**TECHNICAL SUPPORT DOCUMENT**

**Air Discharge Permit 24-3675**
**Air Discharge Permit Application CO-1104**

**Issued: January 16, 2025**

**INDUSTRIAL WAY CHEVRON**

**SWCAA ID – 1761**

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Air Quality Engineer
Southwest Clean Air Agency

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## ABBREVIATIONS

*List of Acronyms*

ADP ..... Air Discharge Permit
AP-42 ..... Compilation of Emission Factors, AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources – published by EPA
BACT..... Best available control technology
BART ..... Best Available Retrofit Technology
CARB ..... California Air Resources Board
CFR..... Code of Federal Regulations
EPA..... U.S. Environmental Protection Agency
EU ..... Emission Unit
EVR ..... Enhanced Vapor Recovery
LAER..... Lowest achievable emission rate
MACT..... Maximum Achievable Control Technologies
NESHAP..... National Emission Standards for Hazardous Air Pollutants
NSPS..... New Source Performance Standard
ORVR ..... Onboard Refueling Vapor Recovery
PSD ..... Prevention of Significant Deterioration
RACT..... Reasonably Available Control Technology
RCW ..... Revised Code of Washington
SEPA..... State Environmental Policy Act
Standard ..... Standard conditions at a temperature of 68°F (20°C) and a pressure of 29.92 in Hg (760 mm Hg)
SWCAA ..... Southwest Clean Air Agency
T-BACT ..... Best Available Control Technology for toxic air pollutants
WAC ..... Washington Administrative Code

*List of Units and Measures*

tpy ..... Tons per year

*List of Chemical Symbols, Formulas, and Pollutants*

CO ..... Carbon monoxide

$CO_2$ ..... Carbon dioxide

$CO_2e$ ..... Carbon dioxide equivalent

HAP ..... Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act

$NO_X$ ..... Nitrogen oxides

$O_2$ ..... Oxygen

PM ..... Particulate Matter with an aerodynamic diameter 100 µm or less

$PM_{10}$ ..... PM with an aerodynamic diameter 10 µm or less

$PM_{2.5}$ ..... PM with an aerodynamic diameter 2.5 µm or less

$SO_2$ ..... Sulfur dioxide

$SO_X$ ..... Sulfur oxides

TAP ..... Toxic air pollutant pursuant to Chapter 173-460 WAC

VOC ..... Volatile organic compound

Terms not otherwise defined have the meaning assigned to them in the referenced regulations or the dictionary definition, as appropriate.

## 1. FACILITY IDENTIFICATION

| | |
|---|---|
| Applicant Name: | Wilcox and Flegel |
| Applicant Address: | PO Box 69<br>Longview, WA 98632 |
| Facility Name: | Industrial Way Chevron |
| Facility Address: | 1161 Industrial Way<br>Longview, WA 98632<br>~ 46° 6'56.07"N, 122°56'35.10"W |
| SWCAA Identification: | 1761 |
| Contact Person: | Zabrinna Coleman |
| Primary Process: | Gasoline dispensing |
| SIC/NAICS Code: | 5541: Gasoline service stations<br>447110 (2012/2017 NAICS): Gas stations with convenience stores<br>457110 (2022 NAICS): Gas stations with convenience stores |
| Facility Classification: | Natural Minor |

## 2. FACILITY DESCRIPTION

This facility is a retail gasoline dispensing facility associated with a convenience store.

## 3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit (ADP) application number CO-1104 received September 11, 2024. ADP application CO-1104 requests belated approval for removal of Stage II vapor recovery equipment that is not ORVR compatible. Low permeation hoses and enhanced conventional (ECO) nozzles were installed in place of the Stage II vapor recovery system. Notice of Violation 11332 was issued on September 12, 2024 for removing the Stage II vapor recovery system without approval.

Air Discharge Permit 04-2542 will be superseded in this permitting action.

## 4. PROCESS DESCRIPTION

This facility receives unleaded gasoline from tanker trucks for storage in three underground storage tanks. In addition, one above-ground storage tank is used for storing super leaded racing fuel. The underground gasoline storage tanks are equipped with two-point vapor recovery systems that return gasoline vapors vented from the underground storage tanks to the tanker truck during filling (Stage I vapor recovery). The above ground storage tank is used only for the sale of small quantities of super leaded racing gasoline; therefore, it is not equipped with vapor recovery equipment. Gasoline from the underground storage tanks is dispensed from four multi-product pumps at the Industrial Way Chevron retail site. Gasoline is dispensed from four multi-product pumps as the adjacent card-lock site. At the card-lock site, each gasoline grade is currently

dispensed through separate hoses. Vapors displaced from individual motor vehicle gasoline tanks during filling will not be returned to the gasoline storage tanks (no Stage II vapor recovery).

| Products at Pump | Number of Pumps |
|---|---|
| Blended gasoline through as single hose, diesel through a single hose | 4 |
| Regular unleaded, super unleaded, and diesel through separate hoses | 4 |

## 5. EQUIPMENT/ACTIVITY IDENTIFICATION

5.a. Storage Tanks. The following storage tanks are utilized at the facility:

| Tank | Product | Capacity |
|---|---|---|
| 1 | Regular Unleaded | 8,000 gallons |
| 2 | Mid-grade Unleaded | 8,000 gallons |
| 3 | Super Unleaded | 6,000 gallons |
| 4 | Leaded Racing Gasoline | 1,000 gallons – above ground |
| 5 | Road Diesel | 12,000 gallons |
| 6 | Road Diesel | 12,000 gallons |
| 7 | Road Diesel | 12,000 gallons |
| 8 | Off-road Diesel | 12,000 gallons |

The underground gasoline storage tanks are fitted with drop tubes, fill adapters, and vapor adapters approved by CARB Executive Order VR-102-V as components of the OPW Stage I EVR system. Not all other components of the OPW Stage I EVR system have been installed. The remaining components are approved by CARB Executive Order G-70-97-A. The following components of the Stage I EVR system have been installed:

| Component | Make / Model |
|---|---|
| Drop-Tube / Overfill Prevention | OPW / 61T7368 |
| Swivel Top Fill Adapter[2] | OPW / 61SALP-1020-EVR |
| Swivel Top Vapor Adapter[2] | OPW / 61VSA-1020-EVR |
| Dust Cap – Product | OPW / 634TT |
| Dust Cap – Vapor | OPW / 1711T |
| Pressure/Vacuum Vent Valve | Husky / 4885 |

This facility does not utilize Stage II vapor recovery equipment. The following low permeation hoses and enhanced conventional nozzles have been installed:

| Component | Make / Model |
|---|---|
| Nozzles | VST / VST-NV-ND (Enviro-Loc) |
| Hoses | VST / V34EC |

5.b. Equipment/Activity Summary.

| ID No. | Equipment/Activity | Control Equipment/Measure |
|---|---|---|
| 1 | Retail Gasoline Dispensing Facility | Stage I Vapor Recovery Systems |

## 6. EMISSIONS DETERMINATION

Unless otherwise specified by SWCAA, actual emissions must be determined using the specified input parameter listed for each emission unit and the following hierarchy of methodologies:

(a) Continuous emissions monitoring system (CEMS) data;
(b) Source emissions test data (EPA reference method). When source emissions test data conflicts with CEMS data for the time period of a source test, source test data must be used;
(c) Source emissions test data (other test method); and
(d) Emission factors or methodology provided in this TSD.

Nothing precludes the use, including the exclusive use of any credible evidence or information relevant to identifying or quantifying emissions if such credible evidence provides more accurate identification or quantification of actual emissions than other available information.

6.a. Gasoline Vapors. Total potential VOC emissions from the facility were estimated using the following emission factors from the California Air Resources Board December 23, 2013, document "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities":

| Emission Source | VOC Emission Factor (lb/1,000 gallons of fuel) |
|---|---|
| Loading – Stage I Controlled (non-EVR) | 0.380 |
| Breathing – Controlled with P/V Valve | 0.092 |
| Uncontrolled Refueling – Stage II uncontrolled (non ORVR Vehicles, no Stage II) | 0.84[1] |
| Controlled Refueling (ORVR vehicles, no Stage II) | 0.151[2] |
| Spillage (ECO nozzles) | 0.240 |
| Hose Permeation (low permeation) | 0.009 |
| Total | **1.712** |

[1] Based on 90% of the gasoline being dispensed to vehicles equipped with carbon canisters (ORVR). The base emission factor, assuming no ORVR vehicles, is 8.400 lb/1,000 gallons. 10% of the vehicles are not equipped with ORVR: 8.4 lb/1,000 gallons * (1-0.90) = 0.84 lb/1,000 gallons.

[2] This is the amount of vapor released during refueling that is attributable to those vehicles equipped with carbon canisters (ORVR) assuming carbon canisters provide for 98% control. 8.400 lb/1,000 gallons * 90% of gas dispensed to vehicles with ORVR * (2% of vapors not captured by the canister) = 0.151 lb/1,000 gallons.

The above calculations assume that 90% of the fuel is dispensed to vehicles equipped with onboard refueling vapor recovery (ORVR). SWCAA expects this level was met in Clark County in 2020 and will be met a few years later in Cowlitz, Lewis, Skamania, and Wahkiakum counties.

At a throughput of 5,000,000 gallons of gasoline per year, the facility would emit 4.28 tons of volatile organic compounds. Based on EPA Speciate 3.2 profile number 2455, approximately 50.0% of the total VOC emissions are toxic air pollutants (TAPs) as defined by WAC 173-460 (as in effect August 21, 1998), and approximately 12.9% of the total VOC emissions are federally listed hazardous air pollutants (HAPs). For a throughput of 5,000,000 gallons per year, TAP and HAP emission rates are estimated at 2.14 tons per year, and 0.55 tons per year respectively.

6.b. Emissions Summary

| Air Pollutant | Potential to Emit (tpy) | Project Impact (tpy) |
|---|---|---|
| $NO_X$ | 0 | 0 |
| CO | 0 | 0 |
| VOC | 4.28 | -0.88 |
| $SO_2$ | 0 | 0 |
| PM | 0 | 0 |
| $PM_{10}$ | 0 | 0 |
| $PM_{2.5}$ | 0 | 0 |
| $CO_2/CO_2e$ | 0 | 0 |
| Toxic Air Pollutants | 2.14 | -0.44 |
| Hazardous Air Pollutants | 0.55 | -0.11 |

[1] Based on 90% of fuel dispensed to ORVR-equipped vehicles. The magnitude of the project impact presented here assumes a gasoline throughput of 5,000,000 gallons per year and emissions from the Stage I vapor recovery system are consistent with a non-EVR system because not all components are EVR-certified.

## 7. REGULATIONS AND EMISSION STANDARDS

Regulations have been established for the control of emissions of air pollutants to the ambient air. Regulations applicable to the proposed facility that have been used to evaluate the acceptability of the proposed facility and establish emission limits and control requirements include, but are not limited to, the following regulations, codes, or requirements. These items establish maximum emissions limits that could be allowed and are not to be exceeded for new or existing facilities. More stringent limits are established in this ADP consistent with implementation of Best Available Control Technology (BACT):

7.a. Title 40 Code of Federal Regulations (CFR) Part 63.11110 et seq. Subpart CCCCCC "National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline

Dispensing Facilities" establishes emission control, testing, recordkeeping and reporting requirements for new and existing gasoline dispensing facilities. Which requirements apply to a specific facility depend upon when the facility began operation and the monthly throughput. This facility began operation prior to January 10, 2008 and has a potential throughput of 100,000 gallons per month or more. Facilities with a throughput of 100,000 gallons per month or more that began operation prior to January 10, 2008 must be in compliance with a state rule or federally enforceable permit that contains requirements to achieve emission reductions of at least 90% by January 10, 2008 or comply with requirements found in Table 1 of Subpart CCCCCC including:

(1) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnection;
(2) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor tight;
(3) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18" w.c. pressure or 5.9" w.c. vacuum during product transfer;
(4) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations;
(5) Liquid fill connections for all systems shall be equipped with vapor-tight caps;
(6) Pressure/vacuum vent valves shall be installed on the storage tank vent pipes. The positive pressure setting shall be 2.5" w.c. to 6" w.c. and the negative pressure setting shall be 6" w.c. to 10" w.c. The total leak rate for all pressure/vacuum valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0" w.c. and 0.63 cubic foot per hour at a vacuum of 4" w.c.;
(7) The vapor balance system shall be capable of meeting the static pressure performance requirement found in Table 1 of Subpart CCCCCC; and
(8) Each new or existing gasoline storage tank shall be equipped with a dual-point vapor balance system.

