance standards and specifications for which it has been certified, for a period of one (1) year from date of installation.

Date of manufacture:

This component was tested at the time of manufacture and meets all the applicable performance standards and specification to which it was certified: EO VR-101 and EO VR-102.

For detailed warranty terms see EO VR101 or EO VR-102 warranty exhibits on the ARB Web site at *http://www.arb.ca.gov/vapor/eo-evrphasel.htm* 

### **McGard Warranty Statement and Tag**

McGard Fuel Locks are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CARB) for the duration of the warranty period, as indicated in the related CARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CARB EO.

McGard warrants that McGard Fuel Lock products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for McGard Fuel Locks, (b) design changes to McGard Fuel Locks, (c) performance specifications of the McGard Fuel Locks, and (d) duration of the warranty period of McGard Fuel Locks.

McGard Fuel Locks are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manuals by certified technicians as defined in the related CARB EO and to generally accepted industry standards.

McGard reserves the right to make changes in the design or to make additions or improvements with respect to McGard Fuel Locks without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CARB.

McGard reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CARB. Any such change or cancellation will be effective for products sold by McGard after the date of such change or cancellation. No agents, distributors, dealers, or employees of McGard are authorized to make modifications to this warranty or to make additional warranties with respect to any McGard Fuel Locks. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of McGard and shall not be relied upon.

McGard warrants the workmanship and materials of McGard Fuel Locks to be free of defects, at the time of sale by McGard, for a period of one year (12 months) from the date of installation. When warranty for McGard Fuel Locks cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for McGard Fuel Locks cannot be verified to date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by McGard (date of manufacture is engraved on side of lock body). In all cases, installation date or purchase date will require providing formal documentation to McGard as evidence of applicable warranty coverage or date of manufacture will be used to determine duration of warranty period. Formal documentation may include, but is not limited to McGard authorized service company and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

McGard shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special,

incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-McGard replacement parts, the unauthorized addition of non-McGard items to McGard Fuel Locks, and the unauthorized alteration of McGard Fuel Locks will void warranty. McGard shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the McGard Fuel Locks have been operated with any accessory, equipment, or a part not specifically approved by McGard and not manufactured by McGard to McGard design and specifications.

McGard Fuel Lock warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). McGard Fuel Lock warranty shall not apply to vandalism, theft, acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific McGard written warranty, McGard does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any McGard Fuel Lock.

Other than those McGard Fuel Locks specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), McGard Fuel Lock product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for McGard Fuel Lock warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from McGard. McGard will honor warranty claims processed through McGard authorized service companies and distributors only. McGard will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to McGard's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

McGard LLC, ATTN: Warranty Department, 3875 California Road, Orchard Park, NY 14127 USA

McGard, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to McGard's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by McGard.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator.
Component Model Number:
Component Date of Manufacturer:
Component Install Date:
Facility Name:
Facility Address:
Installer Name:
Installer Signature:

## Exhibit 5

### VAULTED ABOVEGROUND STORAGE TANK CONFIGURATION (Optional)

This exhibit allows an alternate tank storage configuration for the Phase I EVR system. A vaulted aboveground storage tank (AST) may be installed in substitute for a conventional underground storage tank (UST). The figures in this exhibit provide examples of typical vaulted AST configurations.

## **General Specifications**

- 1. Alternate typical vaulted AST configurations for the Phase I EVR Systems are shown in Figures 5-1, 5-2, 5-3, and 5-4.
- 2. Unless otherwise specified in this Executive Order (EO), the vaulted AST configuration shall comply with the applicable performance standards and performance specifications in CP-201. The emergency vent shall be a certified vent listed in the Phase I EVR Executive Orders for ASTs and shall be installed, operated, maintained and meet any performance requirements specified in the applicable AST Executive Order.







Figure 5-2: Top Sectional View of Typical Vaulted AST







Figure 5-4: Sectional Views of Typical Vaulted AST (Ventilation

Figure 5-4a: Typical Exhaust

#### Executive Order VR-102-S Assist Phase I EVR Systems

# **EXHIBIT 6**

#### Required Items for Conducting TP-201.1C/TP-201.D on a Remote Fill System

#### Applicability

Exhibit 6 applies to CARB certified Phase I Remote Fill System (RFS), where the secondary product and vapor return pathway and adaptors are located in an alternate sump approximately 120 feet away from the primary product and vapor risers installed directly on top of the underground storage tanks (UST). This exhibit shall apply only to RMS with a length no greater than 200 feet. For RMS greater than 200 feet, an application shall be submitted to CARB Executive Officer for evaluation. The application shall contain applicable information requested in Section 18 of the Certification Procedures for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201).

#### **Existing Test Procedures**

Sections 7.3 of TP-201.1C and section 7.5 of TP-201-1D require adjusting the nitrogen flow rate to maintain a pressure of 2.0 inches water column (WC) with a flow rate no greater than the allowable leak rate specified in CP-201. If the pressure (±0.05 inches H2O) cannot be maintained for at least five minutes, the system has a leak. This procedure works well when the product fill is directly above the UST for some RFS with vapor and product return lines less than 50 feet.

#### Procedure for Testing Remote Fill System

The TP.201.1D pressure up standard of five minutes may not be appropriate for RFS with lengths greater than 50 feet, since pressurizing the system to 2.0 inches WC may take longer than five minutes. The following steps shall be taken when conducting TP-201.1C or TP-201.1D on RFS that has a secondary product and vapor return pathway and adaptors located greater than 50 feet away. The following information shall be submitted to Districts as part of a compliance test. Districts may require the use of an alternate form to meet these requirements, but that form shall include, at a minimum contain the information listed below

Required Steps	Verification (please circle)
Is the remote fill product adaptor less than 50 feet away from the top of the UST? If so, the maximum pressure up time shall be less than 5 minutes.	<u>Yes No</u>
Is the remote fill pipe lengths greater than 50 feet but less than 200 feet? See Table 1 for pressure up time.	<u>Yes No</u>

Test Company:	Facility Name:		
Print Name (Technician)	Signature	Date	

Technician Certification Number and Expiration Date (ICC or District Training Certification, as applicable

Table 1Time to Pressurize GDF Equipped with Remote Fill Pipe Configuration by Length

Horizontal Length of Remote Fill Pipe (feet)	Time to Pressurize (minutes)
<u>≤50</u>	<u>5</u>
<u>&gt;50, ≤100</u>	<u>10</u>
<u>&gt;100, ≤150</u>	<u>15</u>
<u>&gt;150, &lt;200</u>	<u>20</u>
<u>&lt;200, &lt;250</u>	<u>25</u>

## State of California AIR RESOURCES BOARD

### **EXECUTIVE ORDER VR-104-L**

### **Relating to Certification of Vapor Recovery Systems**

## CNI Manufacturing, Inc. CNI Manufacturing Phase I Vapor Recovery System

WHEREAS, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code Sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks (Phase I system), in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) as last amended June 4, 2019, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase I EVR systems with emission standards;

WHEREAS, CNI Manufacturing Inc. requested and was granted certification of the CNI Manufacturing Phase I Vapor Recovery System (CNI Manufacturing System) pursuant to CP-201 on September 26, 2003, by Executive Order VR-104-A, and last modified on June 3, 2020, by Executive Order VR-104-K;

WHEREAS, CP-201 provides that the CARB Executive Officer shall issue an Executive Order if he or she determines that the vapor recovery system, including modifications, conforms to all of the applicable requirements set forth in CP-201; and

WHEREAS, Executive Order G-01-032 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF).

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find that the CNI Manufacturing System, as amended to include the components listed above, conforms with all requirements set forth in CP-201 and results in a vapor recovery system which is at least 98.0 percent efficient when tested pursuant to test procedure TP 201.1, Volumetric Efficiency for Phase I Systems (July 26, 2012).

NOW THEREFORE, IT IS HEREBY ORDERED that the CNI Manufacturing System is certified to be at least 98.0 percent efficient when installed, operated, and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components. Exhibit 2 contains the performance standards and specifications, typical installation drawings, and maintenance intervals for the CNI Manufacturing System as installed in a GDF. Exhibit 3 contains the manufacturing performance specifications. Exhibit 4 contains the manufacturer warranties. Exhibit 5 is the below-grade vaulted tank configuration.

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System

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, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

IT IS FURTHER ORDERED that each component manufacturer listed in Exhibit 1 shall provide a warranty for the vapor recovery component(s) to the initial purchaser. 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 16.5 of CP-201. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

IT IS FURTHER ORDERED that every certified component manufactured by CNI Manufacturing, FFS, OPW, Husky, and EMCO Wheaton shall meet the manufacturing performance specifications as provided in Exhibit 3.

IT IS FURTHER ORDERED that the certified CNI Manufacturing System shall be installed, operated, and maintained in accordance with the CARB Approved Installation, Operation and Maintenance Manual (Manual). Equipment shall be inspected at the interval specified and per the procedures identified in the Manual. This inspection requirement shall also apply to systems certified by Executive Orders VR-104-A to L. A copy of the Executive Order and the Manual shall be maintained at each GDF where a certified CNI Manufacturing 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 provided in the manufacturer's certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification, and is subject to enforcement action, unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the Executive Officer or his or her delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

IT IS FURTHER ORDERED that the following requirements be made a condition of certification. The owner or operator of the CNI Manufacturing System shall conduct, and pass, the following tests no later than 60 days after startup and at least once every three (3) years after startup testing, using the following test procedures. Shorter time

periods may be specified by the District.

- TP 201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012);
- TP 201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003); and
- Depending on the system configuration, either TP 201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003) or TP 201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

Districts may specify the sequencing of the above tests. Notification of testing, and submittal of test results, shall be done in accordance with District requirements and pursuant to the policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternate test procedures, including the most recent versions of the test procedures listed above, may be used if determined by the Executive Officer or his or her delegate, in writing, to yield comparable results. Testing the pressure/vacuum (P/V) vent valve will be at the option of the Districts. If P/V vent 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.

IT IS FURTHER ORDERED that the CNI Manufacturing System shall be compatible with gasoline in common use in California at the time of certification and any modifications to comply with future California gasoline requirements shall be submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the Executive Officer or his or her delegate.

IT IS FURTHER ORDERED that Executive Order VR-104-K issued on June 3, 2020, is hereby superseded by this Executive Order. CNI Manufacturing Systems certified under Executive Order VR-104-A to K may remain in use at existing installations up to four years after the expiration date of this Executive Order when the certification is not renewed.

IT IS FURTHER ORDERED that this Executive Order shall apply to new installations or major modification of existing Phase I systems.

IT IS FURTHER ORDERED that this Executive Order shall expire on June 1, 2025.

Executed at Sacramento, California, this <u>31st</u> day of May 2021.

Counwordy

Catherine Dunwoody, Chief Monitoring and Laboratory Division

# Exhibit 1

# **CNI Manufacturing Phase I Vapor Recovery System Equipment List**

<u>Equipment</u>	Manufacturer/Model Number	
Containment Assembly	CNI Manufacturing XXXX-31103 (31103 denotes EVR System)	
	2 point System Configuration: XXXX (four digit code) indicates: CON1 – Vapor Assembly (5, 10, and 15 gallons) CON2 – Product Assembly (5, 10, and 15 gallons)	
	Stand Alone/Direct Bury Configuration <sup>1</sup> : XXXX (four digit code) indicates: 205P - Product Assembly 205V - Vapor Assembly (205 series are 5 gallons)	
	214P - Product Assembly 214V - Vapor Assembly (214 series are 5 gallons)	
Pressure/Vacuum Vent Valve	OPW 723V FFS PV-Zero Husky 5885	
Gravity Cover	CNI Mfg. GAC (used for CON1, CON2 or 214 Containments)	
Snap Tight Cover	CNI Mfg. STP-200 (used for CON1, CON2 or 205 Containments)	
Snap Tight Cover Ring	CNI Mfg. STP-39	

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 1 Page 1

<sup>&</sup>lt;sup>1</sup> CNI Mfg. Stand Alone/Direct Bury Configurations 205P, 205V, 214P and 214V are not certified for use in a sump configuration.

