TECHNICAL SUPPORT DOCUMENT

7-ELEVEN No. 22525
9411 NE 76th Street, Vancouver, WA

SWCAA ID: 875

Air Discharge Permit 21-3450

Air Discharge Permit Application CL-3150

Issued: February 11, 2021

Prepared By: Clint Lamoreaux
Air Quality Engineer
Southwest Clean Air Agency

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Abbreviations

ADP	Air Discharge Permit (a.k.a. Order of Approval)
AP-42	Compilation of Emission Factors, AP-42, Fifth Edition, Volume 1, Stationary Point and Area Sources – published by the US Environmental Protection Agency
BACT	Best Available Control Technology
BART	Best Available Retrofit Technology
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2e	Carbon dioxide equivalent
EPA	U.S. Environmental Protection Agency
EVR	Enhanced Vapor Recovery
HAP	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act
LAER	Lowest Achievable Emission Rate
lb	Pounds
NO_X	Nitrogen oxides
PM	Particulate matter with an aerodynamic diameter less than or equal to 100 micrometers (includes both filterable particulate matter measured by EPA Method 5 that is less than 100 micrometers and condensable particulate matter measured by EPA Method 202)
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (includes both filterable particulate matter measured by EPA Method 201 or 201A and condensable particulate matter measured by EPA Method 202)
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers (includes both filterable particulate matter measured by EPA Method 201 or 201A and condensable particulate matter measured by EPA Method 202)
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SO_2	Sulfur dioxide
SWCAA	Southwest Clean Air Agency
TAP	Toxic air pollutant pursuant to Chapter 173-460 WAC
T-BACT	Best Available Control Technology for toxic air pollutants
tpy	Tons per year
VOC	Volatile organic compound
WAC	Washington Administrative Code
"w.c.	Pressure measured in inches of water column

1. FACILITY IDENTIFICATION

Applicant Name: 7-Eleven
Applicant Address: PO Box 711, Dallas, TX 75221

Facility Name: 7-Eleven No. 22525
Facility Address: 9411 NE 76th Street, Vancouver, WA 98662

SWCAA Identification: 875
Contact Person: Marc Westfall
Primary Process: Gasoline dispensing - retail
SIC / NAICS: 44719 / 5541
Facility Classification: BACT / Natural Minor

2. FACILITY DESCRIPTION

This facility is an existing 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 CL-3150 received January 14, 2021. ADP Application CL-3150 was submitted for approval to replace Stage I and Stage II vapor recovery systems at an existing gas station as part of a tank and dispenser replacement project. The three existing underground storage tanks will be replaced with two new underground storage tanks. The facility will continue to utilize two-point Stage I Enhanced Vapor Recovery (EVR) systems, but the Stage II systems will be upgraded from ORVR-incompatible Gilbarco VaporVac system to the ORVR-compatible Healy system. In addition, standard stage II hoses will be replaced with low permeation hoses.

4. PROCESS DESCRIPTION

This facility will receive unleaded gasoline from tanker trucks for storage in two underground storage tanks or tank compartments. An additional tank compartment will contain diesel fuel. The gasoline storage tanks or compartments will each be equipped with a two-point vapor balance system that returns gasoline vapors vented from the underground storage tanks to the tanker truck during filling (Stage I vapor recovery). Gasoline from the underground storage tanks will be dispensed from 4 multi-product blender pumps. Each pump will dispense regular, mid-grade, and super unleaded through a single hose. Each of the pumps will also dispense diesel fuel through a separate hose and nozzle.

Vapors displaced from individual motor vehicle gasoline tanks during filling that are not captured by an onboard vapor recovery system (ORVR) will be returned to the underground storage tanks (Stage II vapor recovery).

5. EQUIPMENT/ACTIVITY IDENTIFICATION

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

Tank	Product	Capacity
1	Regular Unleaded	25,000 gallons
2 - 1	Super Unleaded	7,000 gallons
2 – 2	Diesel	8,000 gallons

The gasoline storage tanks will be fitted with two-point Stage I enhanced vapor recovery equipment approved by California Air Resources Board (CARB) Executive Order VR-102-U "Relating to the Certification of Vapor Recovery Systems – OPW Phase I Vapor Recovery System". The following equipment will be installed:

Component	Make / Model
Spill Container – Product	OPW / 1C-3132D (with drain valve)
Spill Container – Vapor	OPW / 1C-3112P (with plug)
Drop-Tube / Overfill Prevention	OPW / 71SO-410C
Swivel Top Fill Adapter[1]	OPW / 61SALP-1020-EVR
Swivel Top Vapor Adapter[1]	OPW / 61VSA-1020-EVR
Dust Cap – Product	OPW / 634TT-7085-EVR
Dust Cap – Vapor	OPW / 1711T-7085-EVR
Extractor Fitting	OPW / 233
Ball Float Vent Valve	Not Required / Not Provided

[1] This is a two point system.

The following Stage II vapor recovery equipment, hoses, and nozzles will be installed as components of the ORVR compatible Stage II vapor recovery system approved by CARB Executive Order G-70-191-AA and Approval Letter #06-02 (Healy/Franklin 9000 Nozzle).

Component	Make/Model
Nozzles	Franklin / 900-EVR-FS-BLACK
Hoses	Franklin / 75B-080-S2S2 (low permeation hose)
Hose – Whips	Franklin / 75B-008-F3F2 (low permeation hose)
Breakaway Couplings	Healy / 8701VV
Vapor Pump	Franklin / VP1000
Swivels	Integral to both end of the hoses
Dispensers	Gilbarco / Encore 700 NL1
Pressure / Vacuum Valve	OPW / 723V-2203

5.b Summary.

ID No.	Generating Equipment/Activity	# of Units	Control Measure/Equipment	# of Units
1	Retail Gasoline Dispensing Facility	1	Stage I Enhanced Vapor Recovery Systems, Stage II Vapor Recovery Systems, Low Permeation Hoses	2

6. EMISSIONS DETERMINATION

6.a Gasoline Vapors. Total potential VOC emissions were estimated using the following emission factors from the CARB December 23, 2013 document titled "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 (EVR)	0.150
Breathing – Controlled with P/V Valve	0.092
Controlled Refueling – (non-ORVR vehicles, ORVR-compatible Stage II)	0.3192[1]
Controlled Refueling (ORVR vehicles and Stage II)	0.0575[2]
Spillage (Stage II nozzles)	0.420
Hose Permeation (low permeation hoses)	0.009
Total	**1.048**

The above calculations assume that 90% of the fuel is dispensed to vehicles equipped with 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. An in-use control effectiveness of 98% was assumed for carbon canisters (an EPA recommended value). An in-use control effectiveness of 62% was assumed for Stage II vapor recovery systems. This is the value for annual or less frequent inspections by enforcement personnel in 'Technical Guidance—Stage II Vapor Recovery Systems for Control of Vehicle Refueling at Gasoline Dispensing Facilities Volume I: Chapters," (EPA–450/3–91–022a, November 1991).

[1] Based on 90% of the gasoline being dispensed to vehicles equipped with on-board refueling vapor recovery (ORVR) as of 2020. The base emission factor for Stage II vapor recovery is 8.400 lb/1,000 gallons. For that 10% of the vehicles that are not equipped with ORVR, the vapor displaced during refueling will be controlled by the Stage II vapor recovery system. 8.400 lb/1,000 gallons * (10% of vehicles) * (1-0.62 in use effectiveness) = 0.3192 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 and the Stage II vapor recovery system provides for an additional 62% control. 8.400 lb/1,000 gallons * 90% of gas dispensed to vehicles with ORVR * (2% of vapors not captured by the canister) * (1-62%) = 0.0575 lb/1,000 gallons.

At a throughput of 5,000,000 gallons of gasoline per year, the facility would emit 2.62 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 1.31 tons per year, and 0.34 tons per year respectively.

6.b Facility-wide Potential Emissions Summary.

Pollutant	Potential Annual Emissions (tpy)
Carbon monoxide	0.00
Nitrogen oxides	0.00
Volatile organic compounds	2.62
Sulfur oxides as sulfur dioxide	0.00
Particulate matter	0.00
PM_{10}	0.00
$PM_{2.5}$	0.00
CO_2e	0.00
Toxic Air Pollutants	1.31
Hazardous Air Pollutants	0.34

7. REGULATIONS AND EMISSION STANDARDS

Regulations 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 regulations, codes, or requirements listed below.

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. The project scope includes replacement of all items that make up the affected facility under Subpart CCCCCC (tanks and associated components). If all the relevant components are new, the facility is

"new" for the purposes of this rule. If any ancillary components remain the facility is "reconstructed" for the purposes of this rule. The requirements for "new" and "reconstructed" facilities are the same. Upon completion of this project, this facility will begin operation after January 10, 2008 and has a potential throughput of 100,000 gallons per month or more. New or reconstructed facilities with a throughput of 100,000 gallons per month or more that begin operation after January 10, 2008, must comply with requirements found in Subpart CCCCCC including:

(1) Gasoline throughput must be recorded for each calendar month. [63.11111(e)];
(2) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnection;
(3) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor tight;
(4) 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;
(5) 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;
(6) Liquid fill connections for all systems shall be equipped with vapor-tight caps;
(7) 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.;
(8) The vapor balance system shall be capable of meeting the static pressure performance requirement found in Table 1 of Subpart CCCCCC; and
(9) Each new or existing gasoline storage tank shall be equipped with a dual-point vapor balance system.

In addition, the facility must conduct testing as required by 40 CFR 63.11120, provide notifications as required by 40 CFR 63.11124, and maintain records and report as required by 40 CFR 63.11125 and 63.11126.

7.b Title 40 CFR Part 80 "Regulation of Fuels and Fuel Additives" Section 22(j) requires that after January 1, 1998, every retailer and wholesale purchaser-consumer of gasoline and methanol shall limit each nozzle from which gasoline or methanol is introduced into motor vehicles to a maximum fuel flow rate not to exceed 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 Order of Approval (Air Discharge Permit) 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" (as in effect August 21, 1998) 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. WAC 173-460-030(1)(b)(ii) exempts gasoline dispensing facilities 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, sulfur dioxide, nitrogen dioxide, ozone, and carbon monoxide in the ambient air, which shall 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, sulfur dioxide, 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 that good practice and procedures be used to reduce odors to a reasonable minimum, and does not allow any person to cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of their property.

7.j SWCAA 400-070(6) "Gasoline Dispensing Facilities" requires all gasoline dispensing facilities to meet all the provisions of SWCAA 491 "Emission Standards and Controls for Sources Emitting Gasoline Vapors."

7.k SWCAA 400-109 "Air Discharge Permit Applications" requires that an Air Discharge Permit 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 Air Discharge Permit application to request such changes. An Air Discharge Permit 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.l SWCAA 400-110 "New Source Review" requires that an Air Discharge Permit be issued by SWCAA prior to establishment of the new source, emission unit, or modification.

7.m SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" requires that no approval to construct or alter an air contaminant source shall 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) Emissions will be minimized to the extent that the new source will not exceed emission levels or other requirements provided in the maintenance plan;
(3) Best Available Control Technology will be employed for all air contaminants to be emitted by the proposed equipment;
(4) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
(5) If the proposed equipment or facility will emit any toxic air pollutant regulated under WAC 173-460 (as in effect August 21, 1998), the proposed equipment and control measures will meet all the requirements of that Chapter.

7.n 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 Best Available Control Technology (BACT) for the types and amounts of air contaminants emitted by the processes as described below:

8.a Retail Gasoline Dispensing Facility. SWCAA has determined that BACT for the control of gasoline vapors emitted from new gasoline dispensing facilities with a throughput of more than 200,000 gallons per year in Clark County consists of EVR Stage I vapor recovery equipment as tested and approved by CARB, maintenance of existing ORVR-compatible Stage II vapor recovery until 2023, enhanced conventional nozzles (where Stage II is not in place), and low permeation hoses when throughput exceeds 1,400,000 gallons per year. This facility will be new or reconstructed. The facility estimated a throughput of 750,000 gallons per year but will be permitted for a throughput of up to 5,000,000 gallons per year. The applicant proposed the use of Stage I enhanced vapor recovery equipment, ORVR-compatible Stage II vapor recovery equipment, and low permeation hoses. The proposed Stage I vapor recovery system was approved by CARB Executive Order VR-102-U dated June 3, 2020. The proposed Stage II system was approved by CARB Executive Order G-70-151-AA dated July 30, 2001. This configuration meets the requirements of BACT.

8.b Prevention of Significant Deterioration (PSD) Applicability Determination. This permitting action will not result in a potential increase in emissions equal to or greater than the PSD thresholds. Therefore, PSD review is not applicable to this action.

8.c 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 and II vapor recovery systems and low permeation hoses as proposed in ADP Application CL-3150 or required by this permit will not cause the ambient air quality standards established by 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 and II vapor recovery systems and low permeation hoses as proposed in ADP Application CL-3150 or required by this permit, 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 and II vapor recovery systems and low permeation hoses as proposed in ADP Application CL-3150 or required by this permit will not cause the requirements of WAC 173-460 "Controls for New Sources of Toxic Air Pollutants," (in effect August 21, 1998) or WAC 173-476 "Ambient Air Quality Standards" to be violated.

10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue Air Discharge Permit 21-3450 in response to Air Discharge Permit Application CL-3150. Air Discharge Permit 21-3450 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

10.a General Basis. Approval conditions for equipment affected by this permitting action incorporate the operating schemes proposed by the permittee in the Air Discharge Permit application.

10.b Emission Limits. An annual VOC emission limit of 2.62 tons per year was established. This limit matches the potential emissions from a properly operated facility equipped with Stage I and II vapor recovery systems, low permeation hoses, 90% of fuel dispensed to ORVR-equipped vehicles, and a gasoline throughput of 5,000,000 gallons per year.

10.c Operating 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 remaining requirements are related to proper operation of the Stage I and II vapor recovery systems and the use of low permeation hoses.

The pressure/vacuum valve leak rate requirements for individual valves were taken from CARB Stage I Executive Orders. The combined leak rate requirements for all pressure/vacuum valves in the system comes from 40 CFR 63 Subpart CCCCCC.

The air to liquid ratio for the Stage II system was reduced from the value listed in the CARB Executive Order (1.10 ± 0.10) to 1.00 ± 0.10. This was done because:

1. This facility will use a newer nozzle (Healy 900) than Executive Order G-70-191-AA was written for, and this newer nozzle is expected to more efficiently collect gasoline vapors. The newest CARB executive orders that utilize a Healy 900 nozzle specify an air to liquid ratio of 1.05 and require a tank pressure management system to prevent excess emissions due to tank venting;
2. This facility will not use a tank pressure management system; and
3. Utilizing an air to liquid ratio of 1.00 ± 0.10 is consistent with CARB Certification and Test Procedure CP-201 (April 23, 2015) for all new Stage II vacuum assist systems without a vapor processor.

10.d Monitoring and Recordkeeping. 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 Emission Monitoring and Testing Requirements. See Section 12.

10.f Reporting. 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 SWCAA reporting requirements in SWCAA 491.

11. STARTUP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION

11.a Startup and Shutdown Provisions. Pursuant to SWCAA 400-081 "Startup 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 startup or shutdown. Where it is determined that a source is not capable of achieving continuous compliance with an emission standard during startup or shutdown, SWCAA shall include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during startup or shutdown.

This source is capable of achieving continuous compliance with all applicable requirements; therefore, no startup or shutdown provisions were included in the Air Discharge Permit.

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 and II vapor recovery equipment and low permeation hoses. While additional pollution control measures could be employed, 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

The periodic testing required by CARB Executive Order VR-102-U, CARB Executive Order G-70-191-AA, and 40 CFR 63 Subpart CCCCCC were incorporated into the permit. Note that the testing requirements of Executive Order VR-102-U are found in VR-102-T which is incorporated by reference into Executive Order VR-102-U. An initial tank-tie test was required to confirm whether any of the tank vapor spaces are manifolded together. In accordance with the requirements of SWCAA 491-040(4)(n), testing of each pressure-vacuum vent valve is required every 36 months. This testing is also required by 40 CFR 63 Subpart CCCCCC for this facility. 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 static pressure decay testing is required prior to placing the equipment into service rather than within 60 days after startup as specified in the applicable CARB Executive Order.

13. FACILITY HISTORY

This will be a rebuilt facility.

13.a Previous Approvals/Permits: The following approvals/permits have been issued for this facility:

Permit #	Application #	Date Issued	Description
83-696(3)	CL-501-3	5-25-1983	Approval to install coaxial Stage I vapor recovery.
95-1782	CL-1158	6-16-1995	Approval to replace coaxial Stage I vapor recovery systems with two-point Stage I vapor recovery systems and to install Stage II vapor recovery.
14-3105	CL-2024	7-14-2014	Belated approval to upgrade the Stage I vapor recovery systems from 2-point non-EVR to 2-point EVR.

Bold font indicates that the Order or Air Discharge Permit will have been superseded or will no longer be in effect when Air Discharge Permit 21-3450 becomes effective.

14. PUBLIC INVOLVEMENT

14.a Public Notice for Air Discharge Permit Application CL-3150. Public notice for Air Discharge Permit Application CL-3150 was published on the SWCAA internet website for a minimum of 15 days beginning on January 14, 2021.

14.b Public/Applicant Comment for Air Discharge Permit Application CL-3140. SWCAA did not receive formal comments, a comment period request, or any other inquiry from the public or the applicant regarding this Air Discharge Permit application. Therefore, no public comment period was provided for this permitting action.

14.c State Environmental Policy Act. The City of Vancouver issued a Notice of Optional SEPA Determination of Non-Significance (DNS) for this project on March 12, 2019. The comment period closed on March 27, 2019. No substantive or information comments were received; therefore the DNS became final March 28, 2019.