As of January 10, 2008 this facility was complying with the requirements of SWCAA 491 which required Stage I vapor recovery equipment as approved by CARB or SWCAA. The Stage I vapor recovery equipment provided at least 90% control of gasoline vapors; therefore, this facility is not subject to the requirements of Table 1 or any other requirement of this rule including initial notification. Note that although the rule adds no requirements for this facility, this facility is an affected source for the purposes of this rule.

7.b. Title 40 CFR Part 1090 "Regulation of Fuels, Fuel Additives, and Regulated Blendstocks" in section 1090.1550(b) requires that the flow through any nozzle dispensing gasoline into motor vehicles be limited so as not to exceed a maximum value of 10 gallons per minute.

7.c. Revised Code of Washington (RCW) 70A.15.2040 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the Washington Clean Air Act (RCW 70A.15) and enforce the same by all appropriate

administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 ex. sess.

7.d. RCW 70A.15.2210 provides for the inclusion of conditions of operation as are reasonably necessary to assure the maintenance of compliance with the applicable ordinances, resolutions, rules and regulations when issuing an ADP for installation and establishment of an air contaminant source.

7.e. Washington Administrative Code (WAC) 173-460 "Controls for New Sources of Toxic Air Pollutants" requires Best Available Control Technology for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety from new sources not provided an exemption under WAC 173-460-030. Gasoline dispensing facilities are exempt from the provisions of WAC 173-460.

7.f. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for $PM_{10}$, $PM_{2.5}$, lead, $SO_2$, $NO_X$, ozone, and CO in the ambient air, which must not be exceeded.

7.g. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new and existing sources and emission units to meet certain performance standards with respect to Reasonably Available Control Technology (RACT), visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, $SO_2$, concealment and masking, and fugitive dust.

7.h. SWCAA 400-040(3) "Fugitive Emissions" requires that reasonable precautions be taken to prevent the fugitive release of air contaminants to the atmosphere.

7.i. SWCAA 400-040(4) "Odors" requires any source which generates odors that may unreasonably interfere with any other property owner's use and enjoyment of their property to use recognized good practice and procedures to reduce these odors to a reasonable minimum.

7.j. SWCAA 400-109 "Air Discharge Permit Applications" requires that an ADP application be submitted for all new installations, modifications, changes, or alterations to process and emission control equipment consistent with the definition of "new source." Sources wishing to modify existing permit terms may submit an ADP application to request such changes. An ADP must be issued, or written confirmation of exempt status must be received, before beginning any actual construction, or implementing any other modification, change, or alteration of existing equipment, processes, or permits.

7.k. SWCAA 400-110 "New Source Review" requires that SWCAA issue an ADP in response to an ADP application prior to establishment of the new source, emission unit, or modification.

7.l. SWCAA 400-113 "Requirements for New Sources in Attainment or Nonclassifiable Areas" requires that no approval to construct or alter an air contaminant source will be granted unless it is evidenced that:

(1) The equipment or technology is designed and will be installed to operate without causing a violation of the applicable emission standards;
(2) BACT will be employed for all air contaminants to be emitted by the proposed equipment;
(3) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
(4) If the proposed equipment or facility will emit any toxic air pollutant regulated under WAC 173-460, the proposed equipment and control measures will meet all the requirements of that Chapter.

The facility is located in an area that is in attainment for all criteria pollutants; therefore, this regulation applies to the facility.

7.m. SWCAA 491-040(4) "Gasoline Vapor Control Requirements – Gasoline Dispensing Facilities" establishes the following requirements:

(1) All gasoline dispensing facilities with an annual gasoline throughput greater than two hundred thousand (200,000) gallons in Clark County and three hundred sixty thousand (360,000) gallons in Cowlitz, Lewis, Skamania and Wahkiakum Counties shall be subject to gasoline Stage I vapor control requirements;
(2) All gasoline dispensing stations subject to this section shall be equipped with submerged or bottom fill lines and fittings to balance gasoline vapors with the delivery transport tank;
(3) The owner or operator of a gasoline dispensing facility subject to this section shall not permit the loading of gasoline into a storage tank equipped with vapor recovery equipment from a transport tank equipped with vapor recovery fittings unless Stage I vapor recovery equipment is attached to the transport tank and operated satisfactorily;
(4) Every retailer and wholesale purchaser-consumer shall equip each pump from which gasoline is dispensed into motor vehicles with a nozzle that dispense fuel at a flow rate not to exceed 10 gallons per minute;
(5) Stage II vapor recovery equipment compatible with ORVR may be removed from service beginning January 1, 2023 after an Air Discharge Permit has been issued for the modification; and
(6) New gasoline dispensing facilities (built after February 7, 2020), or existing gasoline dispensing facilities without Stage II vapor recovery, are not required to install Stage II vapor recovery equipment.

## 8. RACT/BACT/BART/LAER/PSD/CAM DETERMINATIONS

The proposed equipment and control systems incorporate BACT for the types and amounts of air contaminants emitted by the processes as described below:

8.a. Retail Gasoline Dispensing Facility – Removal of Stage II Vapor Recovery. SWCAA has determined that Best Available Control Technology for the control of gasoline vapors emitted from new gasoline dispensing facilities with a throughput of more than 360,000 gallons per year in Cowlitz County consists of EVR Stage I vapor recovery equipment as tested and approved by CARB, enhanced conventional nozzles (where Stage II is not in place), and low permeation hoses if liquid gasoline is carried against the outermost hose wall.

The underground storage tanks at this facility are not new. The existing Stage I vapor recovery system in use by this facility for the underground storage tanks was approved by CARB Executive Order G-70-97-A dated December 9, 1985 and CARB Executive Order VR-102-V dated May 31, 2021 and is not EVR certified. Because the Stage I system is not new, it is not being reviewed against BACT requirements.

This facility will utilize enhanced conventional nozzles and low permeation hoses. This configuration meets the requirements of BACT for this facility.

*Previous BACT Determination(s)*

8.b. Retail Gasoline Dispensing Facility (ADP 04-2542): SWCAA has determined that Best Available Control Technology for the control of gasoline vapors emitted from gasoline dispensing facilities with a throughput of 1,200,000 gallons per year or more in Cowlitz County consists of Stage I and Stage II vapor recovery equipment as tested and approved by CARB. The Stage I vapor recovery equipment to be utilized by this source was approved by CARB Executive Order VR-102-D dated December 9, 1985. The Stage II vapor recovery system and equipment proposed for use at this source was approved by CARB Executive Order G-70-191-AA dated July 30, 2001.

*Other Determination(s)*

8.c. PSD Applicability. Maximum potential emissions from this facility are well below PSD thresholds; therefore, PSD permitting is not required.

8.d. Compliance Assurance Monitoring (CAM) Applicability Determination. CAM is not applicable to any emission unit at this source because it is not a major source and is not required to obtain a Part 70 permit.

## 9. AMBIENT IMPACT ANALYSIS

9.a. The retail gasoline dispensing facility equipped with Stage I vapor recovery systems, ECO nozzles, and low permeation hoses will not cause the ambient air quality standards established by Title 40 Code of Federal Regulations Part 50 (40 CFR 50), "National Primary and Secondary Ambient Air Quality Standards" to be violated.

9.b. The retail gasoline dispensing facility equipped with Stage I vapor recovery systems, ECO nozzles, and low permeation hoses, if properly installed and maintained, can be operated

without causing a violation of the applicable emission standards which include the limits established under SWCAA 400-040 "General Standards for Maximum Emissions."

9.c. The retail gasoline dispensing facility equipped with Stage I vapor recovery systems, ECO nozzles, and low permeation hoses will not cause the requirements of WAC 173-476 "Ambient Air Quality Standards" to be violated.

## 10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP 24-3675 in response to ADP application CO-1104. ADP 24-3675 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards, as discussed below.

10.a. Supersession of Previous Permits. ADP 04-2542 will be superseded in its entirety.

10.b. Emission Limits. An annual VOC emission limit of 4.28 tons per year was established. This limit is based upon the facility utilizing properly operated Stage I vapor recovery systems, enhanced conventional nozzles, low permeation hoses, dispensing 90% of the fuel to ORVR-equipped vehicles, and a gasoline throughput of 5,000,000 gallons per year.

10.c. Operational Limits and Requirements. Consistent with SWCAA 400-040(4), the permittee is required to use recognized good practice and procedures to minimize odors that impact other property owners.

The gasoline throughput was limited to 5,000,000 gallons per year. At higher throughputs the facility would be required to increase the frequency of vapor recovery testing.

The remaining requirements are related to proper operation of the Stage I vapor recovery systems, the use of low permeation hoses and enhanced conventional nozzles.

10.d. Monitoring and Recordkeeping Requirements. The permittee is required to record each occurrence of maintenance and repairs to vapor recovery equipment so that SWCAA and the permittee can assure that maintenance and repairs are consistent with approved vapor recovery requirements.

10.e. Reporting Requirements. Total gasoline throughput and the annual emissions inventory are required to be submitted to SWCAA by January 31st of each year (unless otherwise directed by SWCAA) to demonstrate compliance with the throughput limitation in the permit and allow for the development of a comprehensive emissions inventory. Test results must be reported to SWCAA within 14 days of test completion consistent with CARB and SWCAA reporting requirements.

## 11. START-UP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION

11.a. Start-up and Shutdown Provisions. Pursuant to SWCAA 400-081 "Start-up and Shutdown," technology-based emission standards and control technology determinations shall take into consideration the physical and operational ability of a source to comply with the applicable standards during start-up or shutdown. Where it is determined that a source is not capable of achieving continuous compliance with an emission standard during start-up or shutdown, SWCAA shall include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during start-up or shutdown.

This source is capable of achieving continuous compliance with all applicable requirements; therefore, no start-up or shutdown provisions were included in the ADP.

11.b. Alternate Operating Scenarios. SWCAA conducted a review of alternate operating scenarios applicable to equipment affected by this permitting action. The permittee did not propose or identify any applicable alternate operating scenarios. Therefore, none were accommodated by the approval conditions.

11.c. Pollution Prevention Measures. SWCAA conducted a review for possible pollution prevention measures outside of the use of Stage I vapor recovery equipment, low permeation hoses, and enhanced conventional nozzles. As indicated in Section 8, Stage II vapor recovery equipment was not necessary to meet the requirements of BACT. No other pollution prevention measures were identified by either the permittee or SWCAA. Therefore, none were accommodated in the approval conditions.

## 12. EMISSION MONITORING AND TESTING

In accordance with the requirements of SWCAA 491-040(4)(n) that became effective February 7, 2020, testing of each pressure-vacuum vent valve is required every 36 months and Stage I vapor recovery testing is required annually. New pressure/vacuum vent valves are typically tested at the factory, therefore initial testing does not apply to new valves with a factory test. In accordance with SWCAA 491, initial vapor recovery testing is required prior to placing the equipment back into service rather than within 60 days after startup as specified in the applicable CARB Executive Order.