# Exhibit 1 (continued)

Drain Valve	CNI Mfg.	RP12-Push
Dust Caps	CNI Mfg. CNI Mfg. CompX CompX CompX CompX OPW OPW	64 (product) 611-VR-3 (vapor) CSP1-634LPC (product) CSP3-1711LPC (vapor) CSP2-634LPC (product) CSP4-1711LPC (vapor) 634LPC (product) 1711LPC (vapor)
Dust Cap Gasket	CNI Mfg. CNI Mfg.	65 RP65 (replacement)
Product Adaptor	Emco Whe Emco Whe	eaton Retail A0030-124 eaton Retail A0030-124S
Vapor Adaptor	Emco Wheaton Retail A0076-124 Emco Wheaton Retail A0076-124S	
Jam Nut	CNI Mfg.	200JN
Tank Gauge Port Components	CNI Mfg.	613BC set (Cap 64, Adaptor 613)
Drop Tube <sup>2</sup>	CNI Mfg.	DT100 (various lengths)
CNI Mfg. Drop Tube O-Ring <sup>3</sup>	CNI Mfg. CNI Mfg.	DT101 (original) RP101 (replacement)
Drop Tube Overfill Prevention Valve <sup>2</sup>	EMCO Wh	neaton Retail A1100EVR Guardian
EMCO Wheaton Drop Tube O-Ring <sup>4</sup>	EMCO Wh	neaton Retail 569461
Fuel Lock⁵	McGard F McGard F	L1 – Stick Only Fuel Lock (125007) L2 – Stick/Sampling Fuel Lock (125008)
Bladder Plug	McGard P	SI104
Emergency Vent	Exhibit 5 ( configurat	for below-grade vaulted tank ion)

<sup>&</sup>lt;sup>2</sup> If these components are installed or required by regulations of other agencies, only those components and model numbers specified above shall be installed or used.

<sup>&</sup>lt;sup>3</sup> O-Rings used only with the CNI Mfg. DT100 drop configuration.

<sup>&</sup>lt;sup>4</sup> O-Ring used only with the EMCO Wheaton Retail A1100EVR Guardian Overfill drop tube configuration.

<sup>&</sup>lt;sup>5</sup> If these components are installed, only those components and model numbers specified above shall be installed or used.

# Exhibit 1 (continued)

Table 1
Components Exempt from Identification Requirements

Component Name	Manufacturer	Model Number
Replacement Drain Valve	CNI Mfg.	RP12-Push
Jam Nut	CNI Mfg.	200JN
Tank Gauge Port Components (Cap and Adaptor)	CNI Mfg.	613BC Cap and Adaptor set; p/n 64 and 613
Dust Cap gaskets	CNI Mfg.	Gasket 65 original, RP65 for replacement
O-Rings and gaskets for product and vapor adaptors	EMCO Wheaton Retail	O-rings in kit 494301, gasket 409628; O-rings in kit 493995
Drop Tube O-Ring	CNI Mfg.	DT101 original, RP101 replacement
	EMCO Wheaton Retail	56941
Drop Tube <sup>2</sup>	CNI Mfg.	DT100
Containment Assembly	CNI Mfg.	XXXX-31103*
Gravity Cover	CNI Mfg.	CNI Mfg. GAC
Snap Tight Cover	CNI Mfg.	CNI Mfg. STP-200
Snap Tight Cover Ring	CNI Mfg.	CNI Mfg. STP-39
Fuel Lock	McGard	FL1, FL2

# \*CON1, CON2, 205, and 214 shall be marked on each containment assembly.

<sup>&</sup>lt;sup>2</sup> If these components are installed or required by regulations of other agencies, only those components and model numbers specified above shall be installed or used.



CNI Mfg. CON1 and CON2 Containment Assemblies



CNI Mfg. Model 205 and 214 Containment Assemblies



**EMCO** Wheaton Retail

Model A0030-124S Product Adaptor and Model A0076-124S Vapor Adaptor (Models A0030-124 and A0076-124 identified in the same location)



EMCO Wheaton Retail Model A1100EVR Overfill Prevention Valve



CNI Mfg. Model 64 Dust Cap



CNI Mfg. Model 611-VR-3 Dust Cap

Exhibit 1 (continued) Component Identification & Location





**OPW 634LPC Product Dust** 

**OPW 1711LPC Vapor Dust** 





CompX CSP1-634LPC Product Dust Cap CompX CSP3-1711LPC Vapor Dust Cap



CompX Tank Commander Lid Locks onto CSP1-634LPC and CSP3-1711LPC Dust Caps



CompX CSP2-634LPC Product Dust Cap

CompX CSP4-1711LPC Vapor Dust Cap



CompX Tank Commander Lid Locks onto CSP2-634LPC and CSP4-1711LPC Dust Caps



**FFS PV-Zero P/V Vent Valve** (Model and Serial Number on White Tag)



McGard Fuel Lock Installation Position<sup>6</sup>



McGard Fuel Lock (FL1 on Left, FL2 on Right)

<sup>&</sup>lt;sup>6</sup> Optional component, but if installed this picture shows the correct installation location in the pipe just below the Product Rotatable Adaptor in the drop tube.

**Exhibit 1 (continued)** Component Identification and Location



OPW Model 723V Pressure/Vacuum Vent Valve

# Exhibit 2

# Installation, Maintenance and Compliance Specifications

This exhibit contains the installation, maintenance and compliance standards and specifications applicable to a CNI Manufacturing Phase I Vapor Recovery System (CNI Manufacturing System) installed in a gasoline dispensing facility (GDF).

# **General Specifications**

- 1. Typical installations of the CNI Manufacturing System are shown in Figures 2A, 2B, 2C 2D, 2E, 2F, and 2G.
- 2. The CNI Manufacturing System shall be installed, operated and maintained in accordance with the CARB Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System.
- 3. Any repair or replacement of system components shall be done in accordance with the CARB Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System.
- 4. Unless otherwise specified in this Executive Order (EO), the CNI Manufacturing Phase I Vapor Recovery System shall comply with the applicable performance standards and performance specifications in CP-201.
- 5. Installation, maintenance and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by CNI Mfg. certified technicians. Additional certifications may be required in accordance with District requirements.

# Pressure/Vacuum Vent Valves For Storage Tank Vent Pipes

- 1. No more than three certified pressure/vacuum vent valves (P/V Valves) listed in Exhibit 1 shall be installed on any GDF underground storage tank 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 2.0 inches H<sub>2</sub>O positive pressure and 0.21 CFH at 4.0 inches 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. Compliance determination of the P/V valve performance specifications in items 2a and 2b for the FFS PV-Zero P/V vent valve shall be conducted with the valve remaining in its installed position on the vent line(s). The PV-Zero section of the CARB-Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System outlines the equipment needed to test the valve in its installed position.
- 4. At least one pressure/vacuum (P/V) vent valve shall be installed on each tank vent. If two or more P/V vent valves are used, they shall be installed in parallel, so that each can serve as a backup to the other if one should fail to open properly. 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 2H. 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 vent pipes may be connected, or more than one P/V valve may be installed on the manifold.
- 5. Each P/V valve shall have permanently affixed to it a yellow, gold, or white-colored label with black lettering stating the following specifications:

Positive pressure setting: 2.5 to 6 inches  $H_2O$ Negative pressure setting: 6.0 to 10.0 inches  $H_2O$ Positive Leak rate: 0.05 CFH at 2.0 inches  $H_2O$ Negative Leak rate: 0.21 CFH at 4.0 inches  $H_2O$ 

## **Rotatable Product and Vapor Recovery Adaptors**

 Rotatable product and vapor recovery adaptors shall be capable of at least 360-degree rotation and have an average static torque not to exceed 108 pound-inch (9 pound-foot). Compliance with this requirement shall be demonstrated in accordance with TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003).

Use CNI Manufacturing Torque Test Tool Part Number EVRSYS100, as an equivalent Torque Test Tool per section 5.2 of TP-201.1B, rather than Phil-Tite

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 2 Page 2

Torque Test Tool Part Number 6004. The Phil-Tite tool is <u>not</u> compatible with CNI Manufacturing dust caps.

2. The vapor adaptor poppet shall not leak when closed. Compliance with this requirement shall be verified by the use of commercial liquid leak detection solution, or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists).

### Vapor Recovery and Product Adaptor Dust Caps

Dust caps with intact gaskets shall be installed on all Phase I tank adaptors.

## Spill Container Drain Valve

The spill container drain valve shall be configured to drain liquid directly into the drop tube and shall be isolated from the underground storage tank ullage space. The leak rate of the drain valve shall not exceed 0.17 CFH at 2.0 inches H<sub>2</sub>O. Depending on the presence of the drop tube overfill prevention device, compliance with this requirement shall be demonstrated in accordance with either TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly or TP-201.1D (October 8, 2003), Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

## Phase I Drop-Tubes with Overfill Prevention Devices

- 1. The Drop Tube Overfill Prevention Device (overfill device) is designed to restrict the flow of gasoline delivered to the underground storage when liquid levels exceed a specified capacity. The drop tube overfill device is not a required component of the vapor recovery system, but maybe installed as an optional component of the system. Other requirements may apply.
- The leak rate of Phase I drop-tube overfill prevention devices shall not exceed 0.17 CFH at 2.0 inches H<sub>2</sub>O). The leak rate shall be determined in accordance with TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).
- 3. The discharge opening of the fill-pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank.
# Phase I Drop-Tubes without Overfill Prevention Devices

- 1. Drop tubes that do not have an overfill prevention device shall not leak and shall be tested in accordance with TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003).
- 2. The discharge opening of the fill-pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank.

# Vapor Recovery Riser Offset

- 1. The vapor recovery tank riser may be offset from the tank connection to the vapor recovery Spill Container provided that the maximum horizontal distance (offset distance) does not exceed twenty (20) inches. One example of an offset is shown in Figure 21.
- 2. The vapor recovery riser shall be offset using commercially available, four (4) inch diameter steel pipe fittings.

# Tank Gauge Port Components

The tank gauge adaptor and cap are paired. Therefore, an adaptor manufactured by one company shall be used only with a cap manufactured by the same company.

# <u>Warranty</u>

Each manufacturer listed in Exhibit 1 shall include a warranty tag with the certified component(s). The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

# **Connections and Fittings**

All connections and fittings not specifically certified with an allowable leak rate shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution, or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists.)

# Maintenance Records

Each GDF operator/owner shall keep records of maintenance performed at the facility. Such records shall be maintained on site or in accordance with district requirements or policies. Additional information may be required in accordance with district requirement or policies. The records shall include the maintenance or test date, repair date to correct test failure, maintenance or test performed, affiliation, telephone number, name and Certified Technician Identification Number, of individual conducting maintenance or test. An example of a GDF Maintenance Record is shown in Figure 2J.

Component/System	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Overfill Prevention Device	TP-201.1D	Leak rate $\leq$ 0.17 CFH at 2.0 inches H <sub>2</sub> O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	$\leq$ 0.17 CFH at 2.0 inches H <sub>2</sub> O
P/V Vent Valve <sup>1</sup>	TP-201.1E	Positive pressure setting: 2.5 to 6.0 inches H <sub>2</sub> O Negative pressure setting: 6.0 to 100 inches H <sub>2</sub> O Positive Leak rate: 0.05 CFH at 2.0 inches H <sub>2</sub> O Negative Leak rate: 0.21 CFH at -4.0 inches H <sub>2</sub> O
Gasoline Dispensing Facility	TP-201.3	As specified in TP-201.3 and/or CP-201
All connections and fittings certified without an allowable leak rate	Leak Detection Solution or bagging	No Leaks

 Table 2-1

 Gasoline Dispensing Facility Compliance Standards and Specifications

<sup>&</sup>lt;sup>1</sup> Compliance determination at the option of the district.

