



TECHNICAL SUPPORT DOCUMENT

**Air Discharge Permit 22-3526
Air Discharge Permit Application CL-3192**

Issued: July 21, 2022

UNITED PACIFIC No. 5533

SWCAA ID – 1381

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Southwest Clean Air Agency

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Appendix A – CARB Executive Order G-70-97-A

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ABBREVIATIONS

List of Acronyms

ADP	Air Discharge Permit	NSPS	New Source Performance Standard
AP-42	Compilation of Emission Factors, AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources – published by EPA	ORVR	Onboard Refueling Vapor Recovery
BACT	Best available control technology	PSD	Prevention of Significant Deterioration
BART	Best Available Retrofit Technology	RACT	Reasonably Available Control Technology
CARB	California Air Resources Board	RCW	Revised Code of Washington
CFR	Code of Federal Regulations	SEPA	State Environmental Policy Act
EPA	U.S. Environmental Protection Agency	SQER	Small Quantity Emission Rate listed in WAC 173-460
EU	Emission Unit	Standard	Standard conditions at a temperature of 68°F (20°C) and a pressure of 29.92 in Hg (760 mm Hg)
EVR	Enhanced Vapor Recovery	SWCAA	Southwest Clean Air Agency
LAER	Lowest achievable emission rate	T-BACT	Best Available Control Technology for toxic air pollutants
MACT	Maximum Achievable Control Technologies	WAC	Washington Administrative Code
NESHAP	National Emission Standards for Hazardous Air Pollutants		

List of Units and Measures

tpy Tons per year

List of Chemical Symbols, Formulas, and Pollutants

CO.....	Carbon monoxide	PM ₁₀	PM with an aerodynamic diameter 10 µm or less
CO ₂	Carbon dioxide		
CO _{2e}	Carbon dioxide equivalent	PM _{2.5}	PM with an aerodynamic diameter 2.5 µm or less
HAP	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act	SO ₂	Sulfur dioxide
		SO _x	Sulfur oxides
NO _x	Nitrogen oxides	TAP.....	Toxic air pollutant pursuant to Chapter 173-460 WAC
O ₂	Oxygen		
PM.....	Particulate Matter with an aerodynamic diameter 100 µm or less	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: APRO, LLC – Rocket #5533
Applicant Address: 4130 Cover St.
Long Beach, CA 98080
Facility Name: United Pacific No. 5533
Facility Address: 11316 SE Mill Plain Blvd.
Vancouver, WA 98684
SWCAA Identification: 1381

Contact Person: Steven Matthew

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 gas station associated with a convenience store.

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit (ADP) application number CL-3192 received May 10, 2022. ADP application CL-3192 requests belated approval to replace vacuum-assist style Stage II vapor recovery systems with balance-style Stage II vapor recovery systems.

4. PROCESS DESCRIPTION

This facility receives unleaded gasoline from tanker trucks for storage in two underground storage tanks or tank compartments. The gasoline storage tanks or compartments 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 14 pumps. Four of these pumps also dispense diesel through a separate hose. Vapors displaced from individual motor vehicle gasoline tanks during filling are returned to the gasoline storage tanks using balance-style Stage II vapor recovery.

<u>Products at Pump</u>	<u>Number of Pumps</u>
Blended gasoline	10
Blended gasoline and diesel through separate hoses	4

5. EQUIPMENT/ACTIVITY IDENTIFICATION

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

Tank	Product	Capacity
1	Regular Unleaded	12,000 gallons
2	Premium Unleaded	12,000 gallons
3	Diesel	12,000 gallons

The applicant does not propose to modify the Stage I vapor recovery equipment approved as components of CARB Executive Order G-70-97-A. The underground gasoline storage tanks were equipped with equipment approved by CARB Executive Order G-70-97-A "Stage I Vapor Recovery Systems for Underground Gasoline Storage Tanks at Service Stations" as components of the Stage I vapor recovery system. The following components of the Stage I system have been installed:

Component	Make / Model
Spill Container	EBW / 705
Drop Tubes	OPW / 61T
Fill Adapters ¹	OPW / 633T
Fill Caps	OPW / 634TT
Vapor Adapters ¹	OPW / 1611AV
Vapor Caps	OPW / 1711
Extractor Assembly	OPW / 233-VM
Float Vent Valve	OPW / 53-VM
Pressure / Vacuum Valve	Unknown – Required to be CARB approved

¹ This is a two point system.

The following Stage II vapor recovery equipment, hoses, and nozzles have been installed as components of the ORVR compatible balance-style vapor recovery system approved by CARB Executive Order G-70-52-AM using components certified under CARB Executive Orders G-70-52-AM and VR-203-W.

Component	Make / Model
Nozzles	VST / G2 EVR-NB
Hoses	VST / VDV-EVR
Hose – Whips	VST / VSTA-EVR
Breakaway Couplings	VST / EVR-SBK (reconnectable)
Vapor Pump	N/A – this is a balance-style system
Swivels	Integral to hose
Dispensers	Gilbarco / Encore
Pressure / Vacuum Valve	Unknown

¹ If the pressure / vacuum valves are replaced, the only replacements currently approved by CARB are the Husky model 5885, FFS model PV-Zero, or the OPW model 723V.

5.b. Equipment/Activity Summary.

ID No.	Equipment/Activity	Control Equipment/Measure
1	Retail Gasoline Dispensing Facility	Stages I and II 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:

- Continuous emissions monitoring system (CEMS) data;
- 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;
- Source emissions test data (other test method); and
- Emission factors or methodology provided in this TSD.

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

Emission Source	VOC Emission Factor (lb/1,000 gallons of fuel)
Loading – Stage I Controlled (non-EVR)	0.380
Breathing – Controlled with P/V Valve	0.092
Controlled Refueling – (non-ORVR vehicles, Stage II)	0.3192 ¹
Controlled Refueling - (ORVR vehicles, Stage II)	0.0575 ²
Spillage (Stage II nozzles)	0.420
Hose Permeation (balance-style hoses)	0.0051
Total	1.2738

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 8.4 lb/1,000 gallons. 10% of the vehicles are not equipped with ORVR and a 62% in-use efficiency is assumed ("Technical Guidance—Stage II Vapor Recovery Systems for Control of Vehicle Refueling at Gasoline Dispensing Facilities" EPA-450/3-91-022a, November 1991.): $8.4 \text{ lb/1,000 gallons} * (1-0.90) (1-0.62) = 0.3192 \text{ lb/1,000 gallons}$.

² This is the amount of vapor released during refueling that is attributable to those vehicles equipped with carbon canisters (ORVR) assuming carbon canisters provide for 98% control and the Stage II system provides an additional 62% control: $8.400 \text{ lb/1,000 gallons} * (90\% \text{ of gas dispensed to vehicles with ORVR}) * (2\% \text{ of vapors not captured by the canister}) * (1 - 0.62) = 0.05746 \text{ lb/1,000 gallons}$.

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 3.18 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 1.59 tons per year, and 0.41 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	3.18	-1.98 ¹
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	1.59	-0.99 ¹
Hazardous Air Pollutants	0.41	-0.26 ¹

¹ Based on the projected percentage of fuel dispensed to ORVR-equipped vehicles, replacement of the Stage II vapor recovery at this facility will result in reduced emissions. 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 depend upon when the facility began operation and the monthly throughput. This facility began operation prior to January 10, 2008 and has a potential throughput of 100,000 gallons per month or more. Facilities with a throughput of 100,000 gallons per month or more that began operation prior to January 10, 2008 must be in compliance with a state rule or federally enforceable permit that contains requirements to achieve emission reductions of at least 90% by January 10, 2008 or comply with requirements found in Table 1 of Subpart CCCCCC including:

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

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

- 7.b. Title 40 CFR Part 80 "Regulation of Fuels and Fuel Additives" in section 80.22(j) requires that after January 1, 1998, every retailer and wholesale purchaser-consumer of gasoline and methanol shall limit each nozzle from which gasoline or methanol is introduced into motor vehicles to a maximum fuel flow rate not to exceed 10 gallons per minute.
- 7.c. Revised Code of Washington (RCW) 70A.15.2040 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the

Washington Clean Air Act (RCW 70A.15) and enforce the same by all appropriate administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 Ex. Sess.

- 7.d. RCW 70A.15.2210 provides for the inclusion of conditions of operation as are reasonably necessary to assure the maintenance of compliance with the applicable ordinances, resolutions, rules and regulations when issuing an 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" (as in effect August 21, 1998) requires Best Available Control Technology for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety from new sources not provided an exemption under WAC 173-460-030. WAC 173-460-030(1)(b)(ii) exempts gasoline dispensing facilities from the provisions of WAC 173-460.
- 7.f. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for PM₁₀, PM_{2.5}, lead, SO₂, 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, SO₂, 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.
- 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; and
 - (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.
 - (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 throughput could exceed 1,400,000 gallons per year.

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

The use of low-permeation hoses does not apply to this facility because balance-style hoses do not carry liquid against the outer hose. The proposed balance-style vapor recovery system is ORVR-compatible and satisfies the requirement to utilize BACT. No additional measures are currently necessary for this facility to meet 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 and ORVR-compatible Stage II vapor recovery systems 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 and ORVR-compatible Stage II vapor recovery systems, if properly installed and maintained, can be operated without causing a violation of the applicable emission standards which include the limits established under SWCAA 400-040 "General Standards for Maximum Emissions."
- 9.c. The retail gasoline dispensing facility equipped with Stage I and ORVR-compatible Stage II vapor recovery systems will not cause the requirements of WAC 173-460 "Controls for New Sources of Toxic Air Pollutants," (as in effect August 21, 1998) or WAC 173-476 "Ambient Air Quality Standards" to be violated.

10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP 22-3526 in response to ADP application CL-3192. ADP 22-3526 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards, as discussed below.

- 10.a. Supersession of Previous Permits. ADP 94-1675 and ADP 00-2260 will be superseded in their entirety.
- 10.b. Emission Limits. An annual VOC emission limit of 3.18 tons per year was established. This limit is based upon the facility utilizing properly operated Stage I vapor recovery systems, balance-style Stage II vapor recovery systems, 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 system testing.

The remaining requirements are related to proper operation of the Stage I and Stage II vapor recovery systems.

The pressure/vacuum valve leak rate requirements for individual valves were taken from recent CARB Stage I executive orders. The combined leak rate requirements for all pressure/vacuum valves in the system can be found in 40 CFR 63 Subpart CCCCCC.

- 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 and Stage II vapor recovery equipment. 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. This 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 testing static pressure decay and backpressure blockage testing is required prior to returning the equipment to service rather than within 60 days after startup as specified in the applicable CARB Executive Order.

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
91-1298	CL-851	3/14/1991	Installation of new gas station with three 12,000 gallon storage tanks, coaxial Stage I vapor recovery equipment, and Stage II vapor recovery piping.
92-1437	CL-945	6/29/1992	Installation of balance-style Stage II vapor recovery equipment.