For the static pressure decay test, TP-201.3 does not provide an allowable final pressure for stations without Stage II vapor recovery. Therefore, the allowable final pressure equation from 40 CFR 63 Subpart CCCCCC was included in the permit.

## 13. FACILITY HISTORY

13.a. Previous Permitting Actions. The following approvals, Permits, and Orders have been issued for this facility:

| Permit / Order # | Application # | Date Issued | Description |
|---|---|---|---|
| **87-958** | CO-334 | December 21, 1987 | Installation of gasoline storage tanks equipped with Stage I vapor control equipment. |
| **95-1733** | CO-539 | March 23, 1995 | Approval to install Stage I vapor recovery equipment on existing underground storage tanks. |
| **04-2542** | CO-771 | May 26, 2004 | Approval to install a Healy ORVR compatible Stage II vapor recovery system and replace coaxial fill and vapor adapters with two-point rotatable adapters on the underground storage tanks. |

Bold font indicates that the Air Discharge Permit was superseded or no longer in effect upon issuance of Air Discharge Permit 24-3675.

13.b. Compliance History. The following compliance issues have been identified for this facility within the past five years:

| NOV | Date | Violation |
|---|---|---|
| 11331 | 9/12/2024 | Failure to remove defective Stage II equipment from service after a failed test. |
| 11332 | 9/12/2024 | Removal of Stage II vapor recovery equipment without approval. The violation is addressed by Air Discharge Permit application CO-1104. |

All of the above violations have been fully resolved.

## 14. PUBLIC INVOLVEMENT OPPORTUNITY

14.a. Public Notice for ADP Application CO-1104. Public notice for ADP application CO-1104 was published on the SWCAA website for a minimum of 15 days, beginning on September 13, 2024.

14.b. Public/Applicant Comment for ADP Application CO-1104. SWCAA received a comment period request for ADP application CO-1104. Therefore, a thirty (30) day public comment period was provided for this permitting action pursuant to SWCAA 400-171. SWCAA did not receive any comment from the applicant or the public during the public comment period which ended January 3, 2025.

14.c. State Environmental Policy Act. This project is exempt from SEPA requirements pursuant to WAC 197-11-800(3) since it only involves repair, remodeling, maintenance, or minor alteration of existing structures, equipment or facilities, and does not involve material expansions or changes in use. SWCAA issued a determination that the project is exempt from SEPA review on December 4, 2024 (Determination of SEPA Exempt - SWCAA 24-045).

# Appendix A

# CARB 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)

**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

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 31st day of May 2021.

Catherine Dunwoody, Chief
Monitoring and Laboratory Division

## Exhibit 1

## OPW Phase I Vapor Recovery System Equipment List

| Equipment | Manufacturer/Model Number |
|---|---|

(GAS/E85) = Identifies that these components are approved for standard gasoline & E85 fuel blends

**Spill Containers**[1]

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

1-Series legend

| | |
|---|---|
| WW | A or Blank (Aluminum Cover) |
| | C (cast Iron or Ductile) |
| | SC (Sealable Cover, Cast Aluminum) |
| | PC (Plow Ring Rain Tight Cast Iron Ductile, 1-2000 only) |
| | PSC (Plow Ring Sealable Cover, Cast Aluminum, 1-2200 only) |
| XX | 00 (5 Gal) |
| X | 0 (5 Gal) |
| Y | C (Cast Iron Base) |
| | Blank (composite base) |
| Z | D (drain valve) |
| | P (plug) |
| VV | 1 (5 gallon) |
| | 15 (15 gallon) |
| | 7 (5 gallon, steel cover) |
| U | 0 (no gauge) |
| | 1 (float gauge) |
| | 2 (sensor) |
| | 3 (float and sensor) |
| | 4 (alternate sensor) |
| T | 1 (single wall, cast iron 2100 style base) |
| | 2 (double wall) |
| | 3 (single wall, cast iron 3100 style base) |
| Q | 0 (flange adaptor, cast iron base) |
| | 4 (no flange, 4" thread cast iron base) |
| G | Color (varies) |

[1] 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.

## Exhibit 1 (continued)

## OPW Phase I Vapor Recovery System Equipment List

| Equipment | Manufacturer/Model Number |
|---|---|
| **Spill Containers** | Multiport Spill Container OPW 1-Series (GAS/E85)<br>(Figure 1-2)<br>1-2100SH Series<br>1-2100Y-ZSH<br><br>P700 Series<br>P7MM-HHKK<br>P500 Series<br>P5MM-ZHHBJJJ<br>P5MM-NN-HHKK<br><br>1-Series legend<br>MM 11 (Composite Base)<br>11C (Cast Iron Base)<br>61 (Cast Iron Base)<br>61C (Cast Iron Base)<br>NN Blank (5 gallon)<br>15 (15 gallon)<br>HH EVR (Enhanced Vapor Recovery)<br>FL (Fibrelite)<br>KK DV (drain valve)<br>PL (plug)<br>Y C (Cast Iron Base)<br>Blank (composite base)<br>Z D (drain valve)<br>P (plug)<br>JJJ -14 (14" center spacing)<br>BUCKET (16" or larger center spacing) |
| **Replacement Drain Valve Kit** | OPW 1DK-2100 (GAS/E85) |
| **Replacement Drain Plug Kit** | OPW 1DP-2100 (can be used with any OPW 1-Series Spill Containers)<br>(Figure 1-3 and Figure 1-4) |
| **Dust Caps** | OPW 634LPC (product) (GAS/E85)<br>(Figure 1-5)<br>OPW 1711LPC (vapor) (GAS/E85)<br>(Figure 1-6) |

**Exhibit 1 (continued)**

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

| Equipment | Manufacturer/Model Number |
|---|---|
| **Dust Caps (continued)** | OPW 634TT-EVR (product) (GAS/E85) (Figure 1-7)<br>OPW 1711T-EVR (vapor) (GAS/E85) (Figure 1-8)<br>CompX CSP1-634LPC (Figure 1-9)<br>CompX CSP3-1711LPC (vapor) (Figure 1-10)<br>CompX CSP2-634LPC (product) (Figure 1-11)<br>CompX CSP4-1711LPC (vapor) (Figure 1-12) |
| **Product Adaptor** | OPW 61SALP (Figure 1-13)<br>OPW 61SALP-MA (GAS/E85) (Figure 1-15) |
| **Vapor Adaptor** | OPW 61VSA (Figure 1-14)<br>OPW 61VSA-MA (GAS/E85) (Figure 1-16) |
| **Pressure/Vacuum Vent Valve** | FFS PV-Zero (Gas/E85) (Figure 1-17)<br>OPW 723V (Gas/E85) (Figure 1-18)<br>Husky 5885 (Gas/E85) (Figure 1-19) |
| **Jack Screw Kit** | OPW 61JSK-4410 (Only used with Composite Base Spill Container) (Figure 1-20)<br>OPW 61JSK-44CB (Only used with Cast Iron Base Spill Container) (Figure 1-20)<br>OPW 61JSK-4RMT (Only Used on Remote-Fill Configuration) (Figure 1-20)<br>OPW 71JSK-44MA (GAS/E85) (Figure 1-21)<br>OPW 71JSK-4RMT (GAS/E85) (Figure 1-21) |
| **Face Seal Adaptor** | OPW FSA-400<br>OPW FSA-400-S (GAS/E85) (Figure 1-22) |
| **Drop Tube** | OPW 61T (various lengths)<br>OPW 61T-SS (various lengths) (GAS/E85) |

## Exhibit 1 (continued)

## OPW Phase I Vapor Recovery System Equipment List

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

[2] 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**[2] | Veeder-Root 312020-952 (cap & adaptor)<br>McGard FL1 – Stick Only Fuel Lock (125007) (GAS) (Figure 1-30)<br>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) |

**Exhibit 1 (continued)**

**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*<br>61JSK-44CB*<br>61JSK-4RMT*<br>OPW 71JSK-44MA (GAS/E85)<br>OPW 71JSK-4RMT (GAS/E85) |
| Tank Gauge Port Component (Cap and Adaptor) | Morrison Brothers<br><br>Veeder-Root<br><br>OPW | 305XPA1100AKEVR (cap & adaptor kit)<br>305-0200AAEVR (replacement adaptor)<br>305XP-110ACEVR (replacement cap)<br><br>Veeder-Root 312020-952 (cap & adaptor)<br><br>62M-MA (GAS/E85) |
| Drop Tube | OPW | 61-T<br>61T-SS (various lengths) (GAS/E85) |
| Tank Bottom Protector | OPW/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)