Appendix A

CARB Executive Order VR-102-U

Relating to Certification of Vapor Recovery Systems

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

(the legal language of VR-102-T is included here because it is incorporated by reference into VR-102-U)

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER VR-102-U

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 October 4, 2019, by Executive Order VR-102-T;

WHEREAS, the certification of the Husky Model 5885 P/V vent valve expires on June 3, 2020;

WHEREAS, Husky has implemented modifications in response to failures found by CARB staff;

WHEREAS, CARB staff has determined that Test Procedure 201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003) and Test Procedure 201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003) are not appropriate for certain remote fill configurations;

WHEREAS, CARB staff has developed additional requirements to TP-201.1C and TP-201,1D for testing remote fill configurations;

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

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

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find no failures of the Husky Model 5885 PV vent valve with the modifications implemented by Husky and find that required modifications to TP-201.1C and TP201.1D are necessary to test remote fill configurations;

NOW THEREFORE, IT IS HEREBY ORDERED that, with exception of June 3, 2020, expiration date for the Husky Model 5885 PV vent valve all terms and conditions of Executive Order VR-102-T including the CARB Approved Installation, Operation, and Maintenance Manual shall remain in effect with the issuance of this Executive Order.

IT IS FURTHER ORDERED that Exhibit 6 (Required Items for Conducting TP-201.1C/TP-201.1D) shall be used for testing remote fill configurations.

IT IS FURTHER ORDERED that the certification of the OPW Phase I Vapor Recovery System including the Husky Model 5885 P/V vent valve shall remain valid through May 31, 2021.

IT IS FURTHER ORDERED that Executive Order VR-102-T, issued on October 4, 2019, is hereby superseded by this Executive Order. OPW Phase I Vapor Recovery Systems certified under Executive Orders VR-102-A through T 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. This Executive Order shall apply to new installations or major modification of existing Phase I Systems.

Executed at Sacramento, California, this __3rd__ day of _____June_____ 2020.

Catherine Dunwoody, Chief
Monitoring and Laboratory Division

Attachment:

Exhibit 6 Required Items for Conducting TP-201.1C/TP-201.1D on a Remote Fill System

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) (Figure 1-2) 1-2100SH Series 1-2100Y-ZSH P700 Series P7MM-HHKK P500 Series P5MM-ZHHBJJJ P5MM-NN-HHKK 1-Series legend MM 11 (Composite Base) 11C (Cast Iron Base) 61 (Cast Iron Base) 61C (Cast Iron Base) NN Blank (5 gallon) 15 (15 gallon) HH EVR (Enhanced Vapor Recovery) FL (Fibrelite) KK DV (drain valve) PL (plug) Y C (Cast Iron Base) Blank (composite base) Z D (drain valve) P (plug) JJJ -14 (14" center spacing) BUCKET (16" or larger center spacing)
Replacement Drain Valve Kit	OPW 1DK-2100 (GAS/E85)
Replacement Drain Plug Kit	OPW 1DP-2100 (can be used with any OPW 1-Series Spill Containers) (Figure 1-3 and Figure 1-4)
Dust Caps	OPW 634LPC (product) (GAS/E85) (Figure 1-5) OPW 1711LPC (vapor) (GAS/E85) (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) OPW 1711T-EVR (vapor) (GAS/E85) (Figure 1-8) CompX CSP1-634LPC (Figure 1-9) CompX CSP3-1711LPC (vapor) (Figure 1-10) CompX CSP2-634LPC (product) (Figure 1-11) CompX CSP4-1711LPC (vapor) (Figure 1-12)
Product Adaptor	OPW 61SALP (Figure 1-13) OPW 61SALP-MA (GAS/E85) (Figure 1-15)
Vapor Adaptor	OPW 61VSA (Figure 1-14) OPW 61VSA-MA (GAS/E85) (Figure 1-16)
Pressure/Vacuum Vent Valve	FFS PV-Zero (Gas/E85) (Figure 1-17) OPW 723V (Gas/E85) (Figure 1-18) Husky 5885 (Gas/E85) (Figure 1-19)
Jack Screw Kit	OPW 61JSK-4410 (Only used with Composite Base Spill Container) (Figure 1-20) OPW 61JSK-44CB (Only used with Cast Iron Base Spill Container) (Figure 1-20) OPW 61JSK-4RMT (Only Used on Remote-Fill Configuration) (Figure 1-20) OPW 71JSK-44MA (GAS/E85) (Figure 1-21) OPW 71JSK-4RMT (GAS/E85) (Figure 1-21)
Face Seal Adaptor	OPW FSA-400 OPW FSA-400-S (GAS/E85) (Figure 1-22)
Drop Tube	OPW 61T (various lengths) 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) OPW 61SOM-412C-EVR (GAS/E85) OPW 71SO (Figure 1-24) OPW 71SO Testable (Figure 1-25) OPW 71SOM-412C (GAS/E85) (Figure 1-26) FFS Defender OPV series 70859X9YZ (Gas/E85 compatible) (Figure 1-27) Defender Series OPV legend: X = upper drop tube length: 1 = 5 feet 2 = 10 feet Y = Tube compatibility: 0 = Gas 2 = Gas/E85 Z = lower drop tube length: 1 = 8 feet 2 = 10 feet
Multiport	OPW (Configuration Only)
Remote Fill	OPW (Configuration Only)
Remote Additive Fill	OPW (Configuration Only)
Tank Bottom Protector[2]	OPW/Pomeco 6111-1400
Tank Gauge Port Components[2]	OPW 62M (Cap and Adaptor) (Figure 1-28) OPW 62M-MA (GAS/E85) (Figure 1-29) Morrison Brothers 305XPA1100AKEVR (GAS/E85) (cap & adaptor kit) Morrison Brothers 305-0200AAEVR (GAS/E85) (replacement adaptor) Morrison Brothers 305XP-110ACEVR (GAS/E85) (replacement cap) Veeder-Root 312020-952 (cap & adaptor)

[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]	McGard FL1 – Stick Only Fuel Lock (125007) (GAS) (Figure 1-30) McGard FL2 – Stick/Sampling Fuel Lock (125008) (GAS) (Figure 1-30)
Bladder Plug	McGard PSI104
Emergency Vent	Exhibit 5 (for below-grade vaulted tank configuration)

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

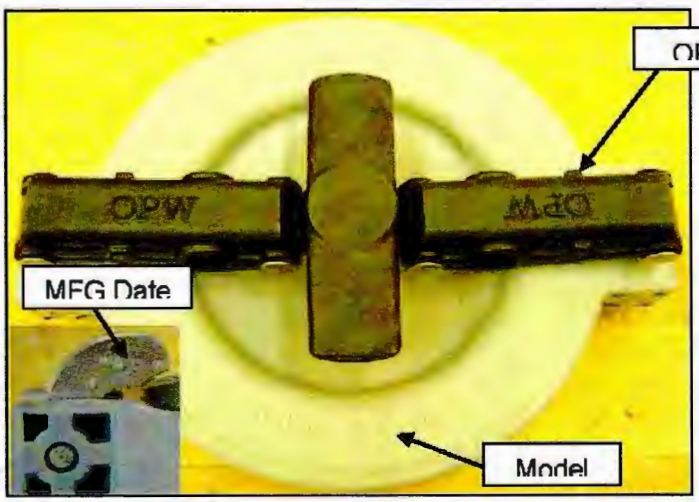

Figure 1-8
OPW 1711-T-EVR Vapor Dust Cap

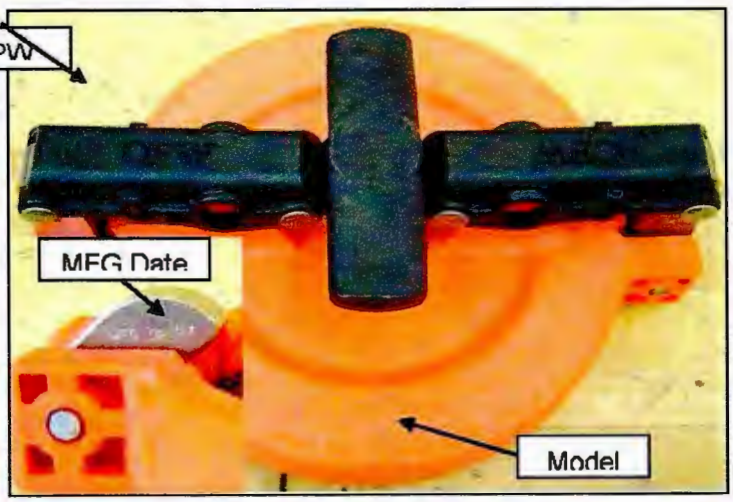

Figure 1-9
CompX CSP1-634LPC Product Dust Cap

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)

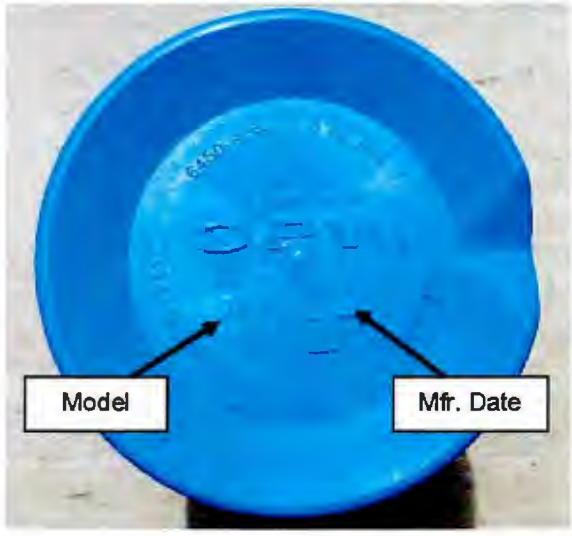

Figure 1-19
Husky 5885 P/V Vent Valve (Gas/E85)
(Husky Name on Bottom Flange)

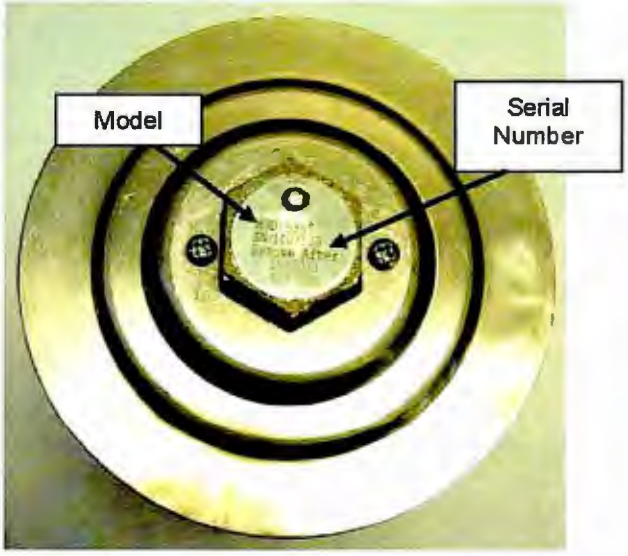

Figure 1-20
OPW 61JSK Jack Screw

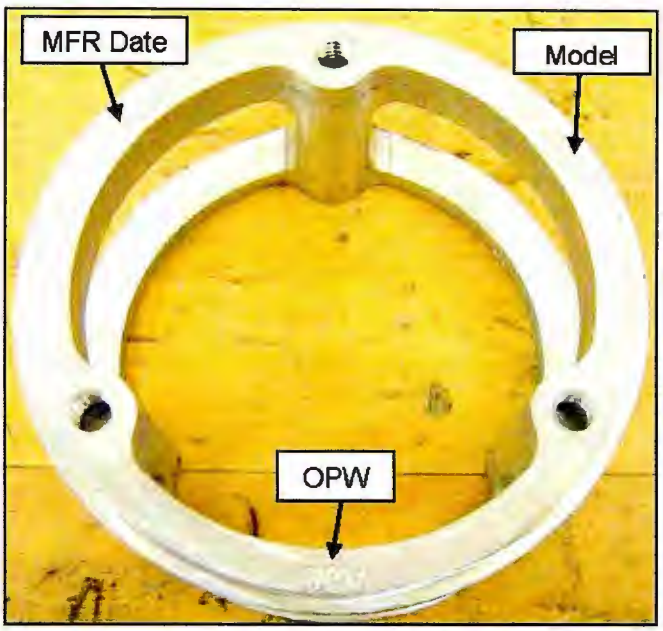

Figure 1-21
71JSK-44MA Jack Screw Kit (GAS/E85)
71JSK-4RMT Jack Screw Kit (GAS/E85)

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

Figure 1-23
OPW 61SO Overfill Prevention Devices

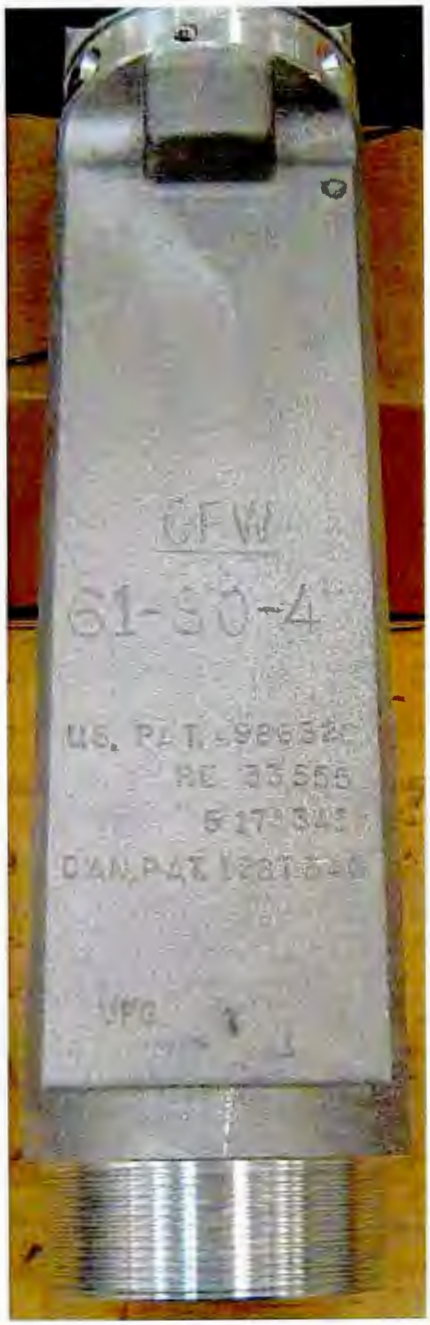

Figure 1-24
OPW 71SO Overfill Prevention Devices

Figure 1-25
71SO Testable Drop Tube

Top View of 71SO Testable Drop Tube

Figure 1-26
OPW 71SOM-412C Overfill Prevention Device (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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Figure 1-27
Defender OPV series 70859X9YZ (Gas/E85 compatible)

Defender OPV series 70859X9YZ (Gas/E85

Figure 1-28
OPW 62M Cap and Adaptor
(Only Cap is identified)

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

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)

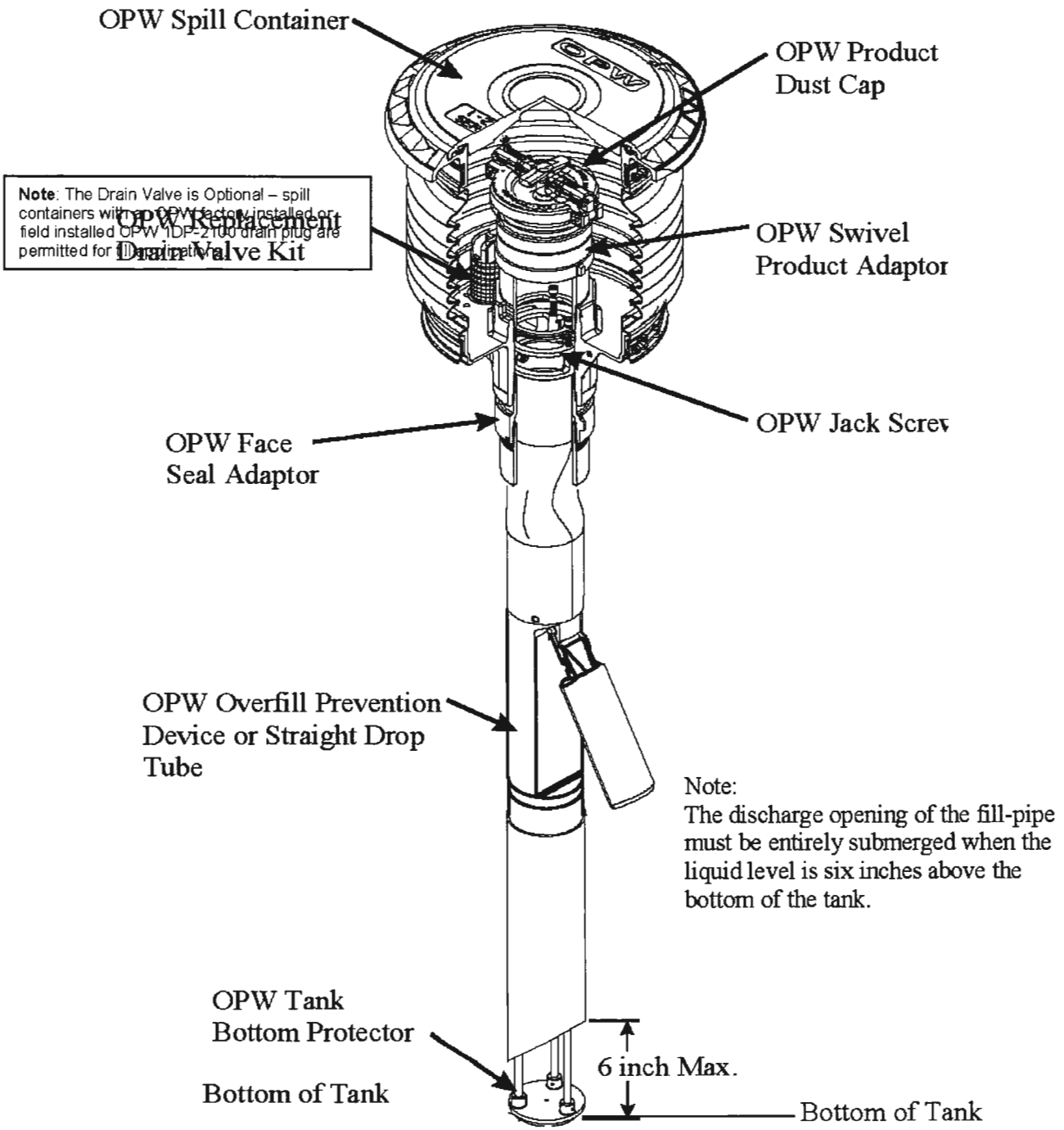
Manufacturer	Component	Maintenance Interval
OPW	Pressure/Vacuum Vent Valve	Annual
Husky	Pressure/Vacuum Vent Valve	Annual
FFS	Pressure/Vacuum Vent Valve	Annual
All Manufacturers	Tank Gauge Components	Annual
OPW	Dust Caps (all models)	Annual
CompX	Dust Caps (all models)	Annual
OPW	61-T Straight Drop Tube	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 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 Negative pressure setting: 6.0 to 10.0 in H_2O Positive Leakrate: 0.05 CFH at 2.0 in H_2O Negative Leakrate: 0.21 CFH at -4.0 in H_2O
Gasoline Dispensing Facility	TP-201.3	As specified in TP-201.3 and/or CP-201
Connections and fittings certified without an allowable leak rate	Leak Detection Solution or Bagging	No leaks