Permit / Order #	Application #	Date Issued	Description
94-1675	CL-1097	10/17/1994	Replacement of the balance-style Stage II vapor recovery system with Gilbarco VaporVac Stage II vapor recovery system.
00-2260	CL-1460	02/25/2000	Replacement of coaxial Stage I vapor recovery equipment with two-point Stage I vapor recovery equipment. Superseded ADP 91-1298.

Bold font indicates that the Air Discharge Permit was superseded or no longer in effect upon issuance of Air Discharge Permit 22-3526.

- 13.b. Compliance History. A search of source records on file at SWCAA did not identify any outstanding compliance issues other than the replacement of Stage II vapor recovery equipment without approval. This issue is addressed by this Air Discharge Permit.

14. PUBLIC INVOLVEMENT OPPORTUNITY

- 14.a. Public Notice for ADP Application CL-3192. Public notice for ADP application CL-3192 was published on the SWCAA website for a minimum of 15 days, beginning on May 12, 2022.
- 14.b. Public/Applicant Comment for ADP Application CL-3192. SWCAA did not receive specific comments, a comment period request, or any other inquiry from the public or the applicant regarding ADP application CL-3192. 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 July 21, 2022 (Determination of SEPA Exempt - SWCAA 22-018).

Appendix A

CARB Executive Order G-70-97-A

Stage I Vapor Recovery Systems for Underground Gasoline Storage Tanks at Service Stations

State of California
AIR RESOURCES BOARD

Executive Order G-70-97-A

Stage I Vapor Recovery Systems for Underground
Gasoline Storage Tanks at Service Stations

WHEREAS, the Air Resources Board (the "Board") has established, pursuant to Sections 39600, 39601, and 41954 of the Health and Safety Code, certification procedures for systems designed for the control of gasoline vapor emissions during filling of underground gasoline storage tanks ("Stage I vapor recovery systems") in its "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations" as last amended December 4, 1981 (the "Certification Procedures"), incorporated by reference in Section 94001 of Title 17, California Administrative Code;

WHEREAS, the Board has established, pursuant to Sections 39600, 39601, and 41954 of the Health and Safety Code, test procedures for determining compliance of Stage I vapor recovery systems with emission standards in its "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Services Stations" as last amended September 1, 1982 (the "Test Procedures"), incorporated by reference in Section 94000 of Title 17, California Administrative Code;

WHEREAS, the Board finds it beneficial to consolidate Executive Orders G-70-47-B, G-70-4-A, and G-70-2-G, certifying Stage I vapor recovery systems in order to have a complete listing by manufacturer of all Stage I vapor control equipment which has been certified and is available for use in the coaxial and/or two point Stage I vapor recovery systems;

WHEREAS, the Board finds it necessary to revise Executive Order G-70-97 to clarify the requirement for pressure/vacuum relief valves on the vents of underground storage tanks and to clarify the interchangeability of certain Stage I vapor recovery system componets.

NOW THEREFORE, IT IS HEREBY ORDERED that Executive Order G-70-97 issued on May 13, 1985 for Stage I vapor recovery systems for underground gasoline storage tanks be modified by this Executive Order G-70-97-A.

IT IS FURTHER ORDERED that Stage I Systems will conform to one of the four options shown in Figures 1 thru 4 of this Executive Order and only certified vapor recovery components (or fittings) may be used in the systems. Exhibits 1 thru 3 (Attached) list by manufacturer all of the certified fittings approved for use with Stage I vapor recovery systems. The systems shall otherwise comply with all the certification requirements in the latest "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations" applicable to Stage I systems.

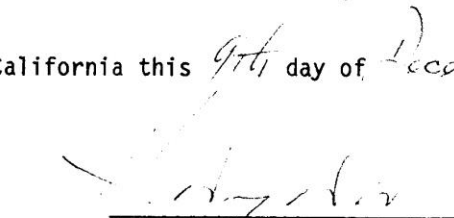
IT IS FURTHER ORDERED that any underground storage tank equipped with a Stage I vapor recovery system and filled from a gasoline delivery tank equipped with pressure-differential activated vapor-return vent valves must have a pressure-vacuum relief valve on the vent of the underground storage tank.

IT IS HEREBY ORDERED that compliance with the applicable certification requirements and rules and regulations of the Division of Measurement Standards, the Office of the State Fire Marshal, and the Division of Occupational Safety and Health of the Department of Industrial Relations is made a condition of this certification.

IT IS FURTHER ORDERED that the components and alternative configurations certified hereby shall perform in actual use with the same effectiveness as the certification test system.

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

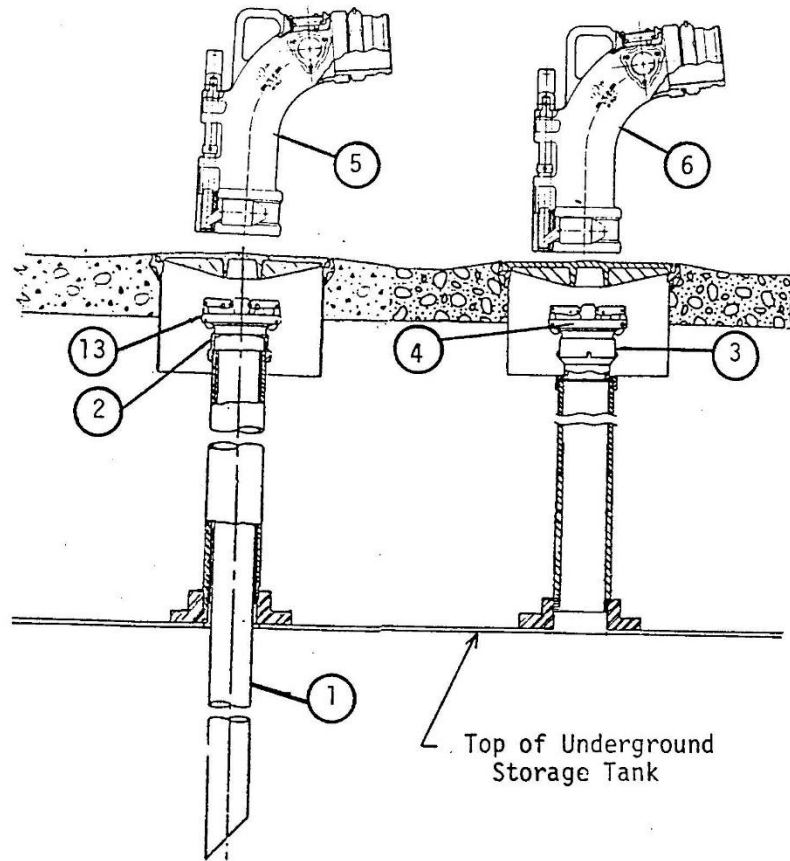
Executed at Sacramento, California this 9th day of Dec 1985.



James D. Boyd
Executive Officer

FIGURE 1

Two Point Stage 1 Vapor Recovery System
Without Overfill Protection

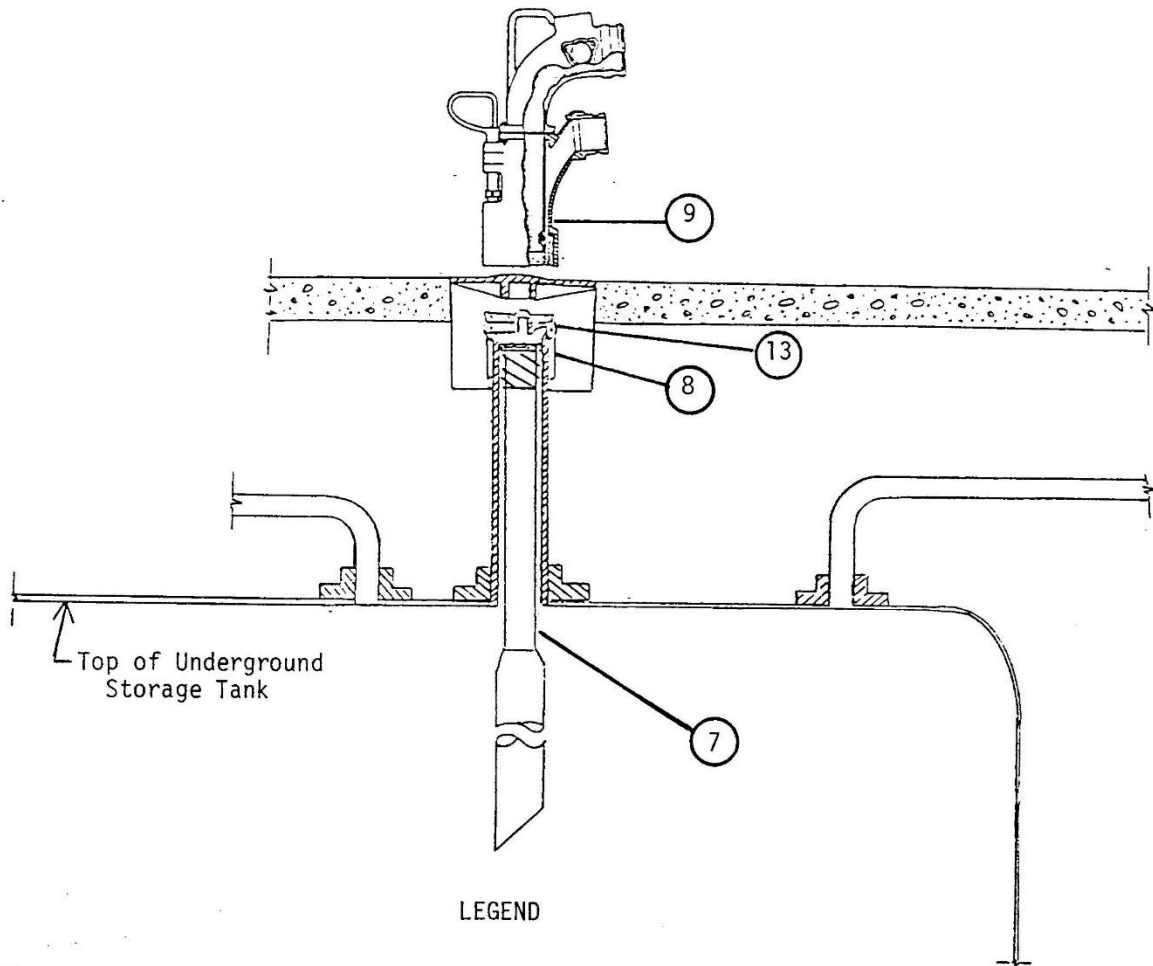


LEGEND

- | | |
|-------------------|-------------------|
| (1) Fill Tube | (4) Vapor Cap |
| (2) Fill Adapter | (5) Product Elbow |
| (3) Vapor Adapter | (6) Vapor Elbow |
| | (13) Fill Cap |