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 2

Table 2-2
Maintenance Intervals for System Components <sup>2</sup>

Manufacturer	Component	Maintenance Interval
OPW	Pressure/Vacuum Vent Valve	Annual
Husky	Pressure/Vacuum Vent Valve	Annual
FFS	Pressure/Vacuum Vent Valve	Annual
CNI Manufacturing	Tank Gauge Port Components	Annual Inspection
CNI Manufacturing	Dust Caps	Annual Inspection
CompX	Dust Caps	Annual Inspection
OPW	Dust Caps	Annual Inspection
CNI Manufacturing	Drop Tube	Annual Test
EMCO Wheaton Retail	Drop Tube Overfill Prevention Valve	Annual Tests
EMCO Wheaton Retail	Rotatable Phase I Product and Vapor Adaptors	Annual Tests
CNI Manufacturing	Spill Container Drain Valve	18 Months
CNI Manufacturing	Spill Containment	Annual Inspection

 <sup>&</sup>lt;sup>2</sup> Maintenance must be conducted within the interval specified from the date of installation and at least within the specified interval thereafter.
 Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 2



#### Figure 2A Typical Product Side Installation of CNI Manufacturing 2 Point System Model CON2 using DT100 Drop Tube<sup>7</sup>

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 2

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<sup>&</sup>lt;sup>7</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the containment nipple below the rotatable adaptor.

#### **Figure 2B** Typical Product Side Installation of CNI Manufacturing 2 Point System Model CON2 using EMCO Wheaton A1100EVR Guardian Overfill Prevention<sup>8</sup>



<sup>&</sup>lt;sup>8</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the containment nipple below the rotatable adaptor

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 2

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#### Figure 2C Typical Vapor Side Installation of CNI Manufacturing 2 Point System Model CON1



#### Figure 2D Typical Product Side Installation of CNI Manufacturing Stand Alone/Direct Bury System<sup>9</sup>

![](_page_150_Figure_1.jpeg)

<sup>&</sup>lt;sup>9</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the containment nipple below the rotatable adaptor

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#### Figure 2E Typical Vapor Side Installation of CNI Manufacturing Stand Alone/Direct Bury System

![](_page_151_Figure_1.jpeg)

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Figure 2F Typical Product Side Installation of CNI Manufacturing Stand Alone/ Direct Bury/ System Model No. 214P with Gravity Cover<sup>10</sup>

![](_page_152_Figure_1.jpeg)

<sup>&</sup>lt;sup>10</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the containment nipple below the rotatable adaptor.

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Figure 2G Typical Vapor Side Installation of CNI Manufacturing Stand Alone/Direct Bury System Model No. 214V with Gravity Cover

![](_page_153_Figure_1.jpeg)

Executive Order VR-104-L, CNI Manufacturing Phase I Vapor Recovery System, Exhibit 2 Page 13

![](_page_154_Figure_0.jpeg)

Figure 2H Typical Vent Pipe Manifold

Note: 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 vent pipes may be connected, or more than one P/V valve may be installed on the manifold.

Figure 2I Typical Vapor Recovery Riser Offset

![](_page_155_Figure_1.jpeg)

Note: This Figure represents one instance where a vapor recovery riser has been offset in order to construct a two-point Phase I vapor recovery system. The above Figure illustrates an offset using a 90-degree elbow. However, in some instances, elbows less than 90 degrees may be used. All fittings and pipe nipples shall be 4-inch diameter similar to those of the spill container and rotatable Phase I adaptors in order to reduce back pressure during a gasoline delivery.

Figure 2J Example of a GDF Maintenance Record

Date of Maintenance/ Test/Inspection/Fa ilure (including date and time of maintenance call)	Repair Date To Correct Test Failure	Maintenance/Test/Inspection Performed and Outcome	Affiliation	Name and Certified Technician Identification Number of Individual Conducting Maintenance or Test	Telephone Number

#### Exhibit 3 Manufacturing Performance Standards and Specifications

The CNI Manufacturing System and all components shall be manufactured in compliance with the applicable Phase I performance standards and specifications in CP-201, 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 CARB Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a GDF.

#### Pressure/Vacuum Vent Valves for Storage Tank Vent Pipes

- 1. Each pressure/vacuum vent valve (P/V valve) shall be 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 valve was tested to, and met, these specifications.
- 3. Each P/V valve shall have permanently affixed to it a yellow, gold, or white-colored label with black lettering listing the positive and negative pressure settings and leak rate standards listed in Table 3-1. The lettering of the positive and negative pressure settings and leak rate standards on the label shall have a minimum font size of 20.

#### **Rotatable Product and Vapor Recovery Adaptors**

- 1. The rotatable product and vapor recovery adaptors shall not leak.
- 2. The product adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3A of CP-201.
- 3. The vapor recovery adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3B of CP-201.
- 4. Each product and vapor recovery adaptor shall be tested at the factory to, and shall meet, the specifications listed in Table 3-1 and shall have affixed to it a card or label listing these performance specifications and a statement that the adaptor was tested to, and met, such performance specifications.

#### Spill Container and Drain Valves

Each spill container drain valve shall be tested at the factory to, and shall meet, the specification listed in Table 3-1 and shall have affixed to it a card or label listing the performance specification and a statement that the drain valve was tested to, and met, such performance specifications.

#### **Drop Tube Overfill Prevention Device**

Each Drop Tube Overfill Prevention Device shall be tested at the factory to, and shall meet, the specification listed in Table 3-1 and shall have affixed to it a card or label stating the performance specification listed in Table 3-1 and a statement that the device was tested to, and met, such performance specification.

Component	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 lb-inch average static torque
Rotatable Phase I Adaptors	Micrometer	Cam and Groove Standard (CP-201)
Drop Tube Overfill Prevention Device	TP-201.1D	$\leq$ 0.17 CFH at 2.0 inches H <sub>2</sub> O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	$\leq$ 0.17 CFH at 2.0 inches H <sub>2</sub> O
Pressure/Vacuum Vent Valve	TP-201.1E	$\begin{array}{l} \mbox{Positive Pressure: } 2.5 \mbox{ to } 6.0 \mbox{ inches } H_2O \\ \mbox{Negative Pressure: } -6.0 \mbox{ to } 10.0 \mbox{ inches } H_2O \\ \mbox{Leak rate: } \le 0.05 \mbox{ CFH at } +2.0 \mbox{ inches } H_2O \\  \le 0.21 \mbox{ CFH at } -4.0 \mbox{ inches } H_2O \end{array}$

# Table 3-1Manufacturing Component Standards and Specifications

#### Exhibit 4 Manufacturer Warranties

This exhibit includes the manufacturer warranties for all components listed in Exhibit 1, including replacement parts and subparts. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

#### **CNI Manufacturing Warranty Statement**

CNI Manufacturing, Inc. warrants that products sold by it are free from defects in material and workmanship for a period of one year from the date of installation by a CNI EVR certified installer, licensed contractor, the initial purchaser and any subsequent purchasers within the warranty period. Proof of purchase may be required. All components are factory tested and have met all applicable performance standards and specifications. Our obligation under this warranty is limited to ongoing compliance with standards and specifications for the duration of the warranty period to repairing or replacing any product returned to our factory, freight prepaid, which proves upon inspection to have been defective. As the exclusive remedy under this limited warranty, CNI will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one year date of installation period. (Repairs, replacements, or credits may be subject to prorated warranty for the remainder of the original warranty period, complete proper warranty claim documentation required.) This warranty shall not apply to any product that has been altered in any way, which has been repaired by any party other than a CNI EVR certified installer, licensed contractor authorized by CNI. When failure is due to misuse, or improper installation, maintenance, electrolysis. corrosion, faulty maintenance, accident, overload, abuse, alteration or used with special attachments other than recommended by CNI Manufacturing in writing, is not covered by this guarantee. CNI shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, installation, loss of profit, or any other cost or charges, CNI reserves the right to decline responsibility when repairs are made or attempted by others.

# WARRANTY

E.O. VR-104-L

#### Date of Manufacture:

Date of Installation:

CNI Manufacturing, Inc. warrants that products sold by it are free from defects in material and workmanship for a period of one year from the date of installation by a CNI EVR certified installer, licensed contractor. Proof of purchase may be required.

All components are factory tested and have met all applicable performance standards and specifications.

Our obligation under this warranty is limited to ongoing compliance with standards and specifications for the duration of the warranty period to repairing or replacing any product returned to our factory, freight prepaid, which proves upon inspection to have been defective.

As the exclusive remedy under this limited warranty, CNI will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one year date of installation period. (Repairs, replacements, or credits may be subject to prorated warranty for the remainder of the original warranty period, complete proper warranty claim documentation required.)

This warranty shall not apply to any product that has been altered in any way, which has been repaired by any party other than a CNI EVR certified installer, licensed contractor authorized by CNI. When failure is due to misuse, or improper installation, maintenance, electrolysis, corrosion, faulty maintenance, accident, overload, abuse, alteration or used with special attachments other than recommended by CNI Manufacturing in writing, is not covered by this guarantee.

CNI shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, installation, loss of profit, or any other cost or charges.

CNI reserves the right to decline responsibility when repairs are made or attempted by others.

#### RP12-PUSH: Drain valve assembly is certified not to exceed 0.17 CFH at 2 inches H20.

#### Franklin Fueling Systems Warranty Statement and Tag

Franklin Fueling Systems (FFS) Enhanced Vapor Recovery (EVR) products are offered for sale under the brand names of Healy, INCON, Phil-Tite, EBW, and Franklin Fueling Systems (collectively referred to as "FFS EVR products"). FFS EVR products are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resources Board (CARB) for the duration of the warranty period, as indicated in the related CARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related C EO.

FFS warrants that FFS EVR products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for FFS EVR products, (b) design changes to FFS EVR products, (c) performance specifications of the FFS EVR products, and (d) duration of the warranty period of FFS EVR products.

FFS EVR products are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manuals by certified technicians or an owner/operator as defined in the related CARB EO and to generally accepted industry standards.

FFS reserves the right to make changes in the design or to make additions or improvements with respect to FFS EVR products without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CARB.

FFS reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CARB. Any such change or cancellation will be effective for products sold by FFS after the date of such change or cancellation. No agents, distributors, dealers, or employees of FFS are authorized to make modifications to this warranty or to make additional warranties with respect to any FFS EVR products. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of FFS and shall not be relied upon.

FFS warrants the workmanship and materials of FFS EVR products to be free of defects, at the time of sale by FFS, for a period of one year (12 months) from the date of installation. When warranty for FFS EVR products cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for FFS EVR product cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by FFS (for location of date of manufacture on components, see related CARB EO Exhibit 1 – Equipment List). In all cases, installation date or purchase date will require providing formal documentation to FFS as evidence of applicable warranty coverage or date of manufacture will be used to determine duration of warranty period. Formal documentation may include, but is not limited to, FFS authorized service company and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

FFS shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-FFS replacement parts, the unauthorized addition of non-FFS items to FFS EVR products, and the unauthorized alteration of FFS EVR products will void warranty. FFS shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the FFS EVR products have been operated with any accessory, equipment, or a part not specifically approved by FFS and not manufactured by FFS to FFS design and specifications.

FFS EVR product warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). FFS EVR product warranty shall not apply to acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific FFS written warranty, FFS does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any FFS EVR product.

Other than those FFS EVR products specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), FFS EVR product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for FFS EVR product warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from FFS. FFS will honor warranty claims processed through FFS authorized service companies and distributors only. FFS will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to FFS's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

INCON branded products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 34 Spring Hill Road Saco, ME 04072 USA All other FFS EVR Products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 3760 Marsh Road Madison, WI 53718 USA

Franklin Fueling Systems, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to FFS's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by FFS.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator.

Component Model Number :
Component Date of Manufacturer :
Component Install Date :
Facility Name :
Facility Address :
Installer Name :
Installer Signature :

#### **OPW STANDARD PRODUCT WARRANTY TAG**

Notice: FlexWorks by OPW, Inc., VAPORSAVER<sup>™</sup> and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection is the sole responsibility of the customer and/or its agents and must be based on physical specifications and limitations, compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

OPW warrants solely to its customer (the initial purchaser and any subsequent purchasers within the warranty period) that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated:

PRODUCT	WARRANTY PERIOD	
FlexWorks Primary Pipe	10 years from date of manufacture	
All Products and replacement parts installed in the State of California Certified to California CP-201 and/or CP-206 Standards*	<ol> <li>year from-date of installation (proof of purchase from certified contractors/technicians required)</li> <li>OPW warrants ongoing compliance with the standards and specifications for the duration of the warranty period required by the State of California; this limited warranty is under the condition the equipment was installed and maintained by trained and certified contractors/technicians unless noted in Installation Manual</li> </ol>	
All other Products and replacement parts 1 year from date of manufacture**		
*Products certified to California CP-201 and/or CP-206 Standards have been factory tested and met all		

OPW's exclusive obligation under this limited warranty is, at its option, to repair, replace or issue credit (in an amount not to exceed the list price for the product) for future orders for any product that may prove defective within the applicable warranty period. (Parts repaired or replaced under warranty are subject to prorated warranty coverage for remainder of the original warranty period). Complete and proper warranty claim documentation and proof of purchase required. All warranty claims must be made in writing and delivered during the applicable warranty period to OPW at OPW 9393 Princeton-Glendale Road Hamilton, Ohio, USA 45011, Attention: Customer Service Manager. No products may be returned to OPW without its prior written authority.