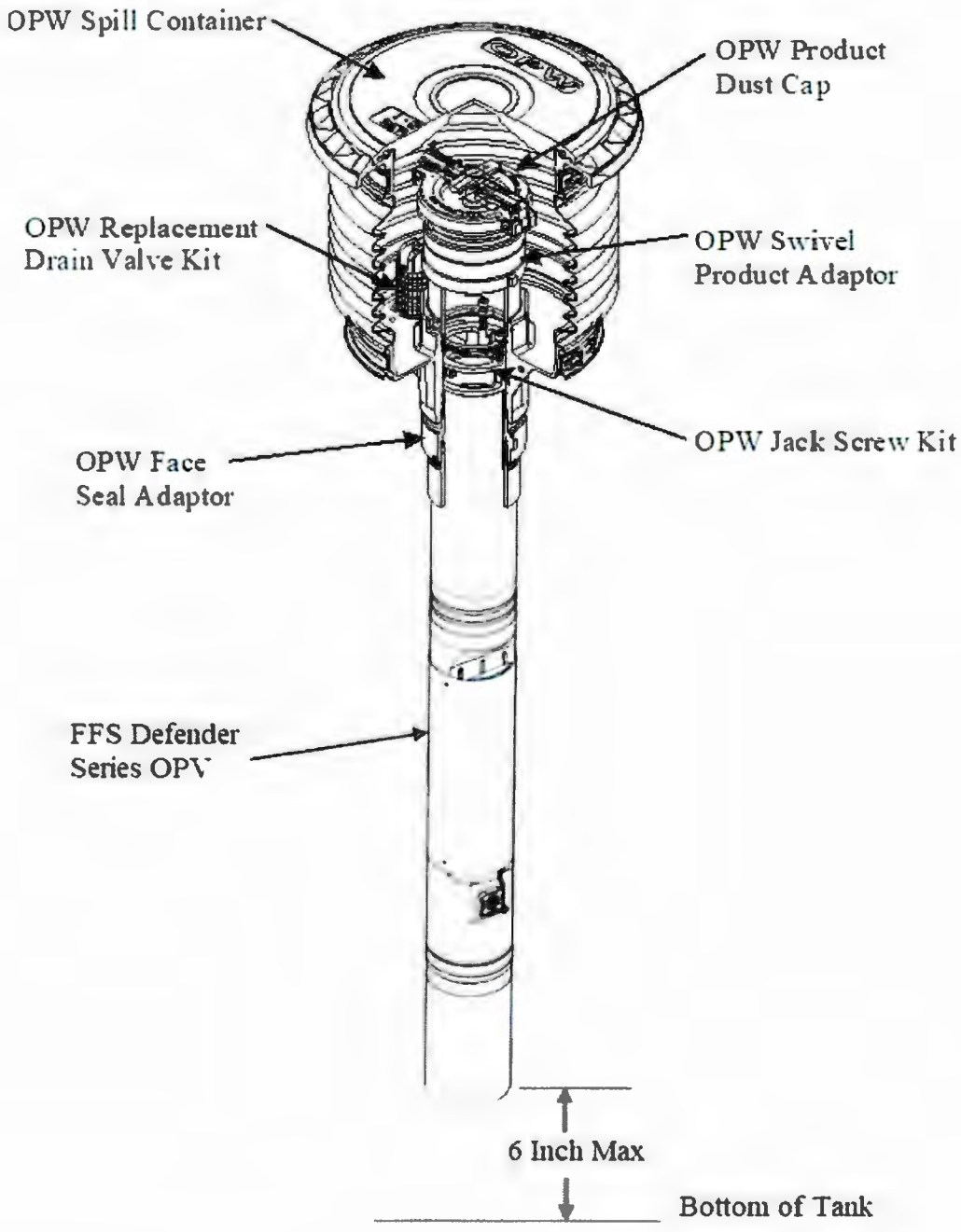
[3] Maintenance must be conducted within the interval specified from the date of installation and at least within the specified interval thereafter.
[4] Compliance determination is at the option of the district.

