TECHNICAL SUPPORT DOCUMENT

Air Discharge Permit 24-3641
Air Discharge Permit Application CL-3264

Issued: April 10, 2024

SAFEWAY FUELING STATION #1519

SWCAA ID – 2392

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Air Quality Engineer
Southwest Clean Air Agency

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ABBREVIATIONS

List of Acronyms

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

List of Units and Measures

tpy ..... Tons per year

List of Chemical Symbols, Formulas, and Pollutants

CO ..... Carbon monoxide

CO_2 ..... Carbon dioxide

CO_2e ..... Carbon dioxide equivalent

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

NO_X ..... Nitrogen oxides

O_2 ..... Oxygen

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

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

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

SO_2 ..... Sulfur dioxide

SO_X ..... Sulfur oxides

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

VOC ..... Volatile organic compound

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

1. FACILITY IDENTIFICATION

Applicant Name:	Safeway, Inc.
Applicant Address:	PO Box 473 Amboy, WA 98601
Facility Name:	Safeway Fueling Station #1519
Facility Address:	13719 SE Mill Plain Blvd. Vancouver, WA 98683 ~ 45°37'3.66"N, 122°31'55.40"W
SWCAA Identification:	2392
Contact Person:	Shawn Carter-Elton
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 Safeway food store.

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit (ADP) application number CL-3264 received March 12, 2024, requesting removal of the Stage II vapor recovery system. This application replaces ADP application CL-3236 which requested both replacement of the Stage I vapor recovery system, and removal of the Stage II vapor recovery system. Safeway has decided not to replace the Stage I vapor recovery system at this time.

Air Discharge Permits 12-3022 and 24-3623 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. 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 10 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	10

5. EQUIPMENT/ACTIVITY IDENTIFICATION

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

Tank	Product	Capacity
1	Regular Unleaded	20,000 gallons
2 - 1	Super Unleaded	10,000 gallons
2 - 2	Diesel	10,000 gallons

The gasoline storage tanks are fitted with equipment approved by CARB Executive Order VR-104-E as components of the CNI Manufacturing Phase I Stage I enhanced vapor recovery system. The following components of the Stage I system have been installed:

Component	Make / Model
Drop Tubes / Overfill Protection	EMCO Wheaton / A1100EVR
Fill Adapters[1]	EMOC Wheaton / A0030-124
Fill Caps	CNI / 64
Vapor Adapters[1]	EMCO Wheaton / A0076-124
Vapor Caps	CNI / 611-VR-3
Extractor Assembly	CNI / RP119FM
Float Vent Valve	N/A
Spill Bucket	Unknown
Pressure / Vacuum Valve	Husky / 4885[2]

[1] This is a two point system.
[2] The Husky model 4885 is no longer certified for use with VR-102. If a valve is replaced, the replacement must be certified for use with VR-102.

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

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

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 5,000,000 gallons of gasoline per year, the facility would emit 3.71 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 1.85 tons per year, and 0.48 tons per year respectively.

6.b. Emissions Summary

Air Pollutant	Potential to Emit (tpy)	Project Impact (tpy)
NO_X	0	0
CO	0	0
VOC	3.71	0.95
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	1.85	0.48
Hazardous Air Pollutants	0.48	0.12

[1] [1] Based on 90% of fuel dispensed to ORVR-equipped vehicles, removal of Stage II vapor recovery at this facility, in combination with adding ECO nozzles and low permeation hoses. The magnitude of the project impact presented here assumes a gasoline throughput of 5,000,000 gallons per year.

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 400-111 "Requirements for Sources in a Maintenance Plan Area" 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) 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) BACT 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, the proposed equipment and control measures will meet all the requirements of that Chapter.

The facility is located in a maintenance plan area; therefore, this regulation applies to the facility.

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

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

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

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

8.a. Retail Gasoline Dispensing Facility. 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 200,000 gallons per year in Clark County consists of EVR Stage I vapor recovery equipment as tested and approved by CARB, enhanced conventional nozzles (where Stage II is not in place), and low permeation hoses if liquid gasoline is carried against the outermost hose wall.

The 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 24-3641 in response to ADP application CL-3264. ADP 24-3641 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards, as discussed below.

10.a. Supersession of Previous Permits. ADPs 12-3022 and 24-3236 will be superseded in their entirety.

10.b. Emission Limits. An annual VOC emission limit of 3.71 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 5,000,000 gallons per year.

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

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

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

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

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

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

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

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

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

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

12. EMISSION MONITORING AND TESTING

In accordance with the requirements of SWCAA 491-040(4)(n) that became effective February 7, 2020, testing of each pressure-vacuum vent valve is required every 36 months and Stage I vapor recovery testing is required annually. 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.

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
24-3623	CL-3236	1/24/2024	Approval to replace the Stage I, and remove the Stage II, vapor recovery systems.
12-3022	CL-1975	6/13/2012	Approval to replace balance-style Stage II vapor recovery system with ORVR-compatible vacuum-assist style vapor recovery system.
12-2999	CL-1954	1/10/2012	Approval for a new facility utilizing EVR Stage I and balance-style Stage II vapor recovery systems.

Bold font indicates that the Air Discharge Permit was superseded or no longer in effect upon issuance of Air Discharge Permit 24-3641.

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 CL-3264. Public notice for ADP application CL-3264 was published on the SWCAA website for a minimum of 15 days, beginning on March 19, 2024.

14.b. Public/Applicant Comment for ADP Application CL-3264. SWCAA did not receive specific comments, a comment period request, or any other inquiry from the public or the applicant regarding ADP application CL-3264. 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. SWCAA issued a determination that the project is exempt from SEPA review on April 10, 2024 (Determination of SEPA Exempt - SWCAA 24-017).

Appendix A

CARB Executive Order VR-104-E

CNI Manufacturing Phase I Vapor Recovery System

State of California
AIR RESOURCES BOARD

Executive Order VR-104-E
CNI Manufacturing 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) 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, test procedures for determining the compliance of Phase I vapor recovery systems with emission standards;

WHEREAS, CNI Manufacturing requested and was granted certification of the CNI Manufacturing Phase I Vapor Recovery System (CNI Manufacturing system) pursuant to the Certification Procedure on September 26, 2003 by Executive Order VR-104-A; and last modified on May 30, 2008, by Executive Order VR-104-D;

WHEREAS, the Certification Procedure provides 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 Procedure;

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 CNI Manufacturing Phase I Vapor Recovery System, including modifications, conforms with all of the requirements set forth in the Certification Procedure and results in a vapor recovery system which is at least 98.0 percent efficient as tested in accordance with test procedure **TP-201.1, *Volumetric Efficiency for Phase I Systems (October 8, 2003)***.

NOW THEREFORE, IT IS HEREBY ORDERED that the CNI Manufacturing 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, applicable to the CNI Manufacturing system as installed in a GDF. Exhibit 3 contains the manufacturing specifications.

IT IS FURTHER ORDERED that compliance with the applicable certification requirements, rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

IT IS FURTHER ORDERED that CNI Manufacturing shall provide a warranty for the vapor recovery system and components to the initial purchaser. The warranty shall be passed on to each subsequent purchaser within the warranty period. The manufacturer of components listed in Exhibit 1 not manufactured by CNI Manufacturing shall provide a warranty to each of their components certified herein. 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 the Certification Procedure. CNI Manufacturing or other manufacturers may specify that the warranty is contingent upon the use of trained installers.

IT IS FURTHER ORDERED that the certified CNI Manufacturing System shall be installed, operated, and maintained in accordance with the ***ARB-Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System*** as certified by Executive Order VR-104-E. A copy of this Executive Order and manual shall be maintained at each GDF where a certified CNI Manufacturing system is installed.

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

IT IS FURTHER ORDERED that any alteration in the equipment parts, design, installation or operation of the system certified hereby is prohibited and deemed inconsistent with this certification unless the alteration has been submitted in writing and approved in writing by the Executive Officer or Executive Officer's delegate.

IT IS FURTHER ORDERED that the following requirements be made a condition of certification. The owner or operator of the CNI Manufacturing system shall conduct, and pass, the following tests no later than 60 days after startup and at least once every three (3) years after startup testing, using the following test procedures: **TP-201.3**, ***Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (March 17, 1999)***, **TP-201.1B**, ***Static Torque of Rotatable Phase I Adaptors (October 8, 2003),*** and depending on the system configuration, either **TP-201.1C**, ***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)***. Shorter time periods may be specified in accordance with local district requirements. Notification of testing, and submittal of test results, shall be done in accordance with local district requirements and pursuant to the policies established by that district. Alternate 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 vent valve testing is required by the district, the test shall be conducted in accordance with **TP-201.1E**, ***Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003)*** and Exhibit 2.

