State of California
AIR RESOURCES BOARD

Executive Order VR-101-M

Franklin Fueling Systems, Inc.
Phil-Tite Phase I Vapor Recovery System

WHEREAS, the California Air Resources Board (ARB) 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 **CP-201, *Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities*** (Certification Procedure 201) as last amended May 25, 2006, incorporated by reference in title 17, California Code of Regulations, section 94011;

WHEREAS, ARB has established, pursuant to California Health and Safety Code sections 39600, 39601, and 41954, certification procedures for systems designed for the control of gasoline vapor emissions at novel facilities in its **CP-205, *Certification Procedure for Vapor Recovery Systems of Novel Facilities*** (Certification Procedure 205) as last amended March 17, 1999, incorporated by reference into title 17, California Code of Regulations, section 94015;

WHEREAS, ARB has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, test procedures for determining the compliance of Phase I vapor recovery 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) pursuant to the Certification Procedure 201 on June 19, 2001 by Executive Order VR-101-A, and last modified on September 1, 2009, by Executive Order VR-101-L;

WHEREAS, the Phil-Tite system certification expires on May 31, 2012;

WHEREAS, the Certification Procedure authorizes the Executive Officer or Executive Officer delegate to extend the certification of the Phil-Tite system when more time is needed to gather necessary information to complete a renewal evaluation;

WHEREAS, Certification Procedures 201 and 205 provide that the ARB 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 the Certification Procedures;

WHEREAS, 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, Alberto Ayala, Chief of the Monitoring and Laboratory Division, find that the Phil-Tite Phase I Vapor Recovery System, including modifications, conforms with all of the requirements set

forth in the Certification Procedures 201 and 205, 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 (October 8, 2003)***;

NOW, THEREFORE, IT IS HEREBY ORDERED that the Phil-Tite 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 Phil-Tite system as installed in a gasoline dispensing facility (GDF). Exhibit 3 contains the manufacturing specifications.

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 Phil-Tite shall provide a warranty for the vapor recovery system and components to the initial purchaser. The warranty shall be passed on to each subsequent purchaser within the warranty period. The manufacturer of components not manufactured by Phil-Tite shall provide a warranty for each of their components certified herein. This warranty shall include ongoing compliance with all applicable performance standards and specifications, and shall comply with all warranty requirements in section 16.5 of the Certification Procedure 201. Phil-Tite or other manufacturers may specify that the warranty is contingent upon the use of trained installers.

IT IS FURTHER ORDERED that the certified Phil-Tite system shall be installed, operated and maintained in accordance with the ***ARB-Approved Installation, Operation and Maintenance Manual for the Phil-Tite Phase I Vapor Recovery System*** as certified by Executive Order VR-101-M***.*** 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 certified hereby is prohibited and deemed inconsistent with this certification unless the alteration has been submitted in writing and approved in writing by the Executive Officer or Executive Officer's delegate.

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 (March 17, 1999)***, **TP-201.1B*****, Static Torque of Rotatable Phase I Adaptors (October 8, 2003)*** and depending on the system

configuration, either **TP-201.1D, *Leak Rate of Drop Tube Overfill Prevention Device and Spill Container Drain Valve (October 8, 2003)***; or **TP-201.1C, *Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003)***. 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 Executive Officer 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 E-85 (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 Executive Officer or Executive Officer delegate.

IT IS FURTHER ORDERED that GDF installations permitted under VR-101-K for E-85 fuel that use the PV-Zero-E85 Pressure/Vacuum Vent Valve 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 Phase I Vapor Recovery System is valid through May 31, 2013 to provide more time for the Executive Officer or Executive Officer delegate to gather necessary information to complete a renewal evaluation.

IT IS FURTHER ORDERED that Executive Order VR-101-L issued on September 1, 2009, is hereby superseded by this Executive Order. Phil-Tite Phase I Vapor Recovery Systems certified under Executive Orders VR-101-A to L may remain in use at existing installations. This Executive Order shall apply to new installations or major modification of the Phase I system of existing gasoline dispensing facilities.

Executed at Sacramento, California, this 24th day of May, 2012.

Alberto Ayala, Ph.D., M.S.E
Chief, Monitoring and Laboratory Division

Attachments:

Exhibit 1 Phil-Tite Phase I Vapor Recovery System Equipment List
Exhibit 2 Installation, Maintenance and Compliance Specifications
Exhibit 3 Manufacturing Performance Standards and Specifications

Exhibit 1

Phil-Tite Phase I Vapor Recovery System Equipment List

Equipment	**Manufacturer/Model Number**

(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.

(E85) = Identifies that these components are only approved for E85 fuel blends.

Spill Container

Phil-Tite 85000 series (Gas/E85)
Phil-Tite 85000-1 series (Gas/E85)

85000 and 85000-1 series legend:
85*W*0*X*-*YYY*-*ZZZ* (85000 series)
85*W*0*X*-1*YYY*-*ZZZ* (85000-1 series)

W represented by:
0 = preassembled spill container assembly
1 = replacement spill container

X represented by:
0 = product spill container
1 = vapor spill container

YYY represented by:
15 = 15-gallon capacity
EXT = external for sump configuration (not available for 85000-1 series)
NV = Vapor (replacement spill container)
F = Product (replacement spill container)
S = Stainless Steel (SS) Sleeve
GS = Stainless Steel (SS) Sleeve and Gravel Shield

ZZZ represented by:
15 = 15-gallon capacity
EXT = external for sump configuration (not available for 85000-1 series)
NV = Vapor (replacement spill container)
F = Product (replacement spill container)
S = Stainless Steel (SS) Sleeve
GS = Stainless Steel (SS) Sleeve and Gravel Shield

Spill Container Lid

Phil-Tite 85011 (Gas/E85) (not required with sump configuration lid)

Debris Bucket

Phil-Tite PP-1005 TB (Gas/E85) (product) (not required)
Phil-Tite PP-1005 TBP (Gas/E85) (vapor) (not required)

Exhibit 1 (continued)

Phil-Tite Phase I Vapor Recovery System Equipment List

Equipment	Manufacturer/Model Number
Product Adaptor	Phil-Tite SWF-100-B (Gas) Phil-Tite SWF-100-SS (Gas/E85)
Vapor Adaptor	Phil-Tite SWV-101-B (Gas) Phil-Tite SWV-101-SS (Gas/E85)
Riser Adaptor	Phil-Tite M/F4X4 (Gas/E85)
Riser Support Bracket	Phil-Tite M-1600 (Gas/E85)
Dust Cap	Morrison Brothers 323C-0100ACEVR (vapor) (Gas/E85) Morrison Brothers 305C-0100ACEVR (product) (Gas/E85) OPW 1711T-EVR (vapor) (Gas/E85) OPW 634TT-EVR (product) (Gas/E85) OPW 634LPC (product) (Gas) OPW 1711LPC (vapor) (Gas) CompX CSP1-634LPC (product) (Gas) CompX CSP3-1711LPC (vapor) (Gas) CompX CSP2-634LPC (product) (Gas) CompX CSP4-1711LPC (vapor) (Gas) EBW 777-201-01 (product) (Gas) EBW 777-201-02 (product) (Gas/E85) EBW 304-301-XX (vapor) (Gas) XX indicates presence of security chain: 01= no chain 02= with chain EBW 304-301-YY (vapor) (Gas/E85) YY indicates presence of security chain: 03= no chain 04= with chain
Pressure/Vacuum Vent Valve	FFS PV-Zero (Gas/E85) Husky 5885 (Gas)
Tank Gauge Port Components	Ever-Tite 4097AGBR (threaded adaptor) (Gas) Ever-Tite 4097AGMBRNL (adaptor) (Gas) Ever-Tite 4097MBR (double handle cap) (Gas) Veeder-Root 312020-952 (cap and adaptor kit) (Gas/E85) Morrison Brothers 305XPA1100AKEVR (cap and adaptor kit) (Gas/E85)