FIGURE 2

Coaxial Stage 1 Vapor Recovery System
Without Overfill Protection

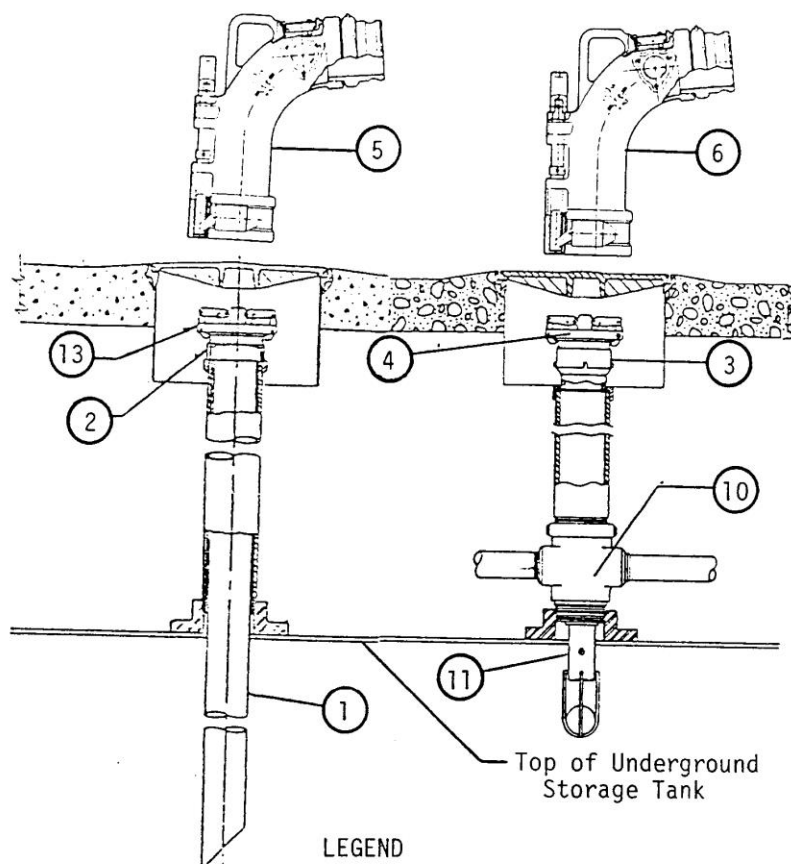


LEGEND

- | | |
|--------------------------------|-------------------|
| (7) Coaxial Poppeted Fill Tube | (9) Coaxial Elbow |
| (8) Coaxial Fill Adapter | (13) Fill Cap |

FIGURE 3

Two Point Stage I Vapor Recovery System With
Overfill Protection



LEGEND

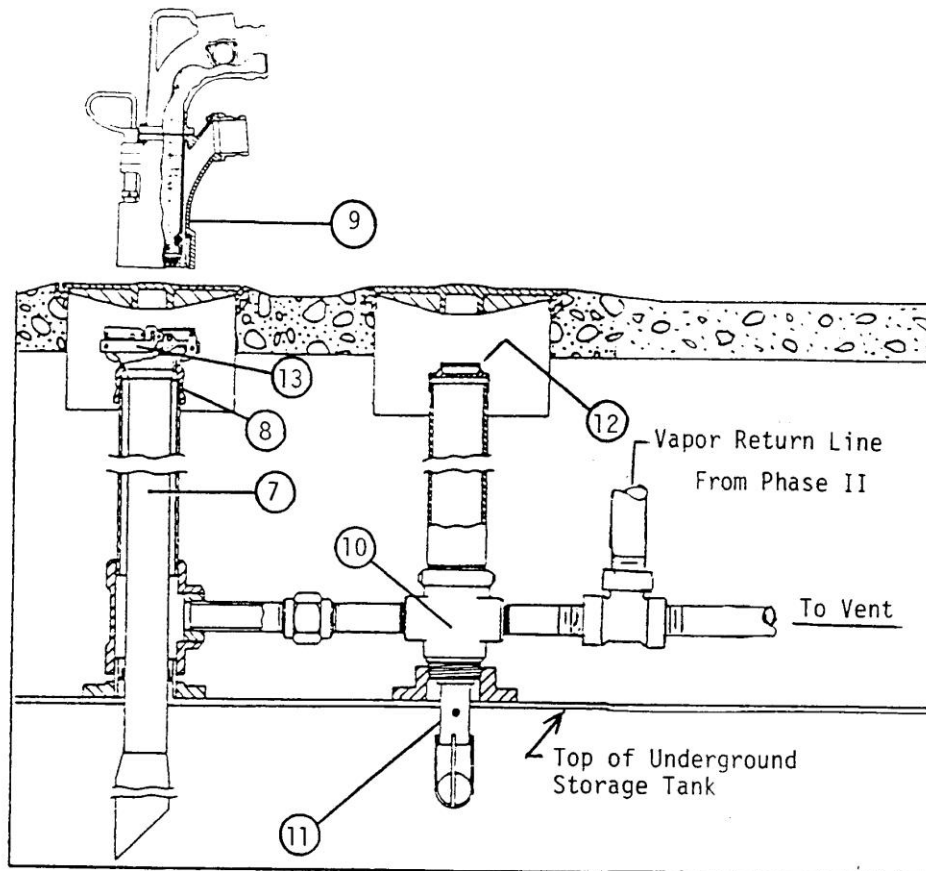
- | | |
|-----------------|----------------------|
| ① Fill Tube | ⑥ Vapor Elbow |
| ② Fill Adapter | ⑩ Extractor Assembly |
| ③ Vapor Adapter | ⑪ Float Vent Valve |
| ④ Vapor Cap | ⑬ Fill Cap |
| ⑤ Fill Elbow | |

WARNING:

1. This system is not approved for use at service stations equipped with Red Jacket or Healy Phase II vapor recovery systems.
2. Float valve overfill protection systems should only be used on submerged pumping systems not with suction pump systems.
3. Overfill protection systems should only be used on gravity drop systems. Do not use where pump off unloading is used.

FIGURE 4

Coaxial Stage 1 Vapor Recovery System
With Overfill Protection



LEGEND

- | | |
|--------------------------------|-----------------------------|
| (7) Coaxial Poppeted Fill Tube | (10) Extractor Assembly |
| (8) Coaxial Fill Adapter | (11) Float Vent Valve |
| (9) Coaxial Elbow | (12) Pipe Cap ^{1/} |
| | (13) Fill Cap |

WARNING:

1. This system is not approved for use at service stations equipped with Red Jacket or Healy Phase II vapor recovery systems.
2. Float valve overfill protection systems should only be used as submerged pumping systems, not with suction pump systems.
3. Overfill protection systems should only be used on gravity drop systems. Do not use where pump off unloading is used.

^{1/} Required when a two point system is modified to a coaxial system.

EXHIBIT 1

Fittings Approved For Use On The Two Point Stage I Vapor Recovery Systems

Fittings Required For All Two Point Stage I Vapor Recovery Systems For Locations see Figure 1										Additional Fittings Required For Two Point Vapor Recovery Systems With Stage I Overfill Protection. For Locations See Figure 3			
Legend No.	(1)	(2)	(3)	(4)	(5)		(6)	(10) + (11)	(10)	(11)			
Manufacturer	Fill Tube	Fill Adapter	Vapor Adapter	Vapor Cap	Elbows Fill Vapor			Extractor Assembly With Float Vent Valve	Extractor	Float Vent Valve			
OPW	61 T	61 AS 633 T	1611 AV	1711 T 1711 TK	60 AS 60 T 60 TT	1711 VT 1711 VP		233 - MSD 233 - VTS 233 - SD	233 - VM 233 - V 233 - V	53 - VM 53 - VTS 53 - VM			
Universal	723	724 727	0611 V	0612 VC 0613 VC 0614 VC		0711 V		V 420		37			
EBW	782	776 778	300	304									
McDonald	245	268 A 267 A											
CNI		613 615	611 DB	611 VR				119					
Emco-Wheaton	A 20	A 30	A 76	A 99	F523	F 77		A79 Series	562291 or 562016	A-75			
Andrews ^{1/}	TF	54 AG		400 DC-L	56 TFR								
Evertite		97 A			99 C								
York-Serv, Inc.		101 102											

^{1/} Now owned by Dixon Valve & Coupling Company.

EXHIBIT 2

Fittings Approved For Use On The Coaxial Stage I Vapor Recovery System

Fittings Required For All Coaxial Stage I Vapor Recovery Systems		Additional Fittings Required For Coaxial Stage I Vapor Recovery Systems with Overflow Protection			
Legend No.	(7) + (8)	(9)	(10) + (11)	(10)	(11)
Manufacturer	Coaxial Poppeted Fill Tube Assembly with Adapter	Coaxial Elbow	Extractor Assembly With Float Vent Valve	Extractor Assembly	Float Vent Valve
OPW	68-TCP	60 TC 60 TTC	233-MSD 233-VTS	233-VM	53-VM 53-VTS
Emco Wheaton	4" Tube A88-001 3" Tube A88-003	F 298	A79-002 A79-003 A79-004	562290 or 562016	A 75
EBW	783-215				
Universal Valve Co.			V-420		37
CNI			119		

EXHIBIT 3

Fittings Approved For All Stage I Vapor Recovery Systems

Legend No.	(12)	(13)		
Manufacturer	Pipe ^{1/} Cap	Fill Caps		Pressure Vacuum Relief Valve
		Top Seal	Side Seal	
OPW	116	634 TT	62 62 TT	95 UTE
Universal		731 733	727 732 734	
EBW		777	775	
McDonald		268 C	267 C	
CNI		64	32 33	
Emco Wheaton	A584	A 39 A 97		
Andrews ^{2/}		400 FPC 54 LC		
Varec				2010-811
Hazlett				H-PVB-1

^{1/} Required when a Two Point System is converted to a Coaxial System with overfill protection.

^{2/} Now owned by Dixon Valve & Coupling Company.

Appendix B

CARB Executive Order G-70-52-AM

**Certification of Components for Red Jacket, Hirt, and Balance
Phase II Vapor Recovery Systems**

&

VR-203 Equipment List

State of California
AIR RESOURCES BOARD

Executive Order G-70-52-AM
Certification of Components for Red Jacket, Hirt, and Balance
Phase II Vapor Recovery Systems

WHEREAS, the Air Resources Board (the "Board") has established, pursuant to Sections 39600, 39601, and 41954 of the Health and Safety Code, certification procedures for systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations ("Phase II vapor recovery systems") in its "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations" as last amended December 4, 1981 (the "Certification Procedures"), incorporated by reference in Section 94001 of Title 17, California Code of Regulations;

WHEREAS, the Board has established, pursuant to Sections 39600, 39601, and 41954 of the Health and Safety Code, test procedures for determining compliance of Phase II vapor recovery systems with emission standards in its "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations" as last amended September 1, 1982 (the "Test Procedures"), incorporated by reference in Section 94000 of Title 17, California Code of Regulations;

WHEREAS, the certification for use with Phase II vapor recovery systems has been applied for as specified in Attachment A of this Executive Order;

WHEREAS, Section VIII-A of the Certification Procedures provides that the Executive Officer shall issue an order of certification if he or she determines that a vapor recovery system conforms to all of the requirements set forth in Sections I through VII;

WHEREAS, I find that the equipment specified in Attachment A of this Executive Order, when used on Phase II balance and assist vapor recovery systems, conforms with all the requirements set forth in Sections I through VII of the Certification Procedures and will not compromise the efficiency of the Phase II vapor recovery systems on which they will be installed;

NOW THEREFORE, IT IS HEREBY ORDERED that the certification, Executive Order G-70-52-AL, is hereby modified to add vapor recovery equipment listed in Attachment A and to incorporate the requirements and conditions specified in the Exhibits of this Order for use on Phase II vapor recovery systems;

IT IS FURTHER ORDERED that the equipment listed in Attachment A of this Executive Order is certified as shown in Exhibits 4 through 11. A reference identifying the vapor recovery systems for which the hose configurations are approved is contained in Exhibit 1. Certified components for the systems are listed in Exhibit 2. A cross reference identifying which vapor recovery nozzle is approved for each vapor recovery system is shown in Exhibit 3. The systems shall otherwise comply with all the certification requirements in the latest applicable Phase II vapor recovery system certification.