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

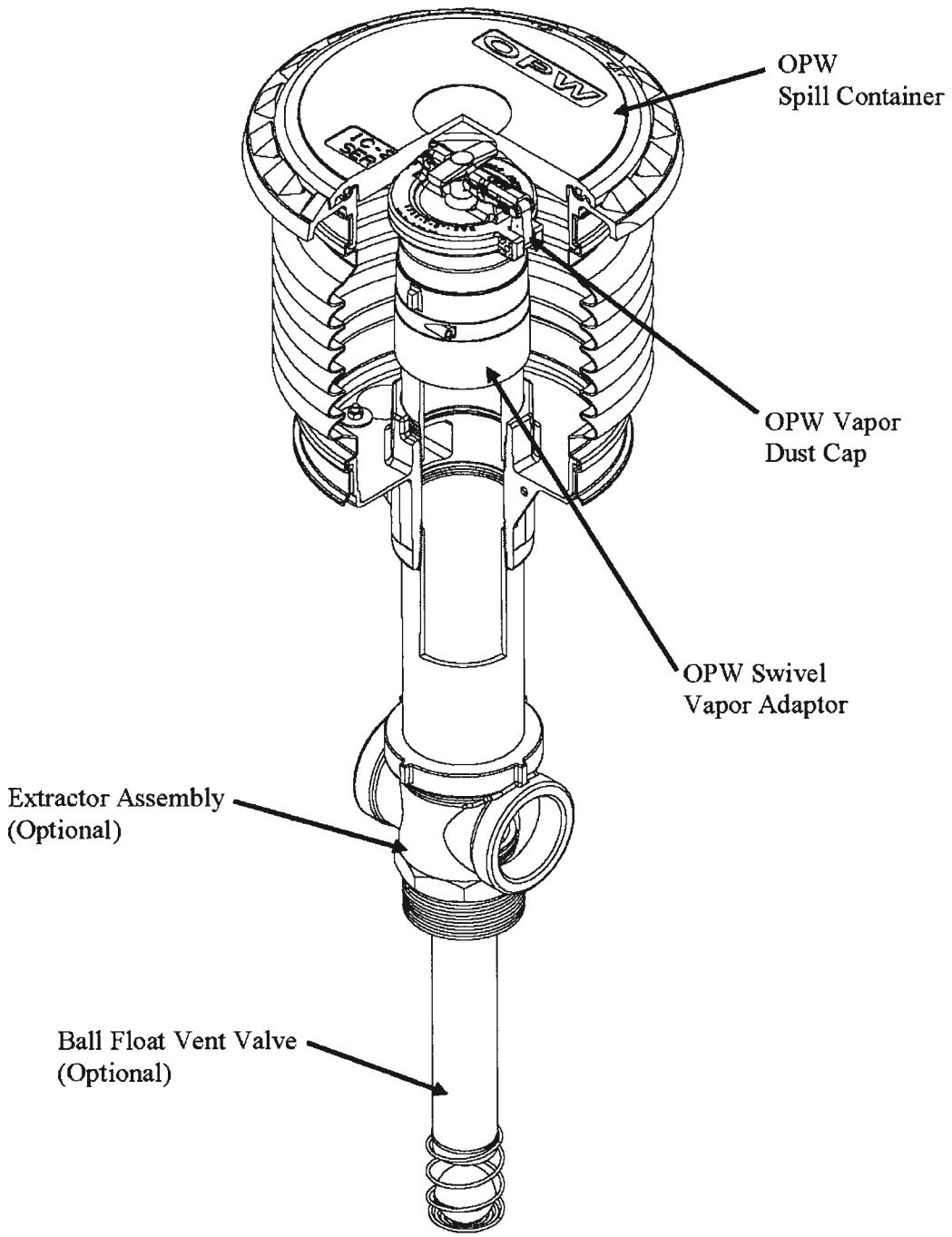


Figure 2-4
Typical OPW/POMECO Double Fill Configuration

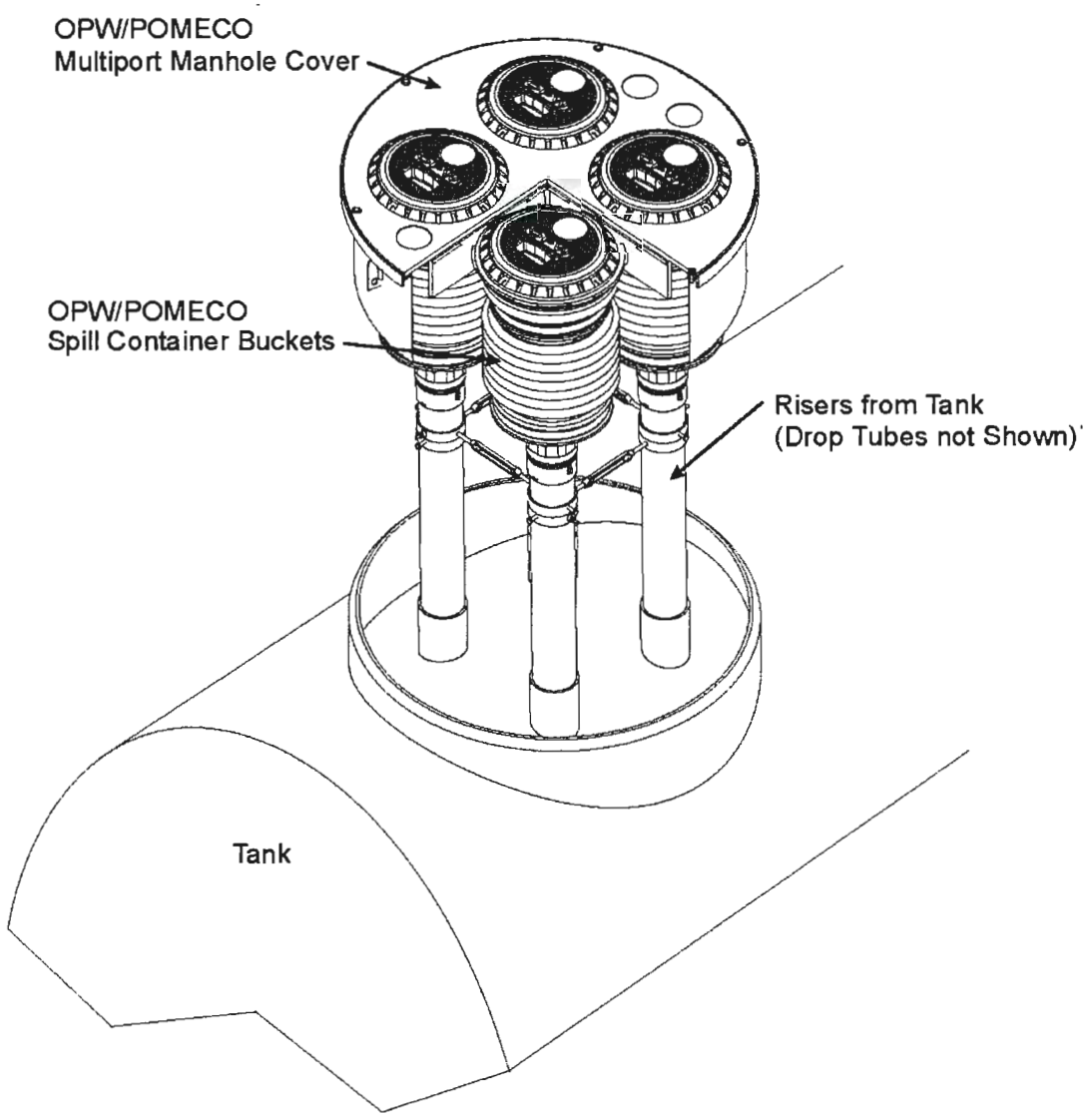


Figure 2-5
Typical Remote-Fill Access Point Configuration

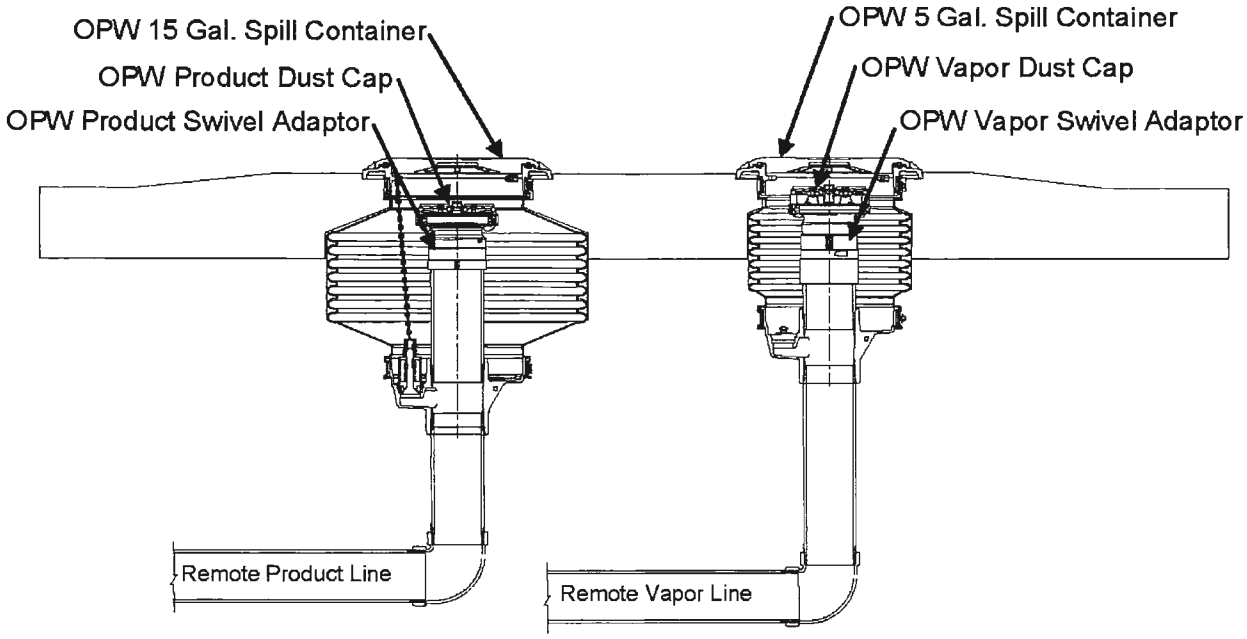


Figure 2-6
Typical Remote-Fill Tank Top Configuration

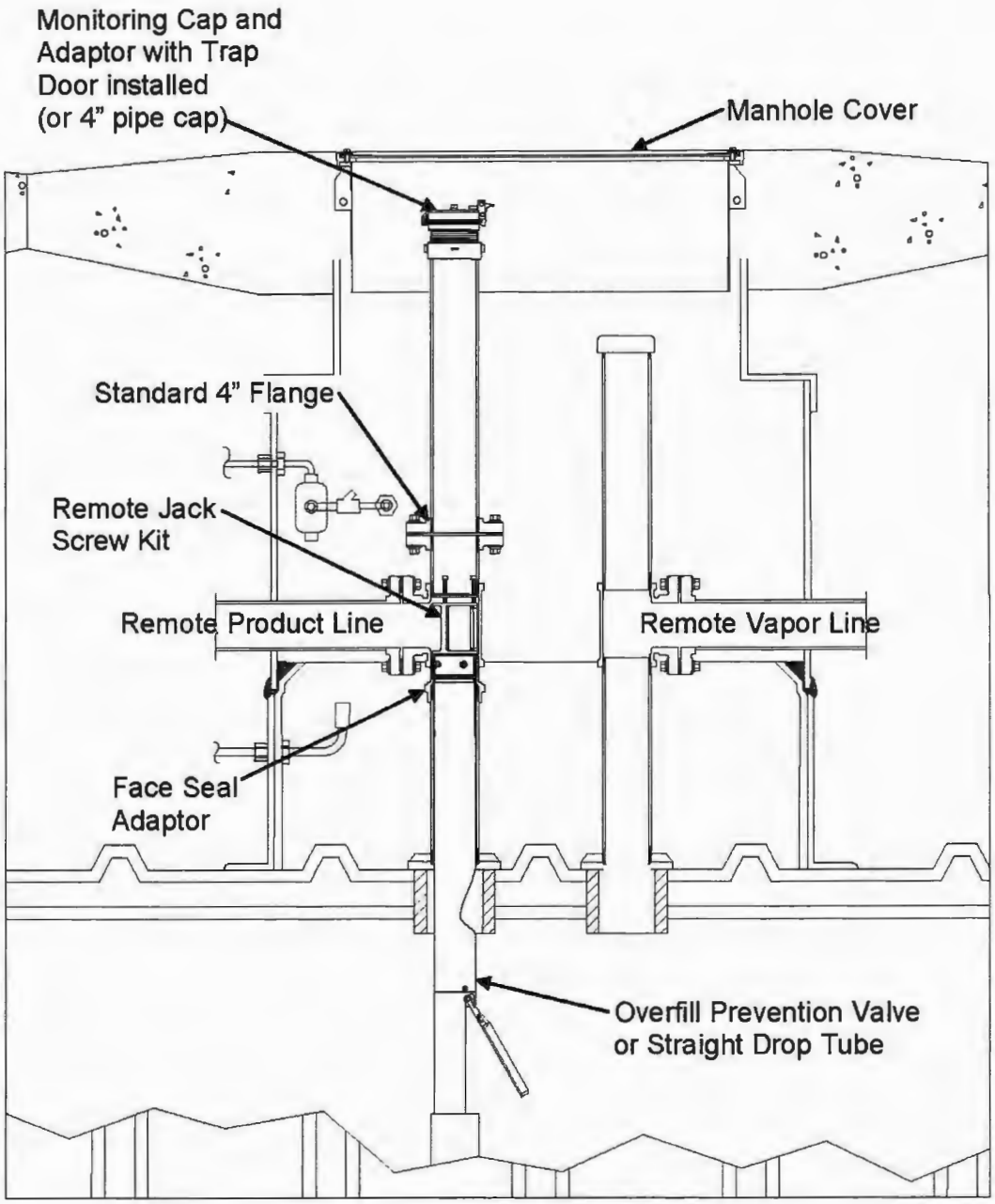


Figure 2-7
Typical Remote Additive Fill Configuration

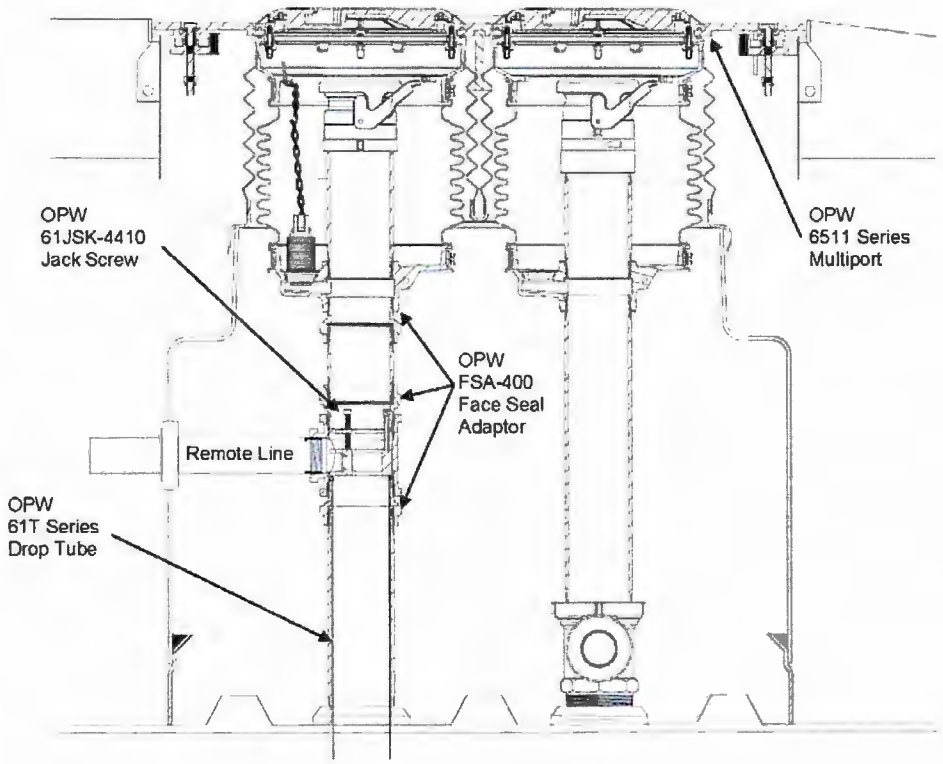
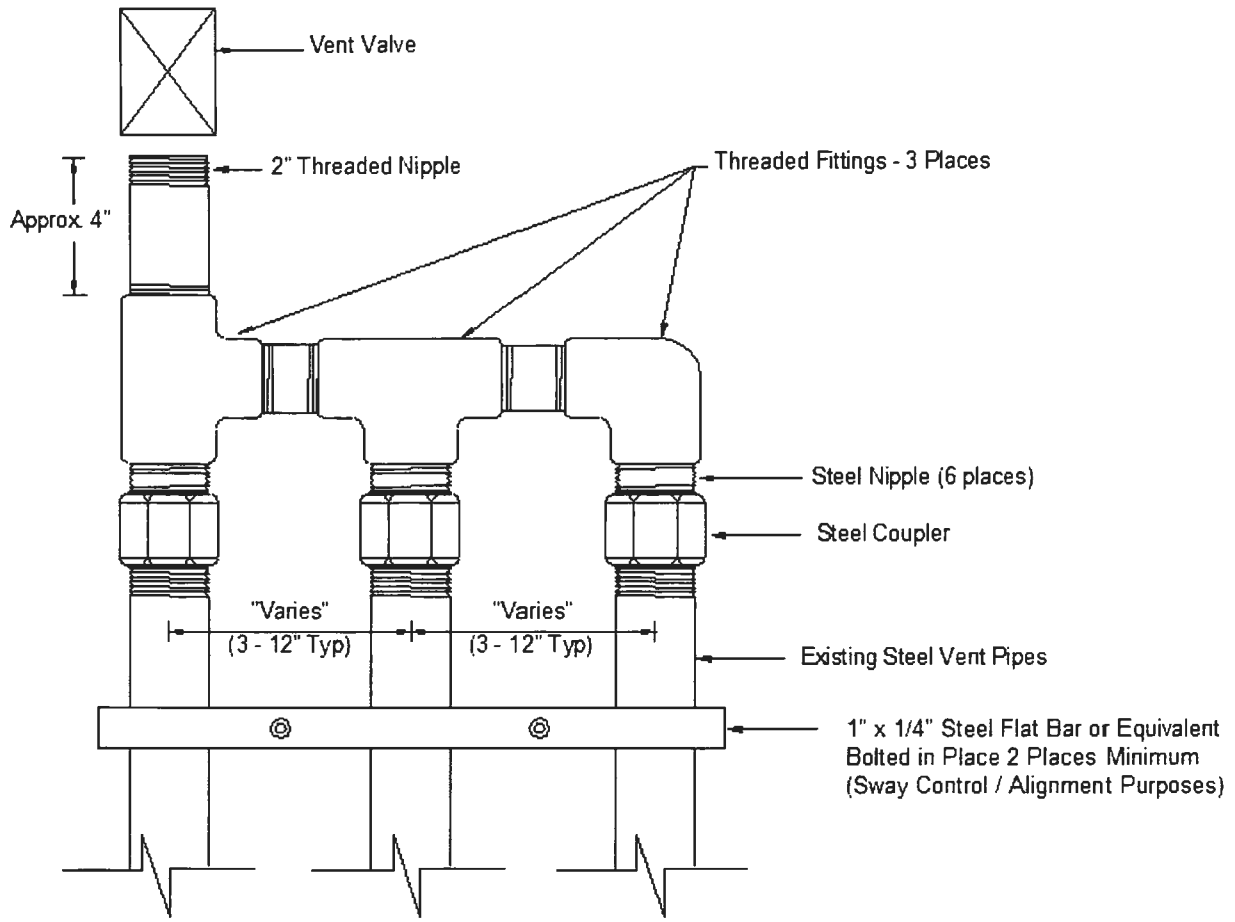
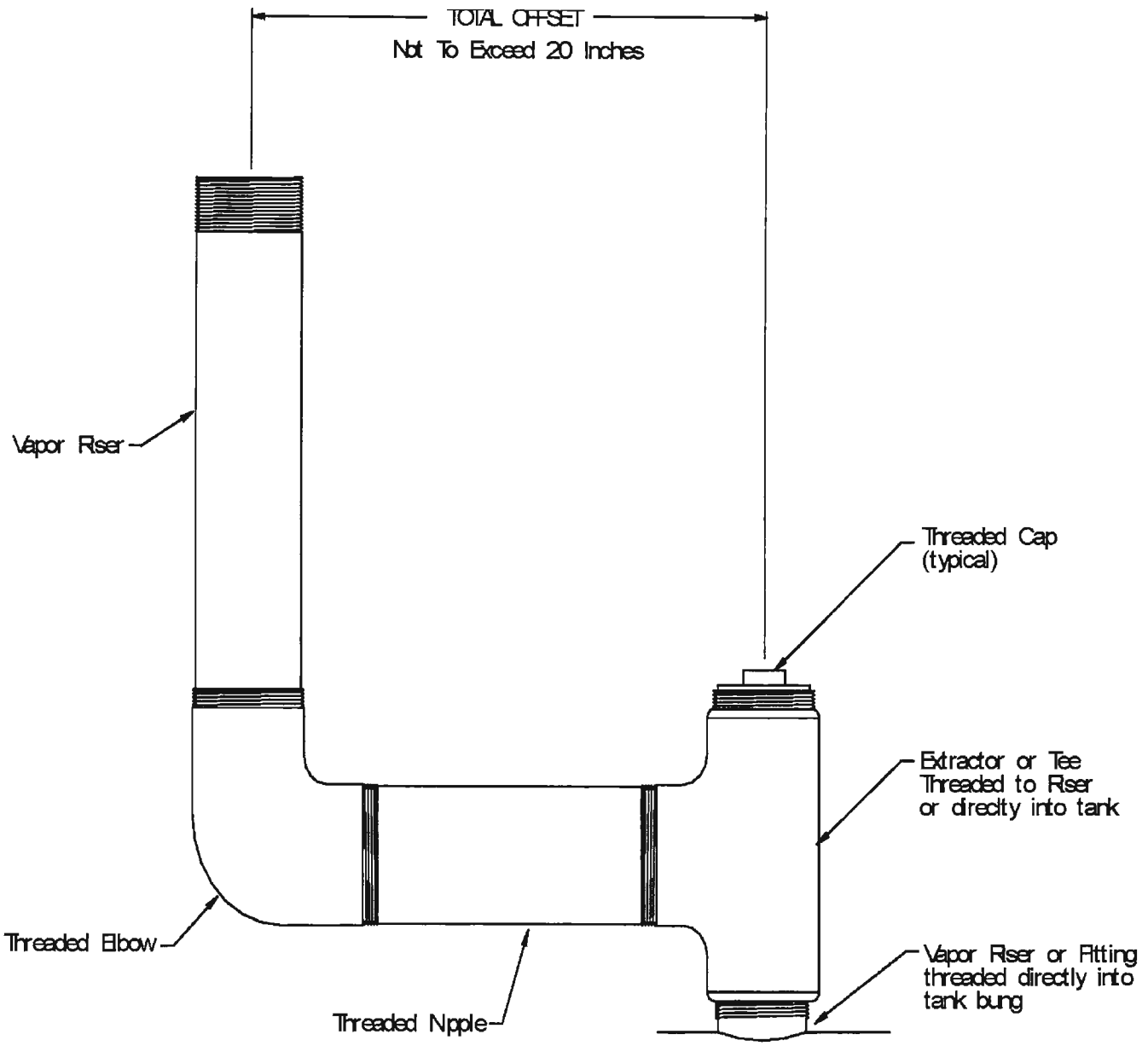


Figure 2-8
Typical Vent Pipe Manifold



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

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 Maximum, 108 pound-inch average static torque
Rotatable Phase I Adaptors	Micrometer	Cam and Groove Specifications (CP-201)
Overfill Prevention Device	TP-201.1D	≤0.17 CFH at 2.00 inches H_2O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	≤0.17 CFH at 2.00 inches H_2O
Pressure/Vacuum Vent Valve	TP-201.1E	Positive Pressure: 2.5 to 6.0 inches H_2O Negative Pressure: 6.0 to 10.0 inches H_2O Leak rate: ≤ 0.05 CFH at +2.0 inches H_2O 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

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

9393 Princeton-Glendale Road
Hamilton, Ohio 45011

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

Comp X TANK Commander Warranty Statement and Tag

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

Warranty Tag

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

Husky Corporation Warranty Statement and Tag

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

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

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

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

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

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

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

WARRANTY TAG

Husky Corporation
2325 Husky Way
Pacific, Mo 63069
(800) 325-3558

Station Name: _____

Store #: _____ Date: _____

City: _____ State: _____

Service Contractor: _____

Service Tech: _____

Distributor: _____

No warranty accepted without warranty tag filled out completely and attached to product.

Husky
General Fueling Products:

Model #: _____

Serial #: _____

Installation Date: _____

Manufacturer Lot #: _____

Work order # (if applicable): _____

RGA #: _____

Form #009179-6 03/2013

FRONT VIEW

FOR REFERENCE ONLY

Reason for Return (check all applicable):

- ❑ Leaking Fuel Around Spout
- ❑ Leaking Fuel In Trigger Area
- ❑ Keeps Shutting Off
- ❑ Will Not Shut Off
- ❑ Failed Pressure Decay Test
- ❑ Leaking Fuel at Hose Inlet
- ❑ Mechanical Malfunction
- ❑ Dispenses Fuel Without Pulling Lever

Notes / Comments: _____

VR p oduc s nstal.ed in Ca fornia are warranted for year from the date of in tallation. Manufact ing data an be found on the product data tag a tached to the product. Husky confirms the produc was te ted at the factory and met all app rcable performance standards in CP-20 inc uding Pressure Set ng: 2.5-6 in W.C. Vacuum Sett ng: 6.0 10.0 n W. and Leak Rate: 0.05 CFH @ +2.0 in W.C and 0. CFH @ 4.0 in W.C. Please prov de installation documentation s h as a purchase order, an invo e or a receipt at t me of claim.

BACK VIEW

Veeder-Root Warranty Statement and Tag

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

CAP AND RING ADAPTOR

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

Warranty Card Language

EQUIPMENT WARRANTY

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

Date of manufacture:

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

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

McGard Warranty Statement and Tag

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

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

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

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

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

McGard warrants the workmanship and materials of McGard Fuel Locks to be free of defects, at the time of sale by McGard, for a period of one year (12 months) from the date of installation. When warranty for McGard Fuel Locks cannot be verified to date of installation, claims will be honored for a period of fifteen (15) months from the date of purchase. When warranty for McGard Fuel Locks cannot be verified to date of 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

