TECHNICAL SUPPORT DOCUMENT

Air Discharge Permit 24-3629
Air Discharge Permit Application L-741

Issued: February 7, 2024

LOVE'S TRAVEL STOP #454

SWCAA ID – 2382

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

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ABBREVIATIONS

List of Acronyms

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

List of Units and Measures

tpy ..... Tons per year

List of Chemical Symbols, Formulas, and Pollutants

CO ..... Carbon monoxide

CO_2 ..... Carbon dioxide

CO_2e ..... Carbon dioxide equivalent

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

NO_X ..... Nitrogen oxides

O_2 ..... Oxygen

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

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

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

SO_2 ..... Sulfur dioxide

SO_X ..... Sulfur oxides

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

VOC ..... Volatile organic compound

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

1. FACILITY IDENTIFICATION

Applicant Name:	Love's Travel Stops and Country Stores
Applicant Address:	PO Box 26210 Oklahoma City, OK 73126
Facility Name:	Love's Travel Stop #454
Facility Address:	276 Rush Road Napavine, WA 98532
SWCAA Identification:	2382
Contact Person:	Zach Moore
Primary Process:	Gasoline dispensing
SIC/NAICS Code:	5541: Gasoline service stations 44711: Gas stations with convenience stores
Facility Classification:	Natural Minor

2. FACILITY DESCRIPTION

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

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit (ADP) application number L-741 received January 9, 2024, requesting approval to increase gasoline throughput.

Air Discharge Permit 11-2973 will be superseded in this permitting action.

4. PROCESS DESCRIPTION

This facility receives unleaded gasoline from tanker trucks for storage in two underground storage tanks, one of which is split into two storage compartments. One compartment is identified as Tank 4 and is used to store 12,000 gallons of regular unleaded. One compartment is identified as Tank 5 and is used to store 8,000 gallons of super unleaded. The gasoline storage tanks are equipped with two-point vapor balance systems that return gasoline vapors vented from the underground storage tanks to the tanker truck during filling (Stage I vapor recovery). Gasoline is dispensed from 16 multi-product pumps. Vapors displaced from individual motor vehicle gasoline tanks during filling will not be returned to the gasoline storage tanks (no Stage II vapor recovery).

Products at Pump	Number of Pumps
Blended gasoline through as single hose, diesel through a single hose	16

5. EQUIPMENT/ACTIVITY IDENTIFICATION

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

Tank	Product	Capacity
1	Diesel	20,000 gallons
2	Diesel	20,000 gallons
3	Diesel	20,000 gallons
4	Regular Unleaded	12,000 gallons
5	Super Unleaded	8,000 gallons
6	Regular Unleaded	20,000 gallons
7	Diesel Exhaust Fluid	Not provided

The gasoline storage tanks are equipped with two-point Stage I enhanced vapor recovery equipment approved by CARB Executive Order VR-101-L "Franklin Fueling Systems, Inc. - Phil-Tite Phase I Vapor Recovery System". The following equipment has been installed:

Component	Make / Model
Drop Tube / Overfill Protection	OPW / 61T-7468
Fill Adapters[1]	Phil-Tite / SWF-100-B
Fill Caps	OPW / 634TT-EVR
Vapor Adapters[1]	Phil-Tite / SWV-101-B
Vapor Caps	OPW / 1711T-EVR
Extractor Assembly	Morrison / 563 (not required)
Float Vent Valve	Not required – not provided
Spill Bucket	Unknown
Pressure / Vacuum Valve	Husky / 5885

[1] This is a two point system.

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

Component	Make / Model
Nozzles	Continental / 559N
Hoses and Whip Hoses	OPW / 14E

5.b. Equipment/Activity Summary.

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

6. EMISSIONS DETERMINATION

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

(a) Continuous emissions monitoring system (CEMS) data;
(b) Source emissions test data (EPA reference method). When source emissions test data conflicts with CEMS data for the time period of a source test, source test data must be used;
(c) Source emissions test data (other test method); and

(d) Emission factors or methodology provided in this TSD.

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

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

Emission Source	VOC Emission Factor (lb/1,000 gallons of fuel)
Loading – Stage I Controlled (EVR)	0.150
Breathing – Controlled with P/V Valve	0.092
Uncontrolled Refueling – Stage II uncontrolled (non ORVR Vehicles, no Stage II)	0.84[1]
Controlled Refueling (ORVR vehicles, no Stage II)	0.151[2]
Spillage (ECO nozzles)	0.240
Hose Permeation (low permeation)	0.009
Total	**1.482**

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

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

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

At a throughput of 5,500,000 gallons of gasoline per year, the facility would emit 4.08 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 5,500,000 gallons per year, TAP and HAP emission rates are estimated at 2.04 tons per year, and 0.53 tons per year respectively.

6.b. Emissions Summary

Air Pollutant	Potential to Emit (tpy)	Project Impact (tpy)[1]
NO_X	0	0
CO	0	0
VOC	4.08	1.23
SO_2	0	0
PM	0	0
PM_{10}	0	0
$PM_{2.5}$	0	0
CO_2/CO_2e	0	0
Toxic Air Pollutants	2.04	0.61
Hazardous Air Pollutants	0.53	0.16

[1] Based on 90% of fuel dispensed to ORVR-equipped vehicles, and an increase in gasoline throughput from 3,846,154 gallons per year (the limit in ADP 11-2973) to 5,500,000 gallons per year (the new throughput limit).