IT IS FURTHER ORDERED that where a balance type vapor recovery system is to be installed at a new installation only the balance type coaxial vapor recovery nozzles and coaxial hose configurations may be used.

IT IS FURTHER ORDERED that nozzle bellows covers, hereinafter referred to as "boot protectors" may not be used on any nozzles after July 26, 1992, and that they are prohibited prior to that date on certain nozzles as specified in Exhibits 2 and 3 of this Order.

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

IT IS FURTHER ORDERED that the components and alternative hose configurations certified hereby shall perform in actual use with the same effectiveness as the certification test system.

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

IT IS FURTHER ORDERED that all nozzles approved for use with the Phase II vapor recovery systems specified in this Executive Order shall be 100 percent performance checked at the factory including checks of proper functioning of all automatic shutoff mechanisms.

Executed at Sacramento, California this 4 day of October, 1991.


James D. Boyd
Executive Officer

Executive Order G-70-52-AM
Attachment A

Gasoline Vapor Recovery Equipment Added to Exhibit 2

Dresser Division/Wayne Industries
590 Blending Dispenser
390Dx-GQU Dispenser

Emco Wheaton A4019 coaxial hose breakaway coupling

Gates Kleanaire coaxial hose

Gilbarco Advantage motor fuel dispenser

Goodyear Maxxim coaxial hose with green outer hose

High retractor dispenser - coaxial hose configuration with liquid removal
system (Exhibit 8c)

OPW Division/Dover Corporation
66-CL coaxial hose breakaway coupling
43-CRT elbow swivel

Exhibit 1

Executive Order G-70-52-AM

Phase II Vapor Recovery Systems

Certified for Hose Configurations Shown in Exhibits 4-11

Executive Order G-70-	Vapor Recovery System Name
14	Red Jacket
17	Emco Wheaton Balance
23	Exxon Balance
25	Atlantic Richfield Balance
33	Hirt
36	OPW Balance
38	Texaco Balance
48	Mobil Balance
49	Union Balance
53	Chevron Balance

Additional Executive Orders Pertaining to
Vapor Recovery Nozzles Not Listed in the Above Orders

Executive Order G-70-	Vapor Recovery System Name
78	EZ-flo rebuilds
102	EZ-flo rebuilds
107	Rainbow rebuilds
125	Husky Model V
127	OPW 111V
134	EZ-flo rebuilds

Exhibit 2

Component ^{1/}Executive Order G-70-52-AM
List for Red Jacket, Hirt, or Balance
Phase II Vapor Recovery Systems

Manufacturer/Item and Model Number	SFM ID Number	Exhibits										Exhibit 3 X-Reference
		4	5	6	7	8a,b,c	9a,b,c	10	11	11a		
<u>Nozzles (new or rebuilt by original manufacturer) ^{2/}</u>												
Emco Wheaton A3003, RA3003 ^{7/}	001:007:005	X		X	X							1
Emco Wheaton A3005, RA3005	005:007:006	X	X	X	X	X		X	X	X		2
Emco Wheaton A3006, RA3006	005:007:020	X		X	X							3
Emco Wheaton A3007, RA3007	005:007:025	X	X	X	X	X		X	X	X		4
Emco Wheaton A4000, RA4000 ^{7/8}	005:007:022	X		X	X							5
Emco Wheaton A4001, RA4001 ^{8/}	005:007:023	X	X	X	X	X		X	X	X		6
Emco Wheaton A4002 ^{8/}	005:007:022	X		X	X							7
Emco Wheaton A4003 ^{8/}	005:007:023	X	X	X	X	X		X	X	X		8
Emco Wheaton A4005, RA4005 ^{8/}	005:007:025	X	X	X	X	X		X	X	X		9
OPW 7V-E (34,36,47,49)	002:008:014-17	X		X	X							10
OPW 11V-C (22,24,47,49)	005:008:030	X	X	X	X	X		X	X	X		11
OPW 11VS-C (22,24,47,49) ^{7/}	005:008:039	X		X	X							12
OPW 11V-E (34,36,47,49)	005:008:033	X	X	X	X	X		X	X	X		13
OPW 11VS-E (34-36,47,49)	005:008:035	X		X	X							14
OPW 11V-F (22,24,47,49)	005:008:037	X	X	X	X	X		X	X	X		15
OPW 11VS-F (22,24,47,49) ^{7/}	005:008:038	X		X	X							16
OPW 111-V (22,24,47,49) ^{8/}	005:008:045	X	X	X	X	X		X	X	X		17
Husky Model V ^{8/}	005:021:005	X	X	X	X	X		X	X	X		18

Exhibit 2, page 2

Component 1/ Executive Order G-70-52-AM
List for Red Jacket, Hirt, or Balance
Phase II Vapor Recovery Systems

Manufacturer/Item and Model Number	SFM ID Number	Exhibits										Exhibit 3 X-Reference
		4	5	6	7	8a,b,c	9a,b,c	10	11	11a		
<u>Rebuilt Nozzles (rebuilt by other than original manufacturer)^{2/}</u>												
EZ-flo 3003 ^{7/9/}	005:029:003	X		X	X							1
EZ-flo 3005 ^{9/}	005:029:004	X	X	X	X	X		X	X	X		2
EZ-flo 3006 ^{9/}	005:029:004	X		X	X							3
EZ-flo 3007 ^{9/}	005:029:005	X	X	X	X	X		X	X	X		4
EZ-flo A4000 ^{7/8/}	005:029:006	X		X	X							5
EZ-flo A4001 ^{8/}	005:029:006	X	X	X	X	X		X	X	X		6
EZ-flo A4002 ^{8/9/}	005:029:006	X		X	X							7
EZ-flo A4003 ^{8/9/}	005:029:006	X	X	X	X	X		X	X	X		8
EZ-flo A4005 ^{8/9/}	005:029:006	X	X	X	X	X		X	X	X		9
EZ-flo EZE 8 (22,24,47,49) ^{10/}	005:029:002	X		X	X							10a
EZ-flo 11VS (coaxial) ^{8/}	005:029:007	X	X	X	X	X		X	X	X		15
EZ-flo 11VS (dual) ^{7/8/}	005:029:007	X		X	X							16
EZ-flo 11VE (coaxial) ^{8/}	005:029:007	X	X	X	X	X		X	X	X		13
EZ-flo 11VE (dual) ^{8/}	005:029:007	X		X	X							14
Rainbow RA3003 ^{7/11/16/}	005:035:002	X		X	X							1
Rainbow RA3005 ^{11/16/}	005:035:003	X	X	X	X	X		X	X	X		2
Rainbow RA3006 ^{11/}	005:035:004	X		X	X							3
Rainbow RA3007 ^{11/}	005:035:005	X	X	X	X	X		X	X	X		4
Rainbow RPP (34,36,47,49)	005:035:006	X		X	X							10b
<u>Nozzle Bellows</u>												
Daystar ^{13/}		X	X	X	X			X	X	X		

[illegible]

Exhibit 2, page 4

1/ Executive Order G-70-52-AM
Component List for Red Jacket, Hirt, or Balance
Phase II Vapor Recovery Systems

Manufacturer/Item and Model Number	SFM ID Number	Exhibits													
		4	5	6	7	8a	8b	8c	9a	9b	9c	10	11	11a	
<u>High-Hang Hose Dispensers</u> ^{3/}															
Bennett Pump 7012, 7024, 8022, 8024, 8033											X	X			
Bennett Pump 8036, 9036, 9048											X	X			
Dresser Wayne 390					X	X	X	X	X	X	X	X			
Dresser Wayne 490						X	X				X	X			
Dresser Wayne 390Dx-GQU								X	X	X	X	X			
Gilbarco MPD								X	X	X	X	X			
Gilbarco Advantage								X	X	X	X	X			
Koppens Calcutrim								X	X	X	X	X			
Southwest 2300 and 2400 MPD										X	X	X			
Tokheim High-discharge TCS															
H311, H312, H322, H324, H413, H426, H614, H628										X	X	X			
<u>Product Blending Dispensers</u> ^{18/}															
Dresser Wayne 395-1L Blender											X	X			
Dresser Wayne 375 Blender											X	X			
Dresser Wayne 585 Blender											X	X			
Dresser Wayne 590 Blender											X	X			
Gilbarco SalesMaker (SMK) Blender											X	X			
Gilbarco Multi-Product (MPD) Blender											X	X			
Tokehim 262 with blend valves ^{19/}			X												
Tokehim 426 TCS with blend valves											X	X	X	X	
<u>Coaxial Hose Assembly</u> ^{16/}															
B.F. Goodrich Coax	005:014:001		X	X				X			X	X			
B.F. Goodrich Super II Coax	005:014:001		X	X				X			X	X			
Dayco Petroflex 2000 Mdl 7574	005:033:001		X	X				X	X	X	X	X	X	X	
Dayco Petroflex 2000 Mdl 7573	005:033:002		X	X				X	X	X	X	X	X	X	
Dayco Petroflex 3000															
Model 7575 Blending Hose	005:033:006										X	X			
Gates Kleenaire	005:045:001		X	X				X	X	X	X	X	X	X	

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Executive Order G-70-52-AM
Footnotes to Component List for Red Jacket, Hirt, or Balance
Phase II Vapor Recovery Systems