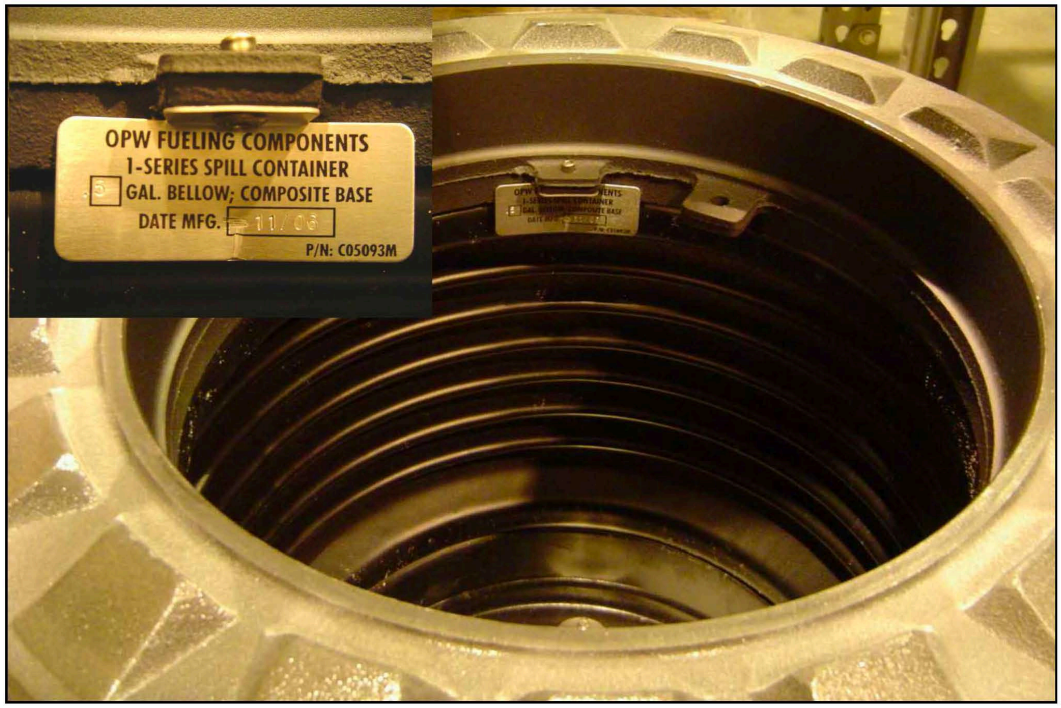


**Figure 1-2**
**Multiport Spill Container OPW 1-Series** (GAS/E85)

**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**

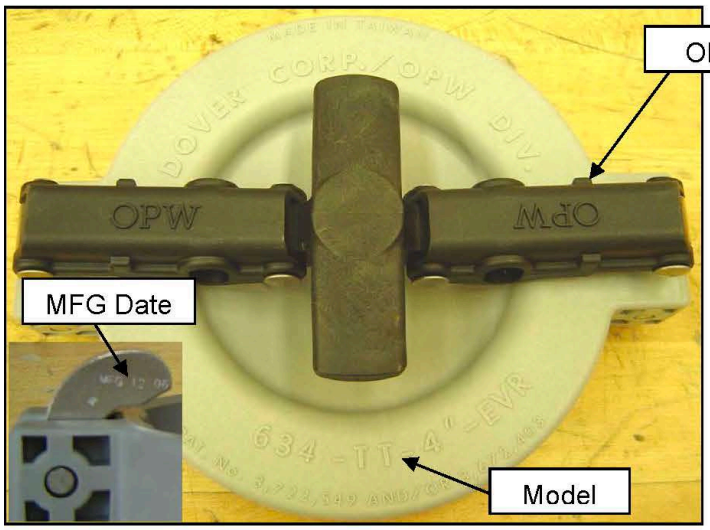



**Figure 1-8**
**OPW 1711-T-EVR Vapor Dust Cap**

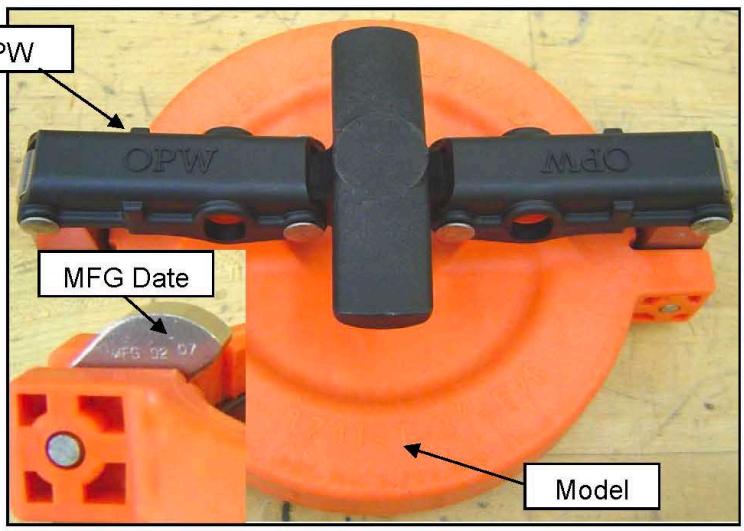


**Figure 1-9**
**CompX CSP1-634LPC Product Dust Cap**


**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**

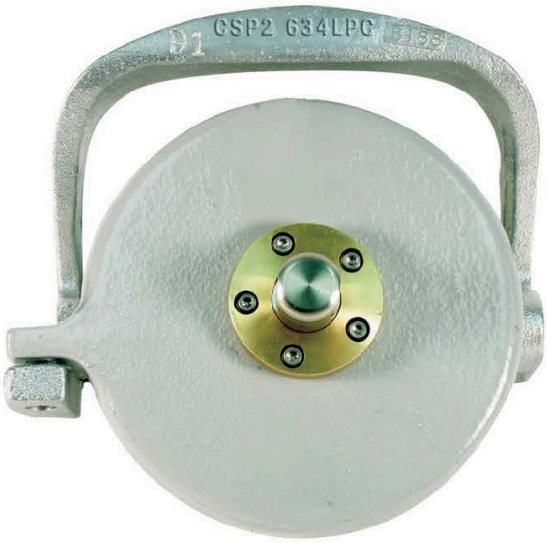



**Figure 1-12**
**CompX CSP4-1711LPC Vapor Dust Cap**


**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)**

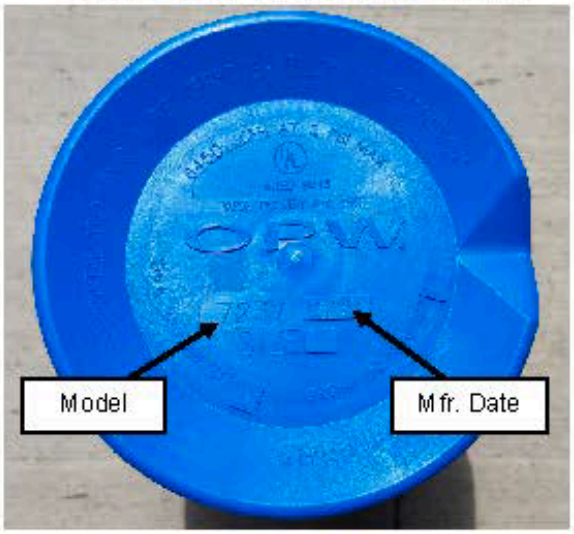



**Figure 1-19**
**Husky 5885 P/V Vent Valve (Gas/E85)**
**(Husky Name on Bottom Flange)**

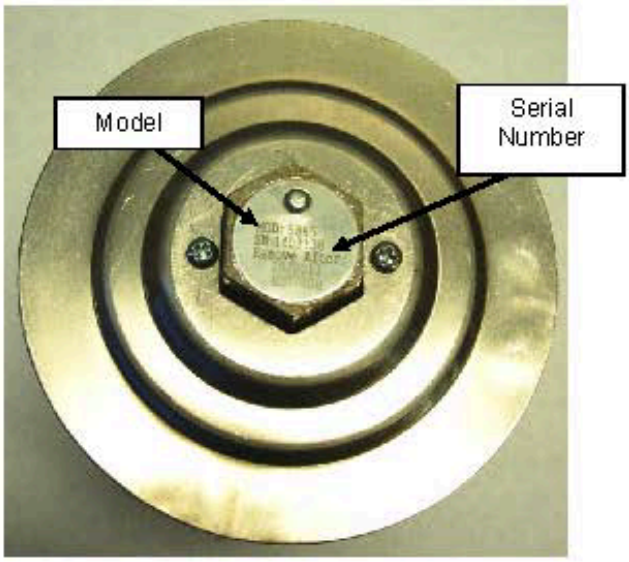


**Figure 1-20**
**OPW 61JSK Jack Screw**

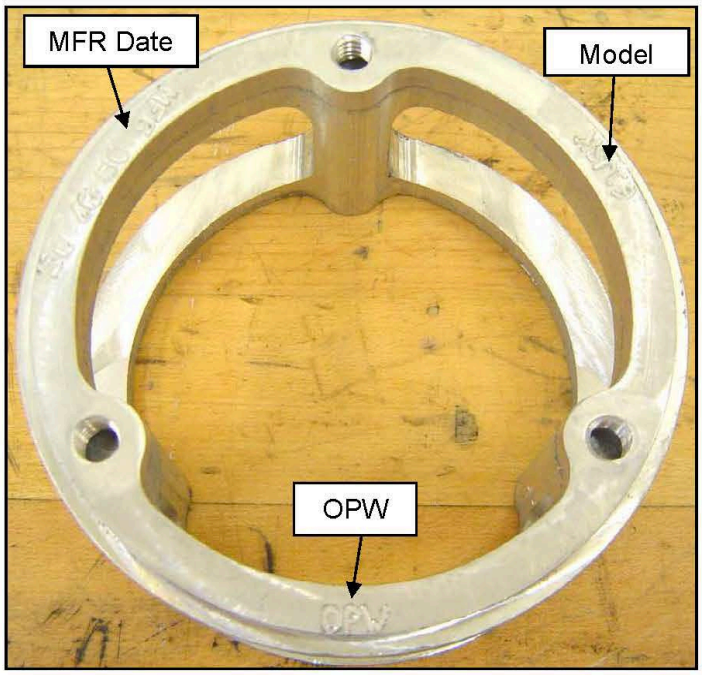



**Figure 1-21**
**71JSK-44MA Jack Screw Kit (GAS/E85)**
**71JSK-4RMT Jack Screw Kit (GAS/E85)**

**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**

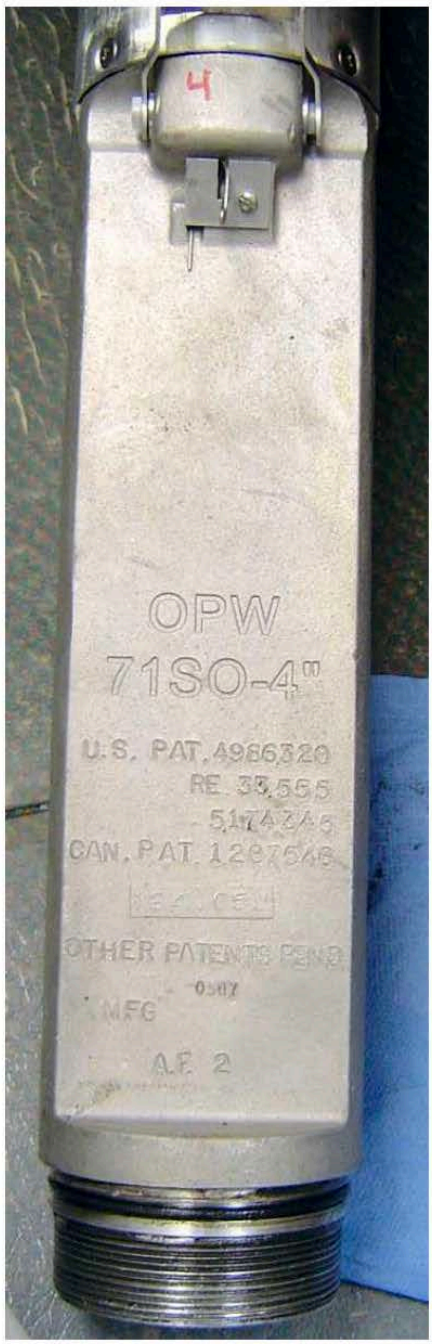


**Figure 1-25**
**71SO Testable Drop Tube**


**Top View of 71SO Testable Drop Tube**

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

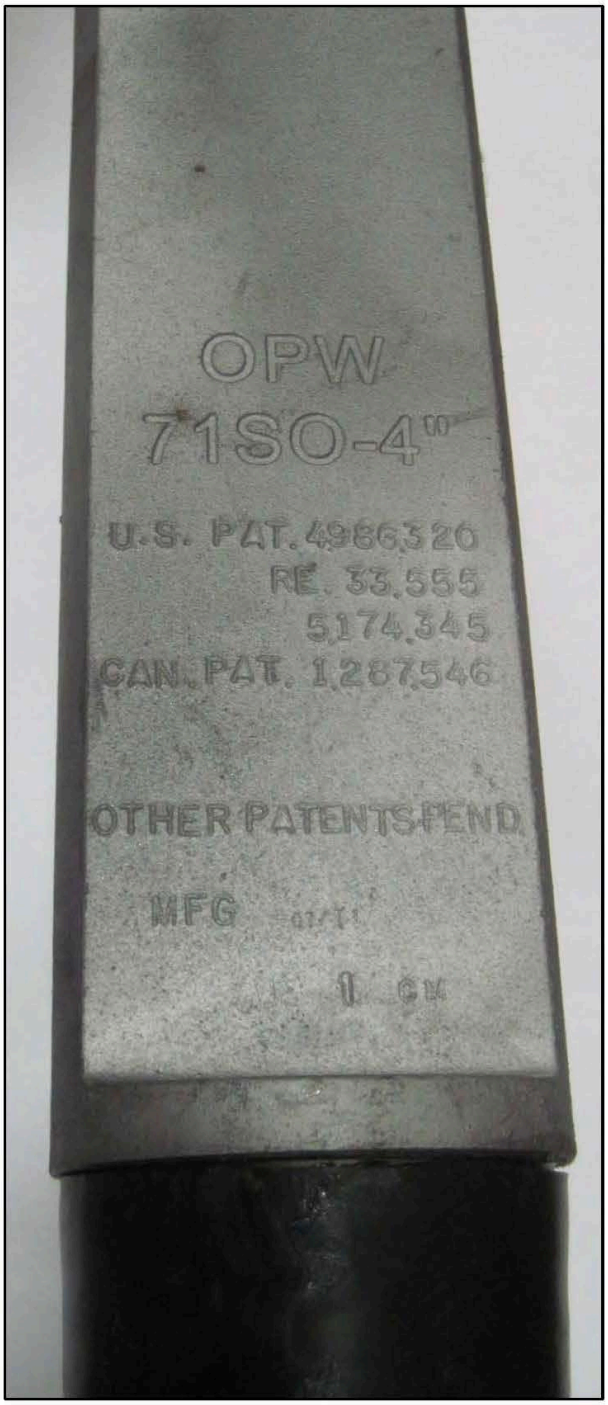


**Figure 1-27**
**Defender OPV series 70859X9YZ (Gas/E85 compatible)**


**Defender OPV series**
**70859X9YZ (Gas/E85)**

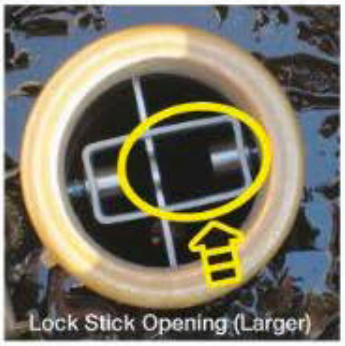

**Defender OPV series**
**70869X9YZ (Gas/E85)**
**KIWA Label**

**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**[3]




[3] 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.