7. REGULATIONS AND EMISSION STANDARDS

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

7.a. Title 40 Code of Federal Regulations (CFR) Part 63.11110 et seq. Subpart CCCCCC "National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities" establishes emission control, testing, recordkeeping and reporting requirements for new and existing gasoline dispensing facilities. Which requirements apply to a specific facility depends upon the monthly throughput. This facility has a potential throughput of 100,000 gallons per month or more. Facilities with a throughput of 100,000 gallons per month or more must comply with requirements found in Table 1 of Subpart CCCCCC including:

(1) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnection;
(2) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor tight;
(3) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18" w.c. pressure or 5.9" w.c. vacuum during product transfer;

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

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

7.c. Revised Code of Washington (RCW) 70A.15.2040 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the Washington Clean Air Act (RCW 70A.15) and enforce the same by all appropriate administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 ex. sess.

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

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

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

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

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

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

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

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

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

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

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

(1) All gasoline dispensing facilities with an annual gasoline throughput greater than two hundred thousand (200,000) gallons in Clark County and three hundred sixty thousand (360,000) gallons in Cowlitz, Lewis, Skamania and Wahkiakum Counties shall be subject to gasoline Stage I vapor control requirements;

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

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

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

8.a. Retail Gasoline Dispensing Facility. SWCAA has determined that Best Available Control Technology for the control of gasoline vapors emitted from new gasoline dispensing facilities with a throughput of more than 360,000 gallons per year in Lewis County consists of EVR Stage I vapor recovery equipment as tested and approved by CARB, enhanced conventional nozzles (where Stage II is not in place), and low permeation hoses if throughput could exceed 1,400,000 gallons per year and liquid gasoline is carried against the outermost hose wall.

The applicant will utilize Stage I enhanced vapor recovery equipment, low permeation hoses, and enhanced conventional nozzles. This configuration meets the requirements of BACT.

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

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 enhanced vapor recovery systems, ECO nozzles, and low permeation hoses will not cause the ambient air quality standards established by Title 40 Code of Federal Regulations Part 50 (40 CFR 50), "National Primary and Secondary Ambient Air Quality Standards" to be violated.

9.b. The retail gasoline dispensing facility equipped with Stage I enhanced vapor recovery systems, ECO nozzles, and low permeation hoses, if properly installed and maintained, can be operated without causing a violation of the applicable emission standards which include the limits established under SWCAA 400-040 "General Standards for Maximum Emissions."

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

10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP 24-3629 in response to ADP application L-741. ADP 24-3629 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards, as discussed below.

10.a. Supersession of Previous Permits. ADP 11-2973 will be superseded in its entirety.

10.b. Emission Limits. An annual VOC emission limit of 4.08 tons per year was established. This limit is based upon the facility utilizing properly operated Stage I enhanced vapor recovery systems, enhanced conventional nozzles, low permeation hoses, dispensing 90% of the fuel to ORVR-equipped vehicles, and a gasoline throughput of 5,500,000 gallons per year.

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

The gasoline throughput was limited to 5,500,000 gallons per year as requested by the applicant. At this throughput the frequency of vapor recovery testing was increased to semiannual from the annual testing typically required for facilities with a throughput of 5,000,000 gallons per year or less.

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

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

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

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

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

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

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

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

12. EMISSION MONITORING AND TESTING

In accordance with the requirements of SWCAA 491-040(4)(n) that became effective February 7, 2020, testing of each pressure-vacuum vent valve is required every 36 months and Stage I vapor recovery testing is required annually. The pressure-vacuum vent valve testing frequency is consistent with the testing required by 40 CFR 63 Subpart CCCCCC. New pressure/vacuum vent valves are typically tested at the factory, therefore initial testing does not apply to new valves with a factory test. In accordance with SWCAA 491, initial vapor recovery testing is required prior to placing the equipment back into service rather than within 60 days after startup as specified in the applicable CARB Executive Order.

Due to the relatively high gasoline throughput allowed for this facility the Stage I vapor recovery system testing must be conducted twice per year rather than the standard frequency of once per year. Increased gasoline throughput means an increased number of connections and disconnections to Stage I vapor recovery components and therefore increased wear and possibility of leaks.

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

13. FACILITY HISTORY

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

Permit / Order #	Application #	Date Issued	Description
11-2973	L-646	4/14/2011	Approval for a new facility utilizing Stage I enhanced vapor recovery equipment.

Bold font indicates that the Air Discharge Permit was superseded or no longer in effect upon issuance of Air Discharge Permit 24-3629.

13.b. Compliance History. No compliance issues have been identified for this facility within the past five years.

14. PUBLIC INVOLVEMENT OPPORTUNITY

14.a. Public Notice for ADP Application L-741. Public notice for ADP application L-741 was published on the SWCAA website for a minimum of 15 days, beginning on January 10, 2024.

14.b. Public/Applicant Comment for ADP Application L-741. SWCAA did not receive specific comments, a comment period request, or any other inquiry from the public or the applicant regarding ADP application L-741. Therefore, no public comment period was provided for this permitting action.