- 1/ Specific components for the Red Jacket system are listed in the latest version of Executive Order G-70-14. Specific components for the Hirt system are listed in the latest version of Executive Order G-70-33.
- 2/ See Exhibit 3 for a Nozzle/System Cross-Reference.
- 3/ High-hang or high-retractor hose configurations are required on all existing Balance, Red Jacket and Hirt stations by July 26, 1986, except for dispensers in compliance with Exhibit 11.
- 4/ Other dispensers are in compliance with ARB requirements if they are approved by the Division of Measurement Standards and are applicable to any of the configurations shown by Exhibits 4, 5, 6, & 7 in this Executive Order.
- 5/ Other nozzle multiplane swivels and island single plane swivels may be used if approved by California State Fire Marshal. Nozzle multiplane swivels and island single plane swivels are required on all existing twin hose dispensers by July 26, 1986.
- 6/ 43-T swivel not allowed with Hirt ball check valve.
- 7/ Dual-port nozzles not permitted on new installations utilizing a balance type Phase II vapor recovery system.
- 8/ Boot protectors are prohibited on Emco Wheaton A4000-series nozzles, EZ-flo 4000-series and 11V-series nozzles and OPW 111V and Husky Model V nozzles.
- 9/ Specific components for EZ-flo rebuilt 3000-series vapor recovery nozzles are listed in the latest version of Executive Order G-70-101. Specific components for EZ-flo rebuilt A4000-series and 11V-series vapor recovery nozzles are listed in the latest version of Executive Order G-70-134.
- 10/ Specific components for the EZ-flo Rebuilt OPW 7V-E vapor recovery nozzle are listed in the latest version of Executive Order G-70-78.
- 11/ Specific components for the Rainbow Rebuilt Emco Wheaton A3003, A3005, A3006, and A3007 vapor recovery nozzles are listed in the latest version of Executive Order G-70-107.
- 12/ Emco Wheaton red and gray bellows for A3000-type nozzles may not be used after July 26, 1989. (Bellows discolor in use and may appear tan rather than red or gray.)
- 13/ The boot must be used with Daystar Spacer (Daystar part number F00232-NL-00), and is only approved for use on Emco Wheaton 3003- and 3005-type nozzles.
- 14/ Appropriate certified swivels must be used to prevent closure of vapor passage due to kinking.
- 15/ Use of Rainbow Petroleum Products RA3003/RA3005 Blow Molded Gasoline Vapor Recovery Bellows approved.
- 16/ Coaxial hose assemblies which do not contain liquid removal systems may be used on Exhibits which are not indicated provided they are used with a certified liquid removal system (such as the Gilbarco Co-Vent) which is certified for that Exhibit.

Exeuctive Order G-70-52-AM
Footnotes to Component List for Red Jacket, Hirt, or Balance
Phase II Vapor Recovery Systems

- 17/ Recirculation traps are permitted on existing installations only. Removal of internal assembly from existing recirculation traps is recommended whenever possible to reduce pressure drop.
- 18/ Any installation of blended product dispensers must be plumbed to allow the return of vapors from any product produced by blending to all tanks from which the component fuels may be withdrawn.
- 19/ The Emco Wheaton A227 vapor check valve may be installed in a vertical position (manufacturer's instructions specify installation within five degrees of horizontal) in Tokheim 262 dispensers manufactured before 1/1/90.
- 20/ Installation of the Catlow 2.N.1 breakaway at the nozzle end of the hose is prohibited.
- 21/ The Emco Wheaton A4042 fitting is to be marketed in combination with a gray scuff guard which clearly identifies it as an A4042 fitting. This gray scuff guard is not to be installed on A227 vapor check valves, and the use of the black scuff guard with which the A227 valve is marketed is prohibited with the A4042. Emco Wheaton A227 valves modified by removing poppets in an attempt to create A4042 fittings are considered uncertified equipment.
- 22/ Coaxial hoses with liquid removal systems are approved as indicated for Exhibits which require liquid removal systems. The use of hoses containing liquid removal systems is not prohibited on other Exhibits provided all requirements of the Exhibits, including hose loop specifications, are met.

Exhibit 3
Executive Order G-70-52-AM

Phase II Vapor Recovery System/Nozzle Cross-Reference
(Red Jacket and Hirt Assist Systems or Balance Systems)

<u>Nozzle</u> <u>1/</u>	<u>Dispensing Rate</u> <u>Systems</u> <u>Using Nozzles</u> <u>2/</u>	<u>GPM Not To</u> <u>Exceed</u>	<u>Comments and Exhibit 2 Cross-Reference Number</u>
Emco Wheaton A3003, RA3003 EZ-flo 3003 Rainbow RA3003	Hirt Balance	10 <u>3/</u> 10	Soft, tight-fitting faceplate Insertion interlock Dual-hose passageways Secondary (pressure) shutoff mechanism <u>4/</u> Vapor check valve in nozzle <u>1</u>
Emco Wheaton A3005, RA3005 EZ-flo 3005 Rainbow RA3005	Hirt Balance	10 10	Same as A3003 except coaxial Insertion interlock Soft, tight-fitting faceplate Secondary (pressure) shutoff mechanism <u>4/</u> Vapor check valve in nozzle. <u>2</u>
Emco Wheaton A3006, RA3006 EZ-flo 3006 Rainbow RA3006	Hirt Red Jacket	10 <u>3/</u> 10	Loose-fitting assist-type facecone. No insertion interlock. Secondary (pressure) shutoff mechanism <u>4/</u> Slim handle. Dual-hose passageways Remote vapor check valve required. <u>3</u>
Emco Wheaton A3007, RA3007 EZ-flo 3007 Rainbow RA3007	Hirt Red Jacket	10	Same as A3006 except coaxial passageways Loose-fitting assist-type facecone Secondary (pressure) shutoff mechanism <u>4/</u> Remote vapor check valve required. <u>4</u>
Emco Wheaton A4000 <u>5/</u> RA4000 <u>5/</u> EZ-flo 4000 <u>5/</u> <u>7/</u>	Hirt Balance	10 <u>3/</u> 10	Soft, tight-fitting faceplate Insertion interlock Secondary (pressure) shutoff mechanism <u>4/</u> Remote vapor check valve required Dual-hose passageways <u>5</u>
Emco Wheaton A4001 <u>5/</u> RA4001 <u>5/</u> EZ-flo 4001 <u>5/</u>	Hirt Balance	10 10	Same as A4000 except coaxial. Insertion interlock. Soft, tight-fitting faceplate. Secondary (pressure) shutoff mechanism <u>4/</u> Remote vapor check valve required <u>6</u>

Exhibit 3 (continued)
Executive Order G-70-52-AM

Phase II Vapor Recovery System/Nozzle Cross-Reference
(Red Jacket and Hirt Assist Systems or Balance Systems)

<u>Nozzle</u> 1/	<u>Dispensing Rate</u> <u>Using Nozzles</u> 2/	<u>GPM Not To</u> <u>Exceed</u>	<u>Comments and Exhibit 2 Cross-Reference Number</u>
Emco Wheaton A4002 5/ 7/	Hirt	10 3/	Loose-fitting assist-type facecone. 7/
EZ-flo 4002 5/			No insertion interlock.
			Secondary (pressure) shutoff mechanism 4/
			Dual-hose passageways
			Remote vapor check valve required.
Emco Wheaton A4003 5/	Hirt	10	Same as A4002 except coaxial passageways
EZ-flo 4003 5/ 7/			Loose-fitting assist-type facecone 4/
			Secondary (pressure) shutoff mechanism 4/
			Remote vapor check valve required.
Emco Wheaton A4005 5/ RA4005 5/	Hirt	10	Vapor check valve in nozzle.
EZ-flo 4005 5/ 7/	Balance	10	Insertion interlock.
			Soft, tight-fitting faceplate.
			Secondary (pressure) shutoff mechanism 4/
			Coaxial passageways
OPW 7V Model E 5/	Hirt	10 3/	No insertion interlock.
-34 (unleaded, with clip)	Red Jacket	10	Loose-fitting assist-type facecone.
-36 (leaded, w/out clip)			Remote vapor check valve required.
-47 (unleaded, with clip)			Dual passageways
-49 (unleaded, w/out clip)			No new 7V nozzles being made by OPW.
-60 (leaded, with clip)			Secondary (pressure) shutoff mechanism 4/
-61 (unleaded, with clip)			
-62 (leaded, w/out clip)			
-63 (unleaded, w/out clip)			
E-Z Flo EZ8	Hirt	10 3/	Rebuilt OPW 7V Model E nozzle.
-34 (leaded, with clip)	Red Jacket	10	Loose-fitting assist-type facecone.
-36 (leaded, w/out clip)			No interlock, dual passageways.
-47 (unleaded, with clip)			Remote vapor check valve required.
-49 (unleaded, w/out clip)			Secondary (pressure) shutoff mechanism 4/
Rainbow Petroleum Products	Hirt	10 3/	OPW 7V Model E nozzle with Rainbow boot.
RPP-34 (leaded, w/ clip)	Red Jacket	10	No insertion interlock.
RPP-36 (leaded, w/out clip)			Secondary (pressure) shutoff mechanism 4/
RPP-47 (unleaded, with clip)			Loose-fitting assist-type facecone.
RPP-49 (unleaded, w/out clip)			Remote vapor check valve required.

Phase II Vapor Recovery System/Nozzle Cross-Reference
(Red Jacket and Hirt Assist Systems or Balance Systems)

Dispensing Rate Systems Using Nozzles	2/ Nozzle	1/ GPM Not To Exceed	Comments and Exhibit 2 Cross-Reference Number
OPW 11V Model C -22 (leaded, with clip) -24 (leaded, w/out clip) -47 (unleaded, with clip) -49 (unleaded, w/o clip)	Hirt Balance	10 10	Coaxial passageways. Insertion interlock. Soft, tight-fitting faceplate Secondary (pressure) shutoff mechanism 4/ Vapor check valve in nozzle No new Model C nozzles being made by OPW
OPW 11VS Model C -22 (leaded, with clip) -24 (leaded, w/out clip) -47 (unleaded, with clip) -49 (unleaded, w/o clip)	Hirt Balance	10 10	Same as 11V except dual passageways. Insertion interlock. Soft, tight-fitting faceplate. Secondary (pressure) shutoff mechanism 4/ Vapor check valve in nozzle No new Model C nozzles being made by OPW.
OPW 11V Model E -34 (leaded, with clip) -36 (leaded, w/out clip) -47 (unleaded, with clip) -49 (unleaded, w/out clip) EZ-flo 11V-E (coaxial)	Hirt Red Jacket	10 10	Coaxial passageways. Loose fitting assist-type facecone. No insertion interlock. Remote vapor check valve required. Secondary (pressure) shutoff mechanism 4/
OPW 11VS Model E -34 (leaded, with clip) -36 (leaded, w/out clip) -47 (unleaded, with clip) -49 (unleaded w/out clip) EZ-flo 11V-E (dual)	Hirt Red Jacket/	10 10	Same as 11V E except dual passageways. Loose fitting assist-type facecone. No insertion interlock. Remote vapor check valve required. Secondary (pressure) shutoff mechanism 4/
OPW 11V Model F -22 (leaded, with clip) -24 (leaded, w/out clip) -47 (unleaded, with clip) -49 (unleaded, without clip) EZ-flo 11V-F (coaxial)	Hirt Balance	10 10	Vapor check valve in nozzle. Insertion interlock. Secondary (pressure) shutoff mechanism 4/ Soft, tight-fitting faceplate. Coaxial passageways.