4. 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[1]

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).

[1] 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 $H_2O$ 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[2]

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.

[2] 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.

## 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).

## 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 2-1**
**Maintenance Intervals for System Components[3]**
**(Reference Exhibit 1 for list of certified components)**

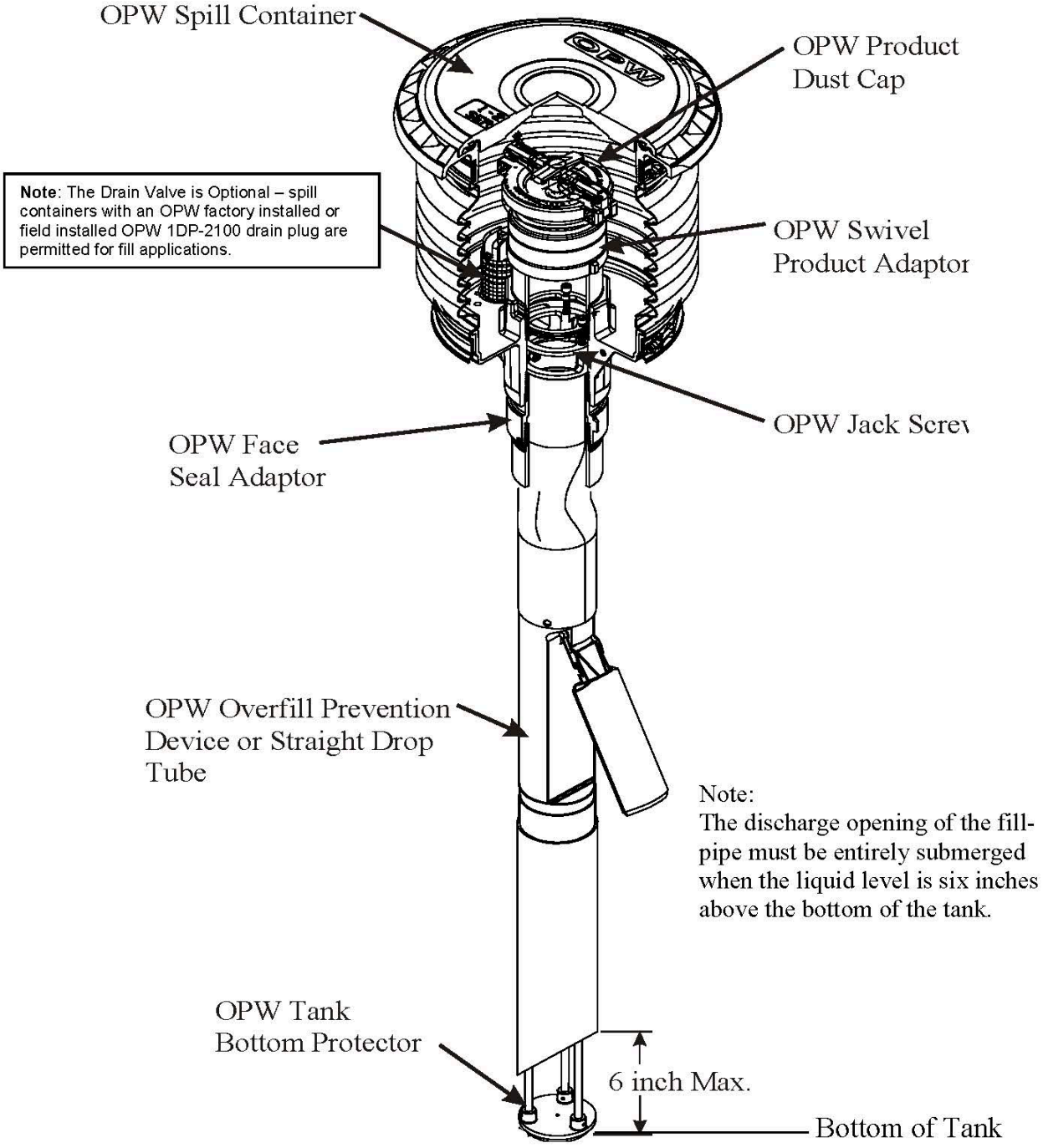
| Manufacturer | Component | Maintenance Interval |
|---|---|---|
| OPW | Pressure/Vacuum Vent Valve | Annual |
| Husky | Pressure/Vacuum Vent Valve | Annual |
| FFS | Pressure/Vacuum Vent Valve | Annual |
| All Manufacturers | Tank Gauge Components | Annual |
| OPW | Dust Caps (all models) | Annual |
| 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<br>Maximum, 108 pound-inch average static torque |
| Overfill Prevention Device | TP-201.1D | ≤0.17 CFH at 2.00 in $H_2O$ |
| Spill Container Drain Valve | TP-201.1C or TP-201.1D | ≤0.17 CFH at 2.00 in $H_2O$ |
| P/V Valve[4] | TP-201.1E | Positive pressure setting: 2.5 to 6.0 in $H_2O$<br>Negative pressure setting: 6.0 to 10.0 in $H_2O$<br>Positive Leakrate: 0.05 CFH at 2.0 in $H_2O$<br>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 |

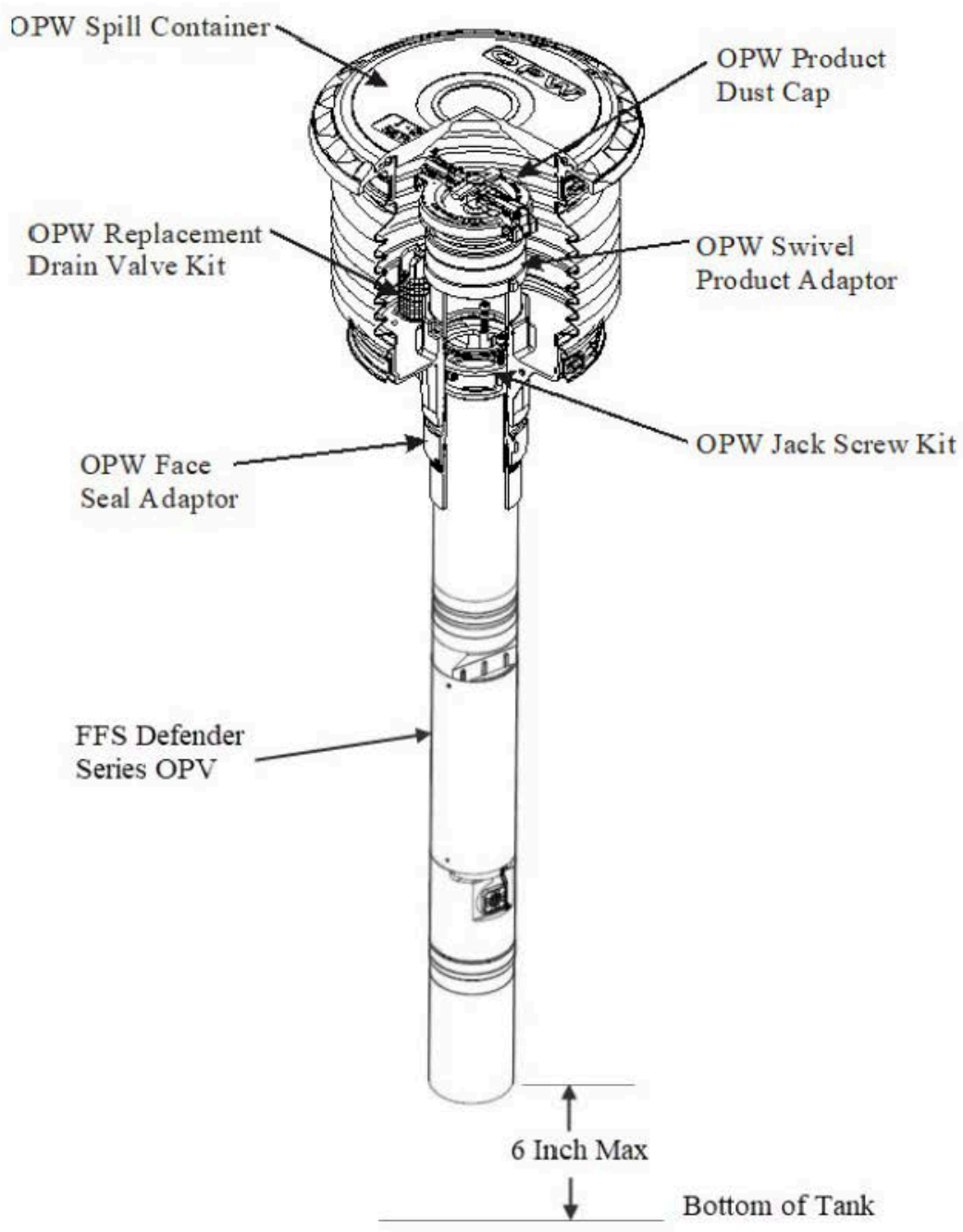
[3] Maintenance must be conducted within the interval specified from the date of installation and at least within the specified interval thereafter.
[4] Compliance determination is at the option of the district.