Exhibit 1 (continued)

Phil-Tite Phase I Vapor Recovery System Equipment List

Equipment	Manufacturer/Model Number
Tank Gauge Port Components (Continued)	EBW 90037-E (In Tank Probe Cap and Adapter Kit) (Gas/E85)
	Morrison Brothers 305-0200AAEVR (replacement adaptor) (Gas/E85)
	Morrison Brothers 305XP-110ACEVR (replacement cap) (Gas/E85)
	EBW 90037 (In Tank Probe Cap and Adaptor Kit) (Gas)
Drop Tube Overfill Prevention Device[1]	Phil-Tite 61SO-PT (Gas)
	EBW 708-49X-1Y (Gas)
	EBW 708-49X-3Y (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[1]	OPW 61-T (various lengths) (Gas)
	EBW 782-204-3X2 (Gas/E85) (Note: 4 inch diameter tube)
	X represented by: 0 = 10 feet 2 = 12 feet
Riser Offset[1]	Phil-Tite M-6050 (Gas/E85)

[1] 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.

Exhibit 1 (continued)

Phil-Tite Phase I Vapor Recovery System Equipment List

Equipment	**Manufacturer/Model Number**	
Double Fill[1]	Phil-Tite	(configuration only) (Gas/E85)
Tank Bottom Protector[1]	Phil-Tite Phil-Tite	TBP-3516 (Gas) TBP-3516-E (Gas/E85)

Table 1
Components Exempt from Identification Requirements

Component Name	Manufacturer	Model Number
Drop Tube	OPW EBW	61-T Straight Drop Tube (Gas) 782-304-3X2 (Gas/E85)
Dust Caps	Morrison Brothers	323C-0100ACEVR (vapor)* (Gas) 305C-0100ACEVR (product)* (Gas)
Tank Gauge Port Components	Ever-Tite	4097 AGBR, AGMBRNL, MBR (Gas)
	Veeder-Root	312020-952 (cap & adaptor) (Gas/E85)
	Morrison Brothers	305XPA1100AKEVR (cap and adaptor kit) (Gas/E85) 305-0200AAEVR (replacement adaptor) (Gas/E85) 305XP-1100ACEVR (replacement cap) (Gas/E85)
	EBW	90037 (In Tank Probe Cap and Adaptor Kit) (Gas) 90037-E (In Tank Probe Cap and Adaptor Kit) (Gas/E85)
Riser Adaptor	Phil-Tite	M/F 4X4 (Gas/E85)
Riser Offset	Phil-Tite	M-6050 (Gas/E85)
Riser Support Bracket	Phil-Tite	M-1600 (Gas/E85)
Spill Container Lid	Phil-Tite	85011 (Gas/E85)
Sump/Sump Lids	Varies	Varies (Gas/E85)

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

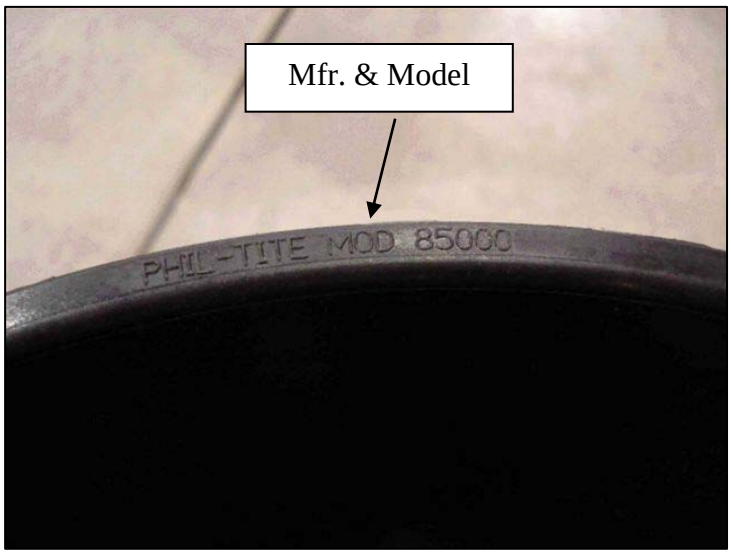
The components in Table 2 may not be installed as a new or replacement part on or after September 1, 2002. These components, if installed prior to September 1, 2002, may be used for the remainder of their useful life.

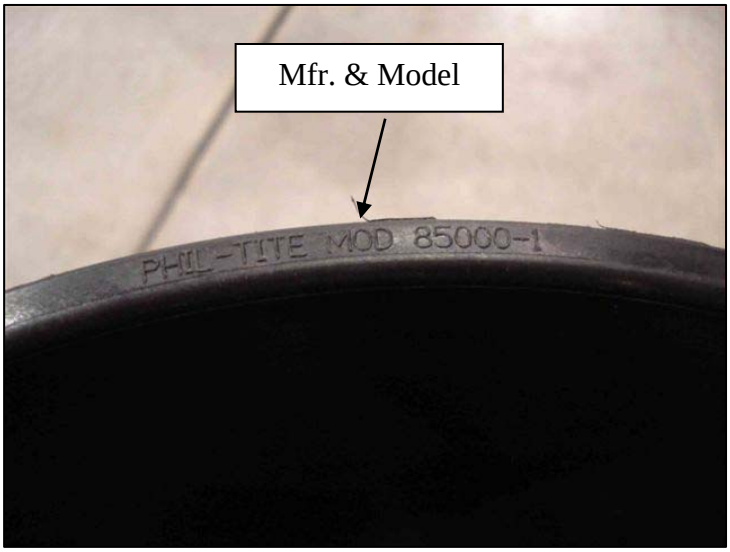
Table 2

Component Name	Manufacturer	Model Number
Drop Tube	EBW	782-204 (various lengths) (Gas)
	Emco Wheaton	A0020 (various lengths) (Gas)

[1] 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.

Exhibit 1 (continued)
Component Identification and Location





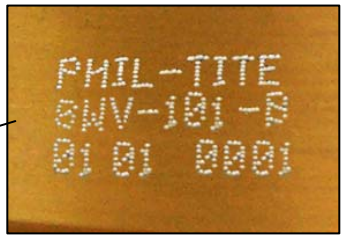
Phil-Tite Model 85000 and 85000-1 Spill Containers

Phil-Tite Model PP-1005-TB
Product Debris Bucket

Phil-Tite Model PP-1005-TBP
Vapor Debris Bucket

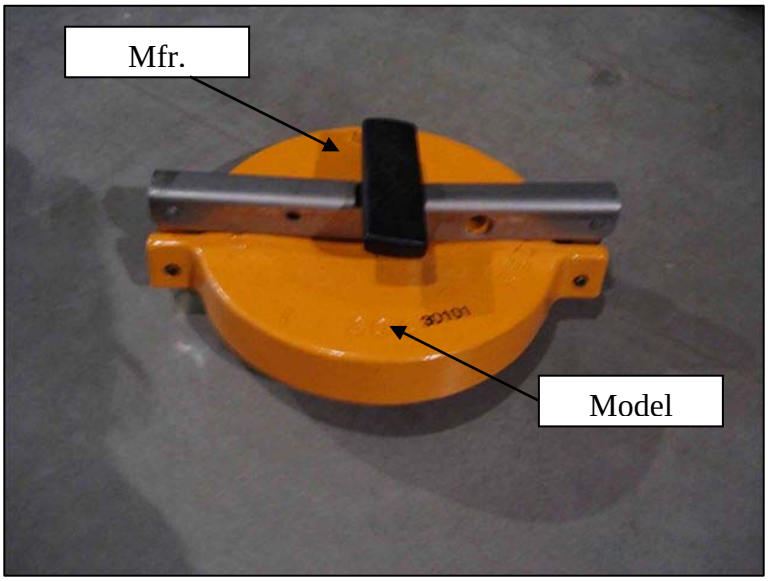
Exhibit 1 (continued)
Component Identification and Location