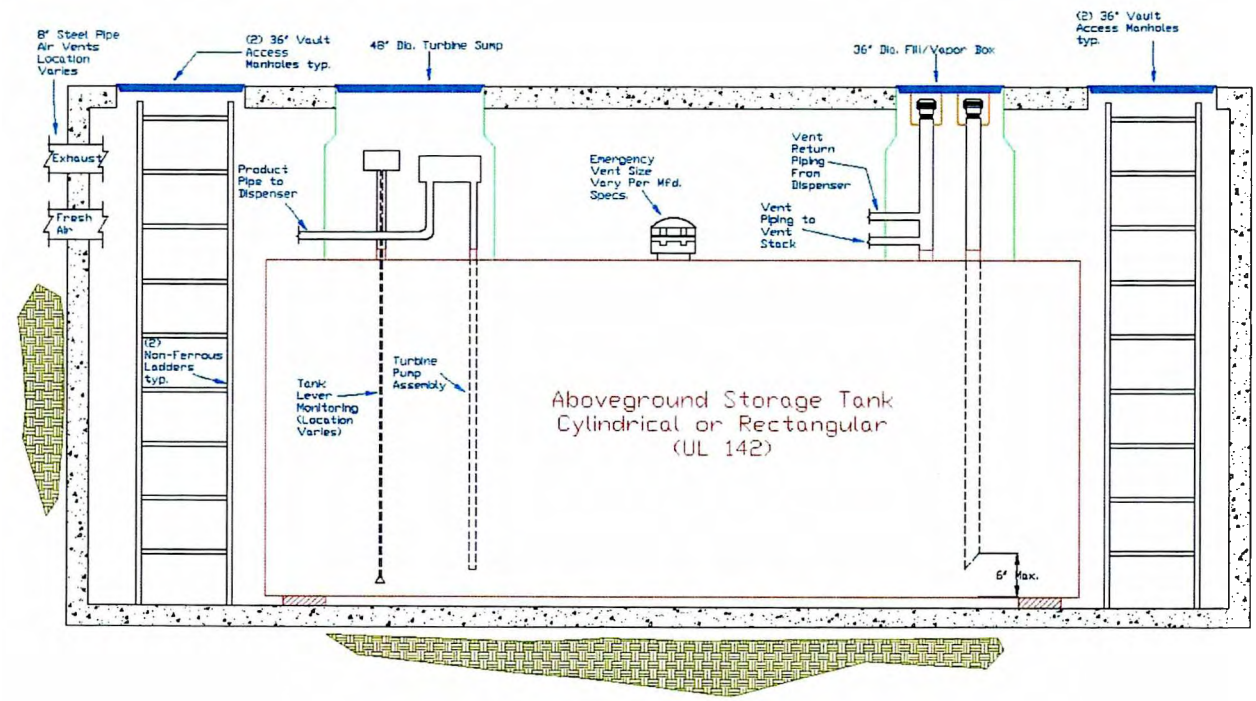


Figure 5-2: Top Sectional View of Typical Vaulted AST

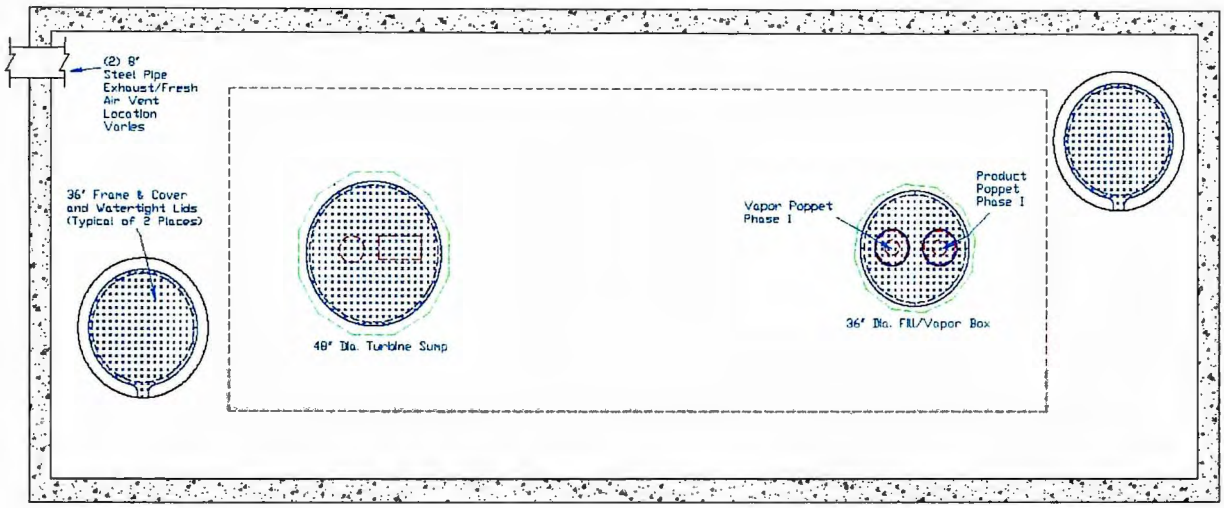


Figure 5-3: End Sectional View of Typical Vaulted AST

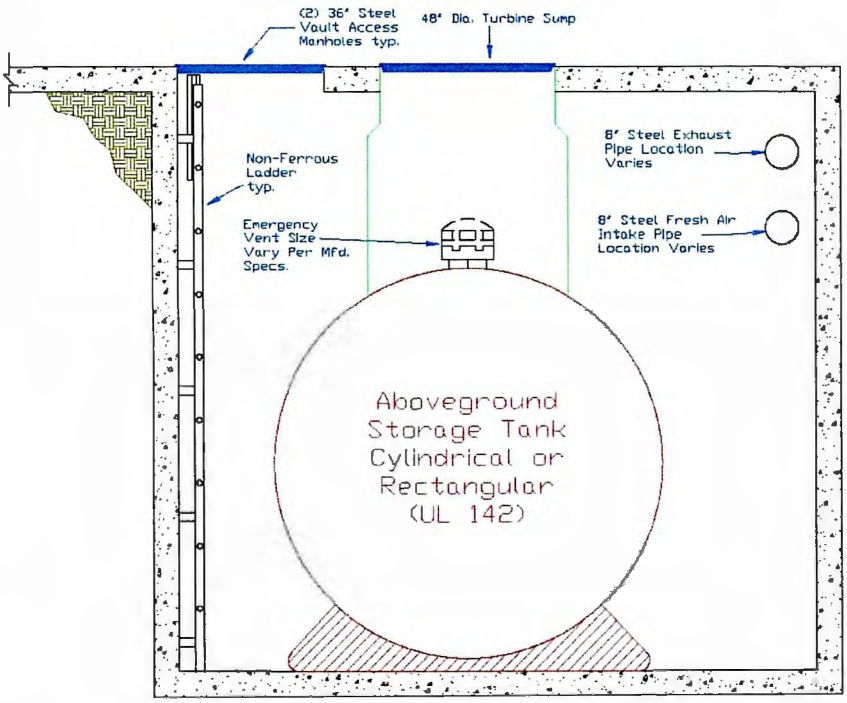


Figure 5-4: Sectional Views of Typical Vaulted AST (Ventilation

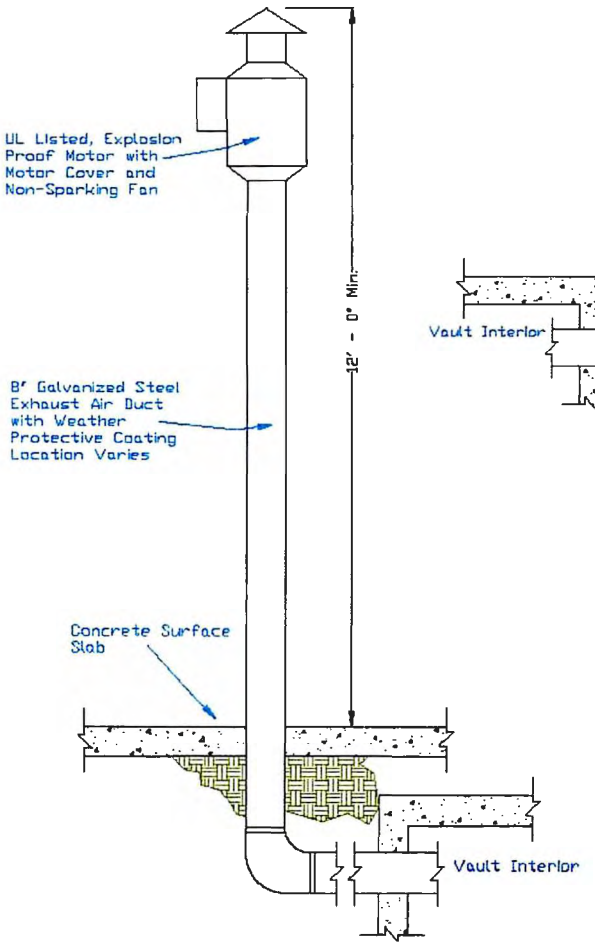


Figure 5-4a: Typical Exhaust

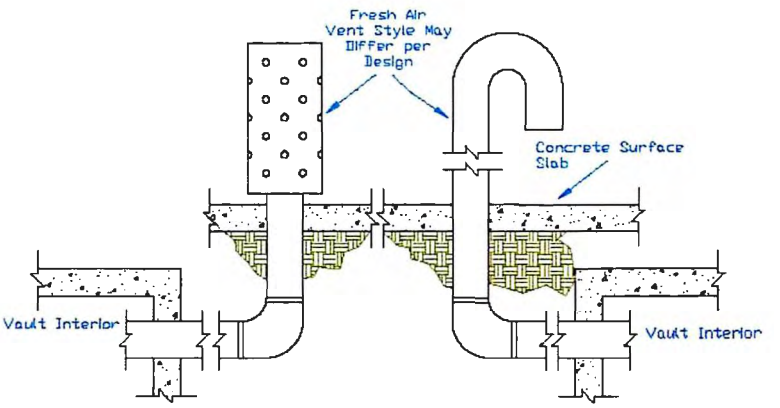


Figure 5-4b: Typical Fresh Air Intake

Executive Order VR-102-U
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 pathways and adaptors are located in an alternate sump remote 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 is determined to have a leak. These procedures were developed for product fills located directly above the UST or for anRFS with the located less than 50 feet away from the top of the UST.

Procedure for Testing Remote Fill System

The TP-201.1D pressure up standard of five minutes is not appropriate for an RFS with lengths greater than 50 feet since pressurizing the system to 2.0 inches WC may take longer than the five minute standard in TP-201.1D. The following steps shall be taken when conducting TP-201.1C or TP-201.1D on an RFS that has a secondary product and vapor return pathway and adaptors located more than 50 feet away from the top of the UST. 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, 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

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER VR-102-T

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, 2019, by Executive Order VR-102-S;

WHEREAS, Franklin Fueling Systems requested an amendment to Executive Order VR-102 to add the Defender Series OPV drop tube overfill prevention device previously certified in Executive Order VR-101, Phil-Tite Phase I Vapor Recovery System. The Franklin Fueling aluminum drop tube and Defender Series OPV will be listed as an alternate to the OPW aluminum drop tube and Overfill Prevention Device.

WHEREAS, OPW requested an amendment to VR-102 to add the OPW 723V Pressure/Vacuum (P/V) Vent Valve for 85 percent/15 percent gasoline/ethanol fuel blend (E85);

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

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

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division, find that the 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.

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. Equipment shall be inspected annually per the procedures identified in the CARB Approved Installation, Operation, and Maintenance Manual. This inspection requirement shall also apply to systems certified by Executive Orders VR-102-A to S. A copy of this Executive Order and the CARB Approved Installation, Operation, and Maintenance 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 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 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 percent ethanol/15 percent gasoline) for specific components listed in Exhibit 1. Any modifications to comply with future California gasoline requirements shall be approved in writing by the CARB Executive Officer or his delegate.

IT IS FURTHER ORDERED that the throughput of GDFs permitted to dispense E-85 shall not exceed 1.2 million gallons per year (100,000 gallons per month). Such GDFs shall be equipped with PV-Zero-E85 P/V vent valve, Husky 5885 P/V vent valve, or OPW 723V P/V vent valve.

IT IS FURTHER ORDERED that the certification of the OPW Phase I Vapor Recovery System with the exception of the Husky Model 5885 P/V vent valve shall remain valid through May 31, 2021.

IT IS FURTHER ORDERED that to provide the Executive Officer or delegate with the necessary time to fully gather and evaluate information to make a determination regarding the renewal certification of the Husky Model 5885 P/V vent valve consistent with Sections 17.3 and 17.4 of CP-201, the certification of the Husky Model 5885 P/V vent valve is extended through June 3, 2020, by Executive Order VR-102-S.

IT IS FURTHER ORDERED that Executive Order VR-102-S, issued on June 3, 2019, is hereby superseded by this Executive Order. OPW Phase I Vapor Recovery Systems certified under Executive Orders VR-102-A through S 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. This Executive Order shall apply to new installations or major modification of existing Phase I Systems.

Executed at Sacramento, California, this 4th day of October 2019.

Catherine Dunwoody, Chief
Monitoring and Laboratory Division

Attachments:

Exhibit 1	OPW Phase I Vapor Recovery System Equipment List
Exhibit 2	Installation, Maintenance and Compliance Standards and Specifications
Exhibit 3	Manufacturing Performance Standards and Specifications
Exhibit 4	Manufacturer Warranties
Exhibit 5	Vaulted Aboveground Storage Tank Configuration *(Optional)*

Appendix B

CARB Executive Order G-70-191-AA

Relating to Language Correction in Existing Executive Order G-70-191

Healy Systems, Inc

And
CARB Approval Order 06-02

State of California

AIR RESOURCES BOARD

EXECUTIVE ORDER G-70-191-AA

Relating to Language Correction in Existing Executive Order G-70-191

Healy Systems, Inc.

WHEREAS, the California Air Resources Board ("the Board" or "CARB") has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations (Phase II vapor recovery systems) in its "CP-201 Certification Procedure for Vapor Recovery Systems of Dispensing Facilities" (the "Certification Procedures") as last amended June 1, 2001, incorporated by reference into Title 17, California Code of Regulations, Section 94011;

WHEREAS, the Board has established, pursuant to California Health and Safety Code sections 39600, 39601 and 41954, test procedures for determining the compliance of Phase II vapor recovery systems with emission standards in TP-201.1 through TP-201.6 ("the Test Procedures") last amended February 1, 2001, incorporated by reference into Title 17, California Code of Regulations, Section 94011;

WHEREAS, on August 8, 1999, the Board issued Executive Order G-70-191 for the Healy/Franklin Electric VP-1000 Vapor Pump with the Healy Model 600 Vapor Recovery Nozzle (Healy/Franklin System) Healy Model 600 ORVR/800 Nozzle with the Healy/Franklin Electric VP-1000 Vapor Pump (Healy ORVR Phase II Vapor Recovery System) pursuant to the Certification and Test Procedures;

WHEREAS, Executive Order G-70-191 did not correctly describe the Power Level Controls for the Healy/Franklin Electric VP-1000 vapor pump. The language has been modified to accurately reflect the operational characteristics of the Healy/Franklin Electric VP-1000 vapor pump. A nozzle vapor valve verification test procedure and vapor pump operational verification language has been added. Additional language regarding the use of "low-point" condensate traps in the vapor return lines and the use of above ground manifolding of existing station vapor plumbing, increasing the maximum hose length from 13 to 15 ft has also been added;

WHEREAS, these changes and additions in the language to Healy ORVR Phase II Vapor Recovery System Executive Order have been evaluated pursuant to the Board's Certification Procedure and are clarifying changes;

WHEREAS, Sections 15 and 17 of the Certification Procedures provides that the Executive Officer shall issue an order of certification if he or she determines that the vapor recovery system conforms to all of the requirements set forth in Sections 1 through 13 of the Certification Procedures;

WHEREAS, Section 4.7 of the Certification Procedures provides that Phase II systems must be capable of fueling any motor vehicle that may be fueled at service stations not equipped with vapor recovery systems;

WHEREAS, Sections 15 and 17 of the Certification Procedures provide that the Executive Officer may condition the certification of any system;

WHEREAS, I, Michael P. Kenny, Air Resources Board Executive Officer, find that the Healy ORVR Phase II Vapor Recovery System, conforms with all the requirements set forth in the Certification Procedures, and results in a vapor recovery system which is at least 95 percent effective for attendant and/or self-serve use at gasoline service stations, when used in compliance with this Order and when used in conjunction with a Phase I vapor recovery system, which has been certified by the Board and meets the requirements contained in Exhibit 2 of this Order.

NOW, THEREFORE, IT IS HEREBY ORDERED that the Healy ORVR Phase II Vapor Recovery System is certified to be at least 95 percent effective in attended and/or self-service mode, when used with a CARB-certified Phase I system, as specified in Exhibits 1 and 2 of this Order. **Compatibility of this system with onboard vapor refueling vapor recovery (ORVR) systems was verified, but fugitive emissions, which may occur when the underground storage tanks are under positive pressure have not been quantified and were not included in the calculation of system effectiveness.** Exhibit 1 contains a list of the equipment certified for use with the Healy ORVR Phase II Vapor Recovery System. Exhibit 2 contains installation and performance specifications for the system. Exhibit 3 contains a procedure for verifying the dispensing rate.

IT IS FURTHER ORDERED that the dispensing rate for installations of the Healy ORVR Phase II Vapor Recovery System shall not exceed ten (10.0) gallons per minute under any condition. This is consistent with the flow-rate limitation imposed by United States Environmental Protection Agency as specified in the Federal Register, Volume 58, Number 55, page 16019. The dispensing rate shall be verified as specified in Exhibit 3.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification: The Healy ORVR Phase II Vapor Recovery System shall be installed only in facilities which are capable of demonstrating ongoing compliance with the vapor integrity requirements as specified in the most current version of TP-201.3. The owner or operator of the installation shall conduct, and pass, a Static Pressure Decay test as specified in the most current version of TP-201.3, no later than 60 days after startup

and at least once in each twelve month period. The owner or operator of the installation shall conduct, and pass, an Air-to-Liquid Ratio test as specified in TP-201.5 no later than 60 days after startup and at least once in each twelve month period thereafter. The test results shall be made available to the local air pollution control or air quality management district upon request within fifteen days after the tests are conducted, or within fifteen days of the request. Alternative test procedures may be used if determined by the Executive Officer, in writing, to yield comparable results.

IT IS FURTHER ORDERED that the Healy ORVR Phase II Vapor Recovery System, as installed, shall comply with the procedures and performance standards that the test installation was required to meet during certification testing. If, in the judgment of the Executive Officer, a significant fraction of installations fails to meet the specifications of this certification, or if a significant portion of the vehicle population is found to have configurations which significantly impair the system's collection efficiency, the certification itself may be subject to modification, suspension or revocation.

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

IT IS FURTHER ORDERED that the Healy ORVR Phase II Vapor Recovery System shall, at a minimum, be operated in accordance with the manufacturer's recommended maintenance intervals and shall use the manufacturer's recommended operation, installation, and maintenance procedures.

IT IS FURTHER ORDERED that the Healy Model 600 ORVR/800 nozzles shall be 100 percent performance checked at the factory, including checks of the integrity of the vapor and liquid path, as specified in Exhibit 2 of this Order, and of the proper functioning of all automatic shut-off mechanisms.

IT IS FURTHER ORDERED that each Healy/Franklin Electric VP-1000 Vapor Pump shall be adjusted and 100-percent performance checked at the factory, including verification that the pump performance is within the range specified in Exhibit 2 of this Order.

IT IS FURTHER ORDERED that the Healy ORVR Phase II Vapor Recovery System shall be performance tested during installation for ability to dispense gasoline and collect vapors without difficulty, in the presence of the station manager or other responsible individual. Healy Systems shall provide, to the station owner, operator or designee, CARB-approved copies of the installation and maintenance manuals for the Healy ORVR Phase II Vapor Recovery System. Healy Systems or a factory authorized representative, shall provide to the station manager or other responsible individual, instructions in the proper use of the Healy ORVR Phase II Vapor Recovery System, its

repair and maintenance schedules, and locations where system and/or component replacements can be readily obtained. Copies of this Executive Order and installation and maintenance manuals for the Healy ORVR Phase II Vapor Recovery System shall be stored at the facility. Revisions to the manual are subject to approval by CARB.

IT IS FURTHER ORDERED that the Healy ORVR Phase II Vapor Recovery System, shall be warranted by Healy Systems, in writing, for at least one year, to the ultimate purchaser and each subsequent purchaser, that the vapor recovery system is designed, built and equipped so as to conform, at the time of original installation or sale, with the applicable regulations and is free from defects in materials and workmanship which would cause the vapor recovery system to fail to conform with applicable regulations. Healy Systems shall provide copies of the manufacturer's warranty for the Healy ORVR Phase II Vapor Recovery System, to the station manager, owner or operator. Hoses, nozzles and breakaway couplings shall be warranted to the ultimate purchaser as specified above for at least one year, or for the expected useful life, whichever is longer.

IT IS FURTHER ORDERED that any alteration of the equipment, parts, design, or operation of the systems certified hereby is prohibited, and deemed inconsistent with this certification, unless such alteration has been approved by the Executive Officer or his or her designee.

IT IS FURTHER ORDERED that, upon the adoption of revised standards, an installed Healy ORVR Phase II Vapor Recovery System may continue to be used as provided in Certification Procedure CP-201, pursuant to California Health and Safety Code section 41956.1, which provides that whenever the Board revises performance or certification standards, any system or any system components certified under procedures in effect prior to the adoption of revised standards and installed prior to the effective date of the revised standards may continue to be used in gasoline marketing operations for a period of four years after the effective date of the revised standards, provided that all necessary repair and replacement parts or components shall be certified.

IT IS FURTHER ORDERED that the certification of the Healy ORVR Phase II Vapor Recovery System is valid through July 31, 2005, or as otherwise provided under state law and regulations.

Executed at Sacramento, California, this 30 day of July, 2001.

Michael P. Kenny
Executive Officer

EXECUTIVE ORDER G-70-191-AA

EXHIBIT 1

EQUIPMENT LIST

Component	Manufacturer/Model	State Fire Marshal Identification Number
Nozzles	Model 600 ORVR / 800 (with ORVR modulating valve and vapor valve) (Exhibit 2 Fig. 2B-1)	005:027:025
Vapor Pumps (Collection Unit)	Healy/Franklin Electric Model VP-1000 Vapor Pump (Exhibit 2, Figure 2)	005:027:014
Inverted Coaxial Hoses	Healy Model 75 Series (3/4" I. D.) Healy Model 88 Series (7/8" I. D.)	005:027:003 005:027:004 005:027:005
Hose Adapters	Healy Model CX6-A CX6-VV1A CX6-VV2A CX6-VV3A CX6-TCSVVA CX6-DWVVA CX6-GA CX6-DA CX6-UA **Note:** The "A" indicates that no valve is provided in the fitting because the vapor valve is integrated into the nozzle. **Non "A" version hose adapters are also approved for use with this system.**	005:027:019
HEALY SYSTEMS DISPENSER VAPOR RETROFIT KITS (CONVERTS NON-VAPOR READY DISPENSERS TO VAPOR READY)	**Z008** (standard low profile dual hose dispensers) **Z009** (standard low profile single hose dispensers) **Z044** (high profile six hose dispensers) **Z046** (high profile four hose dispensers **Z047** (high profile uni (two) hose dispensers) **OR** **Any dispenser manufacturers vapor kit that converts a non vapor ready dispenser to balance vapor ready.**	

Component	State Fire Marshal Manufacturer/Model	Identification Number
Breakaway Couplings	Healy Model 8701VV	005:027:016
	OR Healy Model 8701 which has been upgraded with a Healy Model 715V (vapor valve kit) and labeled as such.	
Flow Control Units	Healy Model 1301 or 1302	005:027:020

Pressure/Vacuum Valves
(settings as specified below)

OPW 523LP, 523LPS	005:008:051
Hazlett H-PVB-1 Gold label	005:017:004
Morrison Brothers 749CRB0600 AV	005:041:001
Husky 4620	005:021:015
OPW 523V	005:008:058
EBW 802-308, 802-309	005:034:006

OR
Any CARB-certified valve with the following pressure and vacuum settings, in inches water column (wc):
Pressure: three plus or minus one-half inches (3.0 ± 0.5") water column.
Vacuum: eight plus or minus two inches (8 ± 2") water column.