This limited warranty shall not apply to any FlexWorks or VAPORSAVER™ product unless it is installed by an OPW attested installer and all required site and warranty registration forms are completed and received by OPW within 60 days of installation. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER™ or other OPW product: unless all piping connections are installed with a nationally-recognized or state-approved leak detection device in each tank and dispenser sump (which are not for storage and from which all discharge hydrocarbons must be removed, and the systems completely cleaned, within 24 hours); unless testable sumps utilize FlexWorks pipe and access fittings; unless a sump inspection log or an EPA recommended/required checklist is maintained and the results are furnished to OPW upon request; and unless OPW is notified within 24 hours of any known or suspected product failure and is provided with unrestricted access to the product and the site. This limited warranty also shall not apply to any product which has been altered in any way, which has been repaired by anyone other than a service representative authorized by OPW, or when failure or defect is due to: improper installation or maintenance (including, without limitation, failure to follow FlexWorks Quick Reference Manual Installation Guide and all product warning labels); abuse or misuse; violation of health or safety requirements; use of another manufacturer's, or otherwise unauthorized, substances or components; soil or other surface or subsurface conditions; or fire,

flood, storm, lightning, earthquake, accident or any other conditions, events or circumstances beyond OPW's control.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

OPW shall have no other liability whatsoever, whether based on breach of contract, negligence, gross negligence, strict liability or any other claim, including, without limitation, for special, incidental, consequential or exemplary damages or for the cost of labor, freight, excavation, clean-up, downtime, removal, reinstallation, loss of profit, or any other cost or charges. No person or entity is authorized to assume on behalf of OPW any liability beyond this limited warranty. This limited warranty is not assignable.

\*\* Date of manufacture on this product is located (location will be specific to each component)

![](_page_164_Picture_4.jpeg)

Hamilton, Ohio 45011

9393 Princeton-Glendale Road Fax: (513)

International – TELEPHONE: (513) 870-3315 or (513) 870-3261 -Fax: (513) 870-3157 - Email: intlsales@opw-fc.com www.opwglobal.com

North America Toll Free - TELEPHONE: (800) 422-2525 - Fax:

(800) 421-3297 - Email: domesticsales@opw-fc.com

#### **Comp X TANK Commander Warranty Statement and Tag**

Seller warrants to the initial and subsequent purchasers, for a period of one year from date of installation, that the Products sold hereunder will, at the time of delivery: (a) comply with the CARB CP-201 standards and specifications for the duration of the warranty period for such Products in effect at the time of shipment or such other specifications as are expressly agreed upon by Seller and Buyer in writing; (b) be adequately contained, packaged, and labeled; and (c) conform to any promises and affirmations of fact made on the container and label. In the event that any such Products fail to conform to the foregoing warranty, Seller will, at its option, repair or replace such nonconforming Products, or credit Buyer for an amount not to exceed the original sales price of such Products. Shipping costs incurred in returning such nonconforming Products to Seller shall be borne by Seller, but Seller shall in no event be liable for any inspection, handling, or packaging costs incurred by Buyer in connection with such Products. Buyer's negligence, misuse, improper installation, or unauthorized repair or alteration, shall void this warranty. The TANK Commander Warranty tag is located on the inside cover of the product.

#### Warranty Tag

TANK Commander TC-1 1 year warranty from date of installation Date of manufacture \_ /\_ /\_ \_\_\_ The CompX TANK Commander product was factory tested and meets the standards and specifications to which it was certified by the California Air Resources Board (CARB) as indicated in the related CARB Phase I EVR Executive Orders.

#### Husky Corporation Warranty Statement and Tag

**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.

**EVR PRODUCTS** – With respect to EVR products installed in California, for a period of one (1) year from the date of installation, Husky warrants that the product will be free from defects in materials and workmanship (if the installation date is in question or indeterminable, Husky will warrant the product for 12 months from sale by Husky). Husky confirms that the warranty is transferable to a subsequent purchaser within the warranty period. However, the warranty does not follow the product from its initial installation location to succeeding locations. Husky confirms these products are warranted to meet the performance standards and specifications to which it was certified by CARB for the duration of the warranty. EVR products must be installed per CARB Executive Order and must follow the Husky Installation Instructions or the warranty is void. The warranty tag included with the EVR product must be provided to the end user at installation. A completed warranty tag and installation documentation is required to be returned with the product to be eligible for warranty consideration.

**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.

S.	WARRANTY TAG     Husky Corporation     2325 Husky Way     Pacific, Mo 63069     (800) 325-3558	Husky General Fueling Products:
	Station Name:	Model #:
$\langle \rangle$	Store #: Date:	
$( \circ )$	City: State:	Serial #:
$\smile$	Service Contractor:	Installation Date:
	Service Tech:	Manufacturer Lot #:
	Distributor:	Work order # (if applicable):
	No warranty accepted without warranty tag filled out completely and attached to product.	RGA #: Form #009179-6 03/2013

# FOR REFERENCE ONLY

/ _	Reason for Return (check all applicable):		
	Leaking Fuel Around Spout	□ Failed Pressure Decay Test	
	Leaking Fuel In Trigger Area	Leaking Fuel at Hose Inlet	
$\frown$	$\Box$ Keeps Shutting Off	Mechanical Malfunction	
$( \bigcirc )$	□ Will Not Shut Off	Dispenses Fuel Without Pulling Lever	
$\bigcirc$	Notes / Comments:		
EVR product data can be at the fact Vacuum Sett Please prov	s installed in California are warranted for l found on the product data tag attached to the ory and met all applicable performance standar ing: 6.0 - 10.0 in W.C. and Leak Rate: 0.05 CF ide installation documention such as a purchas	year from the date of installation. Manufacturing product. Husky confirms the product was tested ds in CP-201 including Pressure Setting: 2.5-6.0 in W.C., H @ +2.0 in W.C. and D.21 CFH @ -4.0 in W.C. e order, an invoice or a receipt at time of claim.	

BACK VIEW

#### EMCO Wheaton Retail Corporation CALIFORNIA EVR WARRANTY POLICY

Emco Wheaton Retail Corporation service station products are warranted to be free from defects in material and workmanship under normal use and service. Emco Wheaton Retail Corporation warrants its California enhanced vapor recovery (EVR) components for a period of one (1) year from date of installation. The EVR components are warranted to meet the performance standards and specifications to which it was certified by the California Air Resources Board (CARB) for the duration of the warranty period. This warranty extends to the purchaser and any subsequent purchaser of the Emco Wheaton Retail components during the warranty period.

Emco Wheaton Retail Corporation shall, at its option, repair or replace that part which proves to be defective. Repaired or replacement nozzles are warranted for the balance of the original warranty period. This warranty is void unless the purchaser returns the claimed defective item to Emco Wheaton Retail Corporation for inspection to determine whether the claimed defect is covered by this warranty.

The exclusive and sole remedy under this warranty is repair or replacement of the defective part. Emco is not responsible for claims for damage caused by improper installation or maintenance; corrosive fluids; misuse of the product or use the product for other than its intended purpose; or accident, acts of God, or natural phenomena. Emco will not pay for labor or related expenses, nor shall Emco be liable for any incidental, consequential or exemplary damages. This warranty is void if the Emco Wheaton Retail Corporation product has been previously repaired with parts not approved by Emco Wheaton Retail Corporation, or if a nozzle bears the mark or imprint of a company other than Emco Wheaton Retail Corporation, indicating the nozzle has been rebuilt or repaired by a company other than Emco Wheaton Retail Corporation.

#### EMCO WHEATON RETAIL CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, (WHETHER WRITTEN OR ORAL), INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

In the event a nozzle is returned to Emco Wheaton Retail Corporation within the warranty period described above, and when tested is found to be functional and without defect, Emco Wheaton Retail Corporation reserves the right to return the nozzle to the customer or apply a Core Credit (see Nozzle Core Return Program), at Emco Wheaton Retail Corporation's discretion.

In the event of failure within the warranty period, call the Customer Service Department at **(800) 234-4394**. Describe the problem and provide the product date stamp information to the customer service representative. In the case of a nozzle, provide the serial number. The customer service representative will provide a product complaint number, if applicable. Ship the defective equipment **PREPAID**, to Emco Wheaton Retail Corporation for repair or replacement. Warranty issue is contingent upon proof of installation to establish that the product falls within the warranty period. Proof on installation shall be: 1) warranty information completed by the certified contractor (warranty card), 2) contractor invoice, 3) end-user sales receipt, or 4) copy of the appropriate log book entry from the gasoline dispensing facility. Nozzle serial number must be included on proof of installation document.

Emco Wheaton Retail Corporation products should be used in compliance with applicable federal, state and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. All illustrations and specifications are based on the latest product information available at the

time of publication. Emco Wheaton Retail Corporation reserves the right to make changes at any time in prices without notice or obligation. Emco Wheaton Retail Corporation reserves the right to make changes at any time in materials, specifications and models upon CARB approval.

# **Emco Warranty Tag**

Phase II EVR Warranty Tag         Enco Wheaton Retail warrants its California enhanced vapor recovery (EVR) components for a period of one (1) year from date of installation.         This component was factory tested to and met all applicable performance standards and specifications to which it was certified by the California Air Resources Board (ARB). The performance standards and specifications are listed in the applicable ARB Executive Orders and Certification Procedure 201.         IMPORTANT: Leave this warranty tag with the station owner and/or operator.         Emco Wheaton Retail Corp. 2300 Industrial Park Dr., Wilson, NC 27893       p/n 570866         Reason for returning product: Please select appropriately.         Important: Failure to complete accurately may cause delays processing warranty claim.         Does not shut-off       Leaks fuel around lever and latch area         Experiencing premature shut-off       Leaks fuel around lever engaged         Flows fuel when bellows is not compressed       Fails Leak Decay Test CARB TP-201.3         Flows fuel around spout or bellows area       Fails Dynamic Back Pressure Test CARB TP-201.4		WHEATON RETAIL	(252) 243-0150	Penlacement Serial Number:	
Enco Wheaton Retail warrants its California enhanced vapor recovery (EVR) components for a period of one (1) year from date of installation. This component was factory tested to and met all applicable performance standards and specifications to which it was certified by the California Air Resources Board (ARB). The performance standards and specifications are listed in the applicable ARB Executive Orders and Certification Procedure 201.   IMPORTANT: Leave this warranty tag with the station owner and/or operator.   Emco Wheaton Retail Corp.   2300 Industrial Park Dr., Wilson, NC 27893   Poes not shut-off   Does not shut-off   Experiencing premature shut-off   Does not shut-off   Experiencing premature shut-off   Does not flow fuel with bellows compressed and lever engaged   Flows fuel when bellows is not compressed   Leaks fuel around spout or bellows area   Comments		Phase II EVR Warranty	/ Tag	Manufacture Date:	
Reason for returning product: Please select appropriately.         Important: Failure to complete accurately may cause delays processing warranty claim.         Does not shut-off       Leaks fuel around lever and latch area         Experiencing premature shut-off       Causing meter creep         Does not flow fuel with bellows compressed and lever engaged       Bad Inlet or outlet threads         Flows fuel when bellows is not compressed       Fails Leaks Decay Test CARB TP-201.3         Leaks fuel around spout or bellows area       Fails Dynamic Back Pressure Test CARB TP-201.4	0	Emco Wheaton Retail warrants its Cal enhanced vapor recovery (EVR) comp period of one (1) year from date of ins This component was factory tested to applicable performance standards and to which it was certified by the Califorr Resources Board (ARB). The perform; and specifications are listed in the app Executive Orders and Certification Pro IMPORTANT: Leave this <u>warranty to</u> station owner and/or operator. Emco Wheaton Retail Corp. 2020 Inducted Pack to: Willow R0 2,2000	ifornia conents for a tallation. and met all is specifications nia Air ance standards opticable ARB coedure 201. ag with the	Name of Contractor: Name of Technician: Technician Signature: Technician Certification Number: Installation Date: Installation Site: Distributor Name: Branch Location: Component:A4005EVR Nozzle A4119EVR Safe Break Val	lve
	9h	2300 Industrial Park Dr., Wilson, No 2769.			