Exhibit 3 (continued)
Executive Order G-70-52-AM

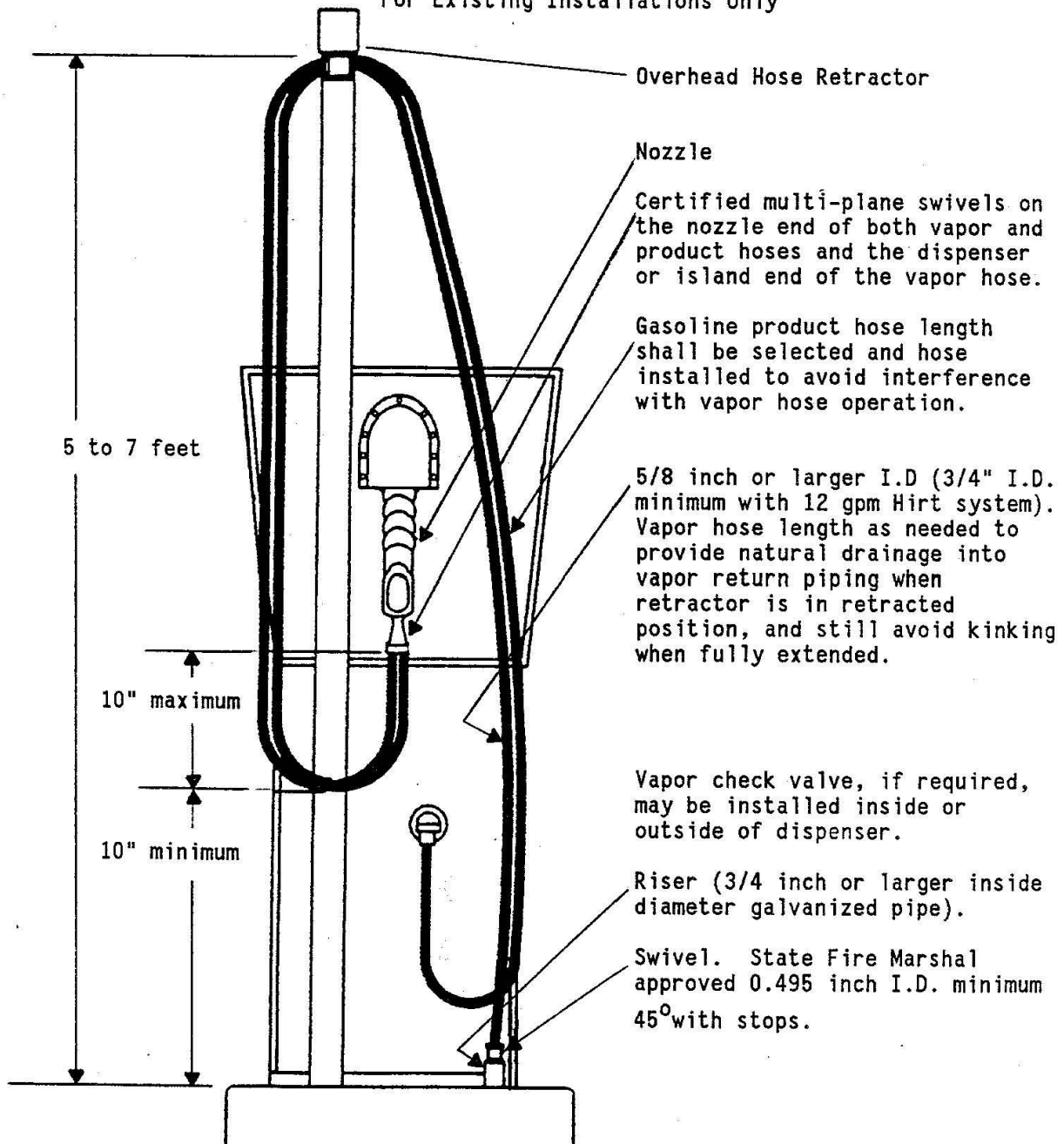
Phase II Vapor Recovery System/Nozzle Cross-Reference
(Red Jacket and Hirt Assist Systems or Balance Systems)

Nozzle 1/	Dispensing Rate Systems Using Nozzles 2/	GPM Not To Exceed	Comments and Exhibit 2 Cross-Reference Number
OPW 11VS Model F	Hirt	10 3/	Same as 11V F except dual passageways. [16]
-22 (leaded, with clip)	Balance	10	Vapor check valve in nozzle.
-24 (leaded, w/out clip)			Secondary (pressure) shutoff mechanism 4/
-47 (unleaded, w/ clip)			Insertion interlock.
-49 (unleaded, w/9 clip)			Soft, tight-fitting faceplate.
EZ-flo 11V-F (dual)			
OPW 111V 5/	Hirt	10	Vapor check valve in nozzle. [17]
-22 (leaded, with clip)	Balance	10	Insertion interlock.
-24 (leaded, w/out clip)			Secondary (pressure) shutoff mechanism 4/
-47 (unleaded, with clip)			Soft, tight-fitting faceplate.
-49 (unleaded, without clip)			Coaxial passageways.
Husky Model V 5/	Hirt	10	Vapor check valve in nozzle. [18]
	Balance	10	Insertion interlock.
			Secondary (pressure) shutoff mechanism 4/
			Soft, tight-fitting faceplate.
			Coaxial passageways.

- 1/ Spout and bellows may be changed from leaded to unleaded, or vice versa, when products in storage tanks are changed accordingly.
- 2/ The Executive Orders pertaining to Balance Phase II vapor recovery systems are listed in Exhibit 1.
- 3/ Flow rate of 12 gpm permitted only on dual Hirt systems which use 3/4" vapor hose.
- 4/ Secondary (pressure) shutoff mechanism at or below 10" water column (between 6" and 10", not over 10").
- 5/ Boot protectors are prohibited on Emco Wheaton A4000-series nozzles, EZ-flo 4000-series and 11V-series nozzles and OPW 111V and Husky Model V nozzles.
- 6/ OPW 7V Model E nozzle with OPW 7V Model H bellows/faceplate is acceptable.
- 7/ EZ-flo rebuilt nozzle bodies may be certified only with Emco Wheaton "front end" parts. Refer to the latest version of Executive Order G-70-134 for a listing of the approved combinations.

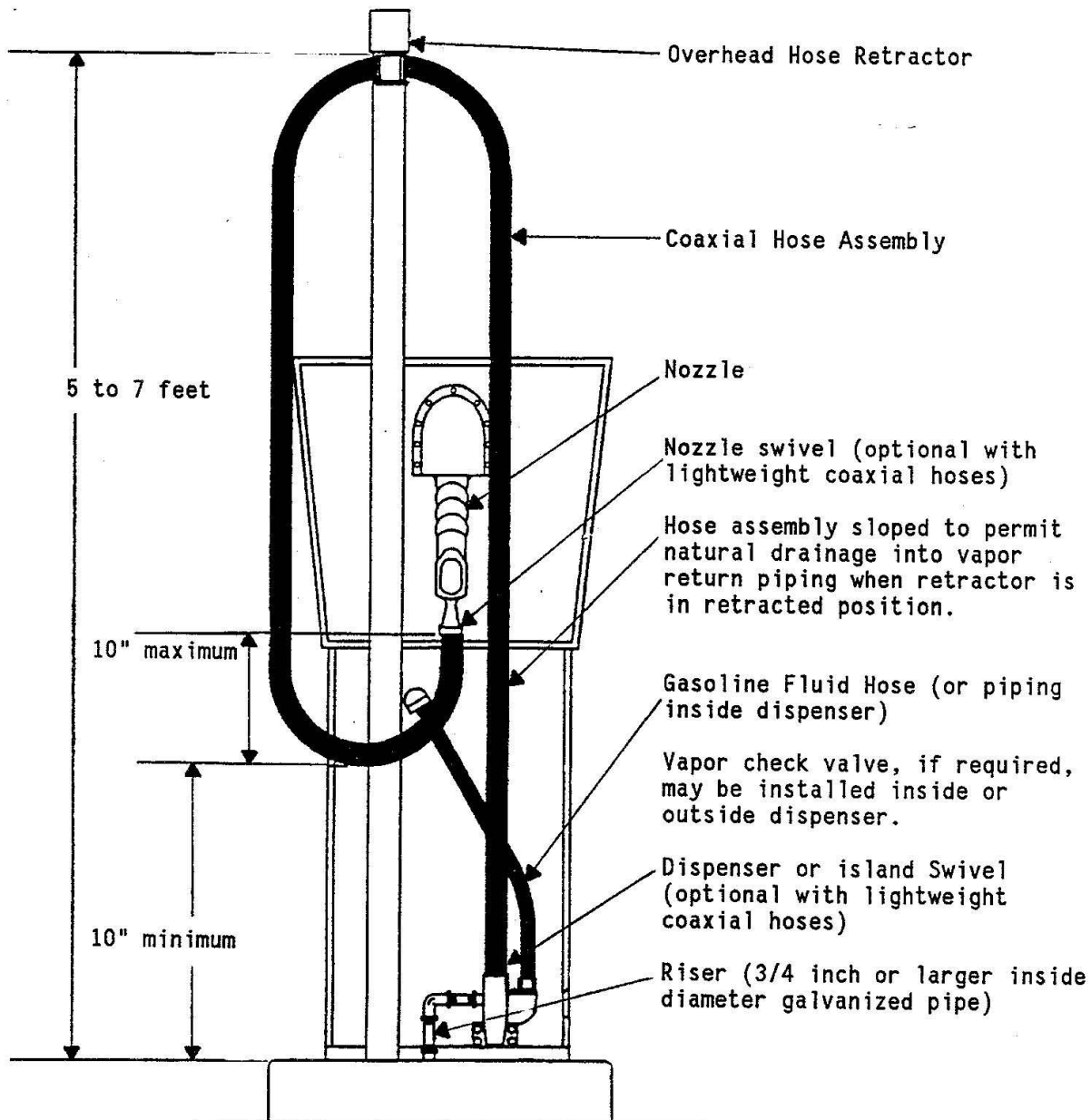
EXHIBIT 4
Executive Order G-70-52-AM

Dual Hose Side Mount High-Retractor Configuration
For Existing Installations Only