Phil-Tite Model SWF-100-B
Product Adaptor

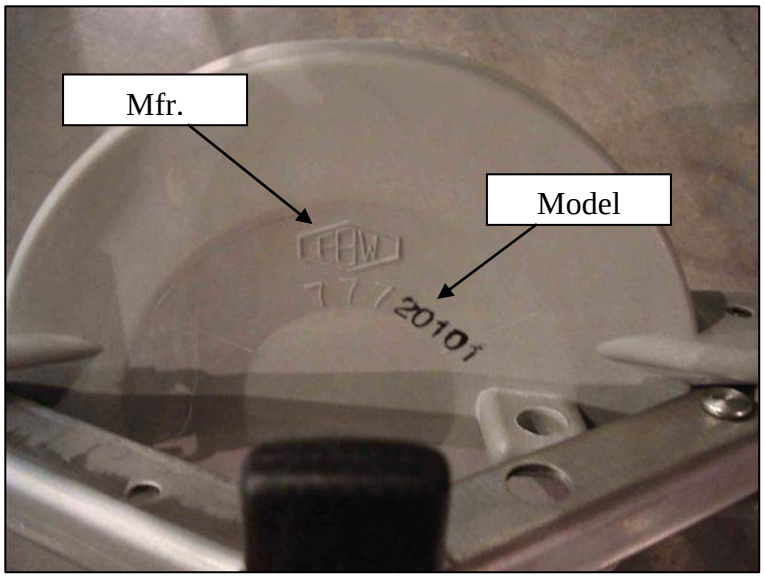


Phil-Tite Model SWV-101-B
Vapor Adaptor

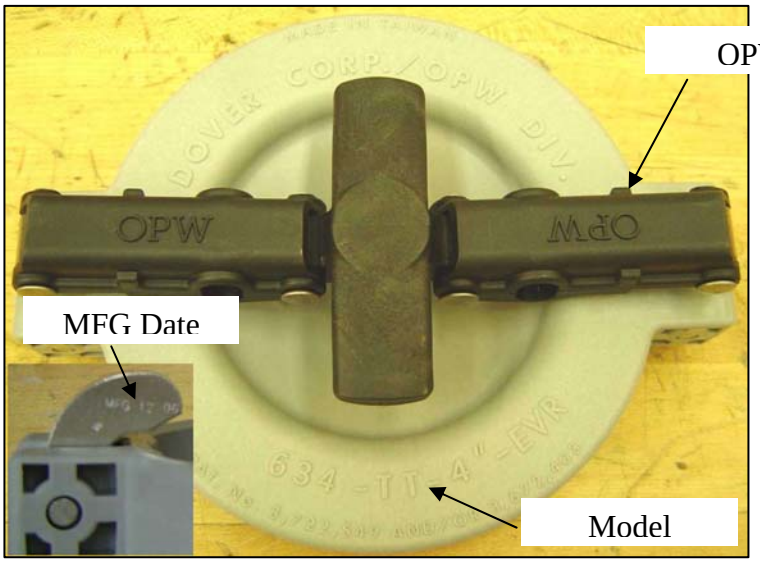
Exhibit 1 (continued)
Component Identification and Location