IT IS FURTHER ORDERED that the CNI Manufacturing system shall be compatible with gasoline in common use in California at the time of certification and any modifications to comply with future California gasoline requirements shall be approved in writing by the Executive Officer or Executive Officer's delegate.

IT IS FURTHER ORDERED that certification for the Husky Model 4885 Pressure/Vacuum Vent Valve is revoked because it fails to conform to the specifications as described in CP-201 and Exhibit 2. The Husky Model 4885 Pressure/Vacuum Vent Valve shall not remain in use after May 31, 2012.

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

IT IS FURTHER ORDERED that Executive Order VR-104-D issued on May 30, 2008, is hereby superseded by this Executive Order. CNI Manufacturing Phase I Vapor Recovery Systems certified under Executive Order VR-104-A to D may remain in use at existing installations. This Executive Order shall apply to new installations or major modification of existing Phase I systems.

Executed at Sacramento, California, this 14th day of September 2009.

William V. Loseutoff, Chief
Monitoring and Laboratory Division

Attachments:

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

Exhibit 1

CNI Manufacturing Phase I Vapor Recovery System Equipment List

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

[1] CNI Mfg. Stand Alone/Direct Bury Configurations 205P, 205V, 214P and 214V are not certified for use in a sump configuration.

Exhibit 1 (continued)

Drain Valve	CNI Mfg.	RP12-Push
Dust Caps	CNI Mfg.	64 (product)
	CNI Mfg.	611-VR-3 (vapor)
	CompX	CSP1-634LPC (product)
	CompX	CSP3-1711LPC (vapor)
	CompX	CSP2-634LPC (product)
	CompX	CSP4-1711LPC (vapor)
	OPW	634LPC (product)
	OPW	1711LPC (vapor)
Dust Cap Gasket	CNI Mfg.	65
	CNI Mfg.	RP65 (replacement)
Product Adaptor	Emco Wheaton Retail A0030-124	
	Emco Wheaton Retail A0030-124S	
Vapor Adaptor	Emco Wheaton Retail A0076-124	
	Emco Wheaton Retail A0076-124S	
Jam Nut	CNI Mfg.	200JN
Tank Gauge Port Components	CNI Mfg.	613BC set (Cap 64, Adaptor 613)
Drop Tube[2]	CNI Mfg.	DT100 (various lengths)
CNI Mfg. Drop Tube O-Ring[3]	CNI Mfg.	DT101 (original)
	CNI Mfg.	RP101 (replacement)
Drop Tube Overfill Prevention Valve[2]	EMCO Wheaton Retail A1100EVR Guardian	
EMCO Wheaton Drop Tube O-Ring[4]	EMCO Wheaton Retail 569461	

[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.
[3] O-Rings used only with the CNI Mfg. DT100 drop configuration.
[4] O-Ring used only with the EMCO Wheaton Retail A1100EVR Guardian Overfill drop tube configuration.

Exhibit 1 (continued)

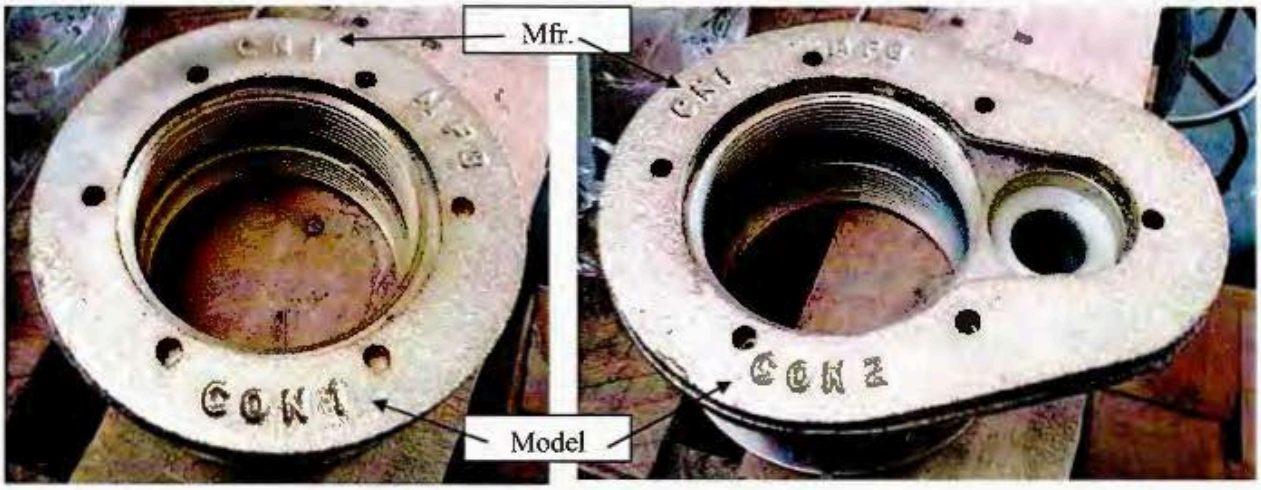
Table 1
Components Exempt from Identification Requirements

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

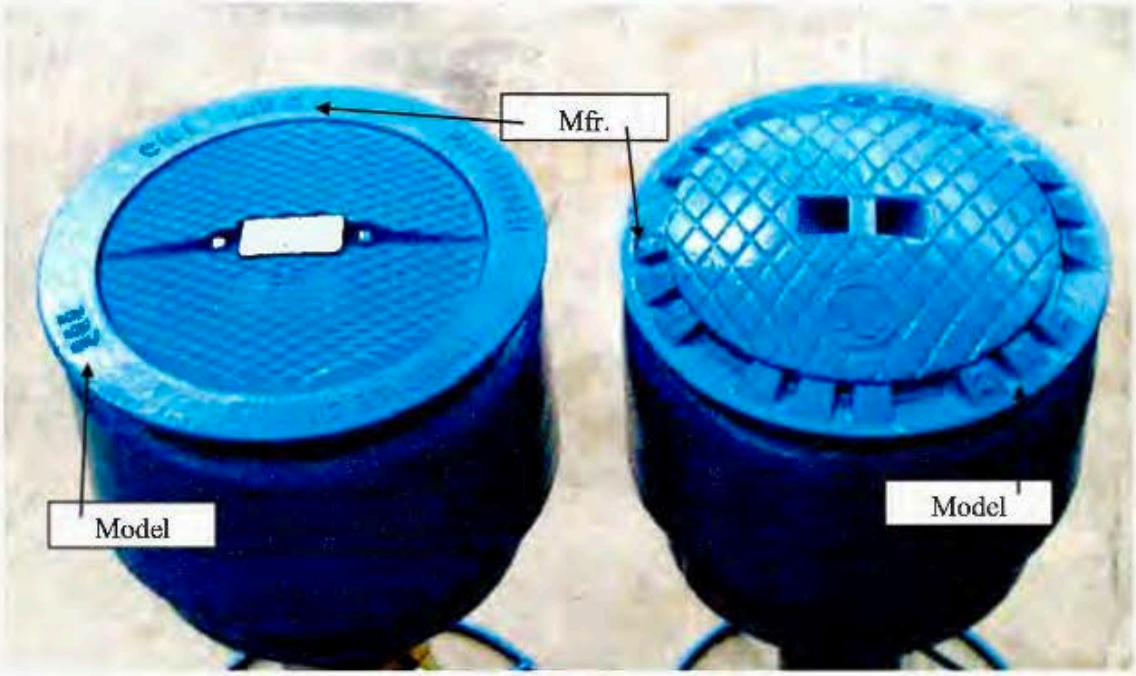
***CON1, CON2, 205, and 214 shall be marked on each containment assembly.**

[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.