14.c. State Environmental Policy Act. This project is exempt from SEPA requirements pursuant to WAC 197-11-800(3) since it only involves repair, remodeling, maintenance, or minor alteration of existing structures, equipment or facilities, and does not involve material expansions or changes in use. While the permit requires an increased frequency of testing which may lead to increased maintenance, there is no physical change proposed and emissions to the ambient air will remain lower than they would have been when previous

SEPA reviews were conducted. The only other possible impact of this proposal is increased vehicular traffic. The original SEPA review did not quantify, or result in a limit on, vehicle traffic at this site (see City of Napavine SEPA #201003869 7/19/2010). SWCAA issued a determination that the project is exempt from SEPA review on February 7, 2024 (Determination of SEPA Exempt - SWCAA 24-007).

Appendix A

CARB Executive Order VR-101-L

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

State of California
AIR RESOURCES BOARD

Executive Order VR-101-L

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

WHEREAS, the California Air Resources Board (ARB) has established, pursuant to California Health and Safety Code sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks, in its **CP-201, *Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities*** (Certification Procedure 201) as last amended May 25, 2006, incorporated by reference in title 17, California Code of Regulations, section 94011;

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

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

WHEREAS, Franklin Fueling Systems, Inc. (FFS) requested and was granted certification of the Phil-Tite Phase I Vapor Recovery System (Phil-Tite system) pursuant to the Certification Procedure 201 on June 19, 2001 by Executive Order VR-101-A, and last modified on June 30, 2008, by Executive Order VR-101-K;

WHEREAS, FFS requested modifications to the certification to certify the FFS PV-Zero Pressure/Vacuum Vent Valve for all gasoline blends, including 85% Ethanol/15% gasoline fuel blend (E85);

WHEREAS, the requested modifications to the certification to certify components compatible with E85 on the Phil-Tite system have been evaluated pursuant to the Certification Procedure 205;

WHEREAS, Certification Procedures 201 and 205 provide that the ARB Executive Officer shall issue an Executive Order if he or she determines that the vapor recovery system, including modifications, conforms to all of the applicable requirements set forth in the Certification Procedures;

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

WHEREAS, I, William V. Loscutoff, Chief of the Monitoring and Laboratory Division, find that the Phil-Tite Phase I Vapor Recovery System, including modifications, conforms with all of the

accordance with local district requirements and pursuant to the policies established by that district. Local districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternative test procedures, including the most recent versions of the test procedures listed above, may be used if determined by the Executive Officer or Executive Officer delegate, in writing, to yield comparable results. Testing the Pressure/Vacuum (P/V) Vent valve will be at the option of the local districts. If P/V valve testing is required by the district, the test shall be conducted in accordance with **TP-201.1E, *Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003)*** and Exhibit 2.

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

IT IS FURTHER ORDERED that GDF installations permitted under VR-101-K for E-85 fuel that use the PV-Zero-E85 Pressure/Vacuum Vent Valve shall be subject to a throughput limitation of 1.2 million gallons per year (100,000 gallons per month).

IT IS FURTHER ORDERED that the certification of the Phil-Tite Phase I Vapor Recovery System is valid through May 31, 2012.

IT IS FURTHER ORDERED that Executive Order VR-101-K issued on June 30, 2008, is hereby superseded by this Executive Order. Phil-Tite Phase I Vapor Recovery Systems certified under Executive Orders VR-101-A to K may remain in use at existing installations. This Executive Order shall apply to new installations or major modification of the Phase I system of existing gasoline dispensing facilities.

Executed at Sacramento, California, this 1st day of September, 2009.

William V. Loscutoff, Chief
Monitoring and Laboratory Division

Attachments:

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

Exhibit 1 (continued)

Phil-Tite Phase I Vapor Recovery System Equipment List

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

Exhibit 1 (continued)

Phil-Tite Phase I Vapor Recovery System Equipment List

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

Table 1
Components Exempt from Identification Requirements

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

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

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

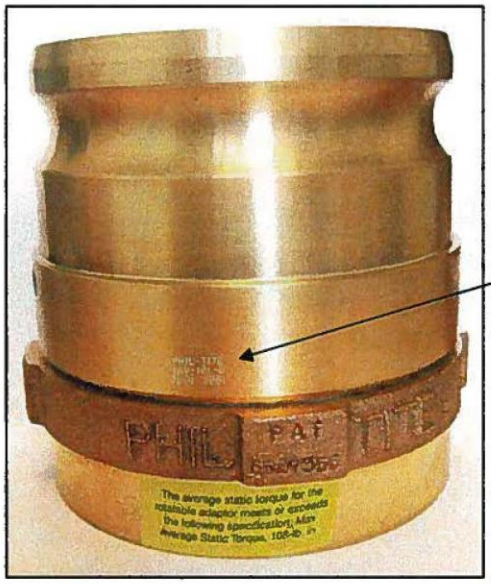
Table 2

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

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

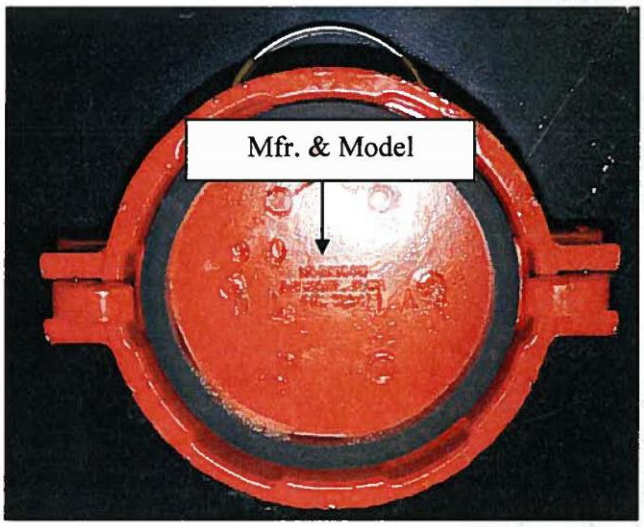
Exhibit 1 (continued)
Component Identification and Location