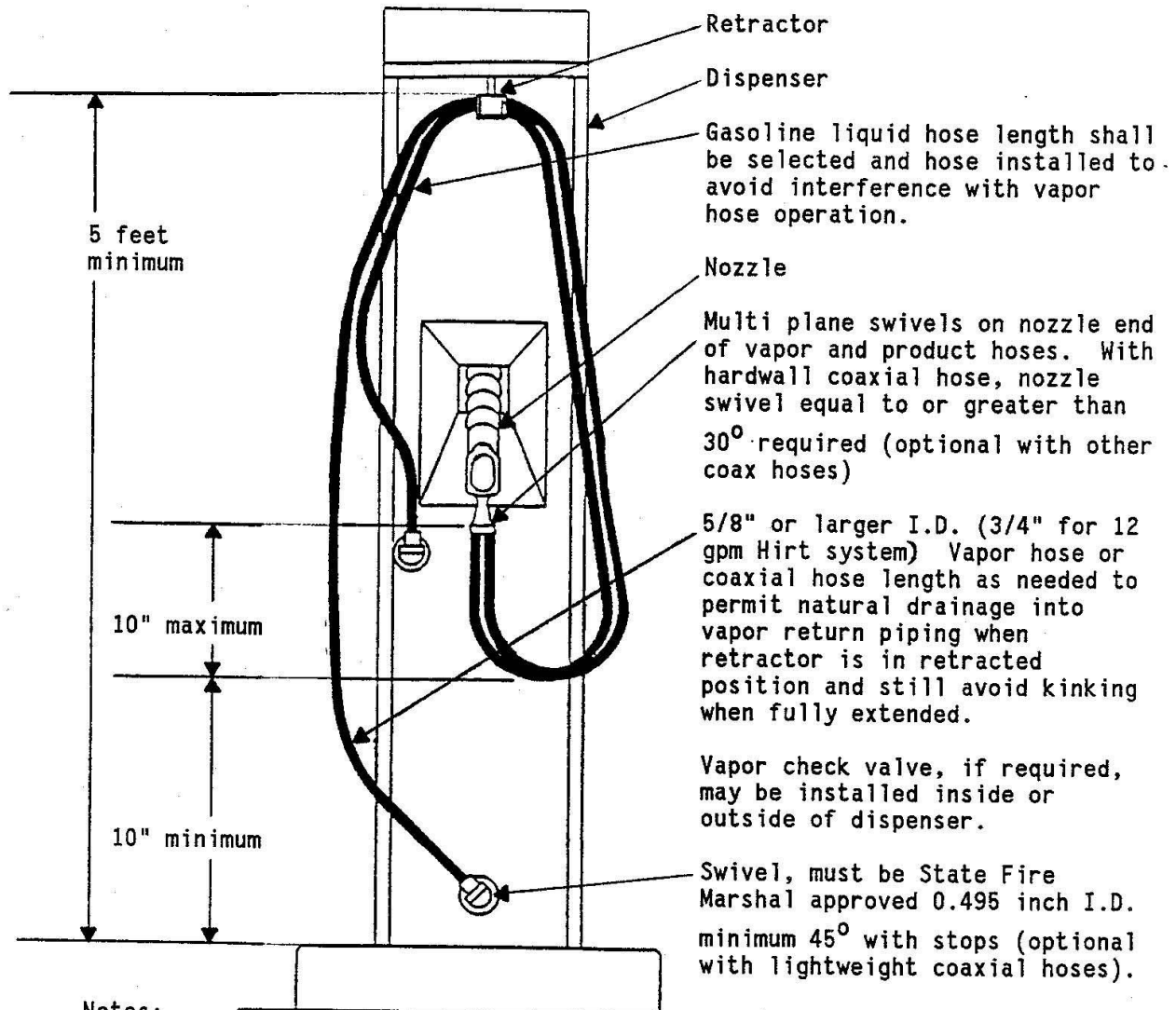
- Notes:
1. See Exhibit 2 for the component list.
 2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm. (A maximum flow rate of 12 gpm is permitted with the Hirt system provided vapor hoses are 3/4" ID.)
 3. Use appropriate hose ties.
 4. Vapor return piping may be installed on the inside or the outside of the dispenser cabinet.
 5. The Emco Wheaton and EZ-flo A4000 and A4002 nozzles are permitted only when used in conjunction with certified vapor check valves.

EXHIBIT 5
Executive Order G-70-52-AM
Coaxial Hose Side-Mount High-Retractor Configuration
For New and Existing Installations



- Notes:
1. See Exhibit 2 for the component list.
 2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
 3. Vapor return piping may be installed on the inside or on the outside of the dispenser cabinet.
 4. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.
 5. Nozzle and dispenser or island swivels are required with hardwall coaxial hoses, and are optional with lightweight coaxial hoses.

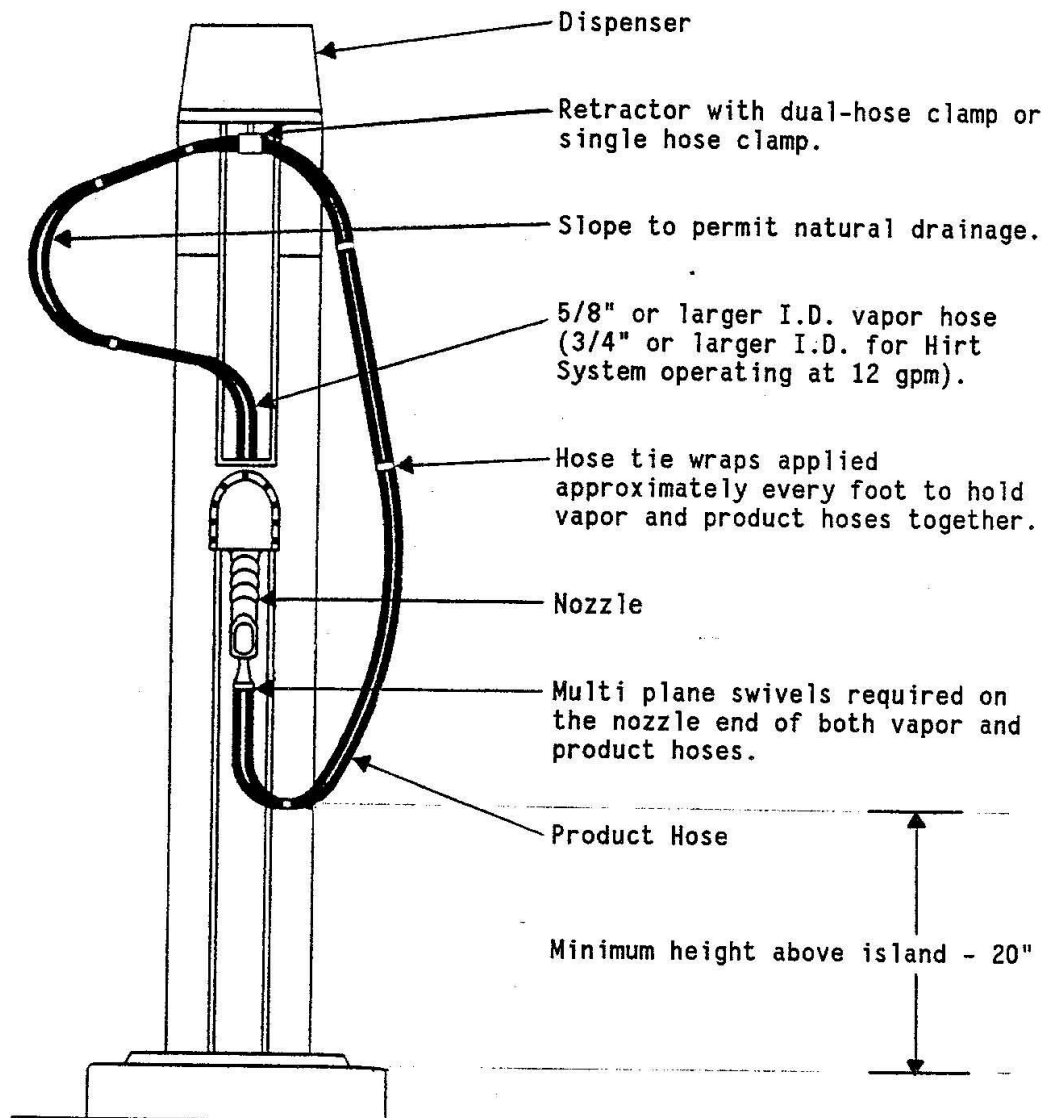
EXHIBIT 6
Executive Order G-70-52-AM
Dual and Coaxial Hose Dispenser-Mount High-Retractor Configuration



Notes:

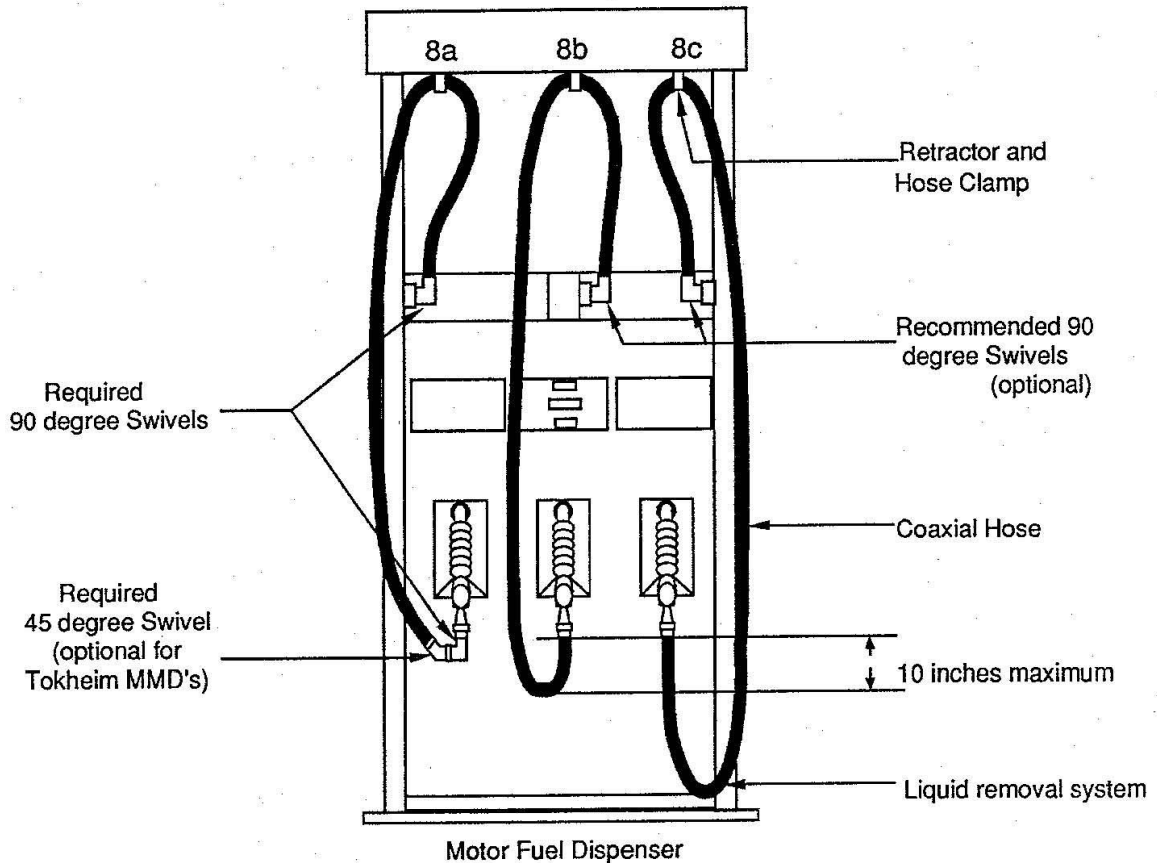
1. See Exhibit 2 for the component list.
2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm (12 gpm for dispensers with the Hirt system provided that 3/4" ID vapor hoses are used), and may be required on any gasoline dispenser at the discretion of the local air pollution control district.
3. Use appropriate hose ties.
4. Vapor return piping may be installed inside or outside dispenser cabinet.
5. Riser shall be 3/4 inch or larger inside diameter galvanized pipe.
6. The Emco Wheaton and EZ-flo A4000, A4001, A4002 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.
7. The coaxial hose dispenser-mount high-retractor configuration can be used for all new and existing installations. The dual hose dispenser-mount high-retractor configuration may not be used for new installations.
8. Nozzle and dispenser swivels are required with dual hoses and with hardwall coaxial hoses, and are optional with lightweight coaxial hoses.