# **McGard Warranty Statement and Tag**

McGard Fuel Locks are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CARB) for the duration of the warranty period, as indicated in the related CARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CARB EO.

McGard warrants that McGard Fuel Lock products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for McGard Fuel Locks, (b) design changes to McGard Fuel Locks, (c) performance specifications of the McGard Fuel Locks, and (d) duration of the warranty period of McGard Fuel Locks.

McGard Fuel Locks are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manuals by certified technicians as defined in the related CARB EO and to generally accepted industry standards.

McGard reserves the right to make changes in the design or to make additions or improvements with respect to McGard Fuel Locks without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CARB.

McGard reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CARB. Any such change or cancellation will be effective for products sold by McGard after the date of such change or cancellation. No agents, distributors, dealers, or employees of McGard are authorized to make modifications to this warranty or to make additional warranties with respect to any McGard Fuel Locks. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of McGard and shall not be relied upon.

McGard warrants the workmanship and materials of McGard Fuel Locks to be free of defects, at the time of sale by McGard, for a period of one year (12 months) from the date of installation. When warranty for McGard Fuel Locks cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for McGard Fuel Locks cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by McGard (date of manufacture is engraved on side of lock body). In all cases, installation date or purchase date will require providing formal documentation to McGard as evidence of applicable warranty coverage or date of manufacture will be used to determine duration of warranty period. Formal documentation may include, but is not limited to McGard authorized service company and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

McGard shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-McGard replacement parts, the unauthorized addition of non-McGard items to McGard Fuel Locks, and the unauthorized alteration of McGard Fuel Locks will void warranty. McGard shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the McGard Fuel Locks have been operated with any accessory, equipment, or a part not specifically approved by McGard and not manufactured by McGard to McGard design and specifications.

McGard Fuel Lock warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). McGard Fuel Lock warranty shall not apply to vandalism, theft, acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific McGard written warranty, McGard does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any McGard Fuel Lock.

Other than those McGard Fuel Locks specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), McGard Fuel Lock product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for McGard Fuel Lock warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from McGard. McGard will honor warranty claims processed through McGard authorized service companies and distributors only. McGard will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to McGard's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

McGard LLC, ATTN: Warranty Department, 3875 California Road, Orchard Park, NY 14127 USA

McGard, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to McGard's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by McGard.

A copy of this limited warranty is to be retained with the equipn owner/operator.	nent, on-site with the facility
Component Model Number:	
Component Date of Manufacturer:	
Component Install Date:	
Facility Name:	
Facility Address:	
Installer Name:	
Installer Signature:	

#### Exhibit 5

#### VAULTED ABOVEGROUND STORAGE TANK CONFIGURATION (Optional)

This exhibit allows an alternate tank storage configuration for the Phase I EVR system. A vaulted aboveground storage tank (AST) may be installed in substitute for a conventional underground storage tank (UST). The figures in this exhibit provide examples of typical vaulted AST configurations.

#### **General Specifications**

Alternate typical vaulted AST configurations for the Phase I EVR Systems are shown in Figures 5-1, 5-2, 5-3, and 5-4.

Unless otherwise specified in this Executive Order (EO), the vaulted AST configuration shall comply with the applicable performance standards and performance specifications in CP-201. The emergency vent shall be a certified vent listed in the Phase I EVR Executive Orders for ASTs and shall be installed, operated, maintained and meet any performance requirements specified in the applicable AST Executive Order.

![](_page_173_Figure_6.jpeg)

![](_page_173_Figure_7.jpeg)

![](_page_174_Figure_0.jpeg)

Figure 5-2: Top Sectional View of Typical Vaulted AST

Figure 5-3: End Sectional View of Typical Vaulted AST

![](_page_174_Figure_3.jpeg)

![](_page_175_Figure_0.jpeg)

Figure 5-4: Sectional Views of Typical Vaulted AST (Ventilation)

Figure 5-4a: Typical Exhaust

# State of California AIR RESOURCES BOARD

#### **EXECUTIVE ORDER VR-105-J**

#### **Relating to Certification of Vapor Recovery Systems**

#### EMCO Wheaton Retail Phase I Vapor Recovery System

WHEREAS, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks (Phase I EVR System), in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) as last amended June 4, 2019, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase I EVR Systems with emission standards;

WHEREAS, EMCO Wheaton Retail (EMCO) requested and was granted certification of the EMCO Wheaton Retail Phase I Vapor Recovery System (EMCO System) pursuant to CP-201 on October 20, 2006, by Executive Order VR-105-A; and last modified on June 3, 2020, by Executive Order VR-105-I;

WHEREAS, CP-201 provides that the CARB Executive Officer shall issue an Executive Order if he or she determines that the vapor recovery system, including modifications, conforms to all of the applicable requirements set forth in CP-201;

WHEREAS, Executive Order G-01-032 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF); and

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find that the EMCO System, conforms with all the requirements set forth in CP-201, and results in a vapor recovery system which is at least 98.0 percent efficient when tested pursuant to test procedure TP-201.1, Volumetric Efficiency for Phase I Systems (July 26, 2012);

NOW THEREFORE, IT IS HEREBY ORDERED that the EMCO System is certified to be at least 98.0 percent efficient when installed, operated, and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components. Exhibit 2 contains the performance standards and specifications, typical installation drawings, and maintenance intervals applicable to the EMCO System as installed in a GDF. Exhibit 3 contains the manufacturing performance specifications. Exhibit 4 contains the manufacturer warranties. Exhibit 5 is the below-grade vaulted tank configuration.

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, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

IT IS FURTHER ORDERED that every certified component manufactured by EMCO, Franklin Fueling Systems (FFS), OPW, and Husky Corporation (Husky) shall meet the manufacturing performance specifications as provided in Exhibit 3.

IT IS FURTHER ORDERED that the certified EMCO System shall be installed, operated, and maintained in accordance with the CARB-Approved Installation, Operation and Maintenance Manual (Manual). Equipment shall be inspected quarterly and annually per the procedures identified in the Manual. These inspections shall also apply to systems certified by Executive Orders VR-105-A to I. A copy of this Executive Order and the Manual shall be maintained at each GDF where a certified EMCO System is installed.

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

IT IS FURTHER ORDERED that any alteration in the equipment parts, design, installation or operation of the system provided in the manufacturer's certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the CARB Executive Officer or his delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. The owner or operator of the EMCO System shall conduct, and pass, the following tests no later than 60 days after startup and at least once every (3) years after startup testing, using the following test procedures. Shorter time periods may be specified by the District.

- TP 201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012);
- TP 201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003); and
- Depending on the system configuration, either TP 201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003), or TP 201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

Districts may specify the sequencing of the above tests. Notification of testing, and submittal of test results, shall be done in accordance with District requirements and pursuant to the policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in

the datasheet referenced in the test procedure(s). Alternate test procedures, including the most recent versions of test procedures listed above, may be used if determined by the CARB Executive Officer or his or her delegate, in writing, to yield equivalent results. Testing the pressure/vacuum (P/V) vent valve will be at the option of the Districts. If P/V vent 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.

IT IS FURTHER ORDERED that the EMCO System shall be compatible with gasoline in common use in California at the time of certification. Any modifications to comply with future California gasoline requirements shall be approved in writing by the Executive Officer or his or her delegate.

IT IS FURTHER ORDERED that Executive Order VR-105-I issued on June 3, 2020, is hereby superseded by this Executive Order. EMCO Wheaton Phase I Vapor Recovery Systems certified under Executive Orders VR-105-A through I may remain in use at existing installations up to four years after the expiration date of this Executive Order when the certification is not renewed.

IT IS FURTHER ORDERED that this Executive Order shall apply to new installations or major modification of the Phase I system of existing gasoline dispensing facilities.

IT IS FURTHER ORDERED that this Executive Order shall expire on June 1, 2025.

Executed at Sacramento, California, this 31st day of May 2021.

alumordy

Catherine Dunwoody, Chief Monitoring and Laboratory Division

# Exhibit 1

# **EMCO Wheaton Phase I Vapor Recovery System Equipment List**

<u>Equipment</u>	Manufacturer/Model Number	
Pressure/Vacuum Vent Valve	FFS PV-Zero Husky 5885 (Gas/E-85) OPW Model 723V	
Spill Container <sup>1</sup>	EMCO Model A1004EVR-X Series Multi-port and Direct Burial Configurations Single and Double Wall Multi-Port X= 237, 242  or  248 Direct Burial (5 gallon) X= 003, 004, 005, 006, 010, 011, 012, 013, 210A, 210A 210S, 210SB, 211A, 211AB, 211S, 211SB, 316A, 316S 317A, 317AS, 317S, 317SS Direct Burial (15 gallon) X= 215A, 215AB, 215S, 215SB, 216A, 216AB, 216S, 216SB	
Drain Valve <sup>2</sup>	EMCO Model 494118	
Drop Tube <sup>3</sup>	EMCO Model A0020EVR-X EMCO Model A0020EVRC-X X= 004, 005, 007 or 008	
Straight Drop Tube with Overfill Prevention Device	EMCO Model A1100EVR-X X= 055, 056, 057 or 058 EMCO Model A1100EVR-X (anodize tube & collar) X= 055CF, 056CF, 057CF or 058CF	
Riser Seal	EMCO Model 494096	
Product Adaptor	EMCO Model A0030-124S	
Vapor Adaptor	EMCO Model A0076-124S	

<sup>&</sup>lt;sup>1</sup> Drain Valves are an optional component for Product Spill Containers. Customers can install what is traditionally considered a Vapor Spill Container (Drain Valve Port Factory Plugged) in lieu of the Product Spill Container with a drain valve.

<sup>&</sup>lt;sup>2</sup> For Product Spill Containers that contain a drain valve, only this component and model number specified above shall be installed or used.

<sup>&</sup>lt;sup>3</sup> The A0020EVR has a sealing surface made by machine rolling the metal of the drop tube. The A0020EVRC has a machined collar that is installed on the drop tube.
Dust Caps	EMCO Model A0097-005 (product) EMCO Model A0099-X (vapor) X = 002 (no chain) or 003 (with chain)
	EMCOModel A0097-004LP (product)EMCOModel A0099-004LP (vapor)CompXCSP1-634LPC (product)CompXCSP3-1711LPC (vapor)CompXCSP2-634LPC (product)CompXCSP4-1711LPC (vapor)OPW634LPC (product)OPW1711LPC (vapor)
Tank Gauge Port Components	EMCO Model A0097-010 (Cap) EMCO Model A0030-014 (Adaptor)
Fuel Lock <sup>4</sup>	McGard FL1 – Stick Only Fuel Lock (125007) (Gas McGard FL2 – Stick/Sampling Fuel Lock (125008)
Bladder Plug	McGard PSI104 (Gas)
Emergency Vent	Exhibit 5 (for below-grade vaulted tank configuration)

# Table 1Components Exempt from Identification Requirements

Component Name	Manufacturer	Model Number
Riser Seal	EMCO	494096
Drop Tube	EMCO	A0020EVR, A0020EVRC
Sump / Sump Lids / Spill Container Covers	Varies	Varies
Fuel Lock	McGard	FL1, FL2
Bladder Plug	McGard	PSI104

<sup>&</sup>lt;sup>4</sup> If these components are installed, only those components and model numbers specified above shall be installed or used.