Exhibit 1 (continued)
Component Identification & Location

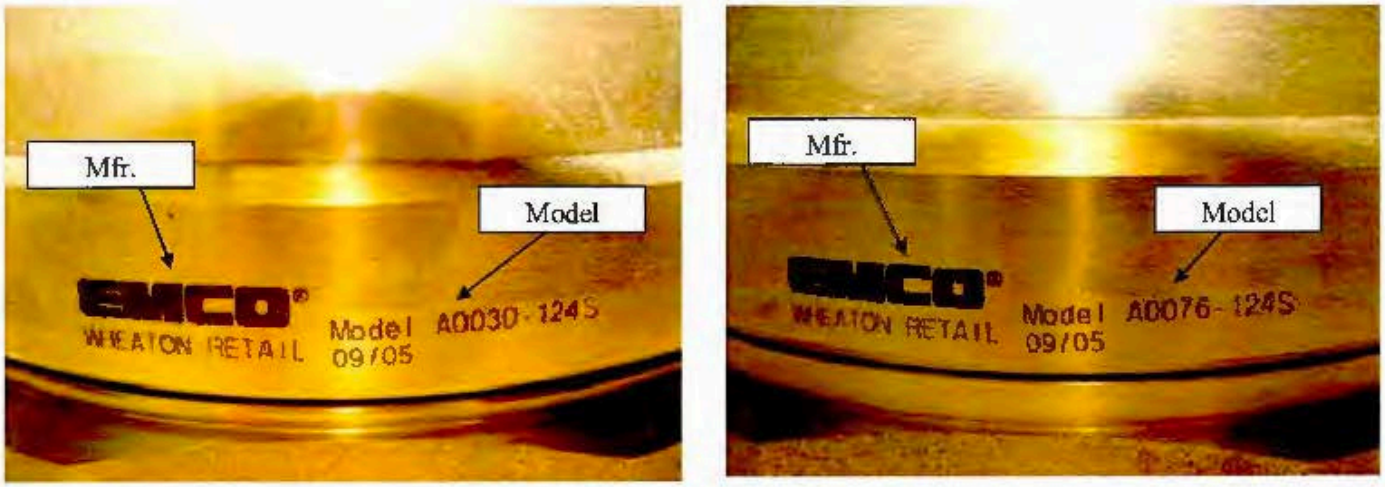


CNI Mfg. CON1 and CON2 Containment Assemblies

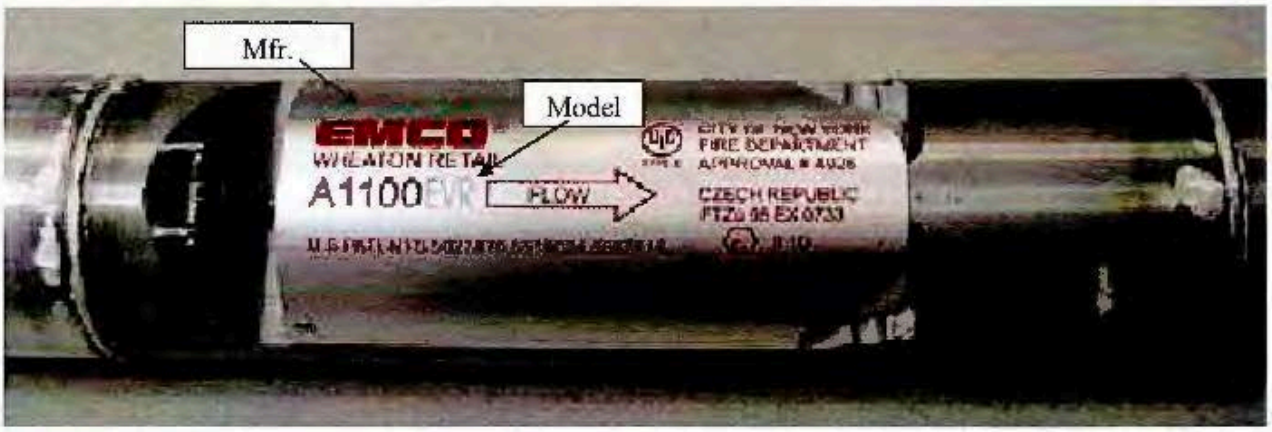


CNI Mfg. Model 205 and 214 Containment Assemblies

Exhibit 1 (continued)
Component Identification & Location

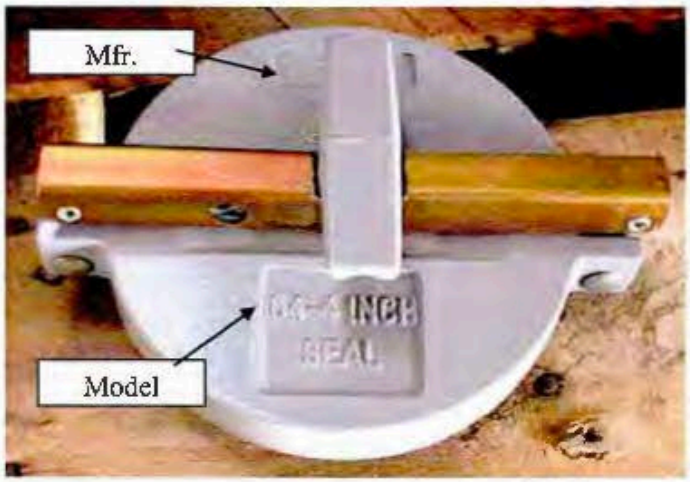


EMCO Wheaton Retail
Model A0030-124S Product Adaptor and Model A0076-124S Vapor Adaptor
(Models A0030-124 and A0076-124 identified in the same location)