Phil-Tite Model SWF-100-B
Product Adaptor

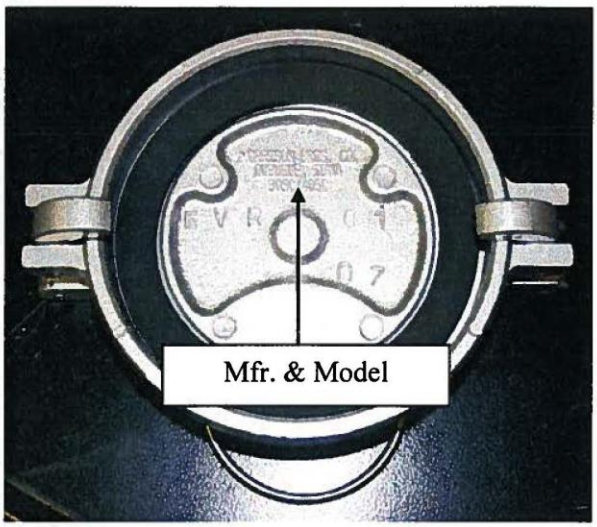


Phil-Tite Model SWV-101-B
Vapor Adaptor

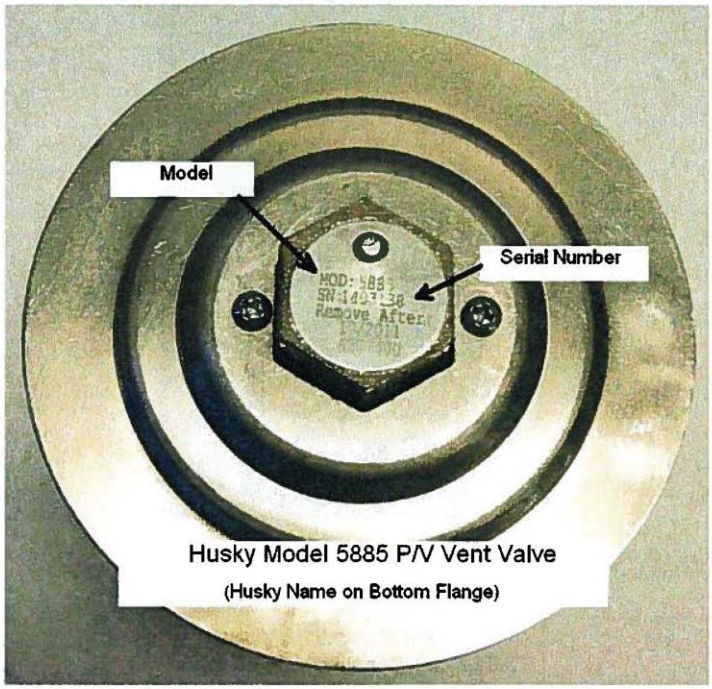
Exhibit 1 (continued)
Component Identification and Location