**Spill Containment** 



ID and Serial Number Tags for Model A1004EVR-X Series Multi-Port and Direct Burial Configurations



**Drain Valve** 



Model 494118 Drain Valve



**Spill Containment** 





ID and Serial Number Tags for Model A1004EVR-X Series Direct Burial Configuration with Stainless Steel Primary



Model A1004EVR-X Series Direct Burial Configuration with Stainless Steel Primary



## **Rotatable Product Adapter**





Model A0030-124S Swivel Fill Adapter



## **Rotatable Vapor Adapter**



Model A0076-124S Swivel Vapor Adapter



## Tank Gauge Port Adapter



Model A0030-014 ATG Probe Adapter



## Drop Tube w/ Overfill Prevention Valve



Model A1100EVR-X Series Overfill Prevention Valve

## Upper Drop Tube and Collar Assembly

**Riser Seal** 



Non-Anodized



Anodized



Model 494096 Riser Seal, Cast Iron



Model 494096 Real Seal, Stainless Steel



**Dust Caps** 





Model A0097-005 Fill Adapter Cap



Model A0099-002 and -003 Vapor Adapter Caps

# Tank Gauge Port Cap





Model A0097-010 ATG Probe Adapter Cap









Model A0097-005 Fill Adapter Cap





Model A0099-002 and -003 Vapor Adapter Caps

## Tank Gauge Port Cap





Model A0097-010 ATG Probe Adapter Cap



**Dust Caps** 





Model A0097-005 Fill Adapter Cap





Model A0099-002 and -003 Vapor Adapter Caps

## Tank Gauge Port Cap





Model A0097-010 ATG Probe Adapter Cap



**Dust Caps** 







Model A0097-004LP Low Profile Fill Adapter Cap







Model A0099-004LP Low Profile Vapor Adapter Caps

OPW 634LPC Product Dust

OPW 1711LPC Vapor Dust





McGard Fuel Lock Installation Position<sup>5</sup>



McGard Fuel Lock (FL1 on Left, FL2 on Right)

<sup>&</sup>lt;sup>5</sup> Optional component, but if installed this picture shows the correct installation location in the pipe just below the Product Rotatable Adaptor in the drop tube.



CompX CSP1-634LPC Product Dust Cap CompX CSP3-1711LPC Vapor Dust Cap



CompX Tank Commander Lid Locks onto CSP1-634LPC and CSP3-1711LPC Dust Caps





CompX CSP2-634LPC Product Dust Cap

CompX CSP4-1711LPC Vapor Dust Cap



CompX Tank Commander Lid Locks onto CSP2-634LPC and CSP4-1711LPC Dust Caps



**FFS PV-Zero P/V Vent Valve** (Model and Serial Number on White Tag)



EMCO Wheaton Retail Phase I EVR System Components Permanent ID Information



OPW Model 723V P/V Vent Valve

## Exhibit 2

## Installation, Maintenance, and Compliance Specifications

This exhibit contains the installation, maintenance and compliance standards and specifications applicable to an EMCO Wheaton System installed in a gasoline dispensing facility (GDF).

## **General Specifications**

- 1. Typical installations of the EMCO Wheaton System are shown in Figures 2A, 2B, 2C and 2D.
- 2. The EMCO Wheaton System shall be installed, operated and maintained in accordance with the CARB Approved Installation, Operation and Maintenance Manual for the EMCO Wheaton Phase I Vapor Recovery System.
- 3. Any repair or replacement of system components shall be done in accordance with the CARB Approved Installation, Operation and Maintenance Manual for the EMCO Wheaton Phase I Vapor Recovery System.
- 4. The EMCO Wheaton System shall comply with the applicable performance standards and performance specifications in CP-201.
- 5. Maintenance and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by EMCO Certified Technicians.

## Pressure/Vacuum Vent Valves For Storage Tank Vent Pipes

- 1. No more than three certified pressure/vacuum vent valves (P/V Valves) listed in Exhibit 1 shall be installed on any GDF underground storage tank 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 2.0 inches of H<sub>2</sub>O positive pressure and 0.21 CFH at -4.0 inches 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. Compliance determination of the P/V valve performance specifications in items 2a and 2b for the FFS PV-Zero P/V vent valve shall be conducted with the valve remaining in its installed position on the vent line(s). The PV-Zero section of the CARB-Approved Installation, Operation and Maintenance Manual for the EMCO Wheaton Phase I Vapor Recovery System outlines the equipment needed to test the valve in its installed position.
- 4. 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 2F. 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 vent pipes may be connected, or more than one P/V valve may be installed on the manifold.
- 5. Each P/V valve shall have permanently affixed to it a yellow, gold, or white colored label with black lettering stating the positive and negative cracking pressures and leak rates.

Positive pressure setting: 2.5 to 6.0 inches  $H_2O$ Negative pressure setting: 6.0 to 10.0 inches  $H_2O$ Positive Leak rate: 0.05 CFH at 2.0 inches  $H_2O$ Negative Leak rate: 0.21 CFH at -4.0 inches  $H_2O$ 

## **Rotatable Product and Vapor Recovery Adaptors**

- Rotatable product and vapor recovery adaptors shall be capable of at least 360degree rotation and have an average static torque not to exceed 108 pound-inch (9 pound-foot). Use EMCO Wheaton Torque Test Tool Part Number 494240 or any torque test tool stated in TP-201.1B. Compliance with this requirement shall be demonstrated in accordance with TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003).
- 2. The vapor adaptor poppet shall not leak when closed. Compliance with this requirement shall be verified by the use of commercial liquid leak detection solution, or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists.)

## Vapor Recovery and Product Adaptor Dust Caps

Dust caps with intact gaskets shall be installed on all Phase I tank adaptors.

## Product Spill Container Drain Valve

The spill container drain valve is configured to drain liquid directly into the drop tube and is isolated from the underground storage tank ullage space. The leak rate of the drain valve shall not exceed 0.17 CFH at 2.00 inches H<sub>2</sub>O. Depending on the presence of the drop tube overfill prevention device, compliance with this requirement shall be demonstrated in accordance with either TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003), or TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

## Product Spill Container Factor Installed Drain Plug (Optional)

The factory installed spill container plug in the drain valve port shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution (LDS) when the vapor space of the fill pipe is subjected to a positive gauge pressure.

## Phase I Drop-Tubes with Overfill Prevention Devices

- 1. The Drop Tube Overfill Prevention Device (overfill device) is designed to restrict the flow of gasoline delivered to the underground storage when liquid levels exceed a specified capacity. The drop tube overfill device is not a required component of the vapor recovery system, but maybe installed as an optional component of the system. Other requirements may apply.
- The leak rate of Phase I drop-tube overfill prevention devices shall not exceed 0.17 CFH at 2.0 inches H<sub>2</sub>O). The leak rate shall be determined in accordance with TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).
- 3. The discharge opening of the fill-pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank.

## Phase I Drop-Tubes without Overfill Prevention Devices

- 1. Drop tubes that do not have an overfill prevention device shall not leak and shall be tested in accordance with TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003).
- 2. The discharge opening of the fill-pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank.

## Vapor Recovery Riser Offset

1. The vapor recovery tank riser may be offset from the tank connection to the vapor recovery Spill Container provided that the maximum horizontal distance (offset

distance) does not exceed twenty (20) inches. One example of an offset is shown in Figure 2G.

2. The vapor recovery riser may be offset up to 20 inches horizontal distance with use of commercially available, four (4) inch diameter steel pipe fittings.

#### Tank Gauge Port Components

The tank gauge adaptor and cap are paired. Therefore, an adaptor manufactured by one company shall be used only with a cap manufactured by the same company. Figure 2E shows a typical installation of tank gauge port components.

#### **Connections and Fittings**

All connections and fittings not specifically certified with an allowable leak rate shall not leak. The absence of vapor leaks shall be verified with the use of commercial liquid leak detection solution, or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists.)

#### Maintenance Records

Each GDF operator/owner shall keep records of maintenance performed at the facility. Such record shall be maintained on site or 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, name and Certified Technician Identification Number of individual conducting maintenance or test. An example of a Phase I Maintenance Record is shown in Figure 2H.

 Table 2-1

 Gasoline Dispensing Facility Compliance Standards and Specifications

Component / System	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Overfill Prevention Device	TP-201.1D	Leak rate $\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O
Spill Container Drain Valve	TP-201.1D	Leak rate $\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O
P/V Vent Valve <sup>1</sup>	TP-201.1E	Positive pressure setting: 2.5 to 6.0 inches $H_2O$ Negative pressure setting: 6.0 to 10.0 inches $H_2O$ Positive Leak rate: 0.05 CFH at 2.0 inches $H_2O$ Negative Leak rate: 0.21 CFH at -4.0 inches $H_2O$
Vapor Recovery System	TP-201.3	As specified in TP-201.3 and/or CP-201
All connections and fittings certified without an allowable leak rate	Leak Detection Solution or bagging	No Leaks

Table 2-2Maintenance Intervals for System Components2

Manufacturer	Component	Maintenance Interval
Husky	Pressure/Vacuum Vent Valve	Annual
FFS	Pressure/Vacuum Vent Valve	Annual
OPW	Pressure/Vacuum Vent Valve	Annual
EMCO Wheaton	Tank Gauge Port Components	Annual
EMCO Wheaton	Dust Caps	Annual
CompX Security Products	Dust Caps	Annual
OPW	Dust Caps	Annual
EMCO Wheaton	Overfill Prevention Device	Annual
EMCO Wheaton	Rotatable Phase I Product and Vapor Adaptors	Annual
EMCO Wheaton	Spill Container Drain Valve	Quarterly
EMCO Wheaton	Spill Container	Quarterly and After Each Delivery

<sup>&</sup>lt;sup>1</sup> Compliance determination is at the option of the District.

<sup>&</sup>lt;sup>2</sup> Maintenance must be conducted within the interval specified from the date of installation and at least within the specified interval thereafter. Maintenance requirements can be found in the CARB-Approved IOM.

## Figure 2A Typical Multi-Port Product Side Installation of EMCO System<sup>3</sup>



EWRC Multi Fill Config.dwg - Revised 04/06/2011

<sup>&</sup>lt;sup>3</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

## Figure 2B Typical Multi-Port Vapor Recovery Installation of EMCO System



Figure 2C Typical Direct Burial Product Side Installation of EMCO System<sup>4</sup>



EWRC Fill Config.dwg - Revised 04/05/2011

<sup>&</sup>lt;sup>4</sup> McGard FL1 or FL2 Fuel Lock (Optional - Not Pictured), if installed, would be positioned inside the riser seal (or pipe nipple) below the rotatable adaptor.

Figure 2D Typical Direct Burial Vapor Recovery Installation of EMCO System



EWRC Vapor Config.dwg - Revised 04/08/2011

## Figure 2E Typical Automatic Tank Gauge Probe Riser Installation of the EMCO System



Typical Automatic Tank Gauge (ATG) Probe Riser Configuration



EWRC ATG Probe Config.dwg - Revised 04/07/2011

Figure 2F Typical Vent Pipe Manifold



Note: 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 vent pipes may be connected, or more than one P/V valve may be installed on the manifold.

Figure 2G Typical Vapor Recovery Riser Offset



Note: This figure represents one instance where a vapor recovery riser has been offset in order to construct a two-point Phase I vapor recovery system. The above figure illustrates an offset using a 90-degree elbow. However, in some instances, elbows less than 90 degrees may be used. All fittings and pipe nipples shall be 4-inch diameter similar to those of the spill container and rotatable Phase I adaptors in order to reduce back pressure during a gasoline delivery.

# Figure 2H

# Example of a GDF Maintenance Record

Date of Maintenance/ Test/Inspection/Failure	Repair Date To Correct Test Failure	Maintenance/Test/Inspection Performed and Outcome	Affiliation	Name and Certified Technician Identification Number of Individual Conducting Maintenance or Test	Telephone Number

## Exhibit 3

## **Manufacturing Performance Standards and Specifications**

The EMCO Wheaton System and all components shall be manufactured in compliance with the applicable Phase I performance standards and specifications in CP-201, 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 CARB Approved Installation, Operation and Maintenance Manual for the EMCO Wheaton Phase I Vapor Recovery System, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a GDF.