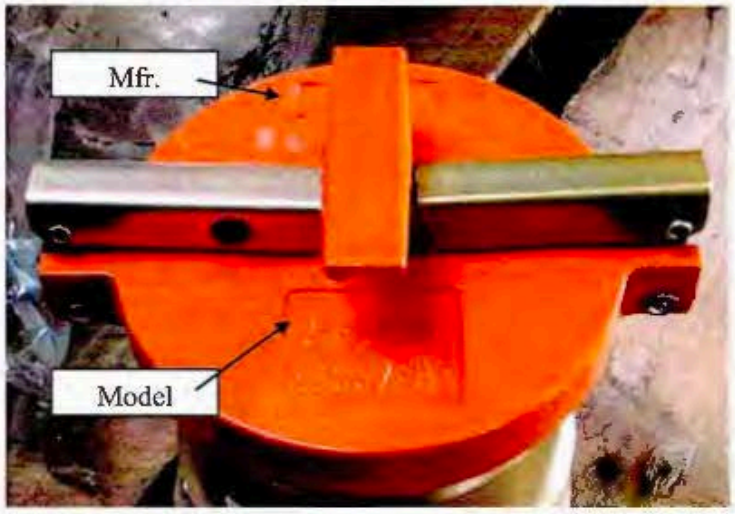


EMCO Wheaton Retail
Model A1100EVR Overfill Prevention Valve

Exhibit 1 (continued)
Component Identification & Location



CNI Mfg. Model 64 Dust Cap



CNI Mfg. Model 611-VR-3 Dust Cap

Exhibit 1 (continued)
Component Identification & Location

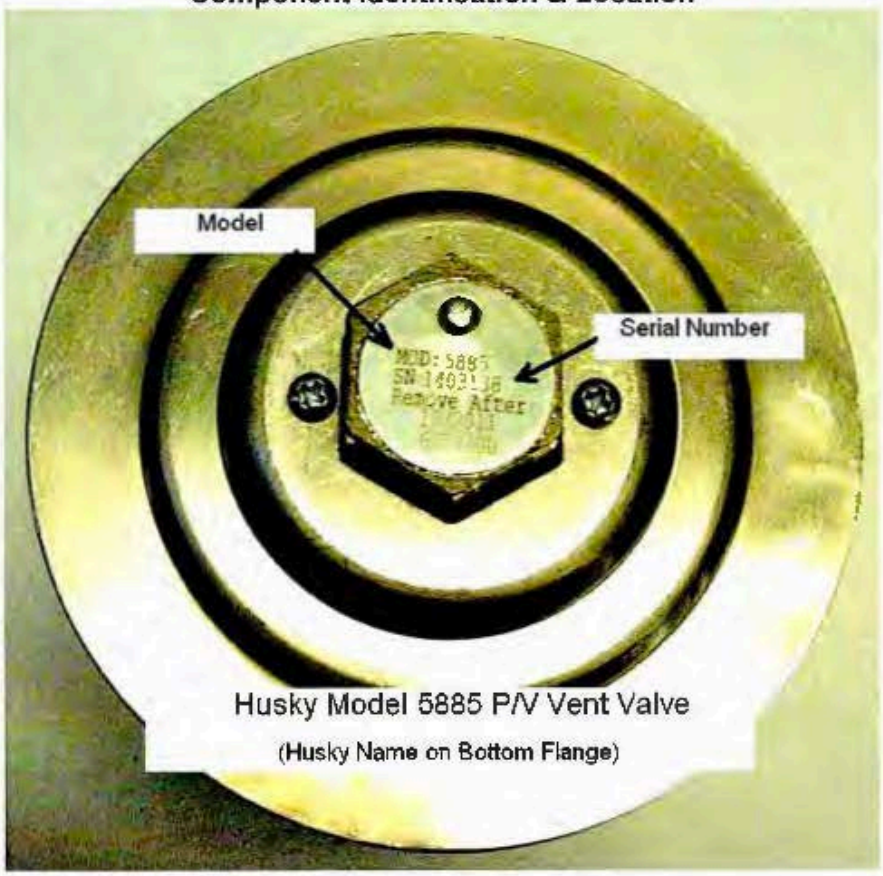


Exhibit 1 (continued)
Component Identification & Location

OPW 634LPC Product Dust

OPW 1711LPC Vapor Dust

Exhibit 1 (continued)
Component Identification and Location

CompX CSP1-634LPC Product Dust Cap

CompX CSP3-1711LPC Vapor Dust Cap

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

Exhibit 1 (continued)
Component Identification and Location

CompX CSP2-634LPC Product Dust Cap

CompX CSP4-1711LPC Vapor Dust Cap

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

Exhibit 1 (continued)
Component Identification and Location

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

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

Exhibit 2
Installation, Maintenance and Compliance Standards and Specifications

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

General Specifications

1. Typical installations of the CNI Manufacturing System are shown in Figures 2A, 2B, 2C 2D, 2E, 2F, and 2G.

2. The CNI Manufacturing System shall be installed, operated and maintained in accordance with ***ARB Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System*** as certified by Executive Order VR-104-E.

3. Any repair or replacement of system components shall be done in accordance with ***ARB Approved Installation, Operation and Maintenance Manual for the CNI Manufacturing Phase I Vapor Recovery System*** as certified by Executive Order VR-104-E.

4. The CNI Manufacturing System shall comply with the applicable performance standards and performance specifications in CP-201.

5. Installation, maintenance and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by CNI Mfg. certified technicians.

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 2.0 inches of H_2O positive pressure and 0.21 CFH at 4.0 inches negative pressure as determined by **TP-201.1E**, ***Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003)***.

   b. The positive pressure setting is 2.5 to 6.0 inches of H_2O and the negative pressure setting is 6.0 to 10.0 inches of H_2O as determined by **TP-201.1E**, ***Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003)***.

3. Compliance determination of the P/V valve performance specifications in items 2a and 2b

[1] The requirement that the vent pipe manifold be installed at a height not less than 12 feet above the grade stated in Executive Order VR-104-A is rescinded.

for the FFS PV-Zero P/V vent valve shall be conducted with the valve remaining in its installed position on the vent line(s). The PV-Zero section of the ***ARB-Approved Installation, Operation and Maintenance Manual for the CNI Phase I Vapor Recovery System*** outlines the equipment needed to test the valve in its installed position.

4. At least one pressure/vacuum (P/V) vent valve shall be installed on each tank vent. If two or more P/V vent valves are used, they shall be installed in parallel, so that each can serve as a backup to the other if one should fail to open properly. A manifold may be installed on the vent pipes to reduce the number of potential leak sources and P/V valves installed. Vent pipe manifolds shall be constructed of steel pipe or an equivalent material that has been listed for use with gasoline. If a material other than steel is used, GDF operator shall make available information demonstrating that the material is compatible for use with gasoline. One example of a typical vent pipe manifold is shown in Figure 2H. This shows only one typical configuration: other manifold configurations may be used. For example, a tee may be located in a different position, or fewer vent pipes may be connected, or more than one P/V valve may be installed on the manifold.

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

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

Rotatable Product and Vapor Recovery Adaptors

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).***

   Use CNI Manufacturing Torque Test Tool Part Number EVRSYS100, as an equivalent Torque Test Tool per section 5.2 of TP-201.1B, rather than Phil-Tite Torque Test Tool Part Number 6004. The Phil-Tite tool is not compatible with CNI Manufacturing dust caps.

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

Vapor Recovery and Product Adaptor Dust Caps

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

Spill Container Drain Valve

1. The spill container drain valve shall be configured to drain liquid directly into the drop tube and shall be isolated from the underground storage tank ullage space. The leak rate of the drain valve shall not exceed 0.17 CFH at 2.00 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*** or **TP-201.1D** ***(October 8, 2003)***, ***Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003)***.

Phase I Drop-Tubes with Over-Fill Prevention Devices

1. The leak rate of Phase I drop-tube overfill prevention devices shall not exceed 0.17 cubic feet per hour (0.17 CFH) at a pressure of two inches water column (2.0" H2O). The leak rate shall be determined in accordance with **TP-201.1D**, ***Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003)***.

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

Phase I Drop-Tubes without Over-Fill Prevention Devices

1. Drop tubes that do not have an over-fill prevention device shall not leak and shall be tested in accordance with **TP-201.1C**, ***Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003)***.

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

Vapor Recovery Riser Offset

1. The vapor recovery tank riser may be offset from the tank connection to the vapor recovery Spill Container provided that the maximum horizontal distance (offset distance) does not exceed twenty (20) inches. One example of an offset is shown in Figure 2I .

2. The vapor recovery riser shall be offset using commercially available, four (4) inch diameter steel pipe fittings.

Tank Gauge Port Components

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

Connections and Fittings

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

Maintenance Records

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

Table 2-1
Gasoline Dispensing Facility Compliance Standards and Specifications

Component/System	Test Method	Standard or Specification
Rotatable Phase I Adaptors	TP-201.1B	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Overfill Prevention Device	TP-201.1D	Leak rate ≤ 0.17 CFH at 2.00 inches H_2O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	≤ 0.17 CFH at 2.00 inches H_2O
P/V Vent Valve[1]	TP-201.1E	Positive pressure setting: 2.5 to 6.0 inches H_2O Negative pressure setting: 6.0 to 100 inches H_2O Positive Leak rate: 0.05 CFH at 2.0 inches H_2O Negative Leak rate: 0.21 CFH at -4.0 inches H_2O
Gasoline Dispensing Facility	TP-201.3	As specified in TP-201.3 and/or CP-201
All connections and fittings certified without an allowable leak rate	Leak Detection Solution or bagging	No Leaks

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

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

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

Figure 2A
Typical Product Side Installation of CNI Manufacturing 2 Point System Model CON2 using DT100 Drop Tube