**Figure 2-1**
**Typical Product Installation Using OPW System[5]**




[5] 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[6]**




[6] 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**

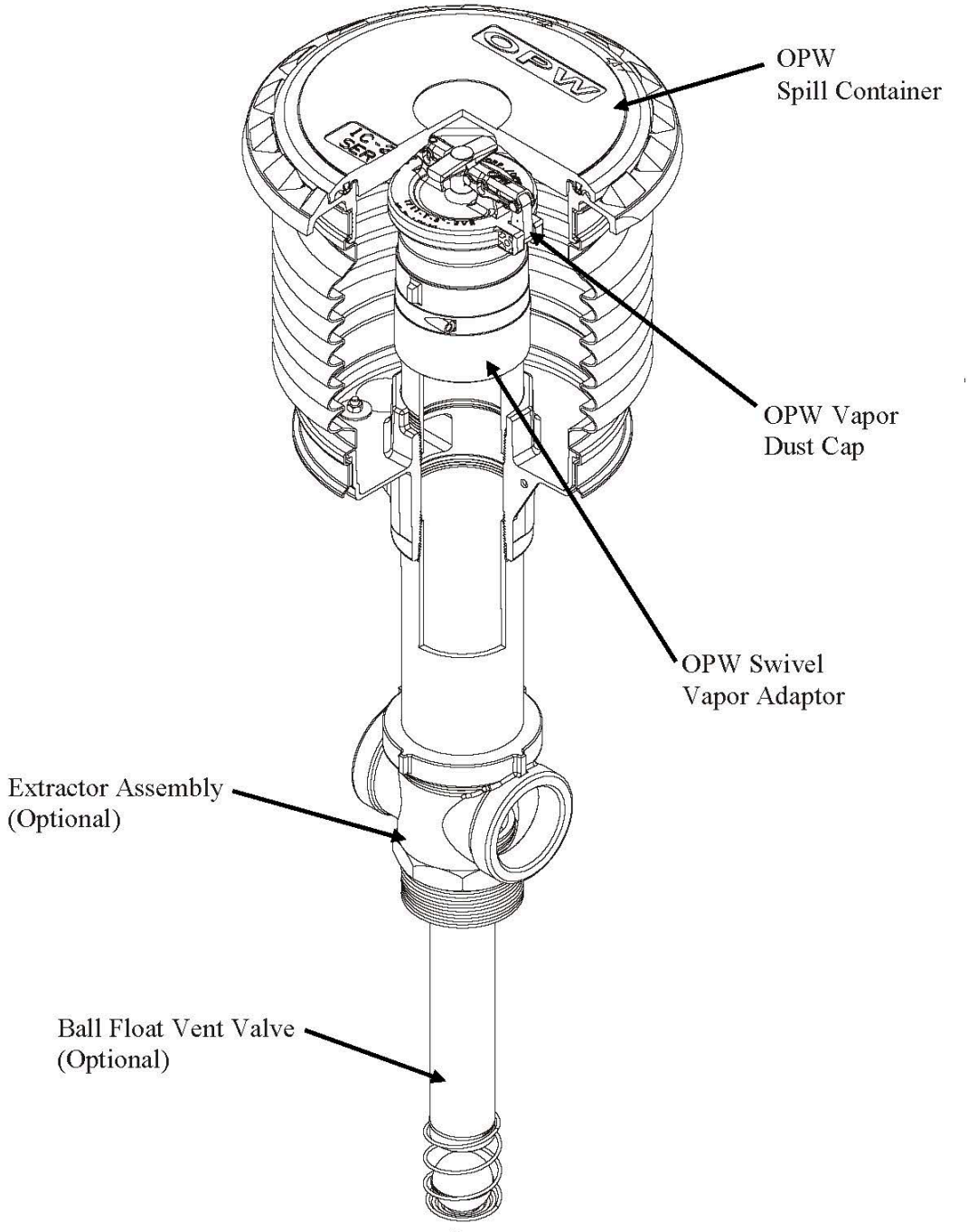


**Figure 2-4**
**Typical OPW/POMECO Double Fill Configuration**

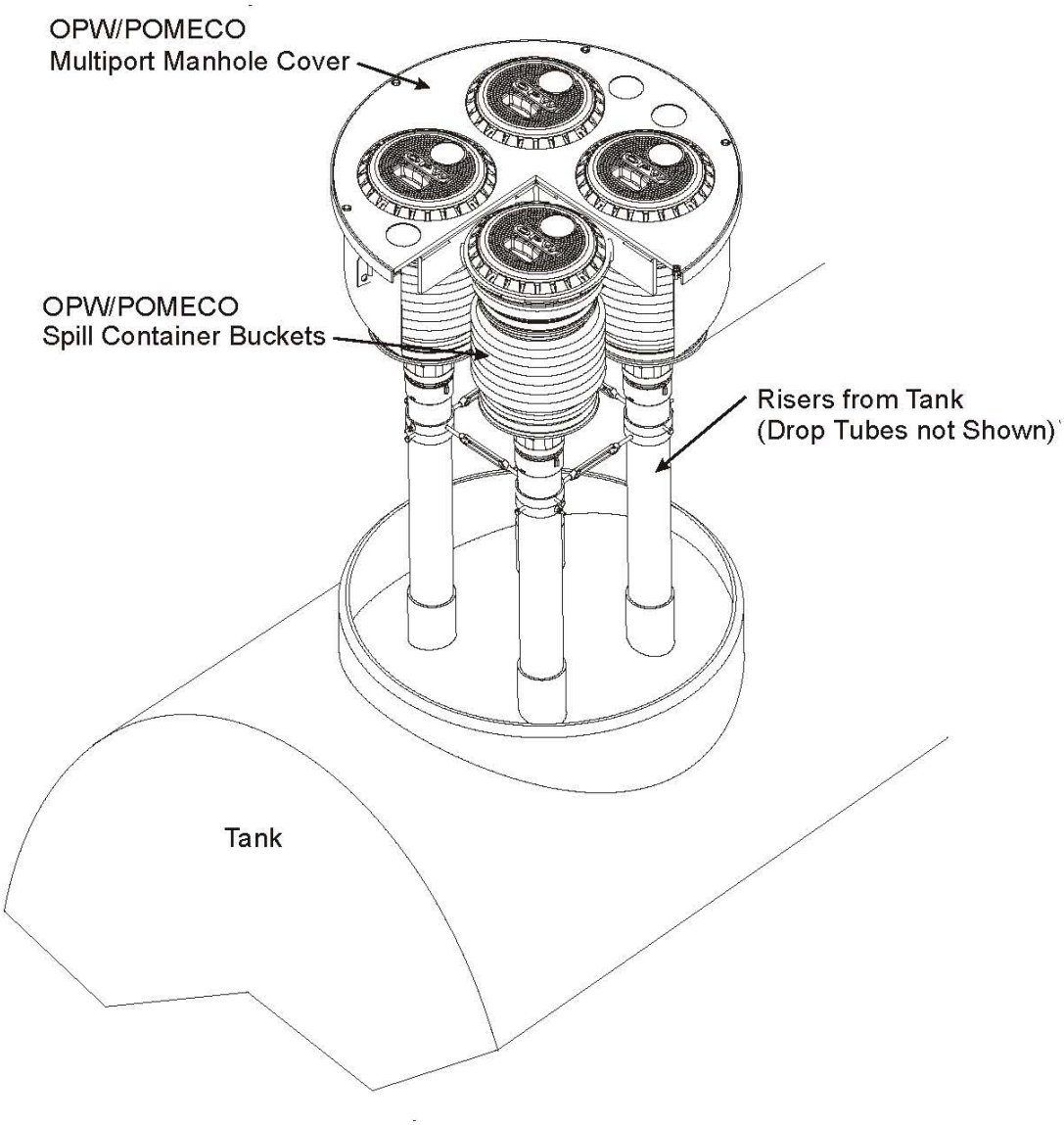


**Figure 2-5**
**Typical Remote-Fill Access Point Configuration**

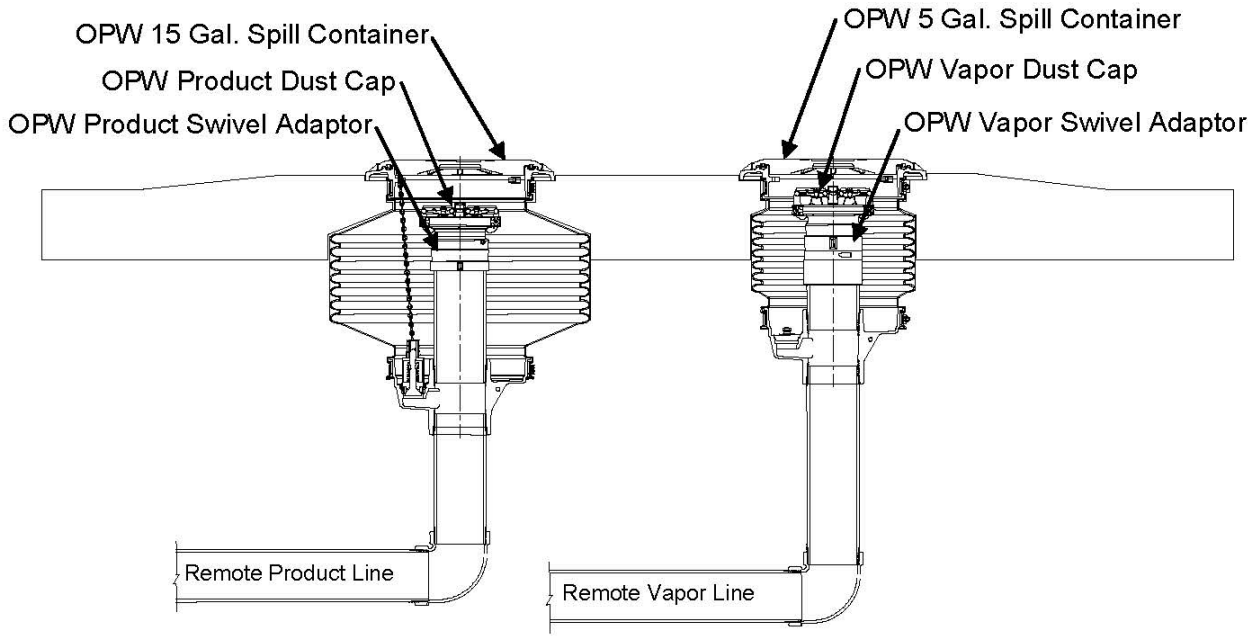


**Figure 2-6**
**Typical Remote-Fill Tank Top Configuration**

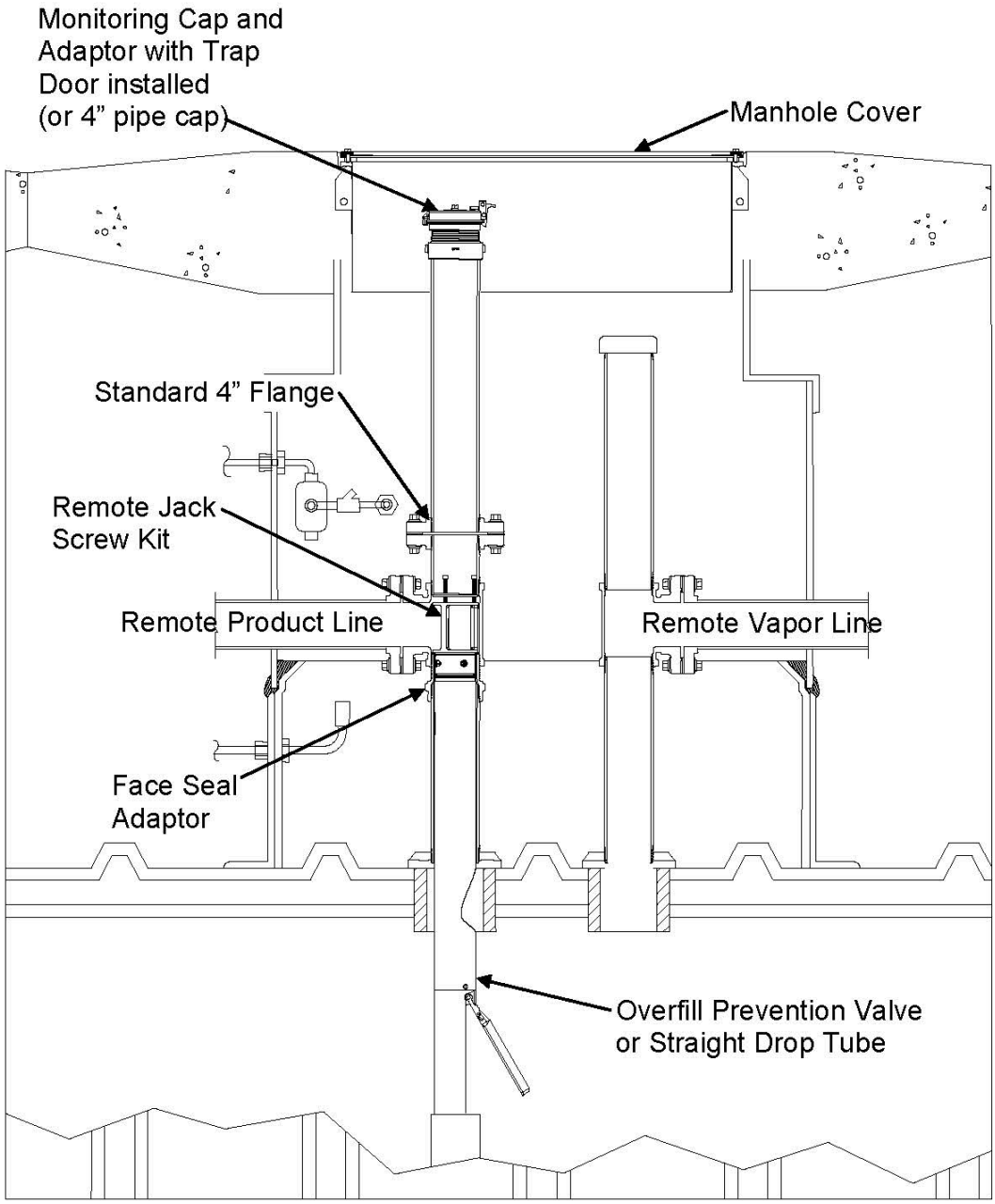


**Figure 2-7**
**Typical Remote Additive Fill Configuration**

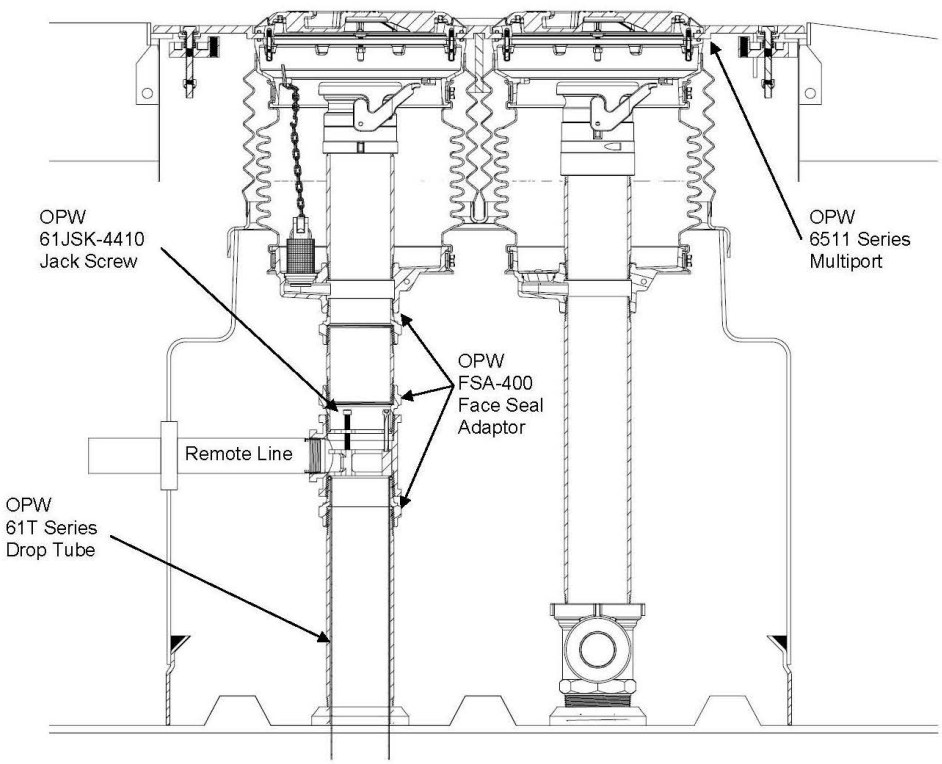
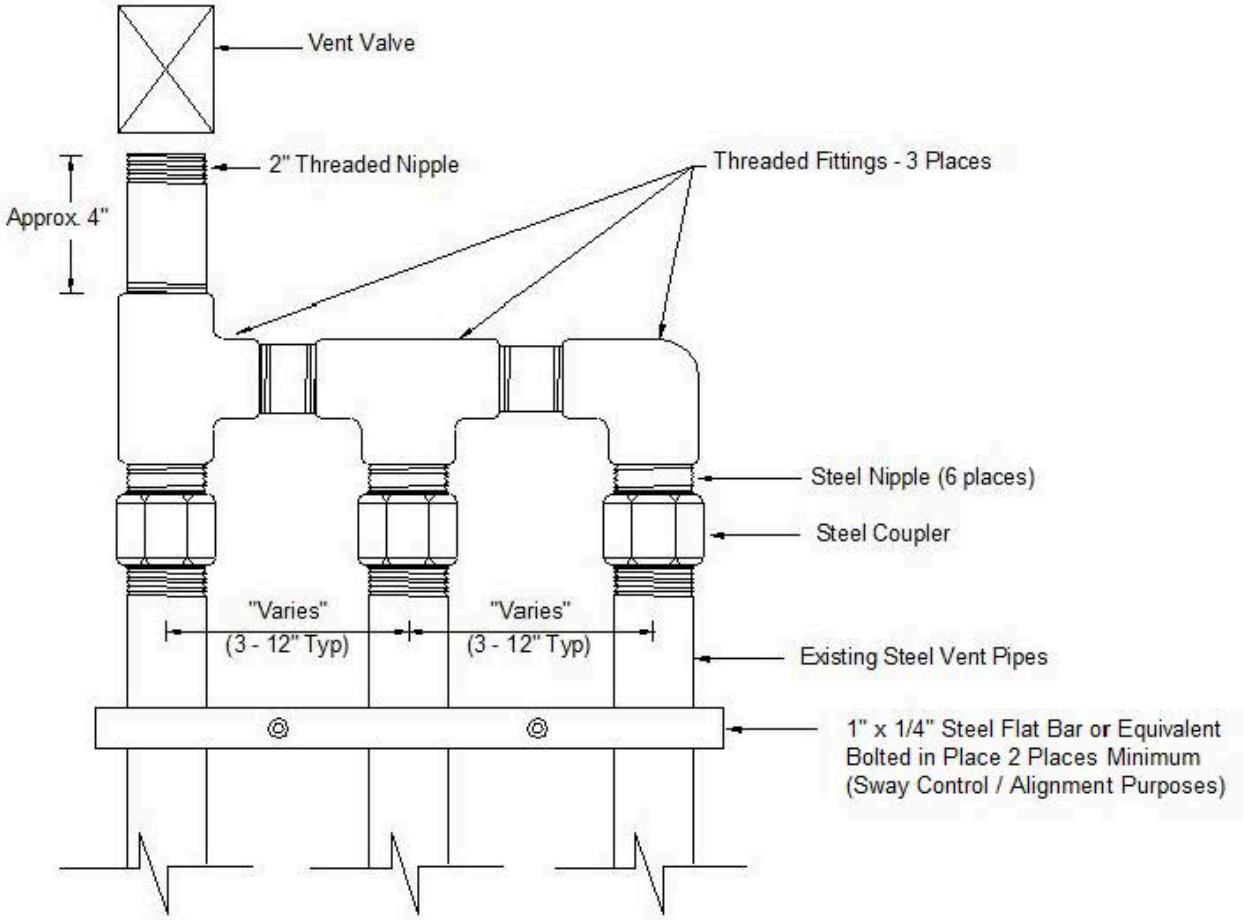
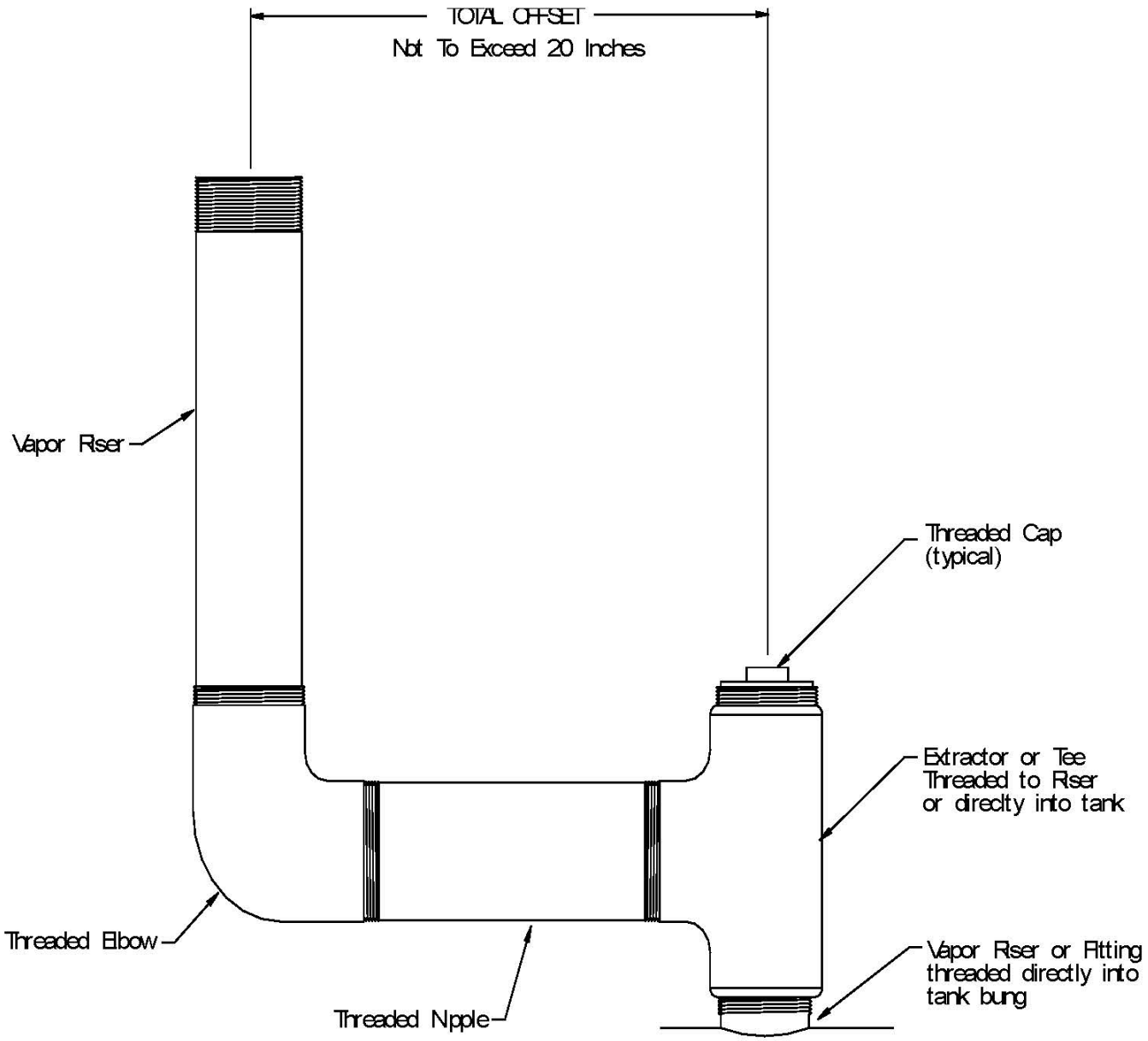


**Figure 2-8**
**Typical Vent Pipe Manifold**




**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/Inspection/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 |
|---|---|---|---|---|---|
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## 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.

**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<br>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 $H_2O$<br>Negative Pressure: 6.0 to 10.0 inches $H_2O$<br>Leak rate: ≤ 0.05 CFH at +2.0 inches $H_2O$<br>Leak rate: ≤ 0.21 CFH at -4.0 inches $H_2O$ |

## 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 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: Name _____
Address _____
City _____ State _____ Zip _____
Morrison Product(s) I.D Numbers 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™ 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 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)*

OPW
A DOVER COMPANY

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 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.