Morrison Brothers 323C EVR Vapor Dust Cap

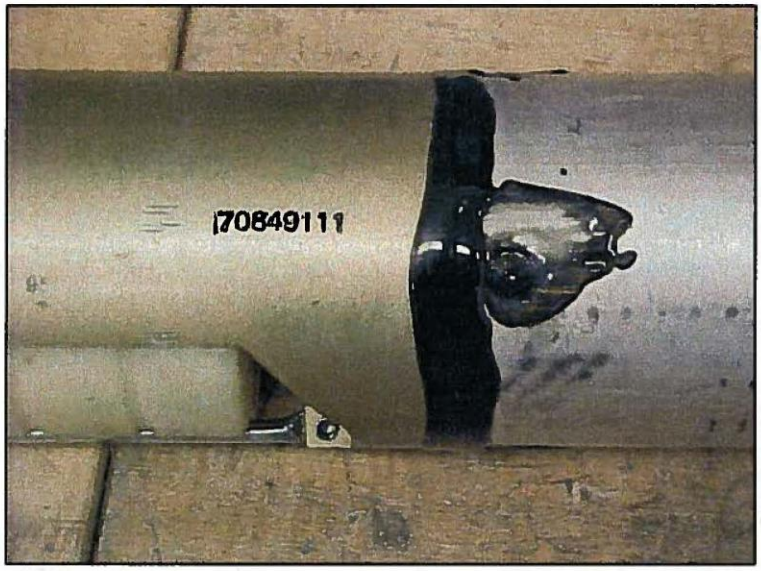


Morrison Brothers 305C EVR Product Dust Cap

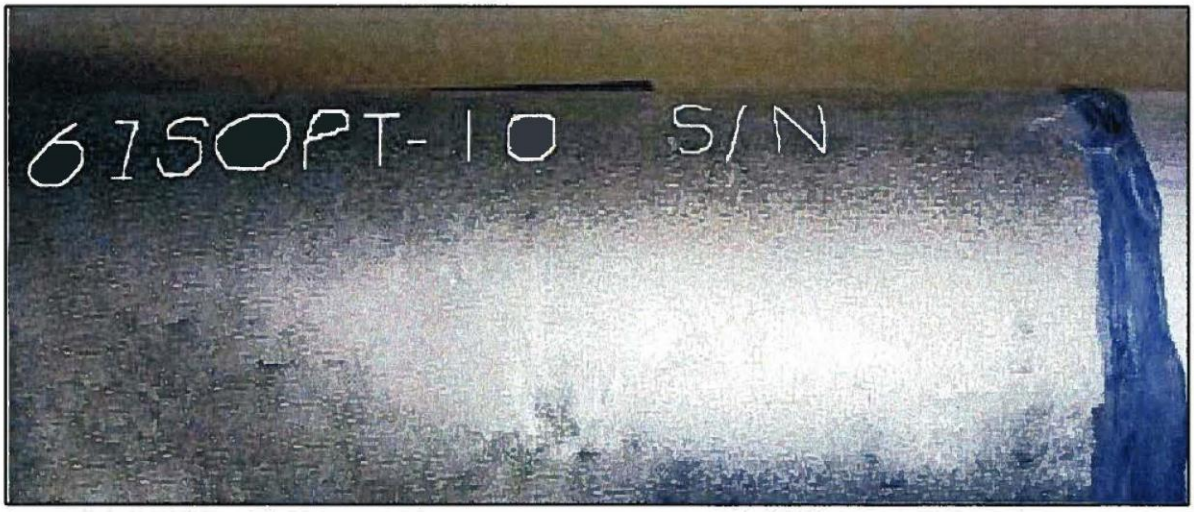


(Gasoline Only)

Exhibit 1 (continued)
Component Identification and Location

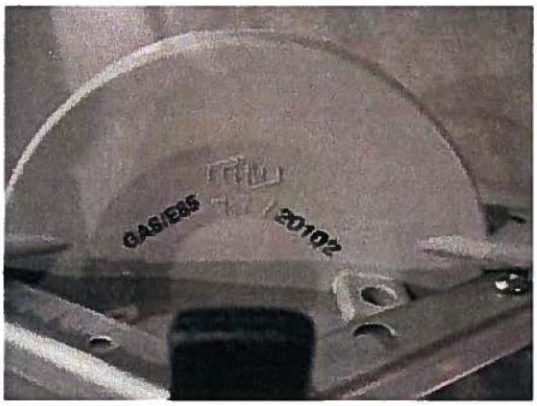


EBW Model 708-49X-1Y Overfill Prevention Device

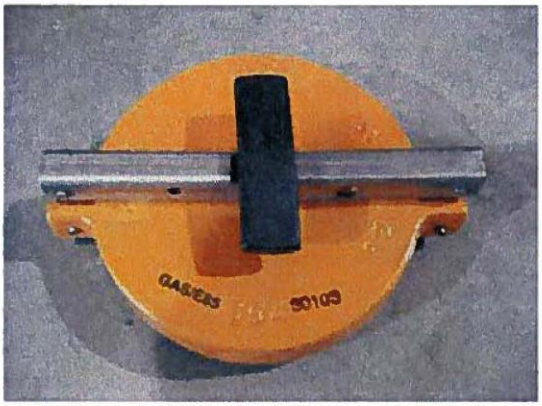


Phil-Tite Model 61SO-PT Overfill Prevention Device

Exhibit 1 (continued)
Component Identification and Location



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



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

Exhibit 1 (continued)
Component Identification and Location

Phil-Tite SWF-100-SS Fill Adaptor

Phil-Tite SWV-101-SS Vapor Adaptor

Exhibit 1 (continued)
Component Identification and Location

CompX CSP2-634LPC Product Dust Cap CompX CSP4-1711LPC Vapor Dust Cap (Gas Only)

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

4. A manifold may be installed on the vent pipes to reduce the number of potential leak sources and P/V valves installed. Vent pipe manifolds shall be constructed of steel pipe or an equivalent material that has been listed for use with gasoline. If a material other than steel is used, the GDF operator shall make available information demonstrating that the material is compatible for use with gasoline. One example of a typical vent pipe manifold is shown in Figure 2G. This shows only one typical configuration; other manifold configurations may be used. For example, a tee may be located in a different position, or fewer pipes may be connected, or more than one P/V valve may be installed on the manifold.