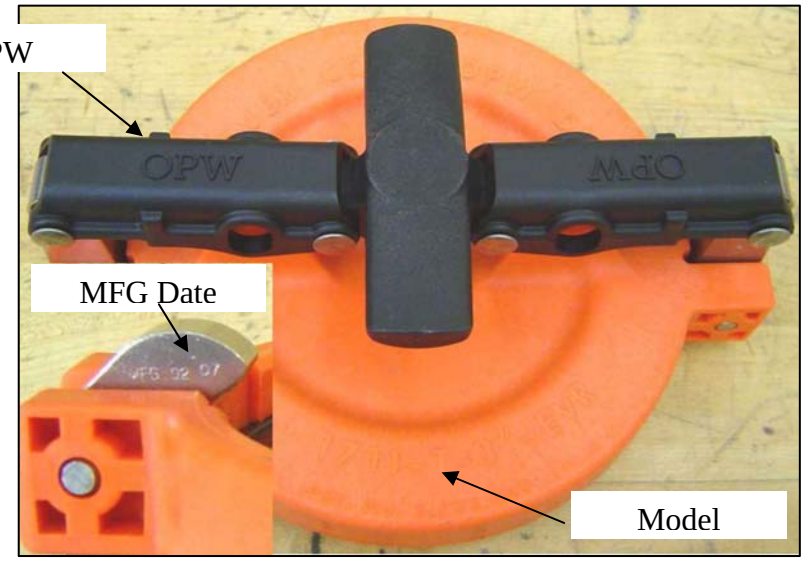
EBW 304-301-XX Vapor Dust Cap



EBW 777-201-01 Product Dust Cap

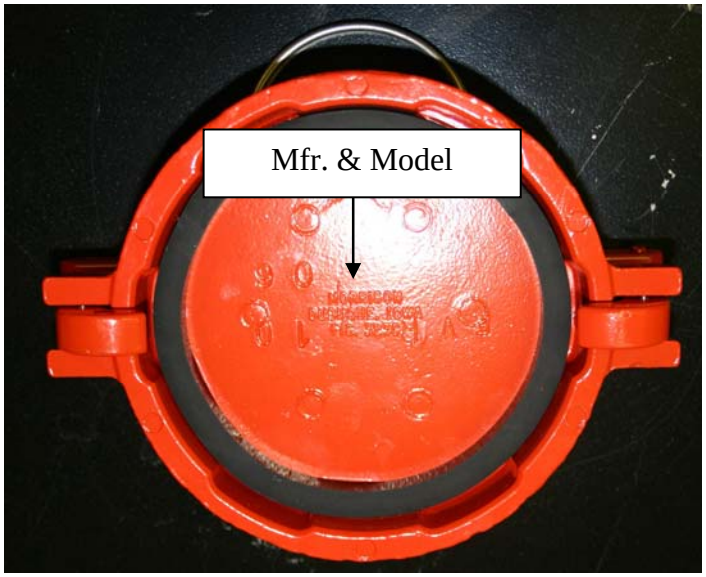


OPW 634-TT-EVR Product Dust Cap



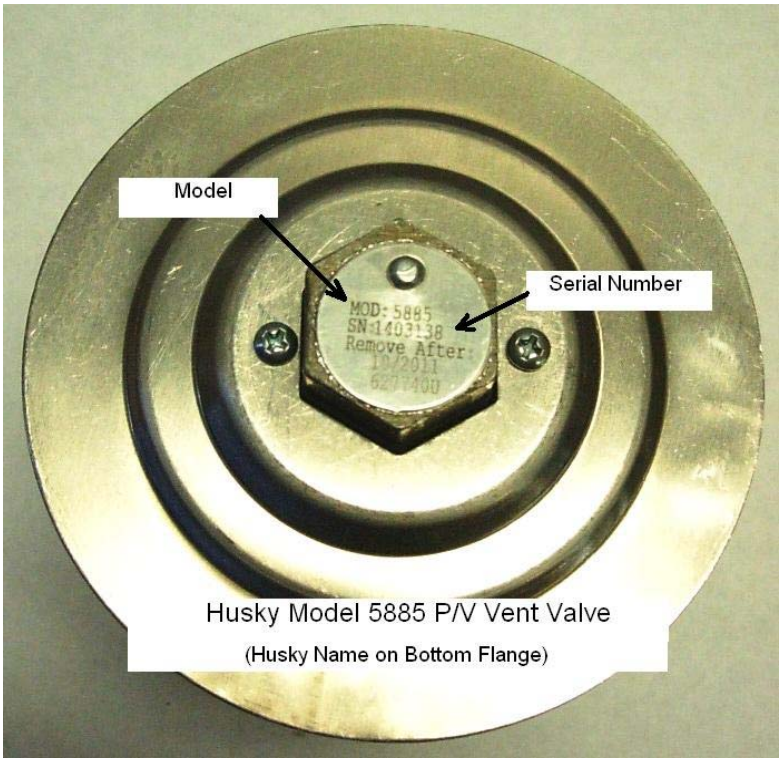
OPW 1711-T-EVR Vapor Dust Cap

Exhibit 1 (continued)
Component Identification and Location



Morrison Brothers 323C EVR Vapor Dust Cap

Morrison Brothers 305C EVR Product Dust Cap



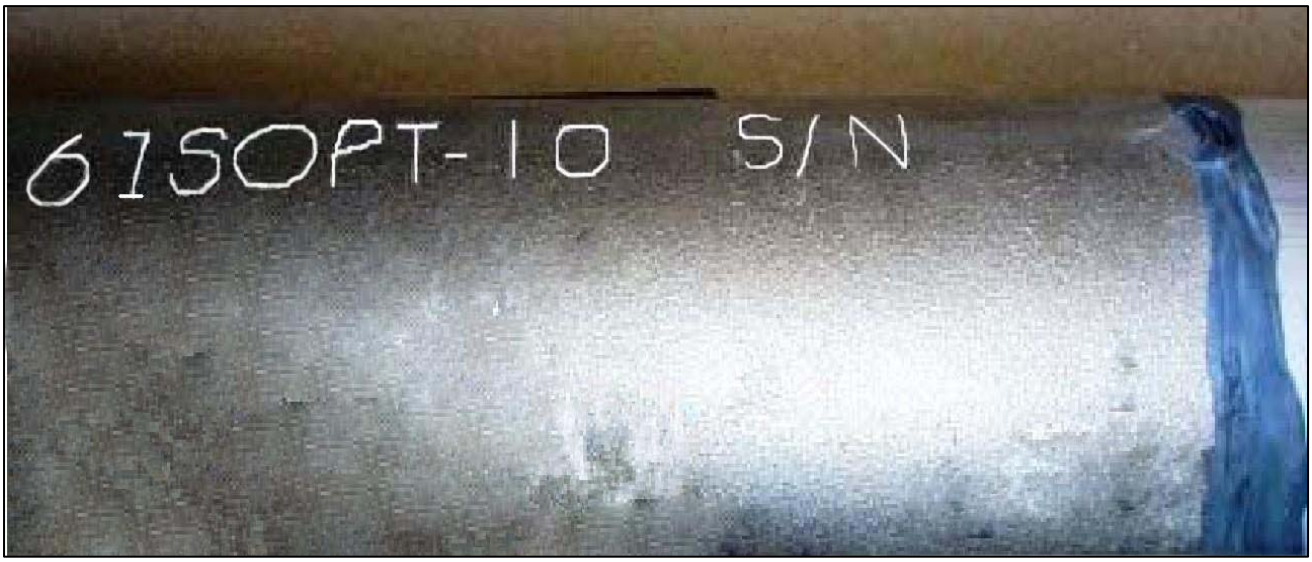
(Gasoline Only)

Exhibit 1 (continued)
Component Identification and Location

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

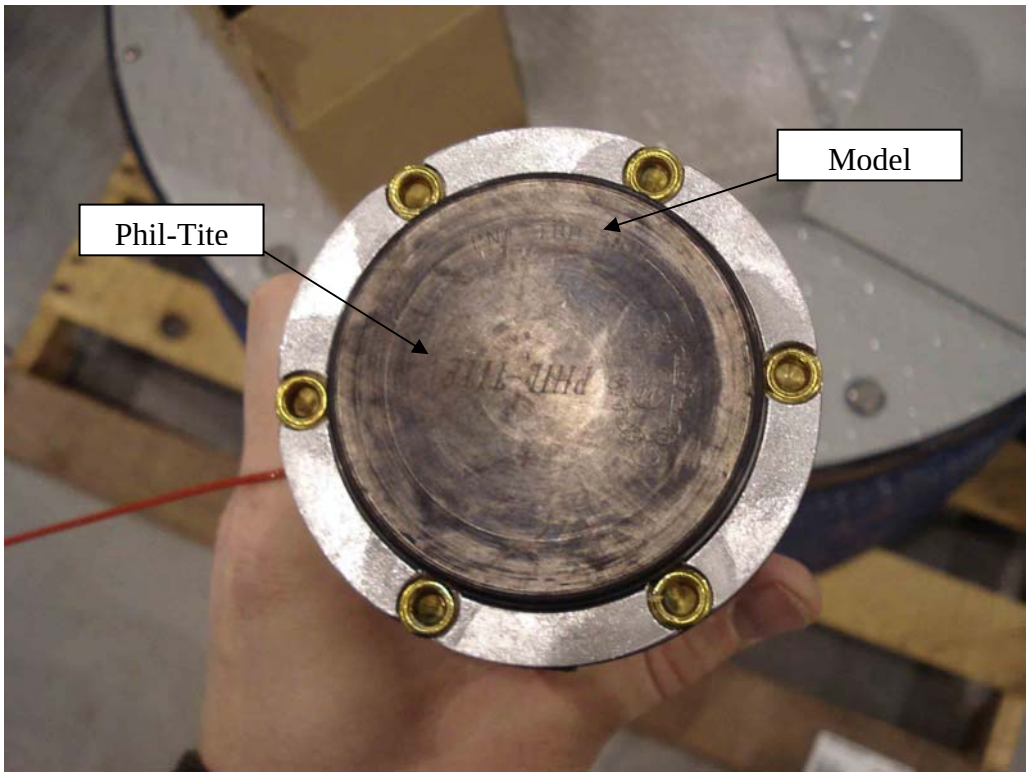
Exhibit 1 (continued)
Component Identification and Location

EBW Model 708-49X-1Y Overfill Prevention Device



Phil-Tite Model 61SO-PT Overfill Prevention Device

Exhibit 1 (continued)
Component Identification and Location



Phil-Tite TBP-3516 Series Tank Bottom Protector

OPW 634LPC Product Dust

OPW 1711LPC Vapor Dust

Exhibit 1 (continued)
Component Identification and Location

EBW 777-201-02 Product Dust Cap
(Gas/E85 Compatible)

EBW 304-301-03 Vapor Dust Cap
(Gas/E85 Compatible)

Exhibit 1 (continued)
Component Identification and Location

EBW 708-49X-3Y Autolimiter
(Gas/E85 Compatible)

Phil-Tite 85000 & 85000-1 Series Spill Container
(Gas/E85 Compatible)

Exhibit 1 (continued)
Component Identification and Location

Phil-Tite SWF-100-SS Fill Adaptor

Phil-Tite SWV-101-SS Vapor Adaptor

Exhibit 1 (continued)
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

Exhibit 1 (continued)
Component Identification and Location

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

Exhibit 2

Installation, Maintenance and Compliance Specifications

This Exhibit contains the installation, maintenance and compliance standards and specifications applicable to a Phil-Tite system installed in a gasoline dispensing facility (GDF).