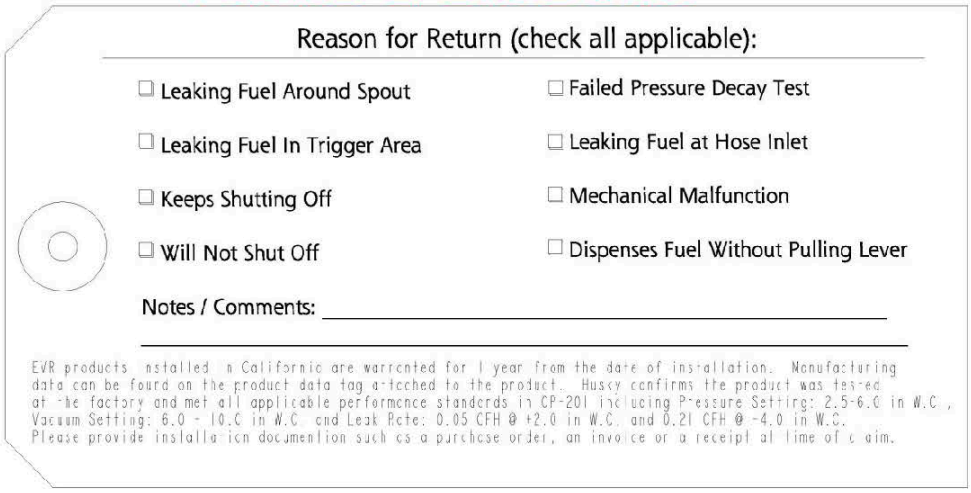
The warranty provisions contained herein apply only to original purchasers who use the equipment for commercial or industrial purposes. There are no other warranties of merchantability, fitness for a particular purpose, or otherwise, and any other such warranties are hereby specifically disclaimed.

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.


FRONT VIEW

FOR REFERENCE ONLY




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 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

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

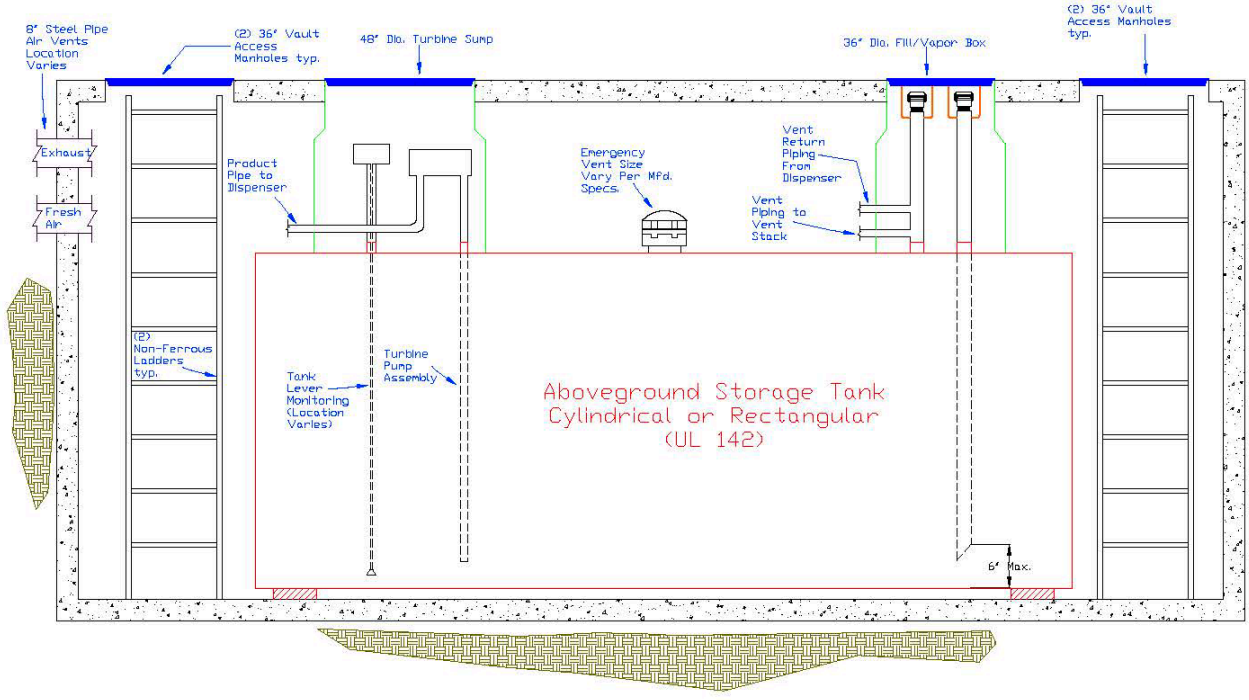


**Figure 5-2:** Top Sectional View of Typical Vaulted AST

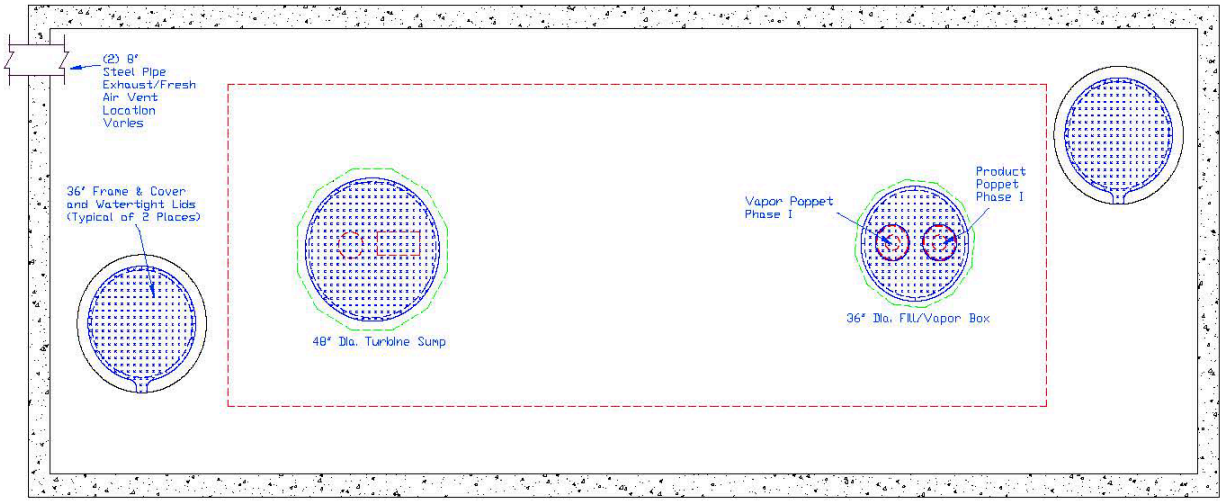



**Figure 5-3:** End Sectional View of Typical Vaulted AST

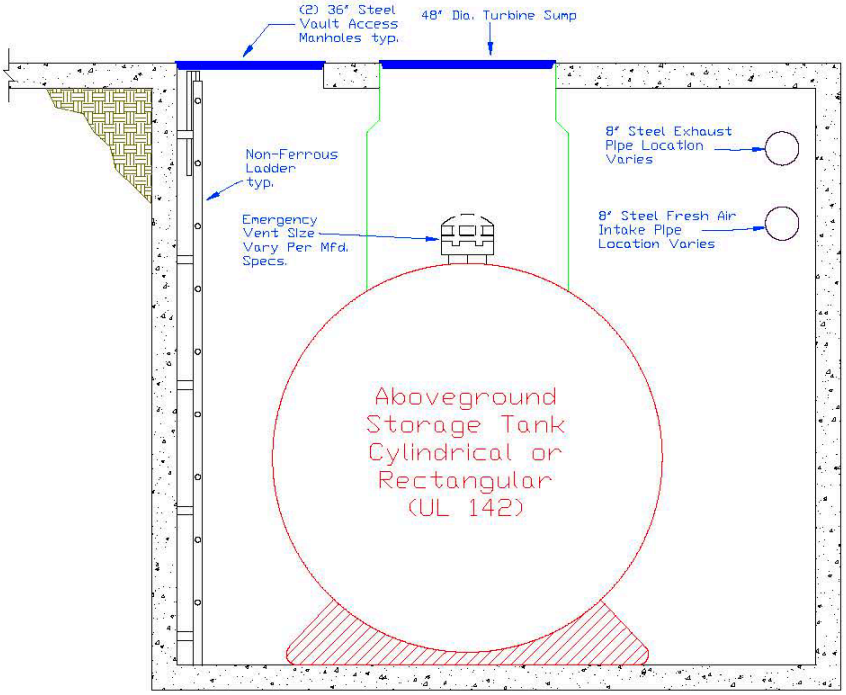


**Figure 5-4:** Sectional Views of Typical Vaulted AST (Ventilation

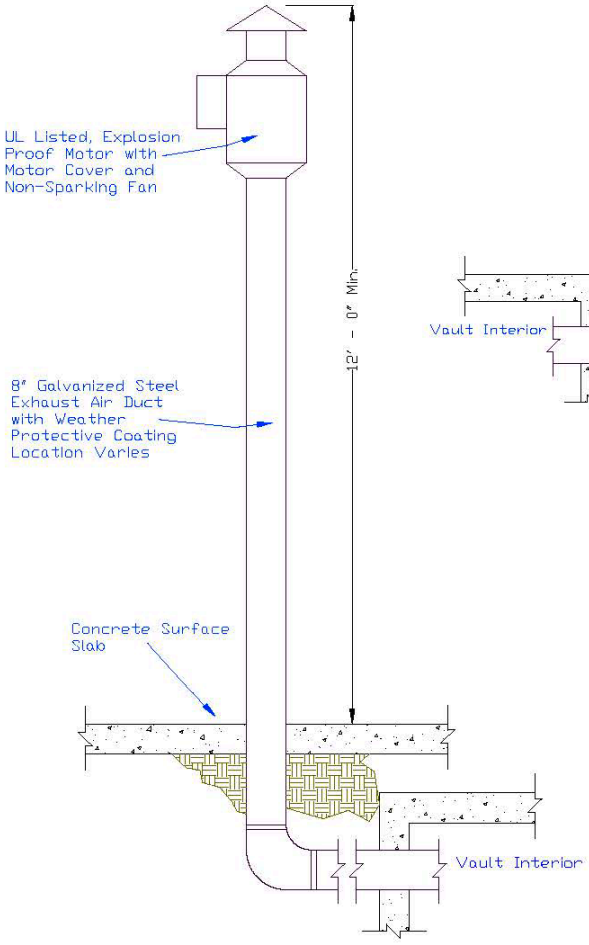



**Figure 5-4a:** Typical Exhaust

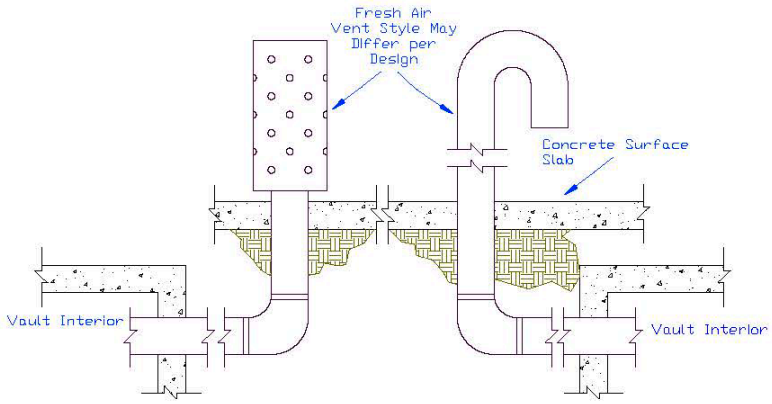



**Figure 5-4b:** Typical Fresh Air Intake

**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. | **Yes No** |
| Is the remote fill pipe lengths greater than 50 feet but less than 200 feet? See Table 1 for pressure up time. | **Yes No** |

Test Company:_____ Facility Name:_____

_____

Print Name (Technician) Signature Date

_____

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

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

| Horizontal Length of Remote Fill Pipe (feet) | Time to Pressurize (minutes) |
|---|---|
| ≤50 | 5 |
| >50, ≤100 | 10 |
| >100, ≤150 | 15 |
| >150, <200 | 20 |
| <200, <250 | 25 |