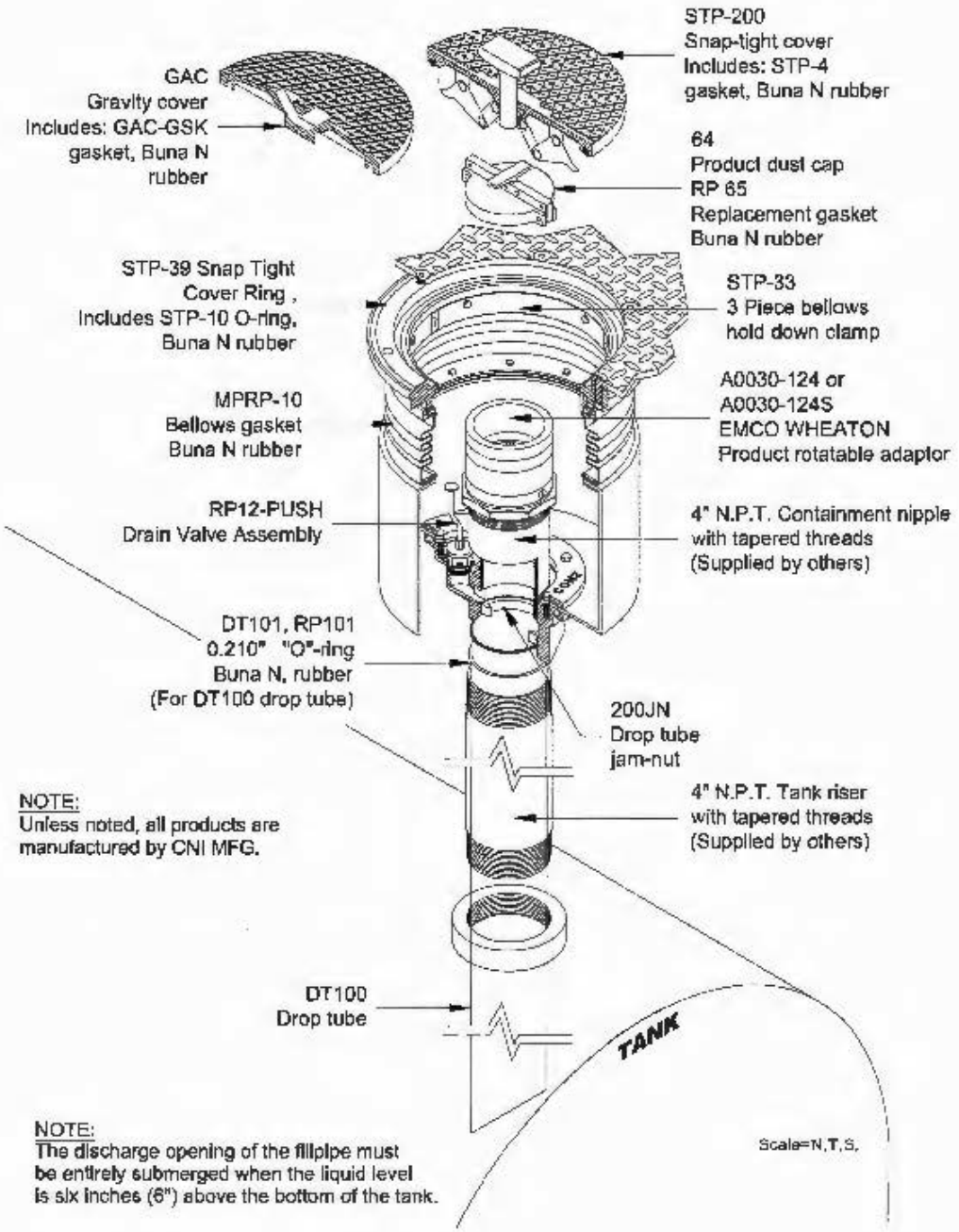


Figure 2B
Typical Product Side Installation of CNI Manufacturing 2 Point System Model CON2 using EMCO Wheaton A1100EVR Guardian Overfill Prevention

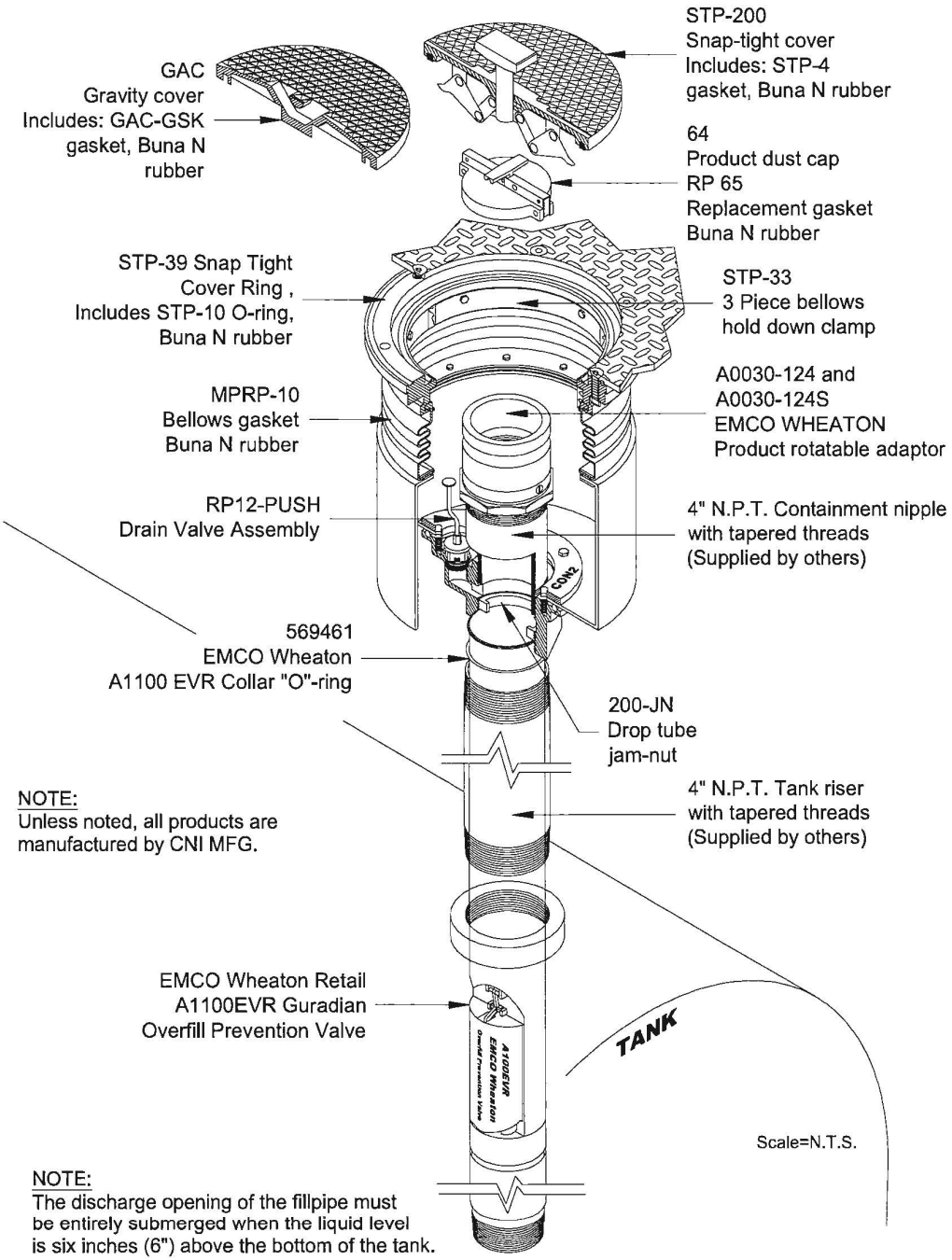


Figure 2C
Typical Vapor Side Installation of CNI Manufacturing 2 Point System
Model CON1