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

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

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

Rotatable Product and Vapor Recovery Adaptors

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

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

Vapor Recovery and Product Adaptor Dust Caps

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

Spill Container Drain Valve

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

Double Fill Configuration

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

Sump Configuration

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

Maintenance Records

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

Figure 2A
Typical Product Side Installation of Phil-Tite System Using 61SO-PT

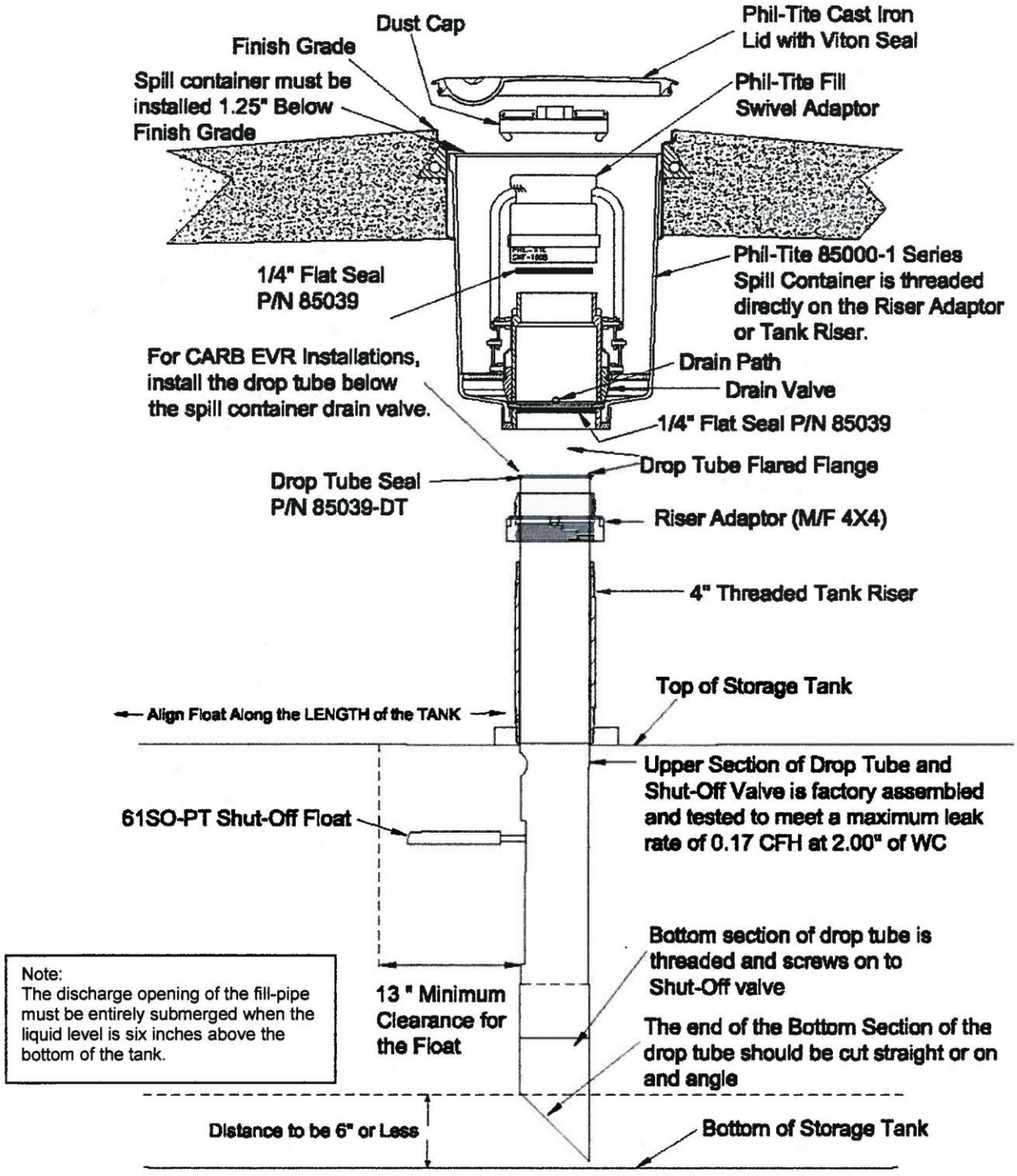


Figure 2C
Typical Vapor Recovery Installation Using Phil-Tite System

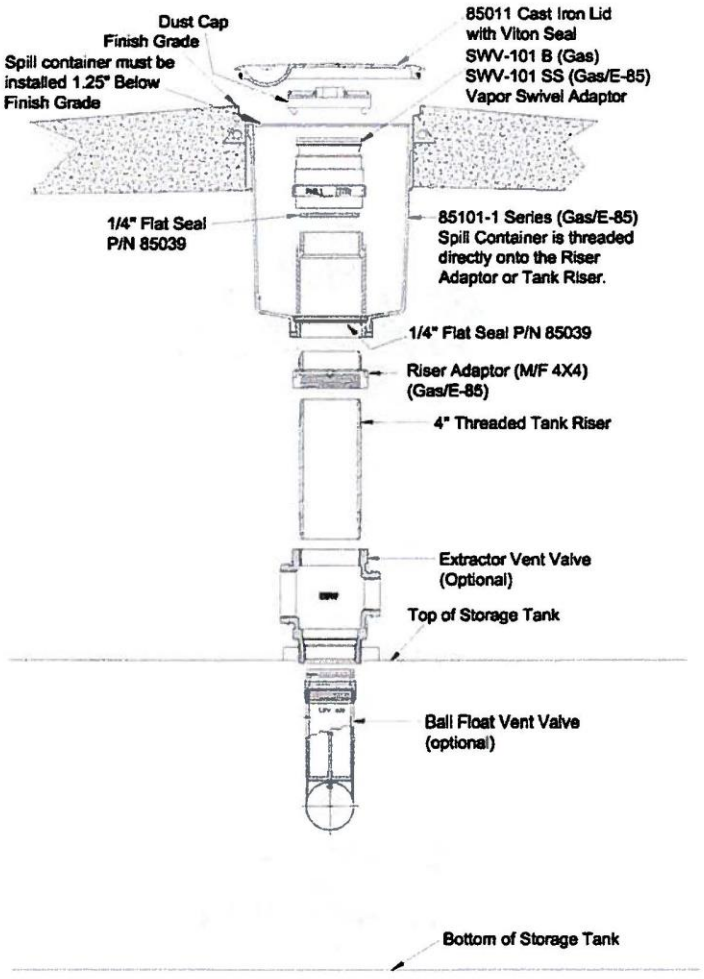
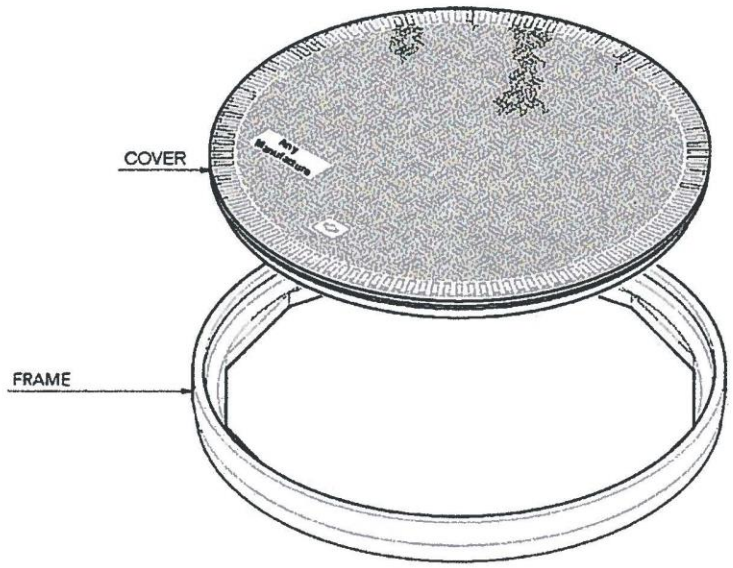