## Pressure/Vacuum Vent Valves for Storage Tank Vent Pipes

- 1. Each pressure/vacuum vent valve (P/V valve) shall be 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 valve was tested to, and met, these specifications.
- 3. Each P/V valve shall have permanently affixed to it a yellow, gold, or white colored label with black lettering listing the positive and negative pressure settings and leak rate standards listed in Table 3-1. The lettering of the positive and negative pressure settings and leak rate standards on the label shall have a minimum font size of 20.

## **Rotatable Product and Vapor Recovery Adaptors**

- 1. The rotatable product and vapor recovery adaptors shall not leak.
- 2. The product adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3A of CP-201.
- 3. The vapor recovery adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3B of CP-201.
- 4. Each product and vapor recovery adaptor shall be tested at the factory to, and met, the specifications listed in Table 3-1 and shall have affixed to it a card or label listing these performance specifications and a statement that the adaptor was tested to, and met, such specifications. (Reference EMCO test procedures TP-157 and TP-158)

## **Spill Container and Drain Valves**

Each spill container drain valve shall be tested at the factory to, and met, the following specification listed in Table 3-1 and shall have affixed to it a card or label listing the following performance specification and a statement that the drain valve was tested to, and met, such performance specification.

#### **Drop Tube Overfill Prevention Device**

Each Drop Tube Overfill Prevention Device shall be tested at the factory to, and met, the specification listed in Table 3-1 and shall have affixed to it a card or label listing the performance specification and a statement that the device was tested to, and met, such performance specification.

Component	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 lb-inch average static torque
Rotatable Phase I Adaptors	Micrometer	Cam and Groove Standard (CP-201)
Spill Container Drain Valve	TP-201.1D	Leak rate $\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O
Overfill Prevention Device	TP-201.1D	Leak rate $\leq$ 0.17 CFH at 2.00 inches H <sub>2</sub> O
Pressure/Vacuum Vent Valve	TP-201.1E	$\begin{array}{l} \mbox{Positive Pressure: } 2.5 \mbox{ to } 6.0 \mbox{ inches } H_2O \\ \mbox{Negative Pressure: } 6.0 \mbox{ to } 10.0 \mbox{ inches } H_2O \\ \mbox{Leak rate: } \leq 0.05 \mbox{ CFH at } +2.0 \mbox{ inches } H_2O \\  \leq 0.21 \mbox{ CFH at } -4.0 \mbox{ inches } H_2O \end{array}$

Table 3-1Manufacturing Component Standards and Specifications

#### Exhibit 4 Manufacturer Warranties

This exhibit includes the manufacturer warranties for all components listed in Exhibit 1, including replacement parts and subparts. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

## EMCO Wheaton Retail Corporation CALIFORNIA EVR WARRANTY POLICY

Emco Wheaton Retail Corporation service station products are warranted to be free from defects in material and workmanship under normal use and service. Emco Wheaton Retail Corporation warrants its California enhanced vapor recovery (EVR) components for a period of one (1) year from date of installation. The EVR components are warranted to meet the performance standards and specifications to which it was certified by the California Air Resources Board (CARB) for the duration of the warranty period. This warranty extends to the purchaser and any subsequent purchaser of the Emco Wheaton Retail components during the warranty period.

Emco Wheaton Retail Corporation shall, at its option, repair or replace that part which proves to be defective. Repaired or replacement nozzles are warranted for the balance of the original warranty period. This warranty is void unless the purchaser returns the claimed defective item to Emco Wheaton Retail Corporation for inspection to determine whether the claimed defect is covered by this warranty.

The exclusive and sole remedy under this warranty is repair or replacement of the defective part. Emco is not responsible for claims for damage caused by improper installation or maintenance; corrosive fluids; misuse of the product or use the product for other than its intended purpose; or accident, acts of God, or natural phenomena. Emco will not pay for labor or related expenses, nor shall Emco be liable for any incidental, consequential or exemplary damages. This warranty is void if the Emco Wheaton Retail Corporation product has been previously repaired with parts not approved by Emco Wheaton Retail Corporation, or if a nozzle bears the mark or imprint of a company other than Emco Wheaton Retail Corporation, indicating the nozzle has been rebuilt or repaired by a company other than Emco Wheaton Retail Corporation.

## EMCO WHEATON RETAIL CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, (WHETHER WRITTEN OR ORAL), INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

In the event a nozzle is returned to Emco Wheaton Retail Corporation within the warranty period described above, and when tested is found to be functional and without defect, Emco Wheaton Retail Corporation reserves the right to return the nozzle to the customer or apply a Core Credit (see Nozzle Core Return Program), at Emco Wheaton Retail Corporation's discretion.

In the event of failure within the warranty period, call the Customer Service Department at **(800) 234-4394**. Describe the problem and provide the product date stamp information to the customer service representative. In the case of a nozzle, provide the serial number. The customer service representative will provide a product complaint number, if applicable. Ship the defective equipment **PREPAID**, to Emco Wheaton Retail Corporation for repair or replacement. Warranty issue is contingent upon proof of installation to establish that the product falls within the warranty period. Proof on installation shall be: 1) warranty information completed by the certified contractor (warranty card), 2) contractor invoice, 3) end-user sales receipt, or 4) copy of the appropriate log book entry from the gasoline dispensing facility. Nozzle serial number must be included on proof of installation document.

Emco Wheaton Retail Corporation products should be used in compliance with applicable federal, state and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. All illustrations and specifications are based on the latest product information available at the time of publication. Emco Wheaton Retail Corporation reserves the right to make changes at any time in prices without notice or obligation. Emco Wheaton Retail Corporation reserves the right to make changes at any time in materials, specifications and models upon CARB approval.

# Emco Warranty Tag

		Manufacture Date:
	VINEATON RETAIL (252) 243-0150	Name of Contractor:
	Phase I EVR Warranty Tag	Name of Technician:
	Emco Wheaton Retail warrants its California	Technician Signature:
	period of one (1) year from date of installation.	Technician Certification Number:
	This component was factory tested to and met all	Installation Date:
$\cap$	applicable performance standards and specifications	Installation Site:
$\cup$	to which it was certified by the California Air	Distributor Name:
	and specifications are listed in the applicable ARB	Branch Location:
	Executive Orders and Certification Procedure 201.	Cap Ball Float
	IMPORTANT: Leave this warranty tag with the station owner and/or operator.	OPV/Drop Tube Extractor Fitting
	Emco Wheaton Retail Corp.	Model No.:
	2300 Industrial Park Dr., Wilson, NC 27893 p/n 570964	
Reaso	on for returning product: Please select appro	opriately
Reaso	on for returning product: Please select appro tant: Failure to complete accurately may cause of operiencing premature shut-off ad threads roken linkage amaged o-ring/gasket ails Leak Decay Test CARB TP-201.3 ails Static Torque Test CARB TP-201.1B	opriately. delays processing warranty claim.
Reaso Import	on for returning product: Please select appro- tant: Failure to complete accurately may cause of operiencing premature shut-off ad threads roken linkage amaged o-ring/gasket ails Leak Decay Test CARB TP-201.3 ails Static Torque Test CARB TP-201.1B ails OP//Drop Tube & Droip Value Look Test CA	opriately. delays processing warranty claim.
Reaso Import Ba Ba Br Da Fa Fa	on for returning product: Please select appro tant: Failure to complete accurately may cause of operiencing premature shut-off ad threads roken linkage amaged o-ring/gasket ails Leak Decay Test CARB TP-201.3 ails Static Torque Test CARB TP-201.1B ails OPV/Drop Tube & Drain Valve Leak Test CA	opriately. delays processing warranty claim.
Reaso Import E> Ba Ba Da Fa Fa Comm	on for returning product: Please select appro- tant: Failure to complete accurately may cause of operiencing premature shut-off ad threads roken linkage amaged o-ring/gasket ails Leak Decay Test CARB TP-201.3 ails Static Torque Test CARB TP-201.1B ails OPV/Drop Tube & Drain Valve Leak Test CA	opriately. delays processing warranty claim.
Reaso Import Ba Ba Br Da Fa Fa Comm	on for returning product: Please select appro- tant: Failure to complete accurately may cause of operiencing premature shut-off ad threads roken linkage amaged o-ring/gasket ails Leak Decay Test CARB TP-201.3 ails Static Torque Test CARB TP-201.1B ails OPV/Drop Tube & Drain Valve Leak Test CA	opriately. delays processing warranty claim.

## Franklin Fueling Systems Warranty Statement and Tag

Franklin Fueling Systems (FFS) Enhanced Vapor Recovery (EVR) products are offered for sale under the brand names of Healy, INCON, Phil-Tite, EBW, and Franklin Fueling Systems (collectively referred to as "FFS EVR products"). FFS EVR products are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CARB) for the duration of the warranty period, as indicated in the related CARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CARB EO.

FFS warrants that FFS EVR products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for FFS EVR products, (b) design changes to FFS EVR products, (c) performance specifications of the FFS EVR products, and (d) duration of the warranty period of FFS EVR products.

FFS EVR products are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manuals by certified technicians or an owner/operator as defined in the related CARB EO and to generally accepted industry standards.

FFS reserves the right to make changes in the design or to make additions or improvements with respect to FFS EVR products without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CARB.

FFS reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CARB. Any such change or cancellation will be effective for products sold by FFS after the date of such change or cancellation. No agents, distributors, dealers, or employees of FFS are authorized to make modifications to this warranty or to make additional warranties with respect to any FFS EVR products. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of FFS and shall not be relied upon.

FFS warrants the workmanship and materials of FFS EVR products to be free of defects, at the time of sale by FFS, for a period of one year (12 months) from the date of installation. When warranty for FFS EVR products cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for FFS EVR product cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by FFS (for location of date of manufacture on components, see related CARB EO Exhibit 1 – Equipment List). In all cases, installation date or purchase

date will require providing formal documentation to FFS as evidence of applicable warranty coverage or date of manufacture will be used to determine duration of warranty period. Formal documentation may include, but is not limited to, FFS authorized service company and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

FFS shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-FFS replacement parts, the unauthorized addition of non-FFS items to FFS EVR products, and the unauthorized alteration of FFS EVR products will void warranty. FFS shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the FFS EVR products have been operated with any accessory, equipment, or a part not specifically approved by FFS and not manufactured by FFS to FFS design and specifications.

FFS EVR product warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). FFS EVR product warranty shall not apply to acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific FFS written warranty, FFS does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any FFS EVR product.

Other than those FFS EVR products specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), FFS EVR product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for FFS EVR product warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from FFS. FFS will honor warranty claims processed through FFS authorized service companies and distributors only. FFS will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to FFS's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:
INCON branded products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 34 Spring Hill Road Saco, ME 04072 USA All other FFS EVR Products: Franklin Fueling Systems, Inc. ATTN: Warranty Department 3760 Marsh Road Madison, WI 53718 USA

Franklin Fueling Systems, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to FFS's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by FFS.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator.
Component Model Number :

### **OPW STANDARD PRODUCT WARRANTY TAG**

Notice: FlexWorks by OPW, Inc., VAPORSAVER<sup>™</sup> and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection is the sole responsibility of the customer and/or its agents and must be based on physical specifications and limitations, compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials and specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

OPW warrants solely to its customer (the initial purchaser and any subsequent purchasers within the warranty period) that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated:

PRODUCT	WARRANTY PERIOD	
FlexWorks Primary Pipe	10 years from date of manufacture	
All Products and replacement parts installed in the State of California Certified to California CP-201 and/or CP-206 Standards*	<ol> <li>year from-date of installation (proof of purchase from certified contractors/technicians required)</li> <li>OPW warrants ongoing compliance with the standards and specifications for the duration of the warranty period required by the State of California; this limited warranty is under the condition the equipment was installed and maintained by trained and certified contractors/technicians unless noted in Installation Manual</li> </ol>	
All other Products and replacement parts	1 year from date of manufacture**	
*Products certified to California CP-201 and/or CP-206 Standards have been factory tested and met all applicable performance standards and specifications and will have an OPW registration card enclosed/attached to the product		

OPW's exclusive obligation under this limited warranty is, at its option, to repair, replace or issue credit (in an amount not to exceed the list price for the product) for future orders for any product that may prove defective within the applicable warranty period. (Parts repaired or replaced under warranty are subject to prorated warranty coverage for remainder of the original warranty period). Complete and proper warranty claim documentation and proof of purchase required. All warranty claims must be made in writing and delivered during the applicable warranty period to OPW at OPW 9393 Princeton-Glendale Road Hamilton, Ohio, USA 45011, Attention: Customer Service Manager. No products may be returned to OPW without its prior written authority.