Phase I Product Adaptors

Bravo B-70 B Swivel
OPW 61SA-1000 Rotatable
OPW 633LC Lock Clamp
CNI Locking Clamp, Part # 613BC

OR
Any CARB-certified device which prevents loosening or overtightening of the Phase I product adaptor.
(Note: Adaptors which can not be prevented from loosening or overtightening may only be used until December 31, 2003.)

Phase I Vapor Adaptors

CNI Locking Clamp, Part # 611DB4AC
Bravo Swivel Vapor Adapter, B-75
OPW 633LC Lock Clamp

Any CARB-certified device which prevents loosening or overtightening of the Phase I vapor adaptor

(Note: Adaptors which can not be prevented from loosening or overtightening may only be used until July 1, 2004.)

EXECUTIVE ORDER G-70-191-AA

EXHIBIT 2

SPECIFICATIONS FOR THE HEALY ORVR PHASE II VAPOR RECOVERY SYSTEM

Nozzle

1. A vapor collection boot shall be installed on the nozzle at the base of the spout, as shown in Exhibit 2, Figure 2B-1. Any nozzle with a vapor collection boot which is missing, or which has one half of the mini-boot faceplate or greater missing is defective and shall be immediately removed from service.

2. The Healy Model 600 ORVR / 800 nozzle has an integral vapor valve which prevents the loss of vapor from the underground storage tanks, ensures proper operation of the system and prevents the ingestion of air into the system. Any nozzle with a defective vapor valve shall be immediately removed from service. The integrity of the system shall be restored by replacing the nozzle or otherwise closing the vapor path as soon as practicable.

3. Nozzles shall be 100 percent performance checked at the factory, including checks of all shutoff mechanisms and of the integrity of the vapor path. The maximum allowable leak rate for the nozzle vapor path shall not exceed the following:

   0.038 CFH at a pressure of two inches water column (2" WC), and
   CFH at a vacuum of eighty-three inches water column (approx. 3 psi).

4. Verification of the integrity of the vapor valve can be performed on installed nozzles by use of the following test.

   a. Seal all nozzles on a dispenser in plastic bags, using tape or other means to secure the bag around the base of the nozzle. Any plastic bag large enough to enclose the nozzles and having a thickness of no greater than 2 mils can be used. 12 " X 20" X 2mil. thick bags are available in California from the California Air Resources Board by calling (800) 952-5588.

   b. Initialize the dispenser for fueling. **Do not dispense any fuel.** The Healy/Franklin VP-1000 vane pump engages upon dispenser activation and provides approximately 3 psi vacuum to all nozzle points on the dispenser simultaneously.

   c. With the dispenser initialized, observe all bagged nozzles for approximately 30 seconds. Any nozzle where the bag can be seen visually collapsing has a defective vapor valve and shall be removed from service immediately.

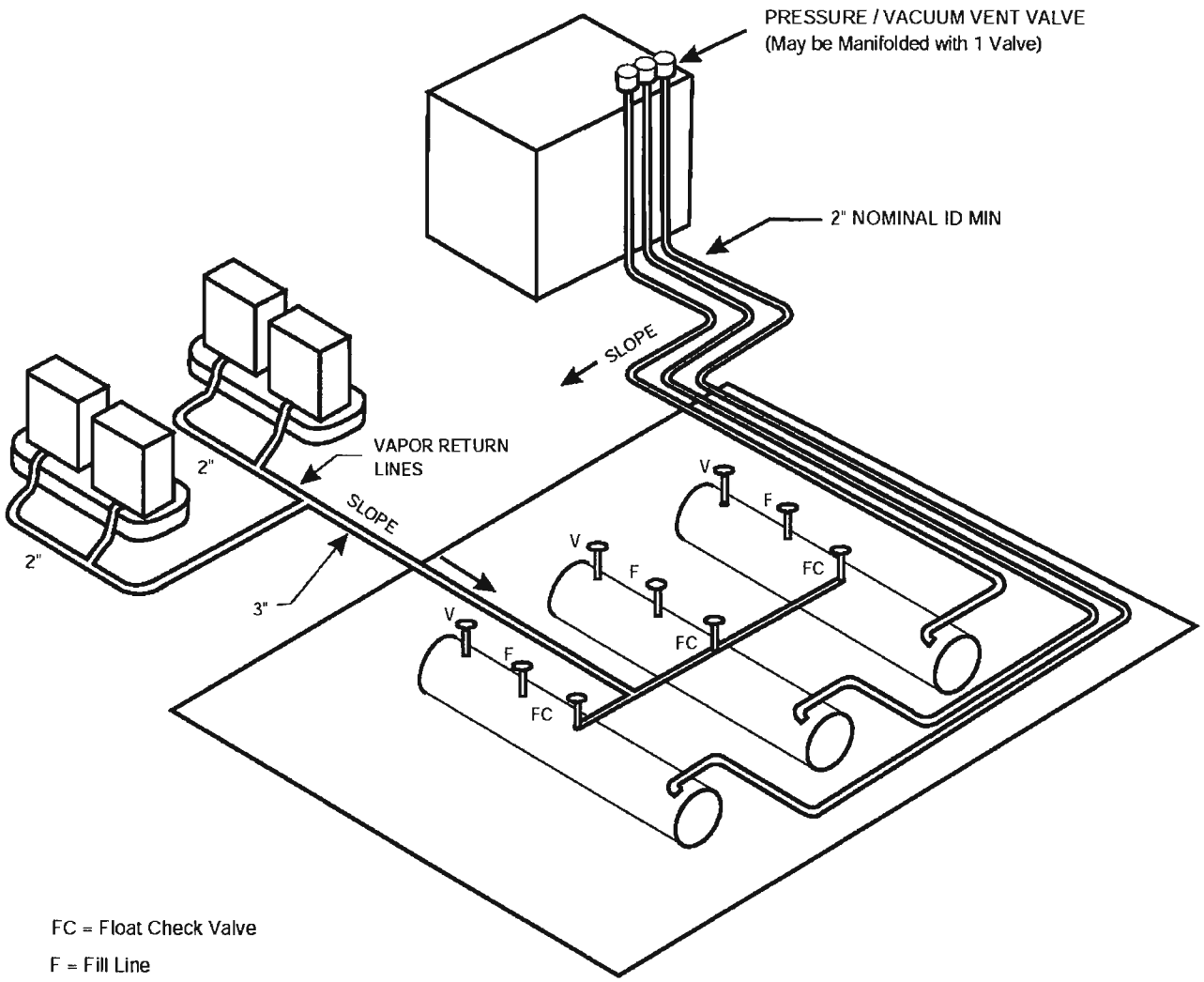
   d. Disengage the dispenser, remove the bags from all of the nozzles and re-hang the nozzles.

Executive Order G-70-191-AA

Exhibit 2

Figure 2A-1

Typical Installation of the
Healy ORVR Phase II Vapor Recovery System



FC = Float Check Valve

F = Fill Line

V = Phase I Vapor Recovery

Note: 1. All Vapor/Vent Lines are 3" Nominal ID Minimum
Except as Noted in Exhibit 2 under Vapor Recovery Piping Configurations

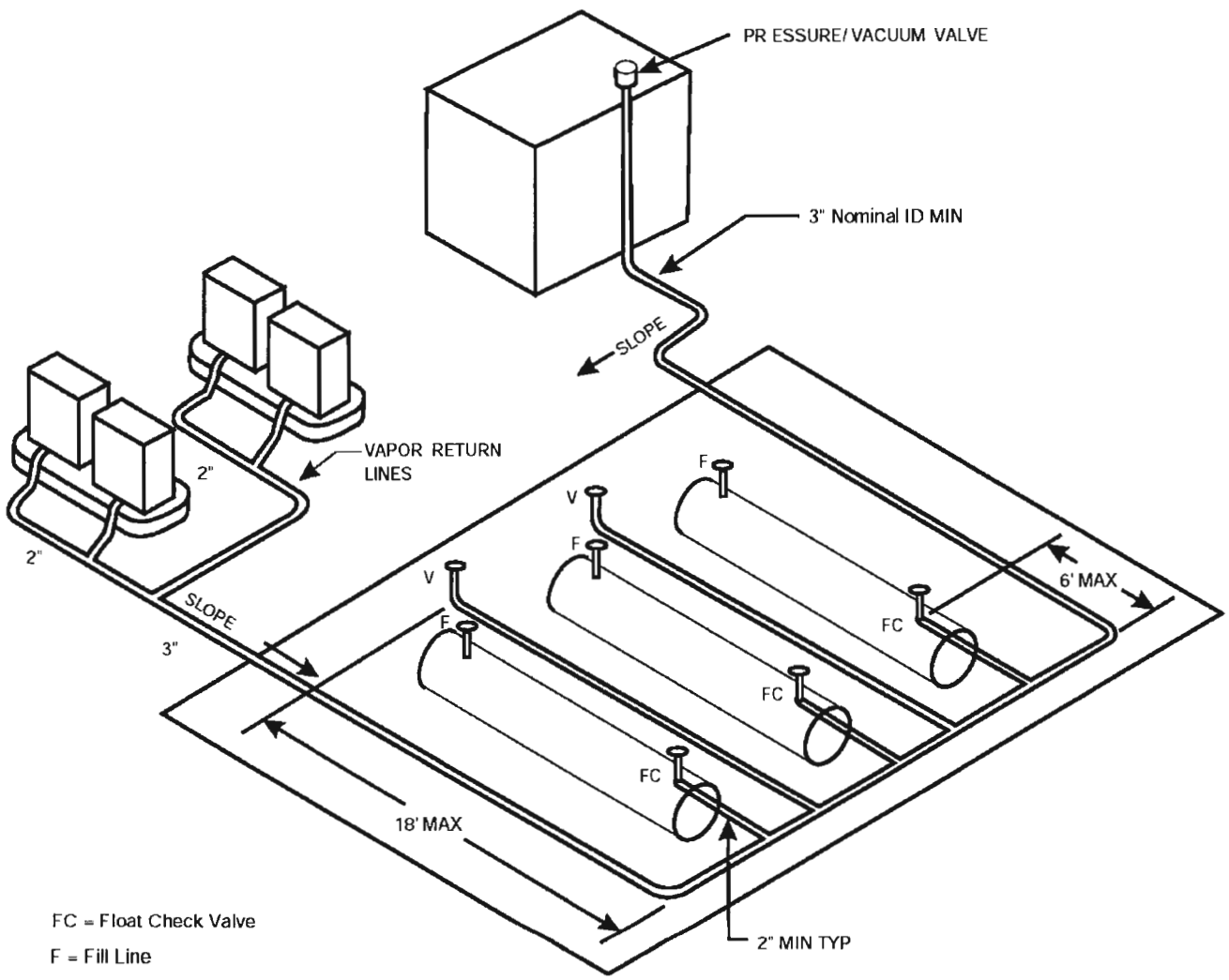
2. Slope: 1/8" per foot Min.
1/4" per Foot Prefered

Executive Order G-70-191-AA

Exhibit 2

Figure 2A-2

Typical Installation of the
Healy ORVR Phase II Vapor Recovery System



FC = Float Check Valve

F = Fill Line

V = Phase I Vapor Recovery

Note: 1. All Vapor/Vent Lines are 3" Nominal ID Minimum
Except as Noted in Exhibit 2 under Vapor Recovery Piping Configurations

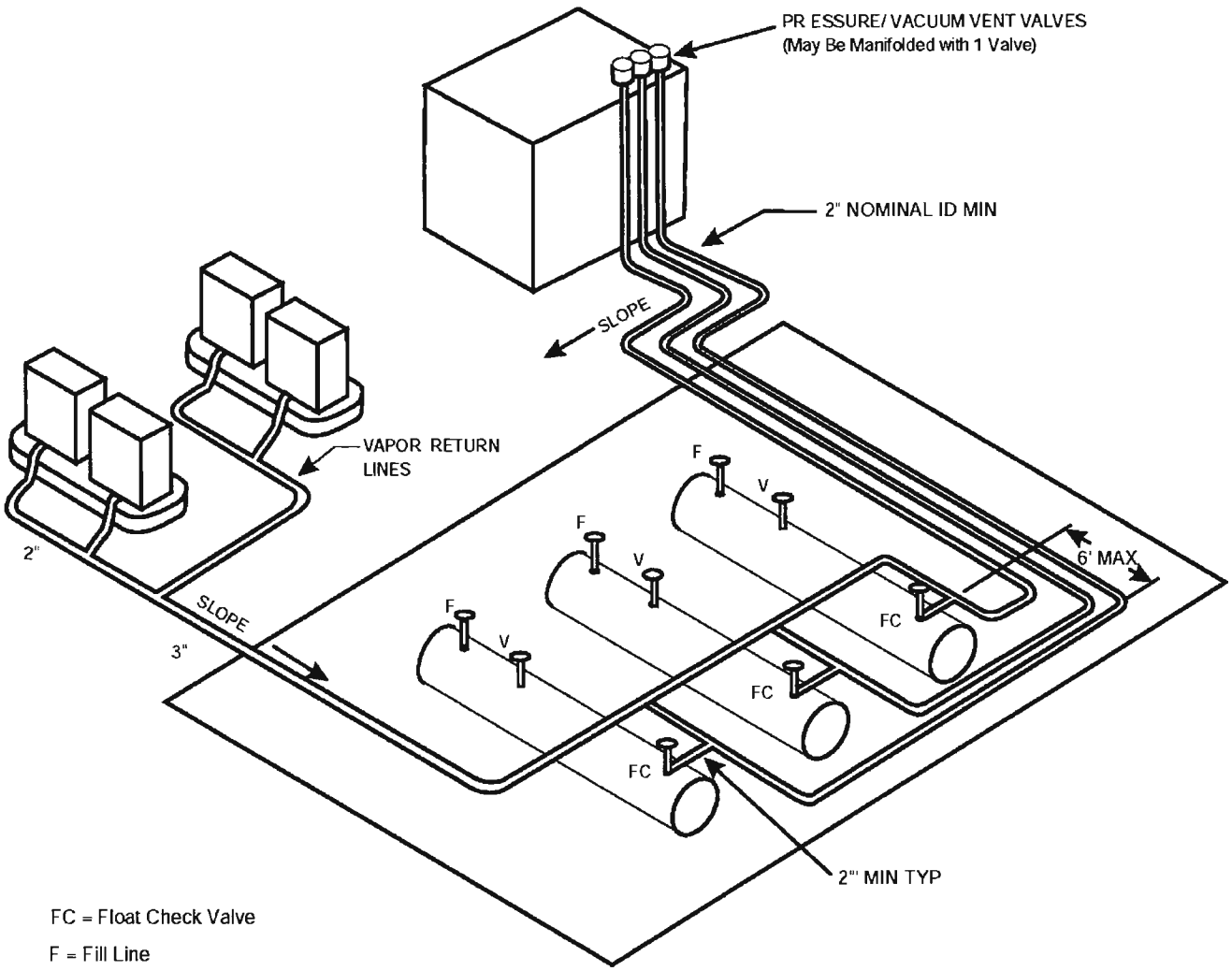
2. Slope: 1/8" per foot Min.
1/4" per Foot Prefered

Executive Order G-70-191-AA

Exhibit 2

Figure 2A-3

Typical Installation of the
Healy ORVR Phase II Vapor Recovery System



FC = Float Check Valve

F = Fill Line

V = Phase I Vapor Recovery

Note: 1. All Vapor/Vent Lines are 3" Nominal ID Minimum
Except as Noted in Exhibit 2 under Vapor Recovery Piping Configurations