General Specifications

1. Typical installations of the Phil-Tite system are shown in Figures 2A, 2B and 2C.

2. The Phil-Tite system shall be installed, operated and maintained in accordance with the latest amended version of the ***ARB-Approved Installation, Operation and Maintenance Manual for the Phil-Tite Phase I Vapor Recovery System.***

3. Any repair or replacement of system components shall be done in accordance with the latest version of the ***ARB-Approved Installation, Operation and Maintenance Manual for the Phil-Tite Phase I Vapor Recovery System***.

4. The Phil-Tite 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 Phil-Tite 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 2.00 inches of H_2O positive pressure and 0.21 CFH at -4.00 inches of H_2O 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_2O and the negative pressure setting is 6.0 to 10.0 inches of H_2O 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 ***ARB-Approved Installation, Operation and Maintenance Manual for the Phil-Tite 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 2G. 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 or gold-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

6. Each FFS PV-Zero P/V valve installed shall have permanently affixed to it a label that identifies that it is compatible with E85.

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 inch-pounds (9 foot-pounds). 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.

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.

2. The leak rate of the overfill device shall not exceed 0.17 CFH at 2.00 inches H_2O 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 2B.

Threaded Riser Adaptor

The Threaded 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)

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 2F.

2. 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 2F.

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.

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 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 a Phil-Tite Double Fill configuration is shown in Figure 2D.

Sump Configuration

The Phil-Tite Sump Configuration is designed to place the spill containers inside of an underground sump with a single exterior lid as shown in Figure 2E. The Phil-Tite 85011 Cast Lids are not required if spill containers are placed in a sump with a sump lid.

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 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	≤0.17 CFH at 2.00 inches H_2O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	≤0.17 CFH at 2.00 inches H_2O
P/V Valve[1.]	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 Leakrate: 0.05 CFH at 2.0 inches H_2O Negative Leakrate: 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
Connections and fittings certified without an allowable leak rate	Leak Detection Solution or bagging	No leaks

Table 2-2
Maintenance Intervals for System Components[2]

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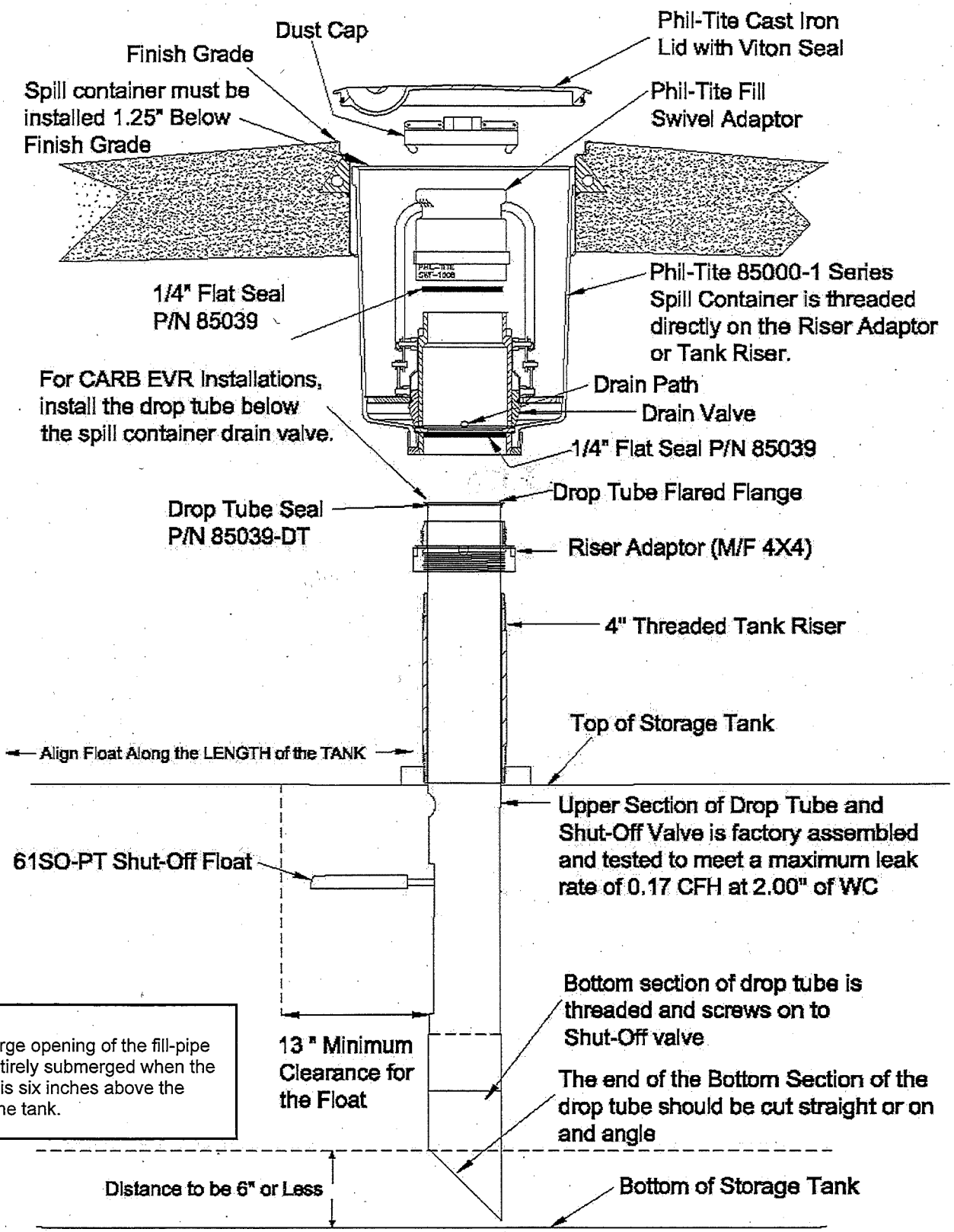
Manufacturer	Component	Maintenance Interval
All Models	Dust Caps	Annual
All Models	In Tank Gauge Port Probe Cap and Adaptor Kit	Annual
EBW	Drop Tube Overfill Prevention Device 708-49X-1Y series Drop Tube Overfill Prevention Device 708-49X-3Y series	Annual
EBW	782 Straight Drop Tube	Annual
Husky	Pressure/Vacuum Vent Valve	Annual
FFS	Pressure/Vacuum Vent Valve	Annual
OPW	61-T Straight Drop Tube	Annual
Phil-Tite	Spill Container (all models)	Every 3 years
Phil-Tite	Drop Tube Overfill Prevention Device 61SO-PT	Annual
Phil-Tite	SWF-100-B Product Adaptor SWF-100-SS Product Adaptor	Annual
Phil-Tite	SWV-101-B Vapor Adaptor SWV-101-SS Vapor Adaptor	Annual

[1.] Compliance determination is at the option of the district.
[2] 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 61SO-PT



Note:
The discharge opening of the fill-pipe must be entirely submerged when the liquid level is six inches above the bottom of the tank.