This limited warranty shall not apply to any FlexWorks or VAPORSAVER<sup>™</sup> product unless it is installed by an OPW attested installer and all required site and warranty registration forms are completed and received by OPW within 60 days of installation. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER<sup>™</sup> or other OPW product: unless all piping connections are installed with a nationally-recognized or state-approved leak detection device in each tank and dispenser sump (which are not for storage and from which all discharge hydrocarbons must be removed, and the systems completely cleaned, within 24 hours); unless testable sumps utilize FlexWorks pipe and access fittings; unless a sump inspection log or an EPA recommended/required checklist is maintained and the results are furnished to OPW upon request; and unless OPW is notified within 24 hours of any known or suspected product failure and is provided with unrestricted access to the product and the site. This limited warranty also shall not apply to any product which has been altered in any way, which has been repaired by anyone other than a service representative authorized by OPW, or when failure or defect is due to: improper installation or maintenance (including, without limitation, failure to follow FlexWorks Quick Reference Manual Installation Guide and all product warning labels); abuse or misuse;

violation of health or safety requirements; use of another manufacturer's, or otherwise unauthorized, substances or components; soil or other surface or subsurface conditions; or fire, flood, storm, lightning, earthquake, accident or any other conditions, events or circumstances beyond OPW's control.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

OPW shall have no other liability whatsoever, whether based on breach of contract, negligence, gross negligence, strict liability or any other claim, including, without limitation, for special, incidental, consequential or exemplary damages or for the cost of labor, freight, excavation, clean-up, downtime, removal, reinstallation, loss of profit, or any other cost or charges. No person or entity is authorized to assume on behalf of OPW any liability beyond this limited warranty. This limited warranty is not assignable.

\*\* Date of manufacture on this product is located (*location will be specific to each component*)



9393 Princeton-Glendale Road Hamilton, Ohio 45011 North America Toll Free - TELEPHONE: (800) 422-2525 - Fax: (800) 421-3297 - Email: domesticsales@opw-fc.com

International – TELEPHONE: (513) 870-3315 or (513) 870-3261 -Fax: (513) 870-3157 - Email: intlsales@opw-fc.com www.opwglobal.com

# Comp X TANK Commander Warranty Statement and Tag

Seller warrants to the initial and subsequent purchasers, for a period of one year from date of installation, that the Products sold hereunder will, at the time of delivery: (a) comply with the CARB CP-201 standards and specifications for the duration of the warranty period for such Products in effect at the time of shipment or such other specifications as are expressly agreed upon by Seller and Buyer in writing; (b) be adequately contained, packaged, and labeled; and (c) conform to any promises and affirmations of fact made on the container and label. In the event that any such Products fail to conform to the foregoing warranty, Seller will, at its option, repair or replace such nonconforming Products, or credit Buyer for an amount not to exceed the original sales price of such Products. Shipping costs incurred in returning such nonconforming Products to Seller shall be borne by Seller, but Seller shall in no event be liable for any inspection, handling, or packaging costs incurred by Buyer in connection with such Products. Buyer's negligence, misuse, improper installation, or unauthorized repair or alteration, shall void this warranty. The TANK Commander Warranty tag is located on the inside cover of the product.

#### Warranty Tag

TANK Commander TC-1 1 year warranty from date of installation Date of manufacture \_ /\_ /\_ \_\_\_ The CompX TANK Commander product was factory tested and meets the standards and specifications to which it was certified by the California Air Resources Board (CARB) as indicated in the related CARB Phase I EVR Executive Orders.

### Husky Corporation Warranty Statement and Tag

**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.

**EVR PRODUCTS** – With respect to EVR products installed in California, for a period of one (1) year from the date of installation, Husky warrants that the product will be free from defects in materials and workmanship (if the installation date is in question or indeterminable, Husky will warrant the product for 12 months from sale by Husky). Husky confirms that the warranty is transferable to a subsequent purchaser within the warranty period. However, the warranty does not follow the product from its initial installation location to succeeding locations. Husky confirms these products are warranted to meet the performance standards and specifications to which it was certified by CARB for the duration of the warranty. EVR products must be installed per CARB Executive Order and must follow the Husky Installation Instructions or the warranty is void. The warranty tag included with the EVR product must be provided to the end user at installation. A completed warranty tag and installation documentation is required to be returned with the product to be eligible for warranty consideration.

**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.

# Husky Warranty Tag

S.	WARRANTY TAG     Husky Corporation     2325 Husky Way     Pacific, Mo 63069     (800) 325-3558	Husky General Fueling Products:
$\bigcirc$	Station Name:            Store #:            Date:            City:            State:            Service Contractor:	Model #: Serial #: Installation Date: Manufacturer Lot #:
	Distributor: No warranty accepted without warranty tag filled out completely and attached to product.	Work order # (if applicable): RGA #: Form #009179-6 03/2013

# FOR REFERENCE ONLY

/	Reason for Return (check all applicable):				
	Leaking Fuel Around Spout	□ Failed Pressure Decay Test			
	Leaking Fuel In Trigger Area	□ Leaking Fuel at Hose Inlet			
$\frown$	□ Keeps Shutting Off	Mechanical Malfunction			
$( \circ )$	□ Will Not Shut Off	$\Box$ Dispenses Fuel Without Pulling Lever			
$\smile$	Notes / Comments:				
EVR produc data can b at the fac Vacuum Set Please pro	ts installed in California are warranted for e found on the product data tag attached to tory and met all applicable performance stanc ting: 6.0 - 10.0 in W.C. and Leak Rate: 0.05 vide installation documention such as a purch	l year from the date of installation. Manufacturing the product. Husky confirms the product was tested Jards in CP-201 including Pressure Setting: 2.5-6.0 in W.C., CFH @ +2.0 in W.C. and 0.21 CFH @ -4.0 in W.C. ase order, an invoice or a receipt at time of claim.			

BACK VIEW

# **McGard Warranty Statement and Tag**

McGard Fuel Locks are fully tested at the time of manufacture to meet the applicable performance standards and specifications to which it was certified by the California Air Resource Board (CARB) for the duration of the warranty period, as indicated in the related CARB Executive Order (EO). Performance standards and specifications are listed in Exhibit 2 (System/Compliance Specifications) and Exhibit 3 (Manufacturing Performance Standards) in the related CARB EO.

McGard warrants that McGard Fuel Lock products installed in California will conform to the warranty terms and conditions required by the California Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) with respect to (a) transferability of warranties for McGard Fuel Locks, (b) design changes to McGard Fuel Locks, (c) performance specifications of the McGard Fuel Locks, and (d) duration of the warranty period of McGard Fuel Locks.

McGard Fuel Locks are warranted to the initial purchaser, and any subsequent purchaser within the warranty period, for workmanship, performance, and materials when properly installed, used and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manuals by certified technicians as defined in the related CARB EO and to generally accepted industry standards.

McGard reserves the right to make changes in the design or to make additions or improvements with respect to McGard Fuel Locks without incurring any obligation to modify or install same on previously manufactured products, upon written approval from CARB.

McGard reserves the right to change or cancel all or any part of this limited warranty, upon written approval from CARB. Any such change or cancellation will be effective for products sold by McGard after the date of such change or cancellation. No agents, distributors, dealers, or employees of McGard are authorized to make modifications to this warranty or to make additional warranties with respect to any McGard Fuel Locks. Accordingly, any statements made by individuals, whether oral or written, shall not constitute a warranty of McGard and shall not be relied upon.

McGard warrants the workmanship and materials of McGard Fuel Locks to be free of defects, at the time of sale by McGard, for a period of one year (12 months) from the date of installation. When warranty for McGard Fuel Locks cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for McGard Fuel Locks cannot be verified to date of installation or date of purchase, claims will be honored for a period of eighteen (18) months from date of manufacture by McGard (date of manufacture is engraved on side of lock body). In all cases, installation date or purchase date will require providing formal documentation to McGard as evidence of applicable warranty coverage or date of manufacture will be used to determine duration of warranty period. Formal documentation may include, but is not limited to McGard authorized service company

and distributor work orders, startup/installation documentation, maintenance logs, and/or sales receipts.

McGard shall not be liable for any loss or damage whatsoever, including, without limitation, loss in profits, loss in sales, loss of fuel or other products, loss of use of equipment, facilities or service, costs of environmental remediation, diminution in property value, or any other special, incidental or consequential damages of any type or nature, and all such losses or damages are hereby disclaimed and excluded from this limited warranty.

Use of non-McGard replacement parts, the unauthorized addition of non-McGard items to McGard Fuel Locks, and the unauthorized alteration of McGard Fuel Locks will void warranty. McGard shall, as to each defect, be relieved of all obligations and liabilities under a components warranty if the McGard Fuel Locks have been operated with any accessory, equipment, or a part not specifically approved by McGard and not manufactured by McGard to McGard design and specifications.

McGard Fuel Lock warranty shall not apply to any products which have been mishandled, incorrectly installed or applied, altered in any way, which has been repaired by any party other than qualified technicians, or when such failure is due to misuse or conditions of use (such as, but not limited to, blown fuses, sheared breakaway screws, corrosion damage, negligence, accidents, or normal wear of plastic/rubber parts including scuff guards and seals). McGard Fuel Lock warranty shall not apply to vandalism, theft, acts of terrorism, acts of war, or acts of God (such as, but not limited to, fire, flood, earthquake, or explosion). Unless otherwise expressly provided in a specific McGard written warranty, McGard does not provide coverage for labor or shipping charges, shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or any tools, supplies, or equipment need to install, repair, or remove any McGard Fuel Lock.

Other than those McGard Fuel Locks specifically designated for fuel concentrations of 85% ethanol with 15% gasoline (E85), McGard Fuel Lock product warranty shall not cover any components that have been in contact with fuel concentrations greater than 15% ethanol or 15% methanol by volume (up to E15/M15).

Claims for McGard Fuel Lock warranty must be submitted in writing promptly after discovery of a defect with a Returned Goods Authorization (RGA) Number from McGard. McGard will honor warranty claims processed through McGard authorized service companies and distributors only. McGard will honor warranty claims submitted no more than thirty (30) days after the end of the applicable warranty period. Product returned for warranty inspection must be shipped freight prepaid to McGard's facilities, with the RGA Number indicated on the returned product, to the following address for inspection:

McGard LLC, ATTN: Warranty Department, 3875 California Road, Orchard Park, NY 14127 USA

McGard, upon inspection and after determination of a warranty defect, will at its option, repair or replace defective parts returned to McGard's facility or where the product is in use. Repaired or replaced parts will be returned freight prepaid by McGard.

A copy of this limited warranty is to be retained with the equipment, on-site with the facility owner/operator.	
Component Model Number:	
Component Date of Manufacturer:	
Component Install Date:	
Facility Name:	
Facility Address:	
Installer Name:	
Installer Signature:	

## Exhibit 5

## VAULTED ABOVEGROUND STORAGE TANK CONFIGURATION (Optional)

This exhibit allows an alternate tank storage configuration for the Phase I EVR system. A vaulted aboveground storage tank (AST) may be installed in substitute for a conventional underground storage tank (UST). The figures in this exhibit provide examples of typical vaulted AST configurations.

### **General Specifications**

Alternate typical vaulted AST configurations for the Phase I EVR Systems are shown in Figures 5-1, 5-2, 5-3, and 5-4.

Unless otherwise specified in this Executive Order (EO), the vaulted AST configuration shall comply with the applicable performance standards and performance specifications in CP-201. The emergency vent shall be a certified vent listed in the Phase I EVR Executive Orders for ASTs and shall be installed, operated, maintained and meet any performance requirements specified in the applicable AST Executive Order.



Figure 5-1: Front Sectional Views of Typical Vaulted AST



Figure 5-2: Top Sectional View of Typical Vaulted AST

Figure 5-3: End Sectional View of Typical Vaulted AST





Figure 5-4: Sectional Views of Typical Vaulted AST (Ventilation)

Figure 5-4a: Typical Exhaust