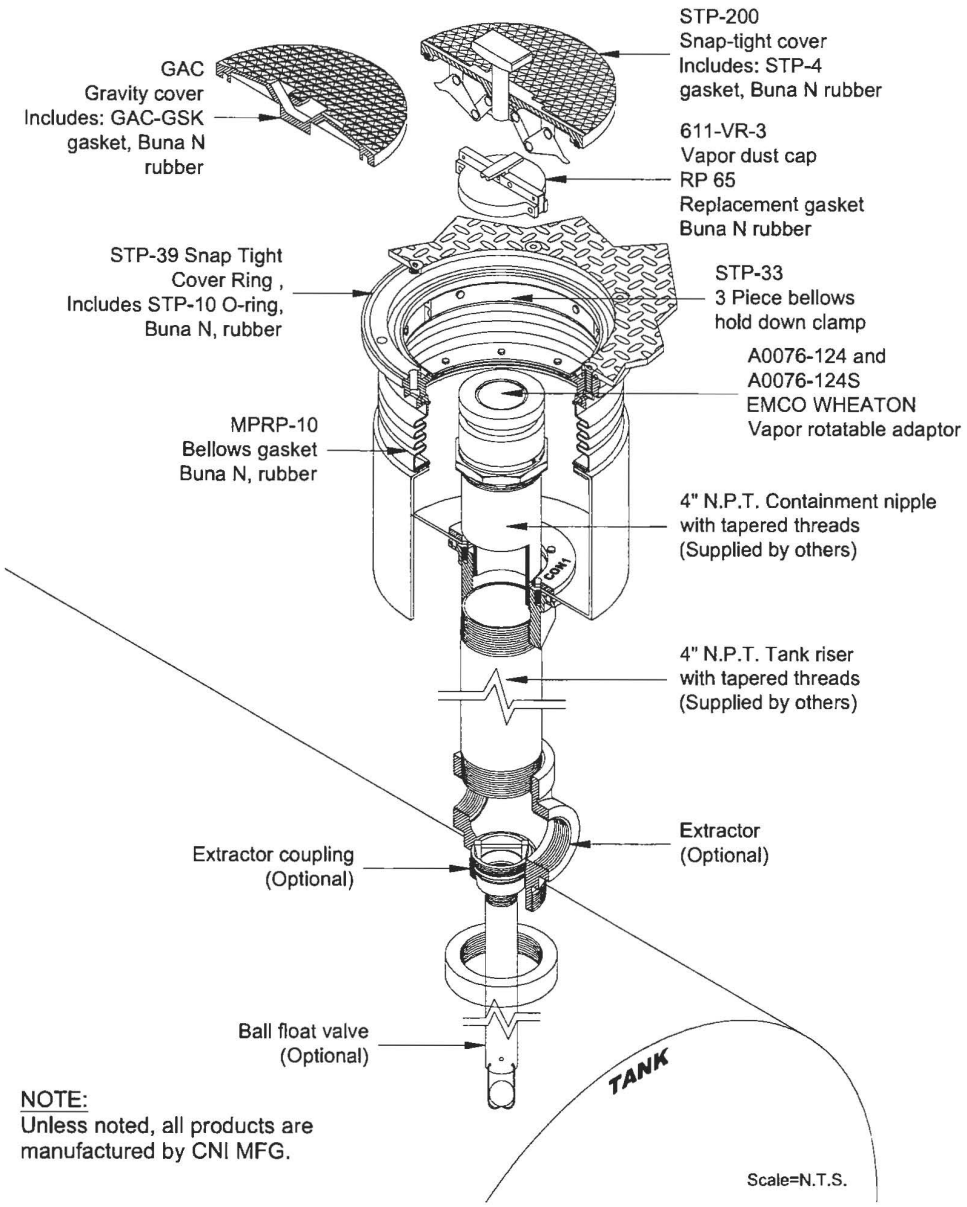
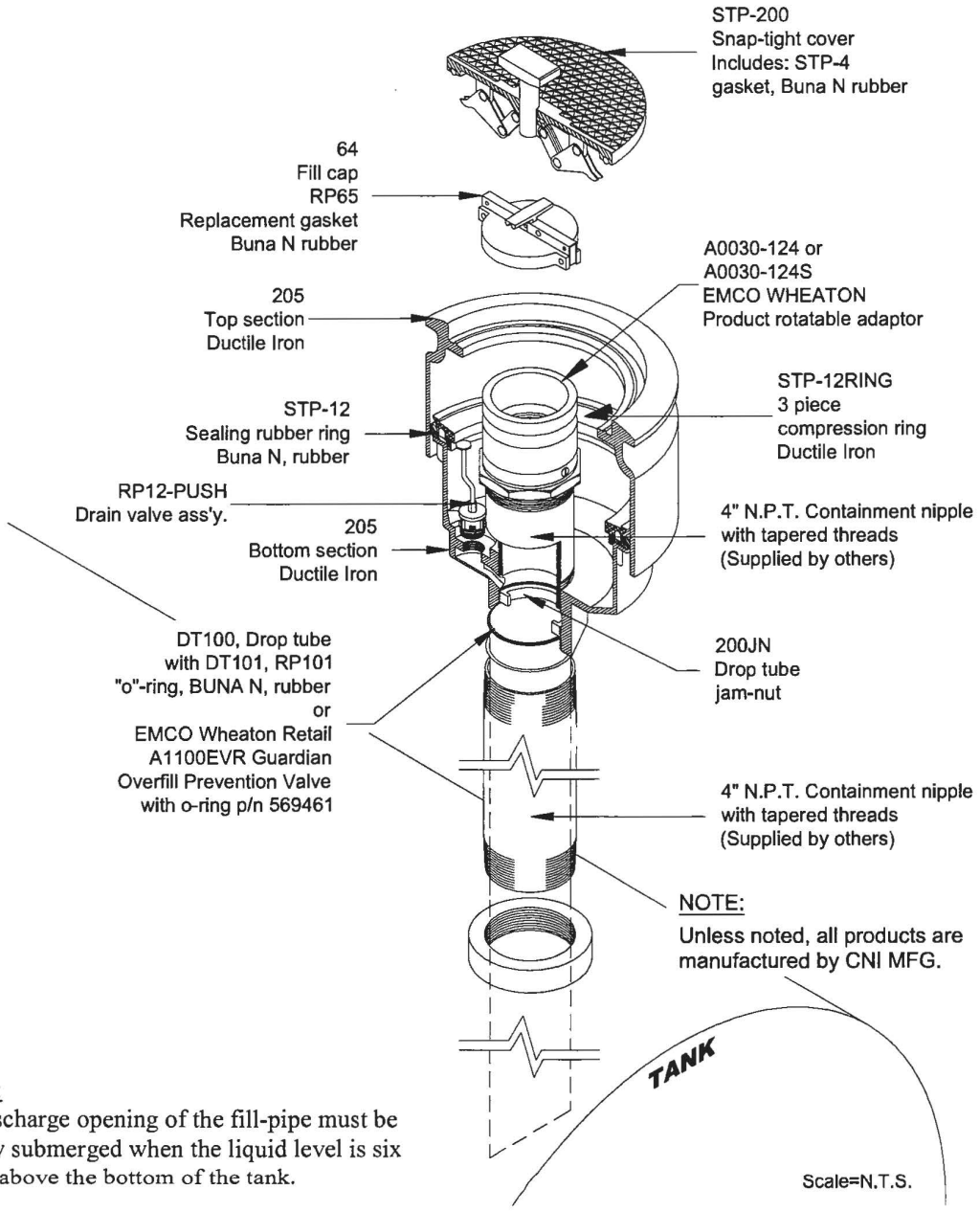


Figure 2D
Typical Product Side Installation of
CNI Manufacturing Stand Alone/Direct Bury System