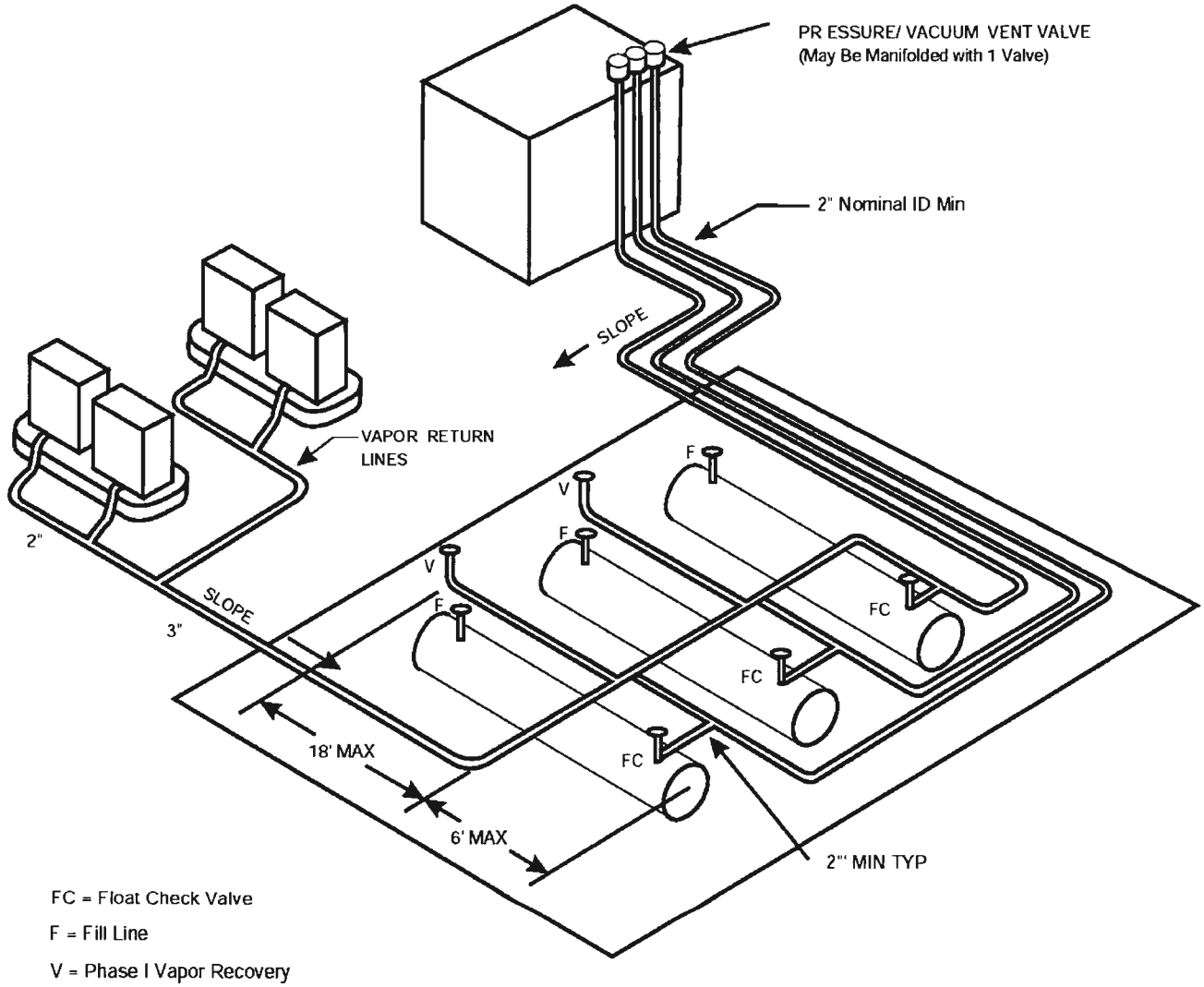
2. Slope: 1/8" per foot Min.
1/4" per Foot Prefered

Executive Order G-70-191-AA

Exhibit 2

Figure 2A-4

Typical Installation of the
Healy ORVR Phase II Vapor Recovery System



FC = Float Check Valve

F = Fill Line

V = Phase I Vapor Recovery

Note: 1. All Vapor/Vent Lines are 3" Nominal ID Minimum
Except as Noted in Exhibit 2 under Vapor Recovery Piping Configurations

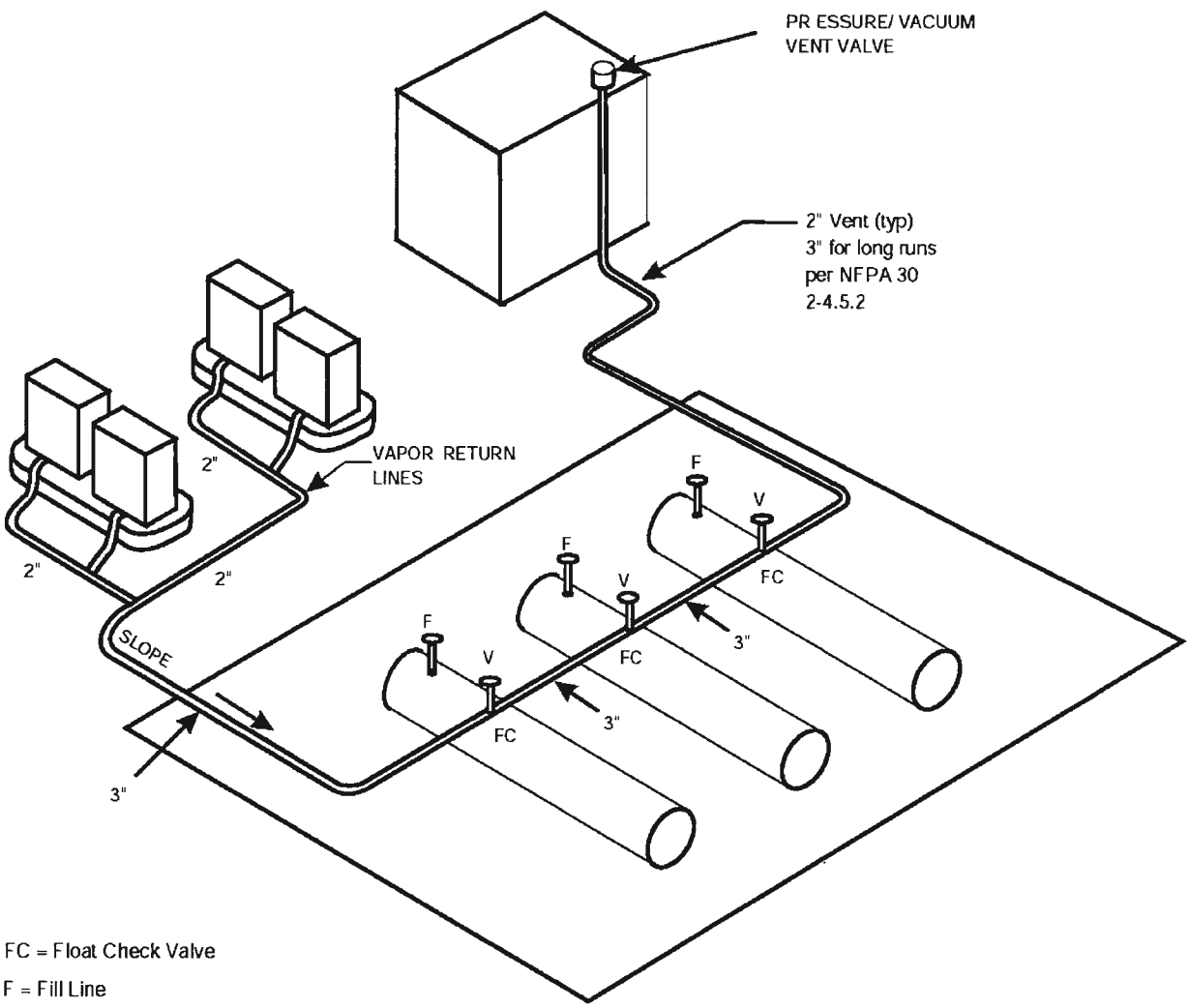
2. Slope: 1/8" per foot Min.
1/4" per Foot Prefered

Executive Order G-70-191-AA

Exhibit 2

Figure 2A-5

Typical Installation of the
Healy ORVR Phase II Vapor Recovery System



FC = Float Check Valve

F = Fill Line

V = Phase I Vapor Recovery

Note: 1. All Vapor/Vent Lines are 3" Nominal ID Minimum
Except as Noted in Exhibit 2 under Vapor Recovery Piping Configurations

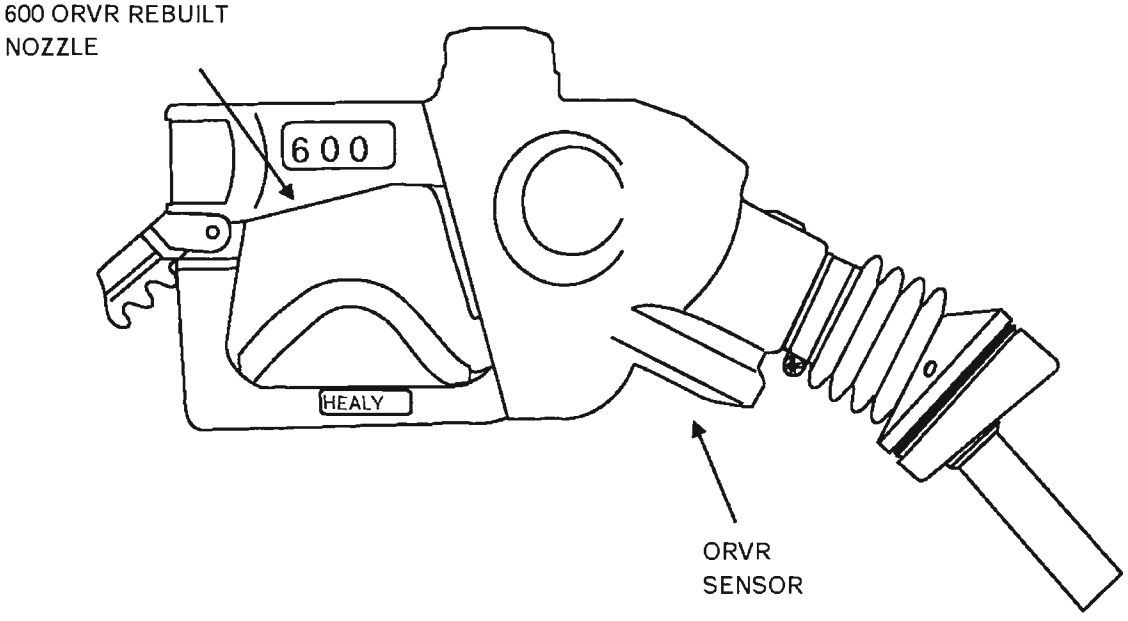
2. Slope: 1/8" per foot Min.
1/4" per Foot Prefered

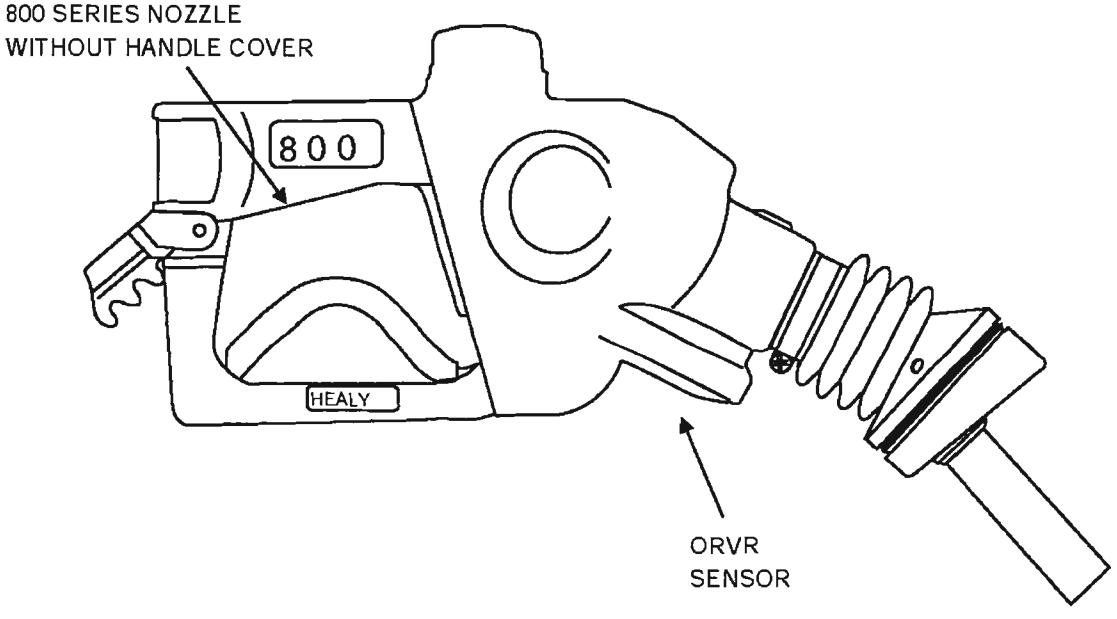
Executive Order G-70-191-AA

Healy ORVR Phase II Vapor Recovery System

Exhibit 2

Figure 2B-1



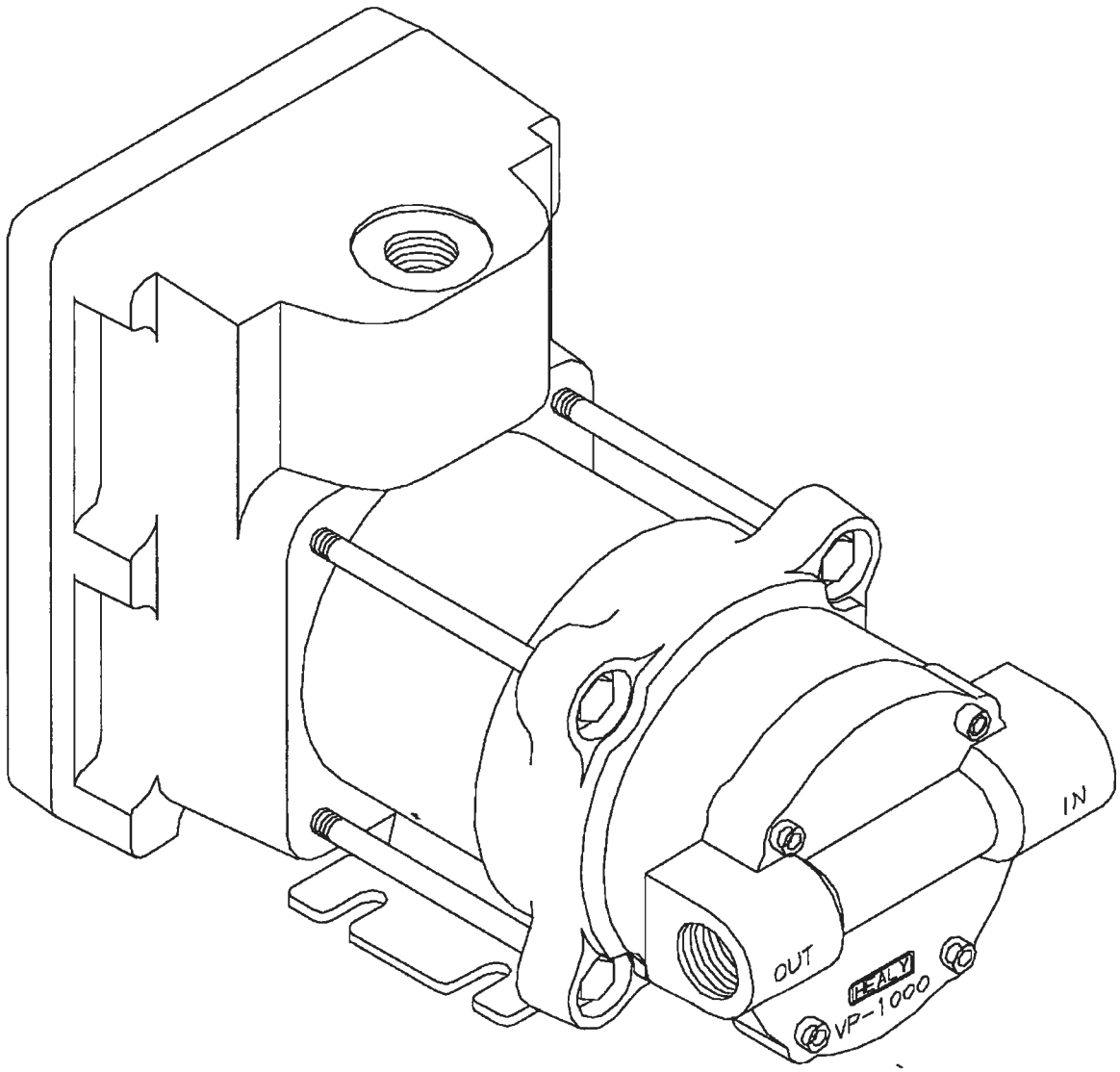


Executive Order G-70-191-AA

Exhibit 2

Figure 2B-2

Healy/Franklin Electric VP1000 Vapor Pump

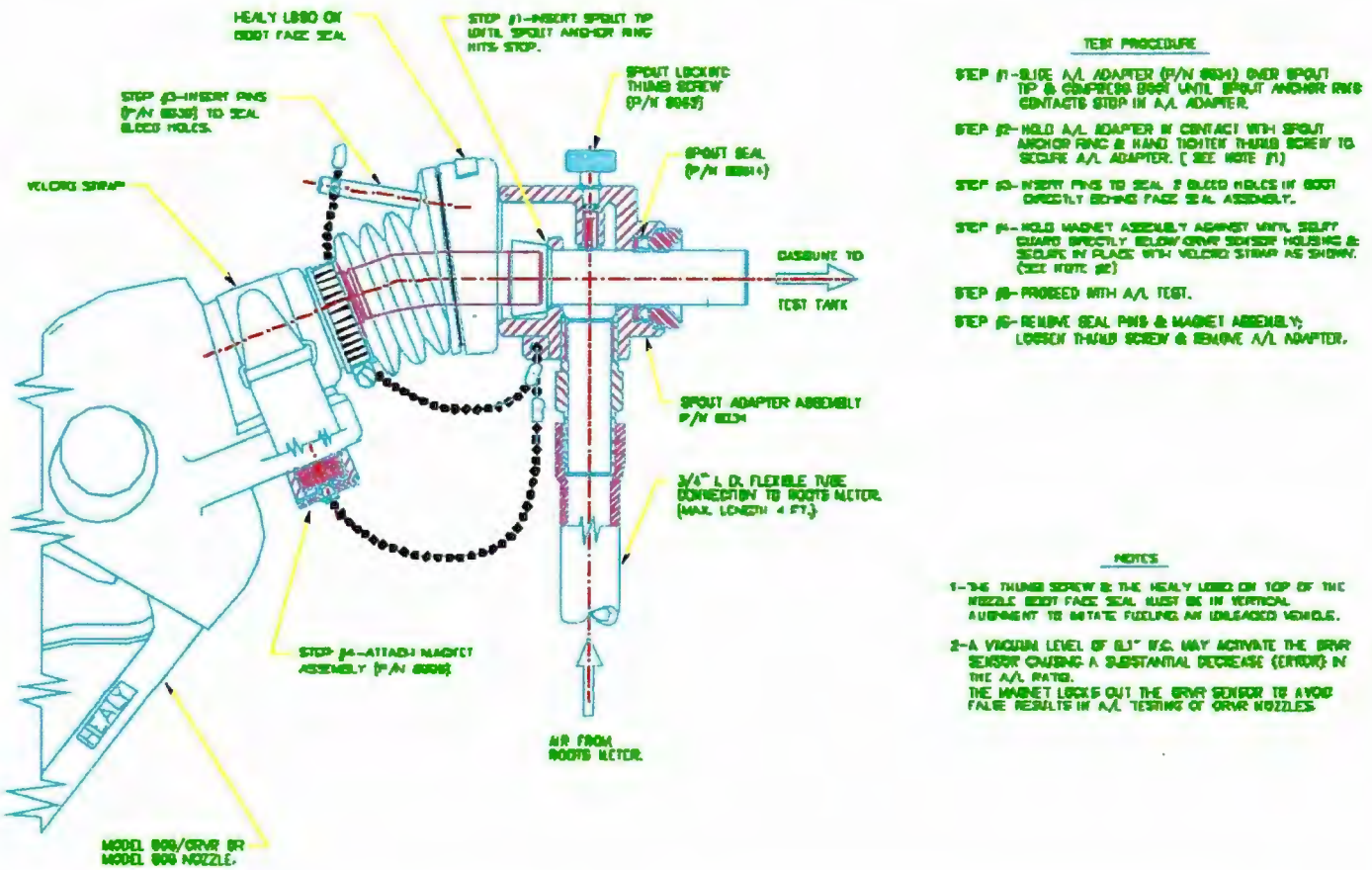


Executive Order G-70-191-AA

Exhibit 2

Figure 2C-1

Healy A/L Adapter For 600 ORVR and 800 Nozzle
Healy Part # 8034



EXECUTIVE ORDER G-70-191-AA

EXHIBIT 3

TEN GALLON PER MINUTE LIMITATION
COMPLIANCE VERIFICATION PROCEDURE

Compliance with the 10 gallon per minute flowrate limitation shall be determined with the following methodology. It is recommended that the maximum dispensing rate through each nozzle/hose assembly be verified. Maximum dispensing rates are achieved with no other dispensing occurring from the same submersible turbine pump (STP). Dispensing rates determined while conducting TP-201.5 are acceptable for verifying compliance with the 10 gallon per minute flowrate limitation.