Figure 2B
Typical Product Side Installation of Phil-Tite System Using EBW Autolimiter II 708-49X- Series

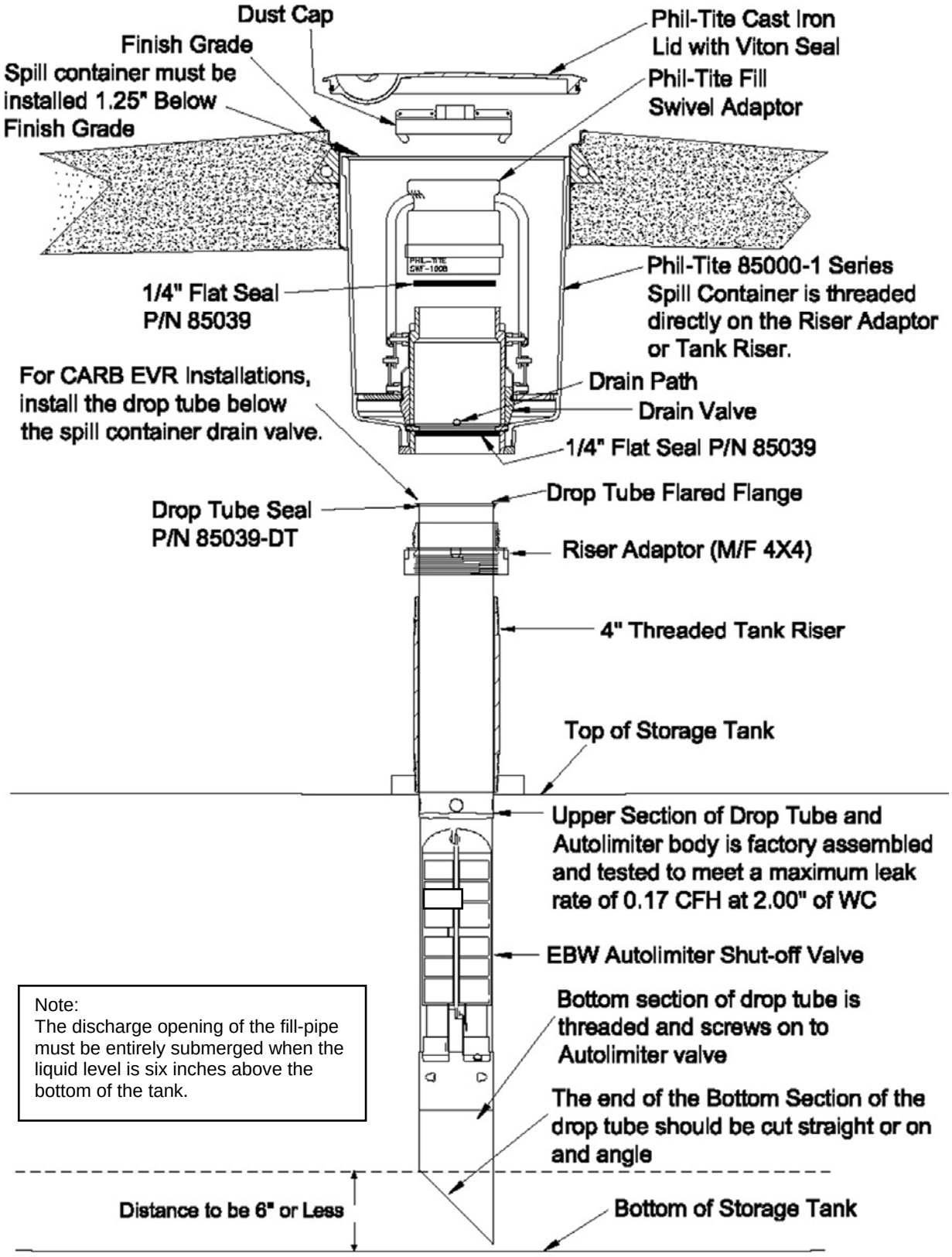


Figure 2C
Typical Vapor Recovery Installation Using Phil-Tite System

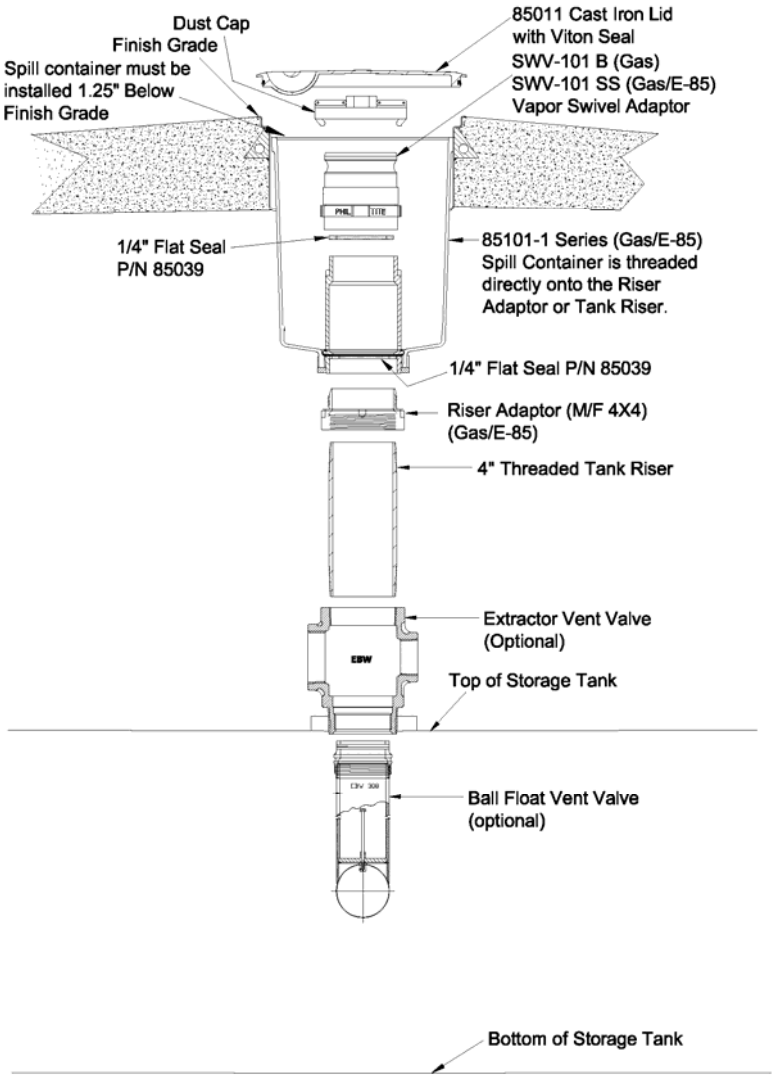


Figure 2D