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

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

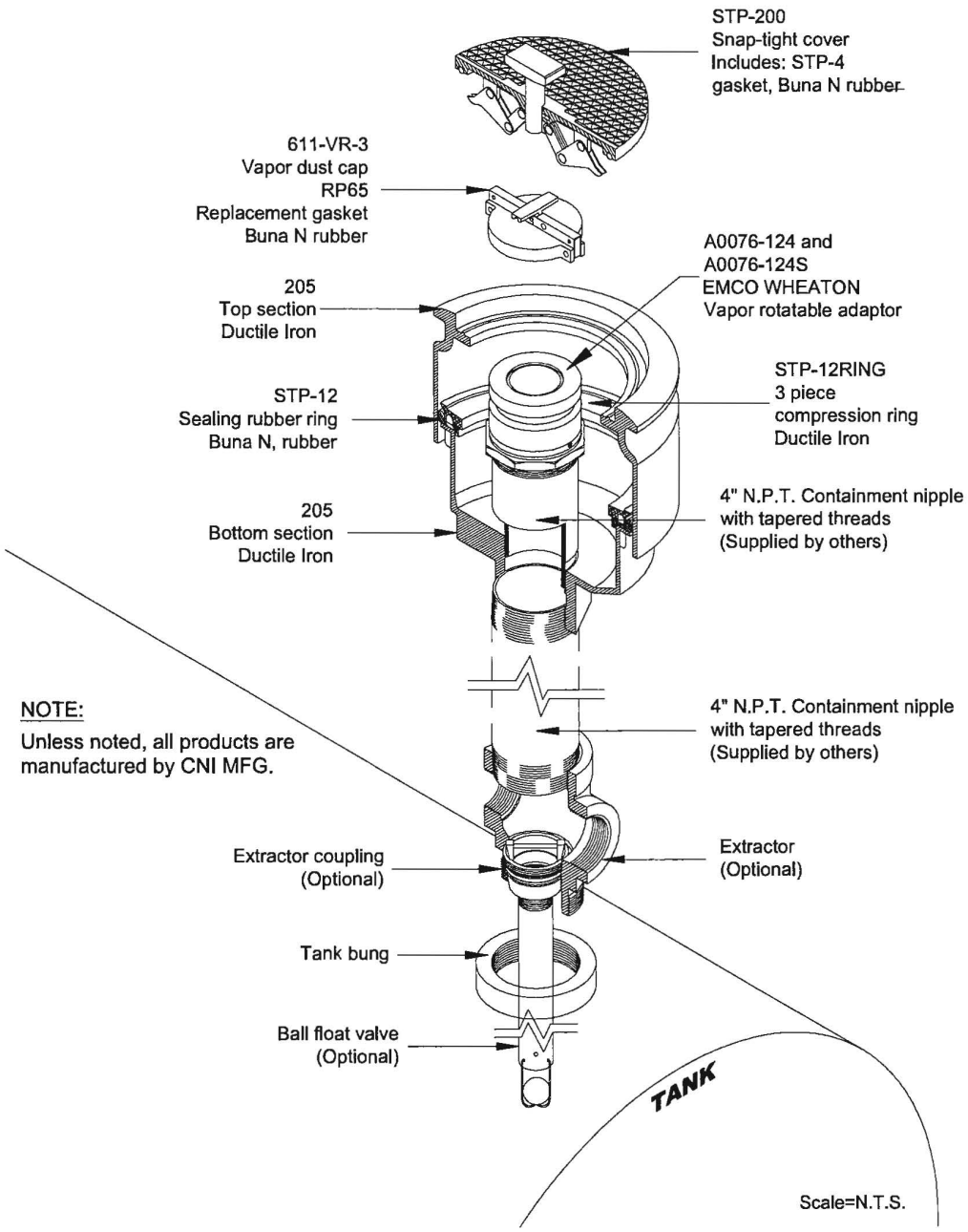


Figure 2F
Typical Product Side Installation of CNI Manufacturing Stand Alone/ Direct Bury/ System Model No. 214P with Gravity Cover

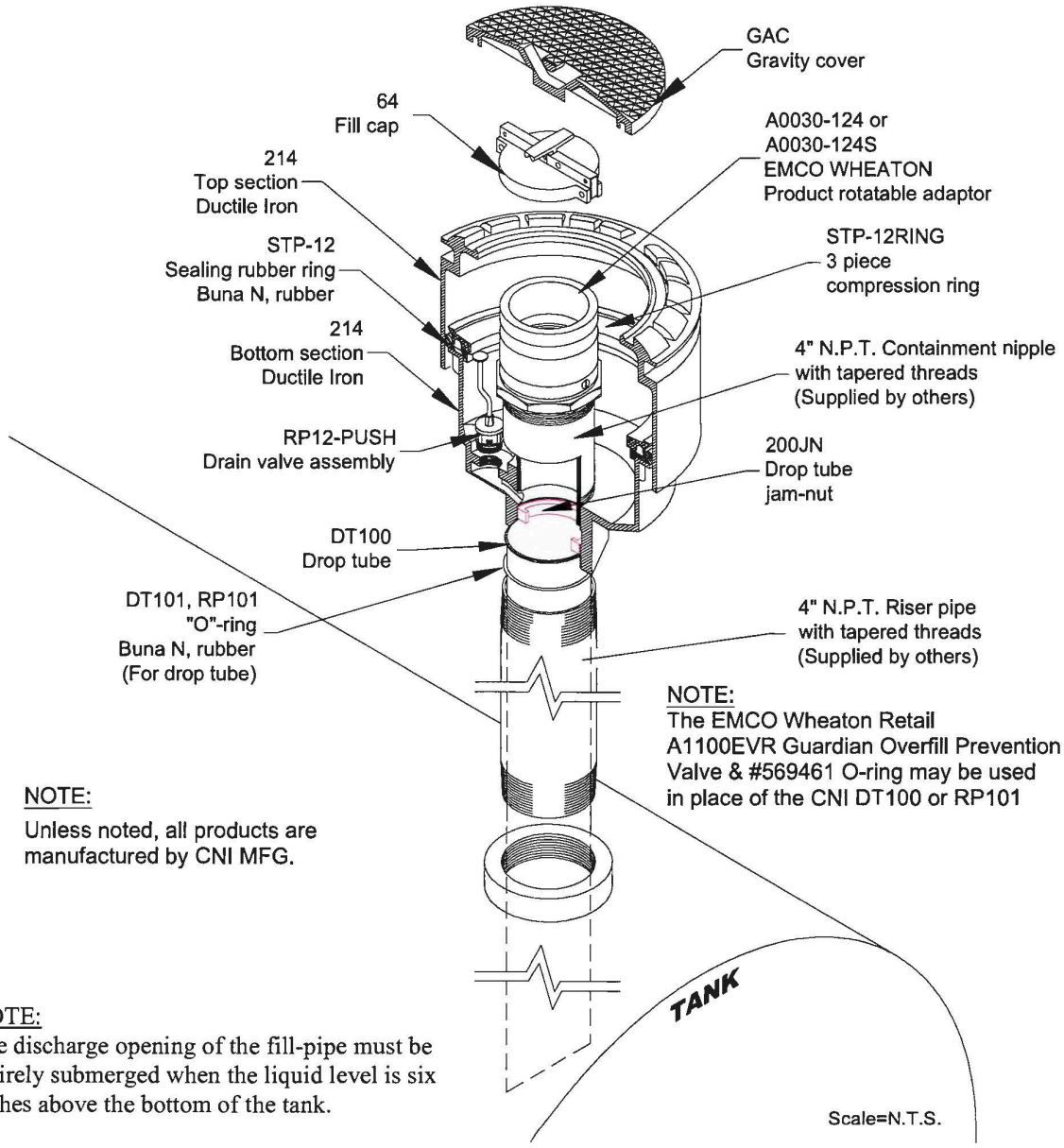


Figure 2G
Typical Vapor Side Installation of CNI Manufacturing Stand Alone/Direct Bury System
Model No. 214V with Gravity Cover