1) The facility uses identical models of hoses, nozzles, and breakaways:

Dispense gas into a vehicle or approved container. Dispensing shall be conducted in the "hand-held, wide-open" mode. Using a stopwatch accurate to at least 0.2 seconds, begin timing the dispensing rate after at least one gallon has been dispensed. This one gallon buffer is necessary due to the "slow-start" nature of some dispensers. Determine the time required to dispense 2, 3, 4, or 5 gallons of gasoline. The facility shall be deemed in compliance with the 10 gallon per minute limitations if the elapsed time meets, or exceeds, the times shown in Table 1. If the dispensing rate exceeds the allowable limit, a CARB-certified flow limiting device shall be installed.

2) The facility uses different models of hoses, nozzles, or breakaways

Due to potential differences in pressure drops through the various components, each of the nozzle/hose assemblies shall be tested for maximum dispensing rates. Using the same criteria as above, determine the maximum dispensing rate through each nozzle/hose assembly. If the maximum dispensing rate exceeds the 10 gpm limit, a CARB-certified flow limiting device shall be installed.

Table 1
Verification of 10 gpm

Product Dispensed, gallons	Minimum Allowable Time, seconds
2.0	11.8
3.0	17.7
4.0	23.6
5.0	29.5

Note: The times have been corrected to allow for the accuracy of the measurement.

Dispensing Rate

The dispensing rate for installations of this system shall not exceed 10.0 gallons per minute at any time. This shall be determined as specified in Exhibit 3 or as specified in TP-201.5 or any alternative test method approved in writing by the Executive Officer.

Inverted Coaxial Hoses

1. The maximum length of the hose assembly shall be 15 feet measured from the dispenser outlet casting to the base of the nozzle.

2. The length of hose, which may be in contact with the island and/or ground when the nozzle is properly mounted on the dispenser, is limited to six inches (6") per loop.

Breakaway Couplings

Breakaway couplings are optional but, if installed, only CARB-certified breakaways with a valve, which closes the vapor path when separated, may be used.

Healy ORVR Phase II Vapor Recovery System

1. The Healy ORVR Phase II Vapor Recovery System shall consist of an integrated vapor recovery unit made up of an electronic (computerized) control unit and a one-eighth (1/8) hp alternating current electric motor that drives a variable speed rotary vane pump. The VP-1000 Vapor Recovery Vane Pump has been sized to satisfy the recovery needs of one dispenser, with two hoses, pumping either individually or simultaneously. Healy Systems supplies a unique regulation valve, built into the faceplate of the pump assembly, to assure that proper levels of vacuum are maintained. The actual vapor recovery rate is determined by a valve in the nozzle which senses product flow.

   The A/L ratio of the system shall be 1.10 plus or minus 0.10 (1.00 to 1.20). Any fueling point not capable of demonstrating compliance with this performance standard shall be deemed defective and removed from service. The A/L ratio shall be determined by using the CARB-approved procedure TP-201.5. Note: A CARB certified spout adapter / sleeve unique to the Healy 600 ORVR / 800 nozzle must be used in order to obtain accurate results. See Exhibit 2 Figure 2C-1. Alternative test procedures may be used if they are determined by the Executive Officer, in writing, to yield comparable results.

   NOTE: Test Procedure TP-201.5 returns air rather than vapor to the storage tank, and normally causes an increase in storage tank pressure which may result in vent emissions. This is a temporary condition due to the test and should not be considered an indication of malfunction or noncompliance.

2. The Healy ORVR Phase II Vapor Recovery System with the Healy/Franklin Electric VP 1000 Vapor Pump, (Exhibit 2 Figure 2B-2) shall have the following electronic protective features:

- High Power Level Control. The system shall automatically sense conditions that cause high power levels and shall shut down. Conditions causing high power levels include the following: locked rotor condition of the motor, shorted motor windings, fluid in pump cavity for more time than required to clear a blockage and pump overload conditions. If any of these conditions exist, a signal shall be sent to the VP1000 vane pump interface module located inside the dispenser. The system shall then restart automatically. This "shut down send signal wait-restart" cycle will occur three times. After the third cycle failure, it shall not restart automatically. Instead, an error signal is sent to the interface module, (High Power Level Failure), which will then disable the entire dispenser from dispensing product.

- Low Power Level Control. The system shall automatically sense conditions that cause low power levels and shall shut down. Conditions causing low power levels include the following: broken rotor, free running motor shaft-no load conditions. If any of these conditions exist, a signal shall be sent to the VP1000 vane pump interface module located inside the dispenser. The system shall then restart automatically. This "shut down send signal wait-restart" cycle will occur three times. After the third cycle failure it shall not restart automatically. Instead, an error signal is sent to the interface module, (Low Power Level Failure), which will then disable the entire dispenser from dispensing product.

- Verification that the Healy/Franklin VP1000 vane pump is operating correctly can be determined by conducting A/L testing as specified in TP-201.5 or an alternative test method approved in writing by the Executive Officer. Any dispenser where a 0.0 A/L is measured on all fueling points on both sides of the dispenser indicates a failure of the electronic shut-down features of the VP-1000 vane pump. A measured A/L of 0.0 on only one fueling point on one side of a dispenser may be due to hanging hardware problems and may not be indicative of a vane pump problem.

Dispenser Specifications

1. The Healy ORVR Phase II Vapor Recovery System can be installed on any CARB-certified balance vapor ready dispenser. Conversion kits as specified in Exhibit 1 can be used to retrofit non-vapor-ready dispensers. All dispensers must also comply with the following:

   a) Electronically compatible with the Healy ORVR Phase II Vapor Recovery System with the Healy/Franklin Electric VP 1000 Vapor Pump, which must be capable of displaying the electronic protective features as specified in this Exhibit.

b) Tested for compliance with air to liquid ratio limits contained in this Exhibit. The test shall be conducted in accordance with TP 201.5, or an alternative test method approved in writing by the Executive Officer.

Pressure/Vacuum Valves for Storage Tank Vents

1. At least one pressure/vacuum (P/V) valve shall be installed on tank vents. Manifolding of vent lines to minimize the number of P/V valves and potential leak sources is recommended, provided the manifold is installed at a height not less than 12 feet above the driveway surface used for Phase I tank truck filling operations. At least one P/V valve shall be installed on manifolded vents. The P/V valve shall be a CARB-certified valve as specified in Exhibit 1. The outlets shall vent upward and be located to eliminate the possibility of vapor accumulating or traveling to a source of ignition or entering adjacent buildings.

2. The P/V valve is designed to open at a pressure of approximately three inches water column (3" WC). Storage tank pressures which exceed 3" WC for more than a short time may indicate a malfunctioning pressure/vacuum vent valve.

Vapor Recovery Piping Configurations, (Figures 2A-1 - 2A-5)

Note: Figures 2A-1-2A-5 show general vapor plumbing piping layouts and are not to be used as specifications.

1. All vapor return and vent lines shall be a minimum 2" diameter from the dispensers to the first main manifold. All lines after the first manifold and back to the underground storage tanks shall be a minimum 3" diameter.

   Exception: Smaller vapor lines are not recommended but if pre-existing, may be used providing the pressure drop criteria specified below are met.

2. The maximum allowable pressure drop through the system shall never exceed one/half inch (0.5") water column at 60 SCFH. The pressure drop shall be measured from the dispenser riser to the UST with pressure/vacuum valves installed and with the poppeted Phase I vapor connection open.

3. All vapor return and vent lines shall slope a minimum of 1/8" per linear foot. A slope of 1/4" per linear foot or more is recommended whenever feasible.

   Exception: When it is not possible to achieve the necessary minimum slope from the dispenser risers back to the under ground storage tanks due to the topography of a new site or due to upgrading of an existing site, low-point condensate traps or knock-out pots can be utilized as long as the following conditions are met:

   a. The condensate traps must be self-evacuating.
   b. The entire system must remain vapor tight.
   c. Access must be provided for inspection purposes. The condensate traps must be maintained in good working order.
   d. The maximum pressure drop through the system with the condensate traps in place shall not exceed 0.5" WC at 60 SCFH.

4. All vapor return and vent piping shall be installed in accordance with the manufacturer's instructions and all applicable regulations.

5. No product shall be dispensed from any fueling point associated with a vapor line which is disconnected and open to the atmosphere. If vapor lines are manifolded, this includes all fueling points in the facility.

6. All vapor return and vent lines shall be installed in accordance with the manufacturer's instructions and all applicable regulations. The vapor return lines shall be manifolded below grade at the tanks using a minimum 3" diameter line.

   Exception: For installations with a vapor return line directly to only one tank, and for which a manifold on the tank vents will be used to provide part of the vapor return path to other tanks, the vent manifold may be used as an alternative to the underground manifold only in existing installations where the vapor piping is already installed, and shall not be used in "new" installations where vapor piping is being installed. For installations with dedicated vapor piping directly to each tank, the vent manifold is approved for both new and existing installations and an additional tank manifold below grade is optional but not required.

7. The dispenser shall be connected to the riser with either flexible or rigid material which is listed for use with gasoline. The dispenser-to-riser connection shall be installed so that any liquid in the lines will drain toward the storage tank. The internal diameter of the connector, including all fittings, shall not be less than one-half inch (1/2").

Inverted Coaxial Hose Adapters

1. Inverted coaxial hose adapters shall be 100 percent performance checked at the factory to verify the integrity of the vapor path.

Underground Storage Tank (UST) Pressure

WARNING: Phase I fill caps should be opened with caution because the storage tank may be under pressure.

Phase I System

1. The Phase I system shall be a CARB-certified system which is in good working order and which demonstrates compliance with the static pressure decay test criteria as specified in the most current version of TP-201.3. Coaxial Phase I systems shall not be used with new installations of the Healy ORVR Phase II Vapor Recovery System. Replacement of storage tanks at existing facilities, or modifications which cause the installation of new or replacement Phase I vapor recovery equipment, are considered new installations with regard to this prohibition. An exception to this prohibition may be made for coaxial Phase I systems CARB-certified after January 1, 1994, as compatible for use with Phase II systems which require pressure/vacuum vent valves.

   Where installation of the Healy ORVR Phase II Vapor Recovery System is made by retrofitting previously installed equipment, local districts may elect to allow existing coaxial Phase I systems to remain in use for a specifically identified period of time provided the following conditions are met:

- the existing coaxial Phase I system is a poppeted, CARB-certified system capable of demonstrating compliance with the static pressure decay test as specified above; and

- installation of the Phase II system requires no modification of the UST(s) and/or connections.

2. Spill containment manholes which have drain valves shall demonstrate compliance with the static pressure decay criteria with the drain valves installed as in normal operation. Manholes with cover-actuated drain valves shall not be used. The local district may require the removal of drain valves provided an alternate method of draining the spill container is specified (i.e., a hand pump maintained at the facility and/or on the product delivery trucks).

3. Phase I deliveries shall be accomplished so as to ensure that there is at least one vapor connection between the cargo tank compartment headspace and the storage tank associated with the product delivery. There shall be no more than two product hoses used with one vapor hose connected, and no more than three product hoses used with two vapor hoses connected.

   - the Phase I vapor return hose is connected to the delivery tank and to the delivery elbow before the elbow is connected to the facility storage tank;

   - the delivery tank is opened only after all vapor connections have been made, and is closed before connection of any vapor return hoses;

   - the existing coaxial Phase I equipment is in good working order and has demonstrated compliance with static pressure decay test criteria when tested with all fill caps removed; and

   - the vapor return hose is disconnected from the facility storage tank before it is disconnected from the delivery tank.

4. Storage tank vent pipes, manhole covers and spill containment bucket covers shall be maintained any color which minimizes solar gain and has a reflective effectiveness of 55% or greater. Reflectivity can be determined by visual comparison of the paint with paint color cards obtained from a paint manufacturer who uses the "Master Pallet Notation" to specify the paint color (i.e., 58YY *88*/180 where the number in italics is the paint reflectivity). Example colors having a reflective ness of 55% or greater include yellow, light gray, aluminum, tan, red iron oxide, cream or pale blue, light green, glossy gray, light blue, light pink, light cream, white, silver, beige, tin plate or mirrored finish. Spill containment bucket covers that are color coded for product identification are exempted from this requirement.

   Exception: Insulated manhole covers such as those manufactured out of a composite material and injected with foam insulation are exempt from the color requirement.

Linda S. Adams
Secretary for
Environmental Protection

Air Resources Board

Robert F. Sawyer, Ph.D., Chair
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Arnold Schwarzenegger
Governor

August 14, 2006 #06-02

Mr. Paul C. Bauer, Technical Services Manager
Healy Systems, Inc.
18 Hampshire Drive
Hudson, New Hampshire 03051

Dear Mr. Bauer:

Thank you for your letter of July 20, 2006, providing information that the Healy Model 900 Enhanced Vapor Recovery (EVR) nozzle is now commercially available.

The Healy Model 900 EVR nozzle was originally approved as the replacement nozzle for the Model 800 onboard refueling vapor recovery (ORVR) nozzle in my letter to you on May 5, 2005. However, in your letter of August 24, 2005, you informed me that the orders for EVR equipment overwhelmed your ability to supply the Model 900 nozzle. As a result of the back log of orders for the Model 900 nozzle as a replacement component, I made a determination under section 19 of CP-201, Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities, that the Model 900 nozzle was not commercially available as a replacement component for the Model 800 nozzle for the Healy ORVR Phase II Vapor Recovery System certified by Executive Order G-70-191-AA. The Model 800 nozzle was then approved for new installations and as a replacement component for the Healy ORVR Phase II Vapor Recovery System since August 26, 2005.

In your July 20, 2006, letter Healy demonstrated to the satisfaction of Air Resources Board (ARB) staff that the Model 900 nozzles are now commercially available as replacements for the Model 800 nozzles. In particular, the Model 900 nozzle has been available to be shipped within two to three weeks of the receipt of an order since April, 2006.

The Model 900 nozzle, shown in Figure 1, has met the operative standards and specifications as certified on the Healy Phase II EVR system in Executive Orders VR-201-A and VR-202-A. ARB staff has also determined that the Model 900 nozzle is compatible with the Healy ORVR Phase II Vapor Recovery System.

Therefore, the Healy Model 900 nozzle is approved as the only nozzle that can be used in California as a replacement nozzle for the Healy ORVR Phase II Vapor Recovery System (Executive Order G-70-191-AA) on or after September 10, 2006. District inspectors will be able to determine that a Healy Model 800 nozzle installed at a

gasoline dispensing facility (GDF) is in compliance with this requirement by checking the Julian calendar date stamp on the nozzle. The drawing of the Model 900 nozzle in Figure 1 shows the serial number, including the date code. The Model 800 nozzle is date coded in the same manner as shown in Figure 1. If a Model 800 nozzle has a Julian date code of 3606 or earlier, signifying week 36 of the year 2006, that installation is compliant. The installation of a Model 800 nozzle with a date stamp after the 36th week of 2006 (3706 and later) is in violation of this amendment to Executive Order G-70-191-AA. The number "Z" denotes the sequential number of nozzles produced that week (see Figure 1). California distributors of vapor recovery equipment may continue to legally stock and sell Model 800 nozzles for sale outside of California.

Any Model 900 nozzle installed under Executive Order G-70-191-AA shall be subject to all the same testing requirements applicable to the Model 800 nozzle, as listed in Exhibit 2 of Executive Order G-70-191-AA and those sections of the Vapor Recovery Equipment Defects (VRED) list applicable to Executive Order G-70-191-AA. The April 12, 1996, version of TP-201.5 (A/L Testing) shall be used regardless of the model of nozzle installed on a GDF permitted under Executive Order G-70-191-AA. Test procedures determined to be equivalent to the 1996 version of TP-201.5 may be used with the approval of the district.

Lastly, the components listed in Executive Order G-70-191-AA and all approval letters pertaining to it may remain in use for the remainder of the useful life of these components or the allowable in-use period, as provided in Section 19.1 of CP-201, whichever is shorter.

If you have questions or need further information regarding this approval, please contact Paul Marzilli at (916) 445-7431 or via email at pmarzill@arb.ca.gov or Pat Bennett at (916) 322-8959 or via email at pbennett@arb.ca.gov.

Sincerely,

William V. Loscutoff, Chief
Monitoring and Laboratory Division

cc: See next page

cc: Mr. Brian Aunger
San Luis Obispo County Air Pollution Control District

Mr. Jim Swaney
San Joaquin Air Pollution Control District

Ms. Jeannette Lim
Bay Area Air Quality Management District

Figure 1
Model 900 Nozzle