Typical Phil-Tite Double Fill Configuration

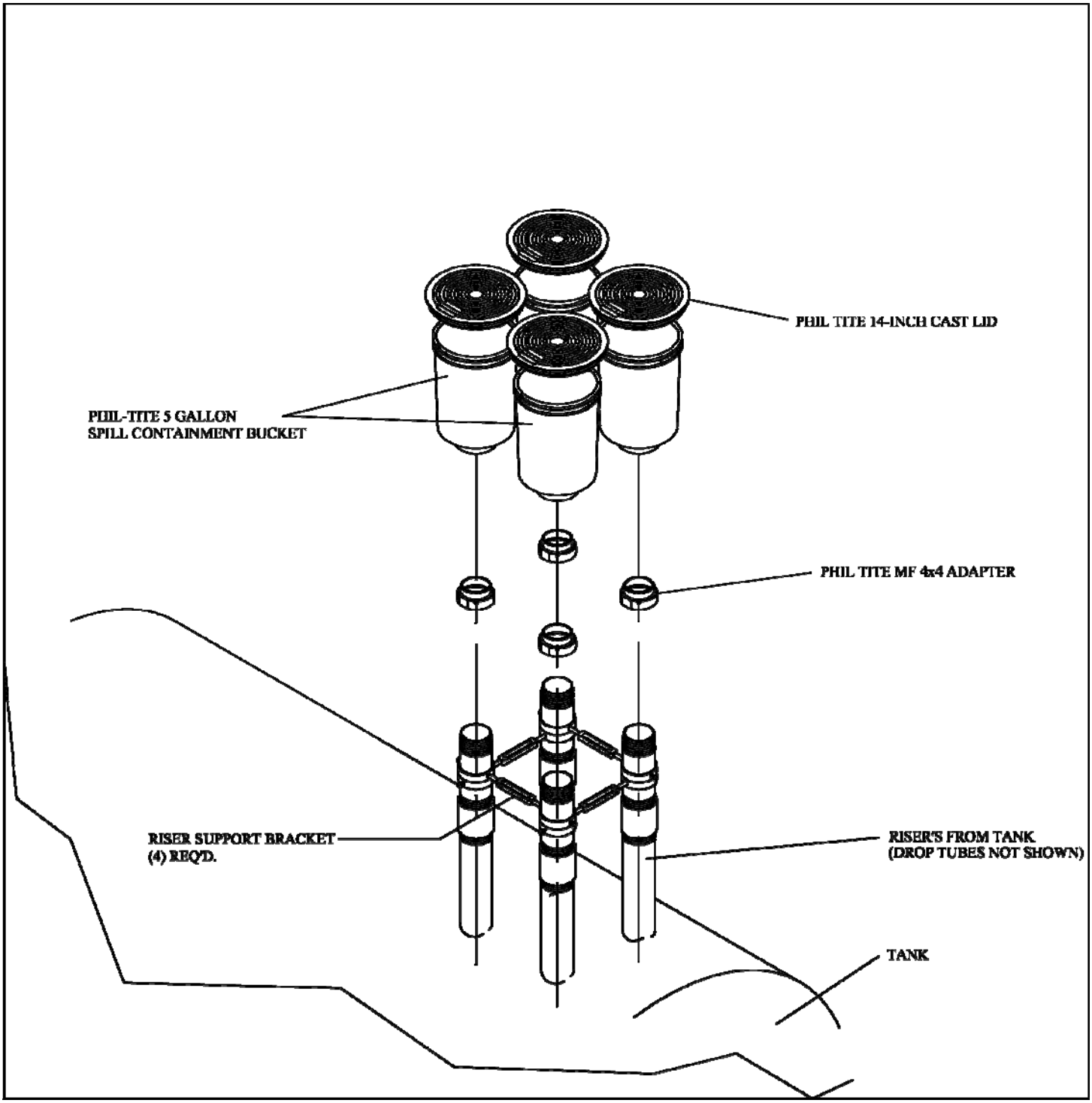
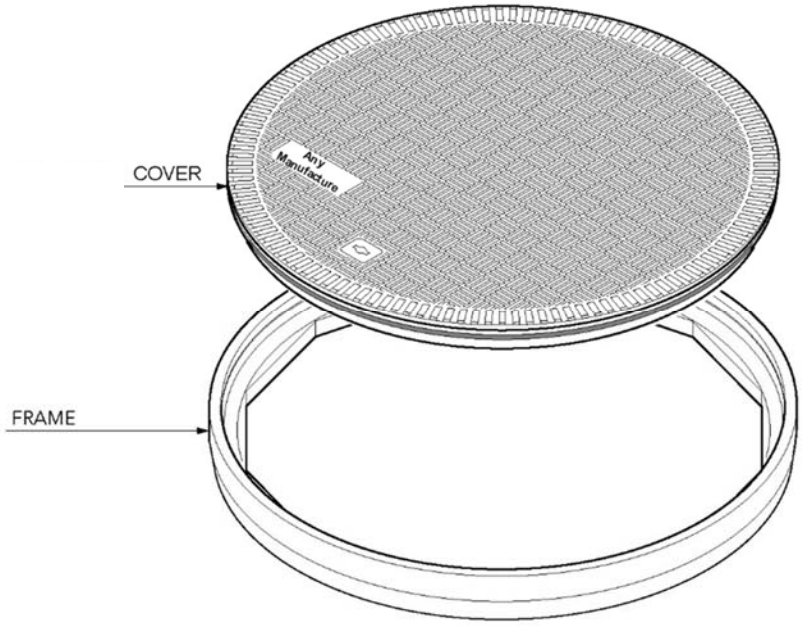


Figure 2E

Typical Phil-Tite Sump Configuration



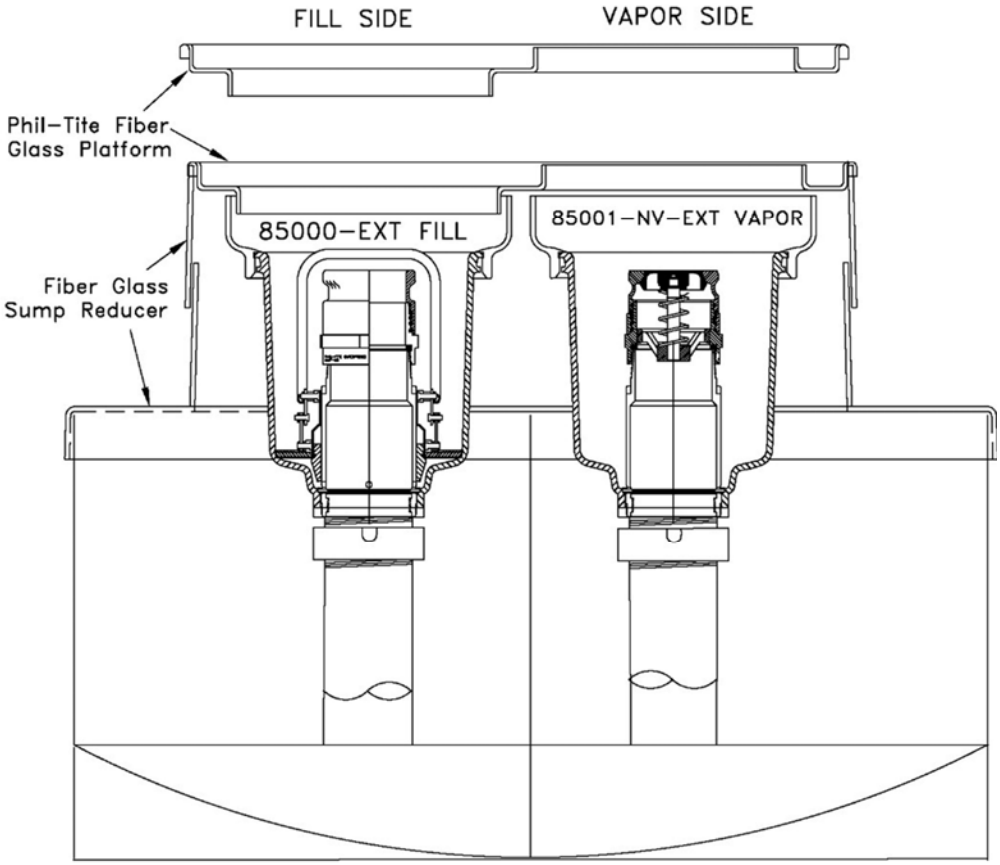
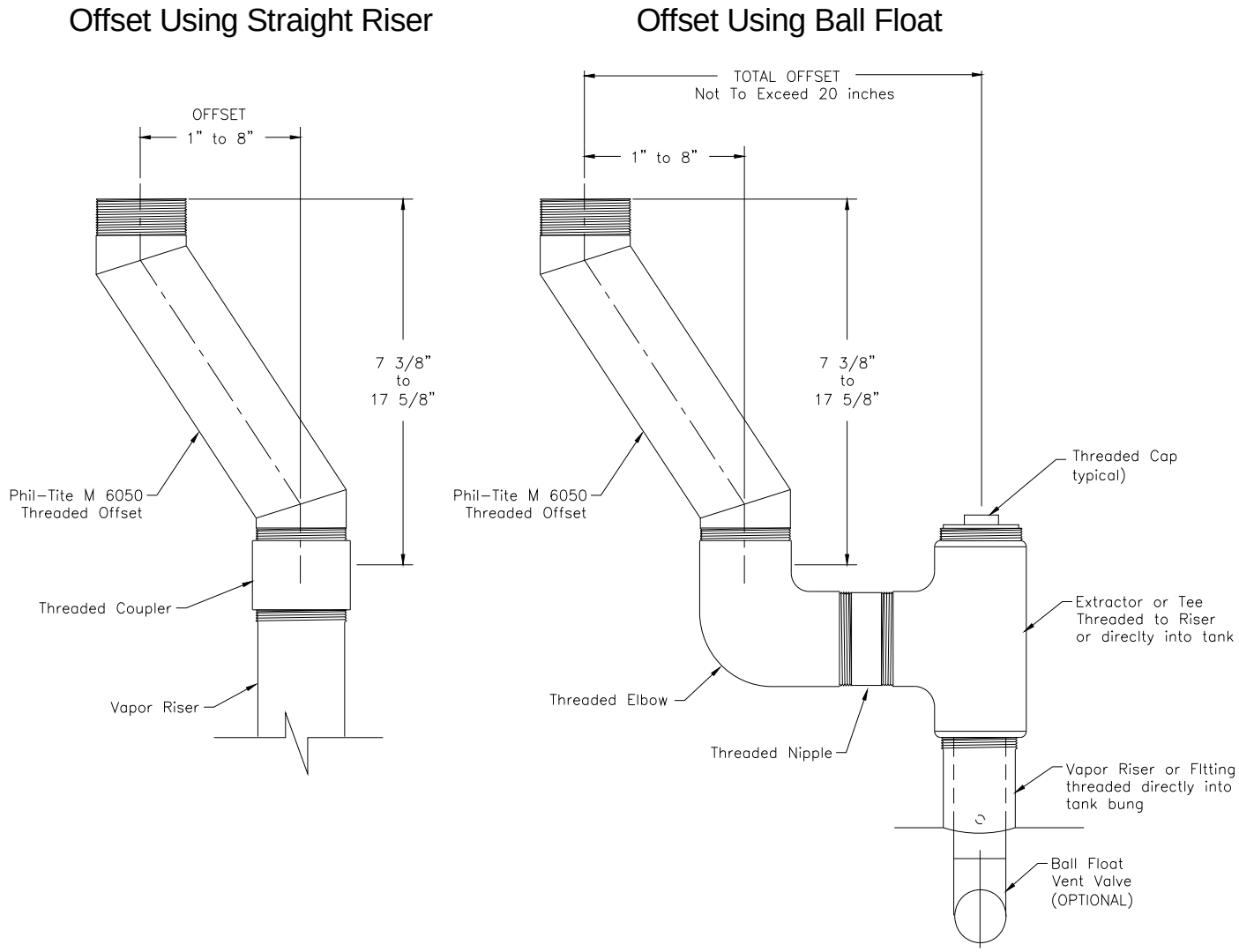