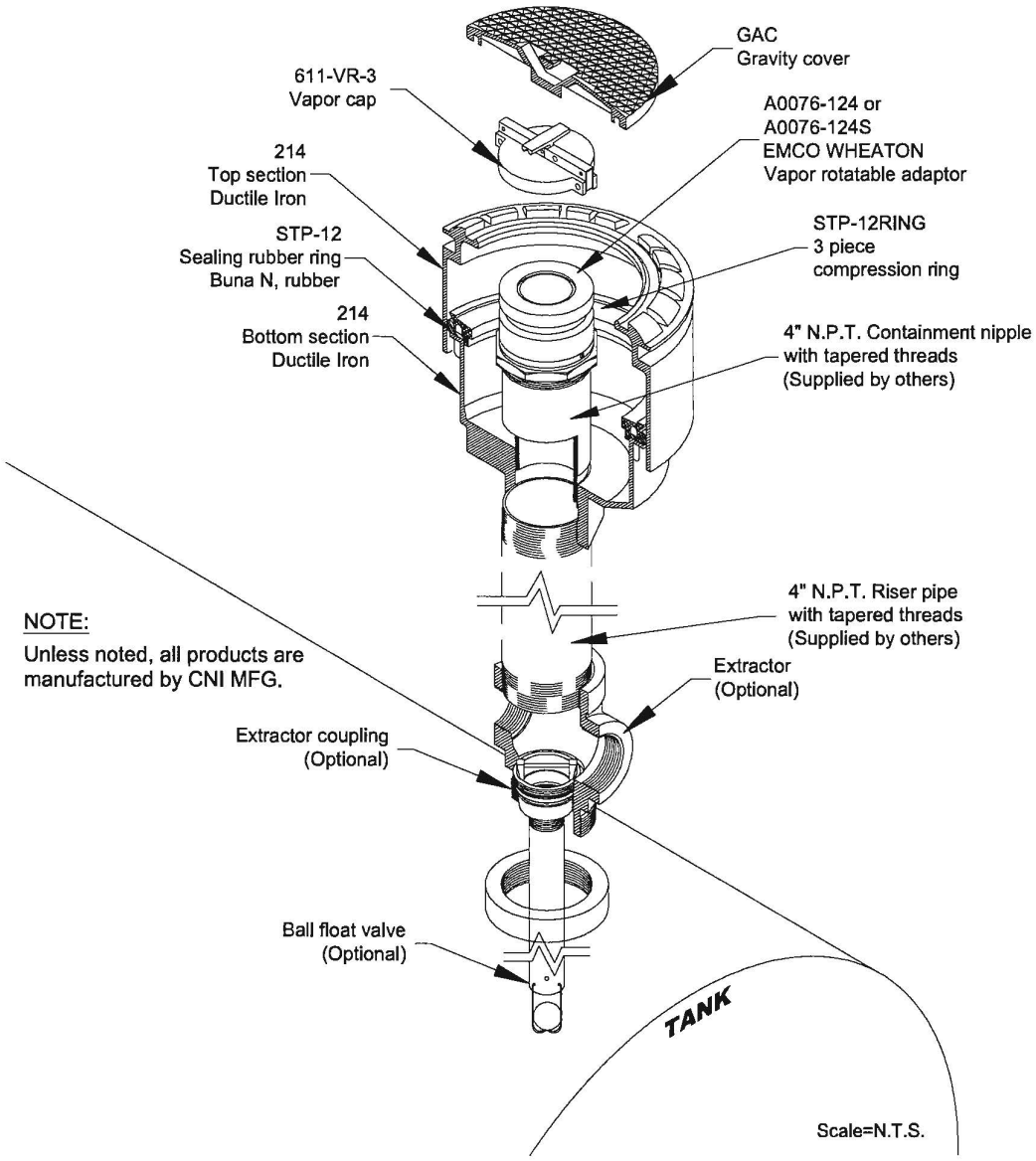
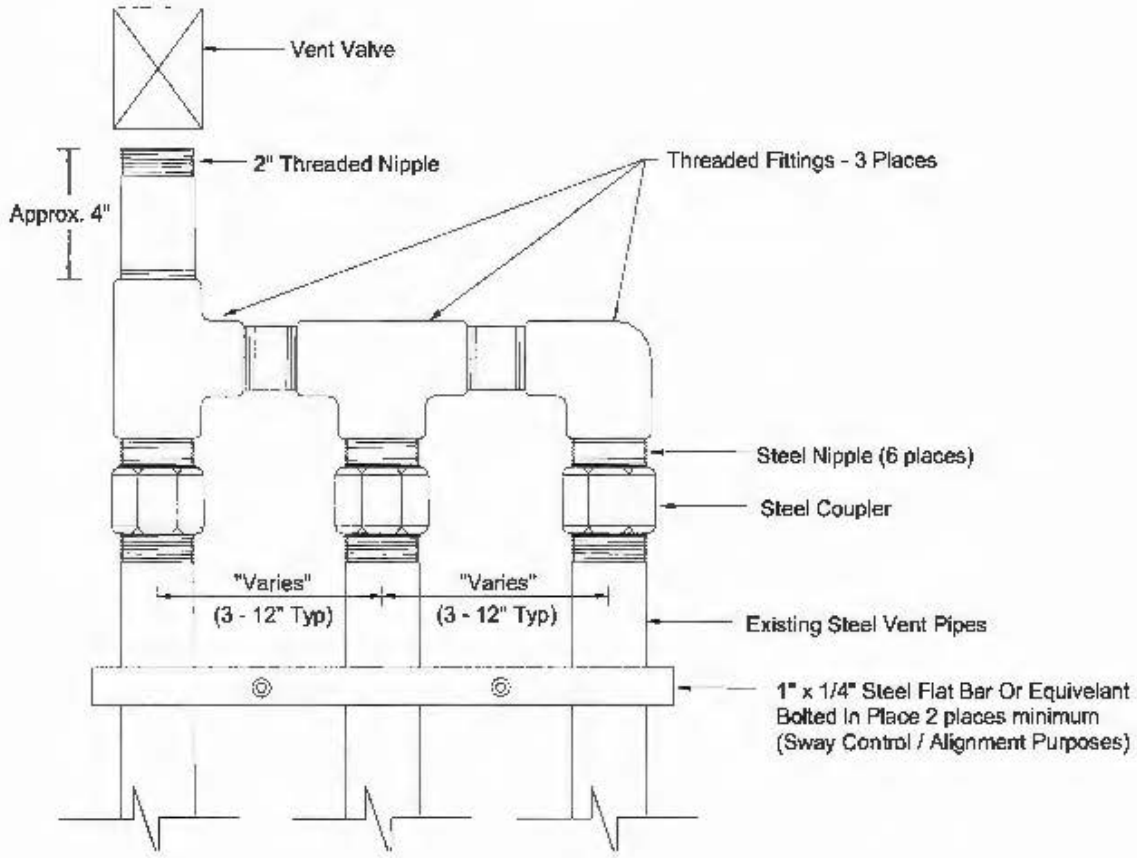
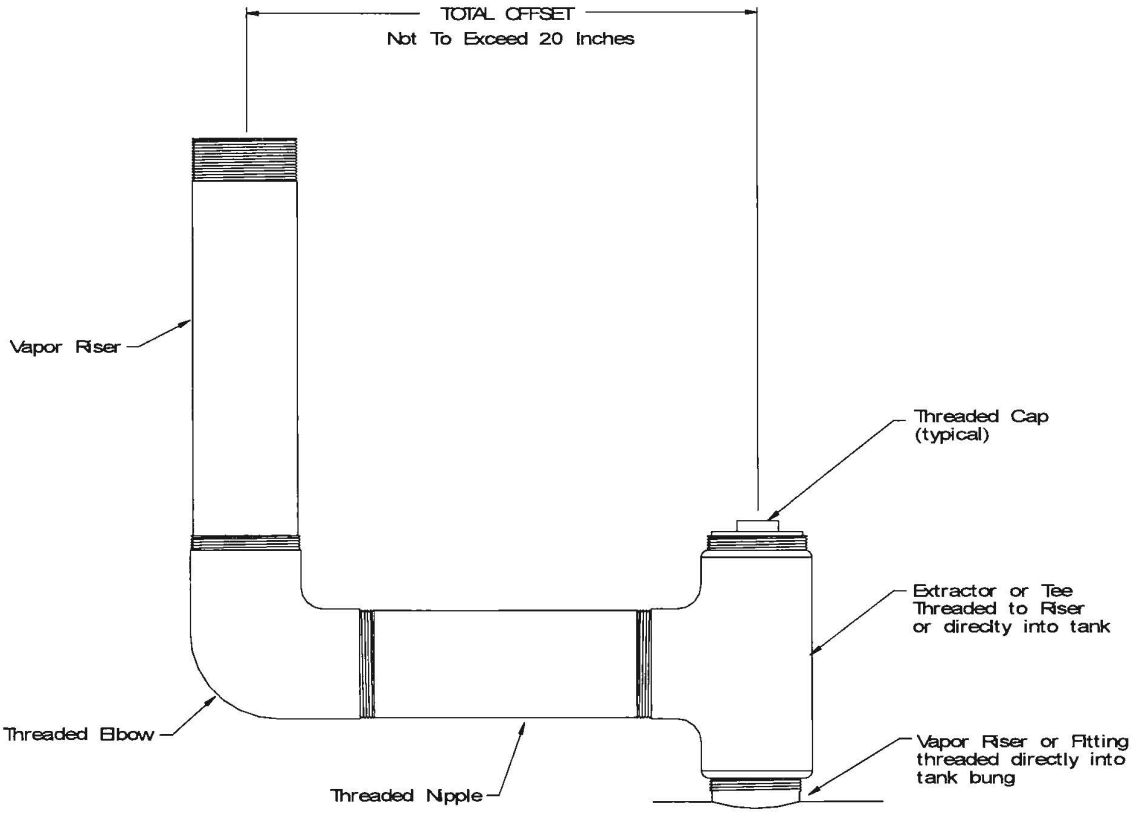


Figure 2H
Typical Vent Pipe Manifold



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

Figure 2I
Typical Vapor Recovery Riser Offset



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

Figure 2J
Example of a GDF Maintenance Record

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

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

Exhibit 3
Manufacturing Performance Standards and Specifications

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

Pressure/Vacuum Vent Valves for Storage Tank Vent Pipes

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

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

3. Each P/V valve shall have permanently affixed to it a yellow 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 performance specifications.

Spill Container and Drain Valves

1. 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 drain valve was tested to, and met, such performance specifications.

Drop Tube Overfill Prevention Device

1. 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 stating the performance specification listed in Table 3-1 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 lb-inch average static torque
Rotatable Phase I Adaptors	Micrometer	Cam and Groove Standard (CP-201)
Drop Tube Overfill Prevention Device	TP-201.1D	≤0.17 CFH at 2.00 inches H_2O
Spill Container Drain Valve	TP-201.1C or TP-201.1D	≤0.17 CFH at 2.00 inches H_2O
Pressure/Vacuum Vent Valve	TP-201.1E	Positive Pressure: 2.5 to 6.0 inches H_2O Negative Pressure: -6.0 to 10.0 inches H_2O Leak rate: ≤ 0.05 CFH at +2.0 inches H_2O ≤ 0.21 CFH at –4.0 inches H_2O