Figure 2E

Typical Phil-Tite Sump Configuration



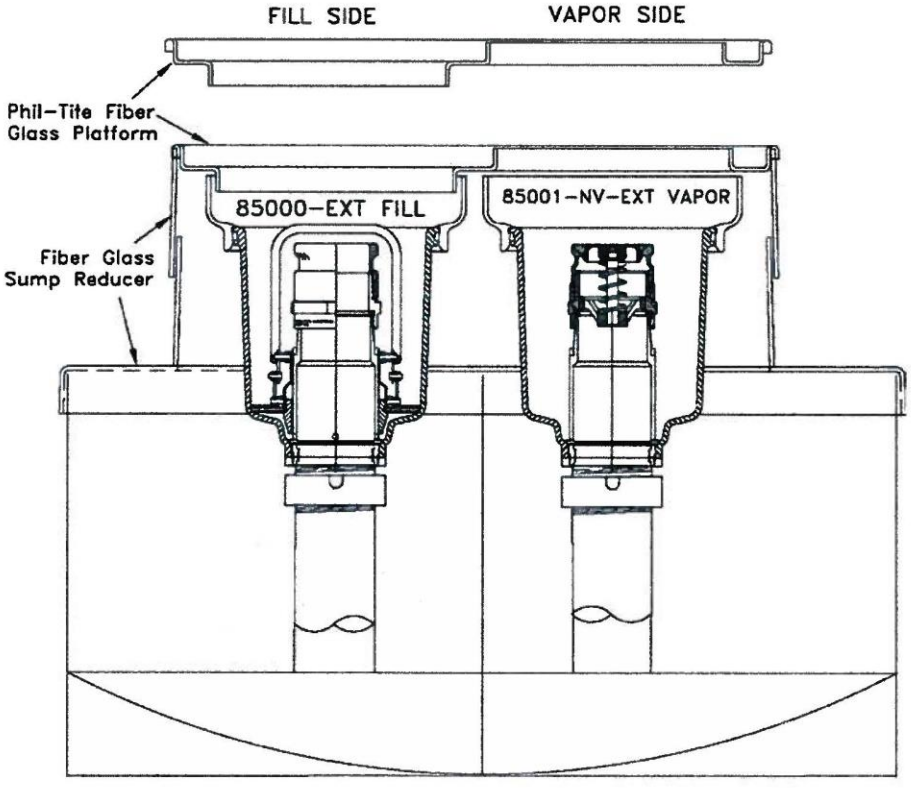
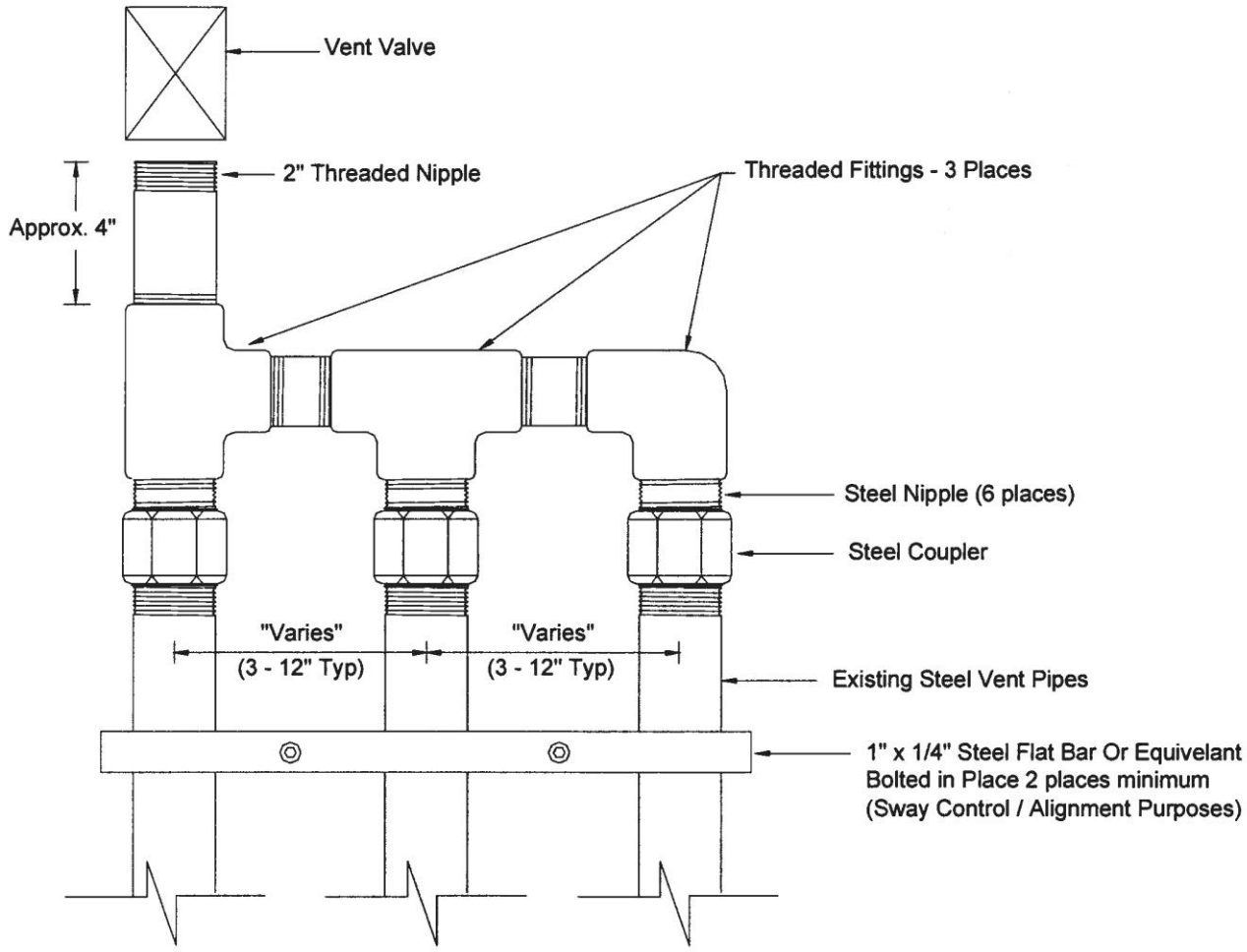


Figure 2G

Typical Vent Pipe Manifold



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

Exhibit 3

Manufacturing Performance Standards and Specifications

The Phil-Tite system and all components shall be manufactured in compliance with the performance standards and specifications in CP-201, as well as the requirements specified in this Executive Order. All components shall be manufactured as certified; no change to the equipment, parts, design, materials or manufacturing process shall be made unless approved in writing by the Executive Officer. Unless specified in Exhibit 2 or in the ARB approved Installation, Operation and Maintenance Manual for the Phil-Tite Phase I Vapor Recovery System, the requirements of this section apply to the manufacturing process and are not appropriate for determining the compliance status of a GDF.

Pressure/Vacuum Vent Valves for Storage Tank Vent Pipes

1. Each Pressure/Vacuum Vent Valve (P/V valve) shall be performance tested at the factory for cracking pressure and leak rate at each specified pressure setting and shall be done in accordance with **TP-201.1E, *Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves*** *(October 8, 2003)*.

2. Each P/V valve shall be shipped with a card or label stating the performance specifications listed in Table 3-1, and a statement that the valve was tested to, and met, these specifications.

3. Each P/V valve shall have permanently affixed to it a yellow or gold label with black lettering listing the positive and negative pressure settings and leak rate standards listed in Table 3-1. The lettering of the positive and negative pressure settings and leak rate standards on the label shall have a minimum font size of 20.

Rotatable Product and Vapor Recovery Adaptors

1. The rotatable product and vapor recovery adaptors shall not leak.

2. The product adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3A of CP-201.

3. The vapor recovery adaptor cam and groove shall be manufactured in accordance with the cam and groove specifications shown in Figure 3B of CP-201.

4. Each product and vapor recovery adaptor shall be tested at the factory to, and met, the specifications listed in Table 3-1 and shall have affixed to it a card or label listing these performance specifications and a statement that the adaptor was tested to, and met such specifications.

Spill Container and Drain Valves

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