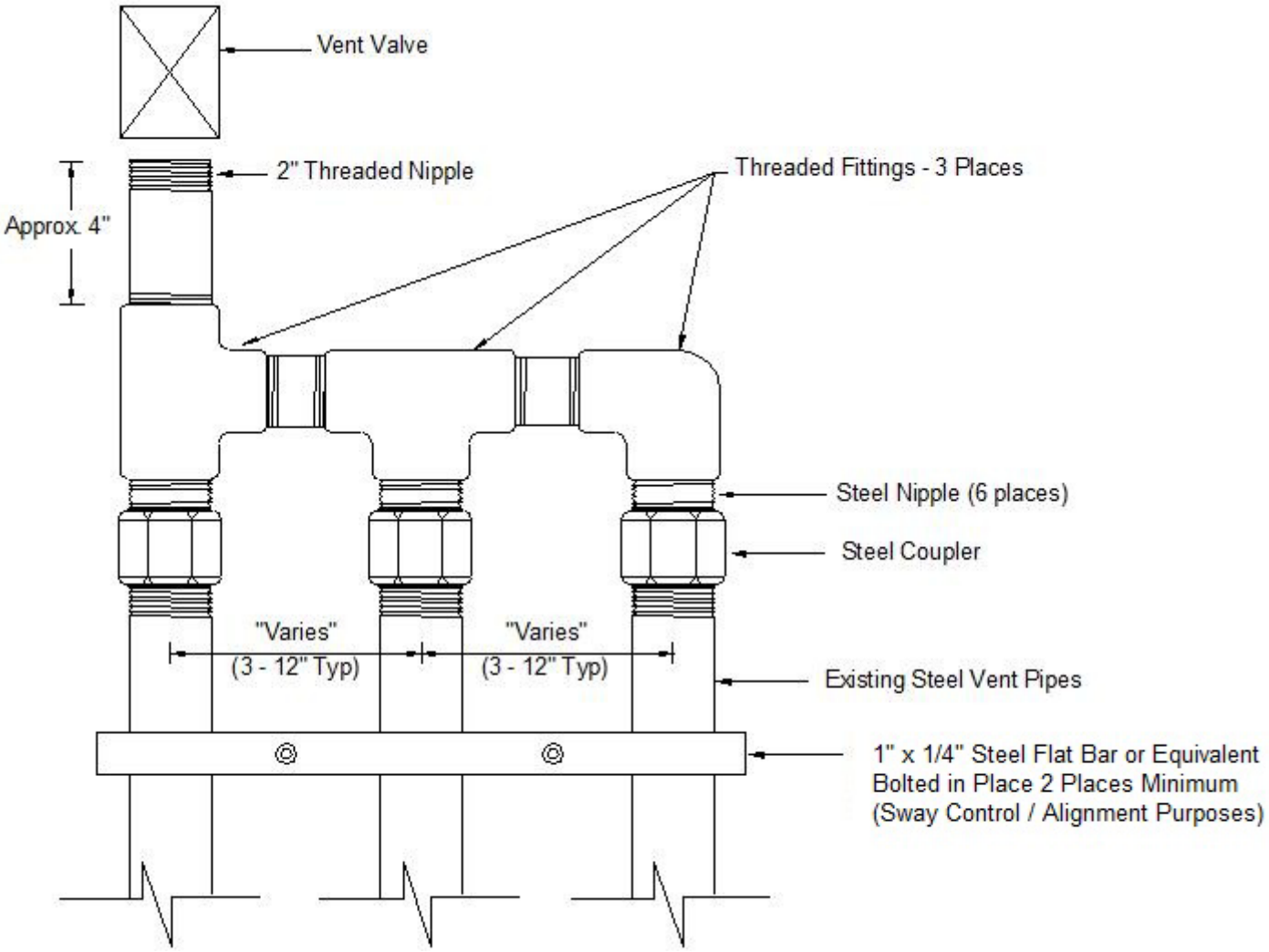
Figure 2F
Typical Phil-Tite Model M-6050 Vapor Recovery Riser Offset



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 2G

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 2H

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 Phil-Tite 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 ARB approved Installation, Operation and Maintenance Manual for the Phil-Tite 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 or gold 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.

Table 3-1
Manufacturing Component Standards and Specifications

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_2O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	≤0.17 CFH at 2.00 inches H_2O
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: ≤ 0.05 CFH at +2.0 inches H_2O ≤ 0.21 CFH at -4.0 inches H_2O