EXHIBIT 7
Executive Order G-70-52-AM
Dual Hose Dispenser-Mount High-Retractor Configuration
For Existing Installations Only



- Notes:
1. See Exhibit 2 for the component list.
 2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm (12 gpm for dispensers for the Hirt System).
 3. Hose swivels not required at dispenser end of hoses.
 4. Riser must be 3/4 inch or larger inside diameter galvanized pipe.
 5. Dual hose dispenser-mount high-retractor configuration not permitted on new installations.
 6. The Emco Wheaton and EZ-flo A4000 and A4002 nozzles are permitted only when used in conjunction with certified vapor check valves.

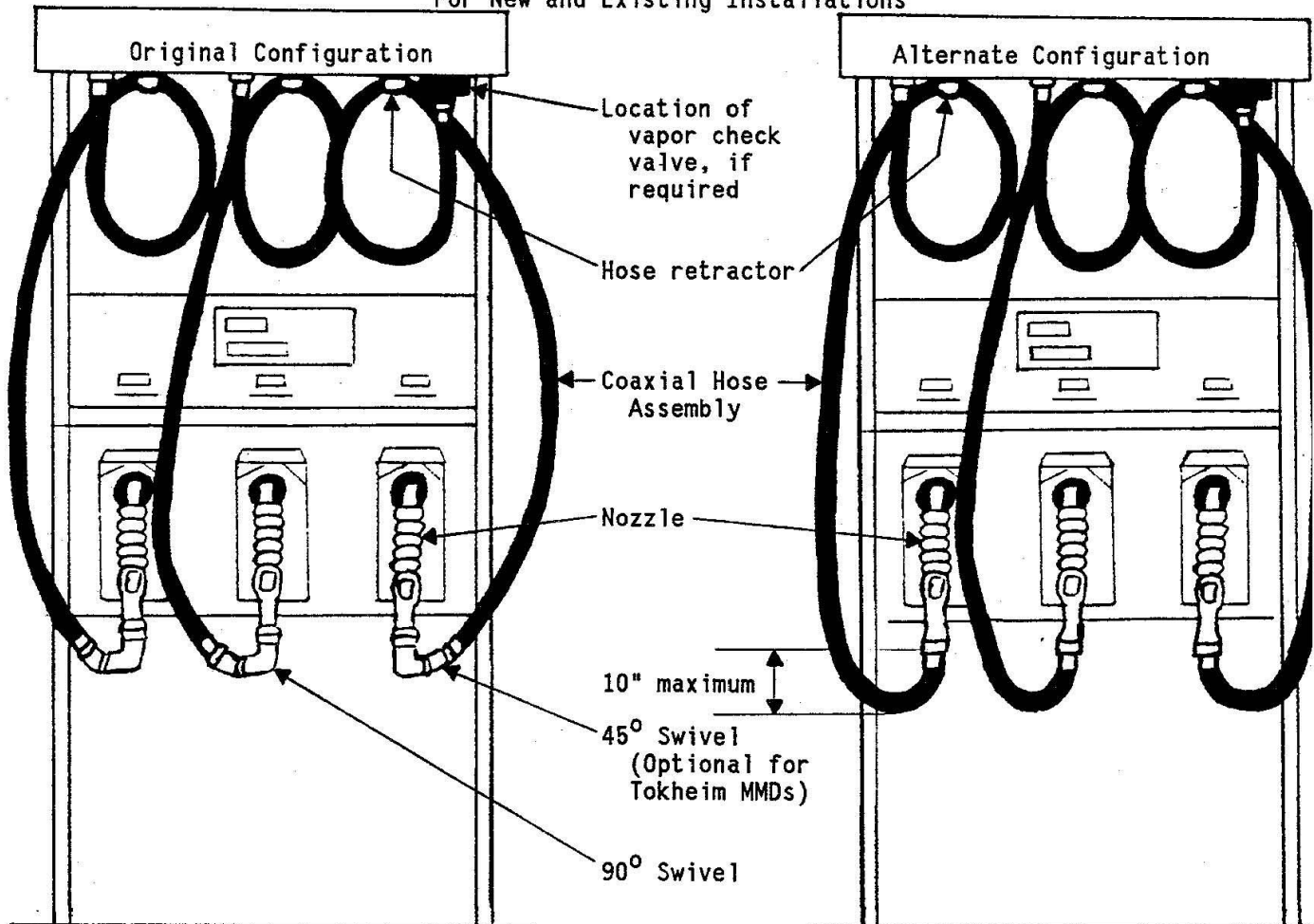
EXHIBIT 8
Executive Order G-70-52-AM
High-Retractor Dispenser - Coaxial Hose Configurations
For New and Existing Installations



Notes:

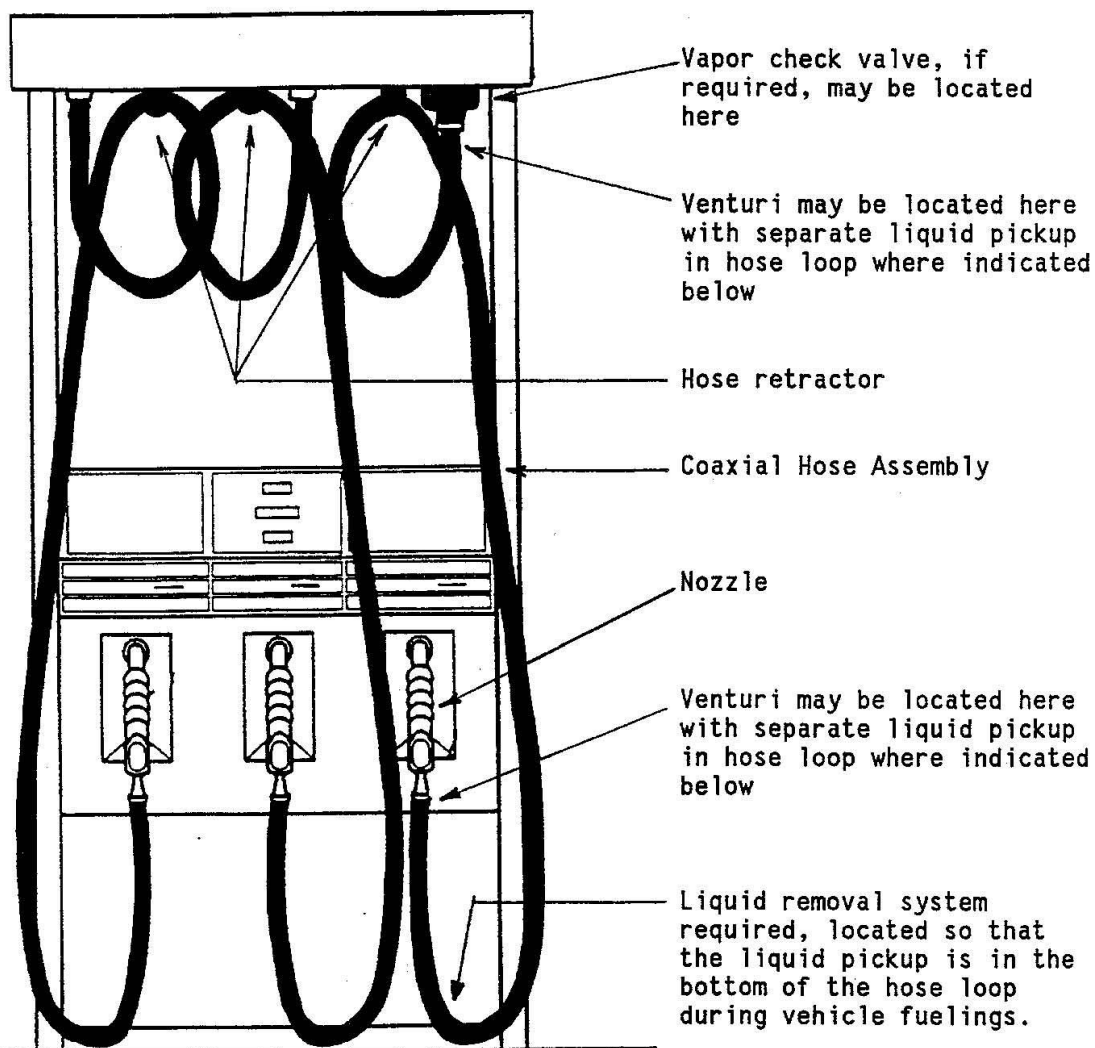
1. Use a 1 inch or larger diameter galvanized pipe for riser.
2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on any gasoline dispenser at the option of the local air pollution control district. Flow limiters are not recommended for configurations requiring liquid removal systems if flowrates are 10 gpm or less for all nozzles.
3. For configuration 8a only, the maximum length of the hose assembly is 9 feet. For dispenser islands greater than 4 feet in width, the maximum length of the hose assembly shall not exceed the sum of one-half the dispenser width, in feet, plus 7 feet.
4. Retractor must retract coaxial hose to top of dispensers when not in use and hose must slope downward to dispenser to provide natural drainage from the retractor to the dispenser. Tension on retractor hose clamp must not be in excess of that required to return hose to top of dispenser.
5. For configuration 8c, the hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider ends protect the hose from damage by vehicle tires, the hose may touch the vertical face of the dogbone island at the option of the local air pollution control district.
6. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.
7. Configuration 8a with swivels is required with hardwall coaxial hoses.
8. Liquid removal system is required with configuration 8c and shall be located so that the liquid pickup is in the bottom of the hose loop during vehicle fuelings.

Exhibit 9 (a and b)
Executive Order G-70-52-AM
High-Hang Coaxial Hose Configuration with Retractor
For New and Existing Installations



- Notes:
1. Use a 1 inch or larger inside diameter galvanized pipe for riser.
 2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
 3. For dispenser islands less than 4 feet in width, the maximum length of the hose assembly is 9-1/2 feet. For dispenser islands greater than 4 feet in width, the maximum length of the hose assembly shall not exceed the sum of one-half the dispenser island width, in feet, plus 7-1/2 feet.
 4. Retractor must retract coaxial hose to top of dispensers when not in use.
 5. Tension on retractor hose clamp must not be in excess of that required to return hose to top of dispenser.
 6. Original configuration required with hardwall hoses.
 7. 90 degree swivel is not required if hose stiffener at nozzle is 24" in length (Hose stiffeners pertain only to B.F. Goodrich hoses).
 8. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.

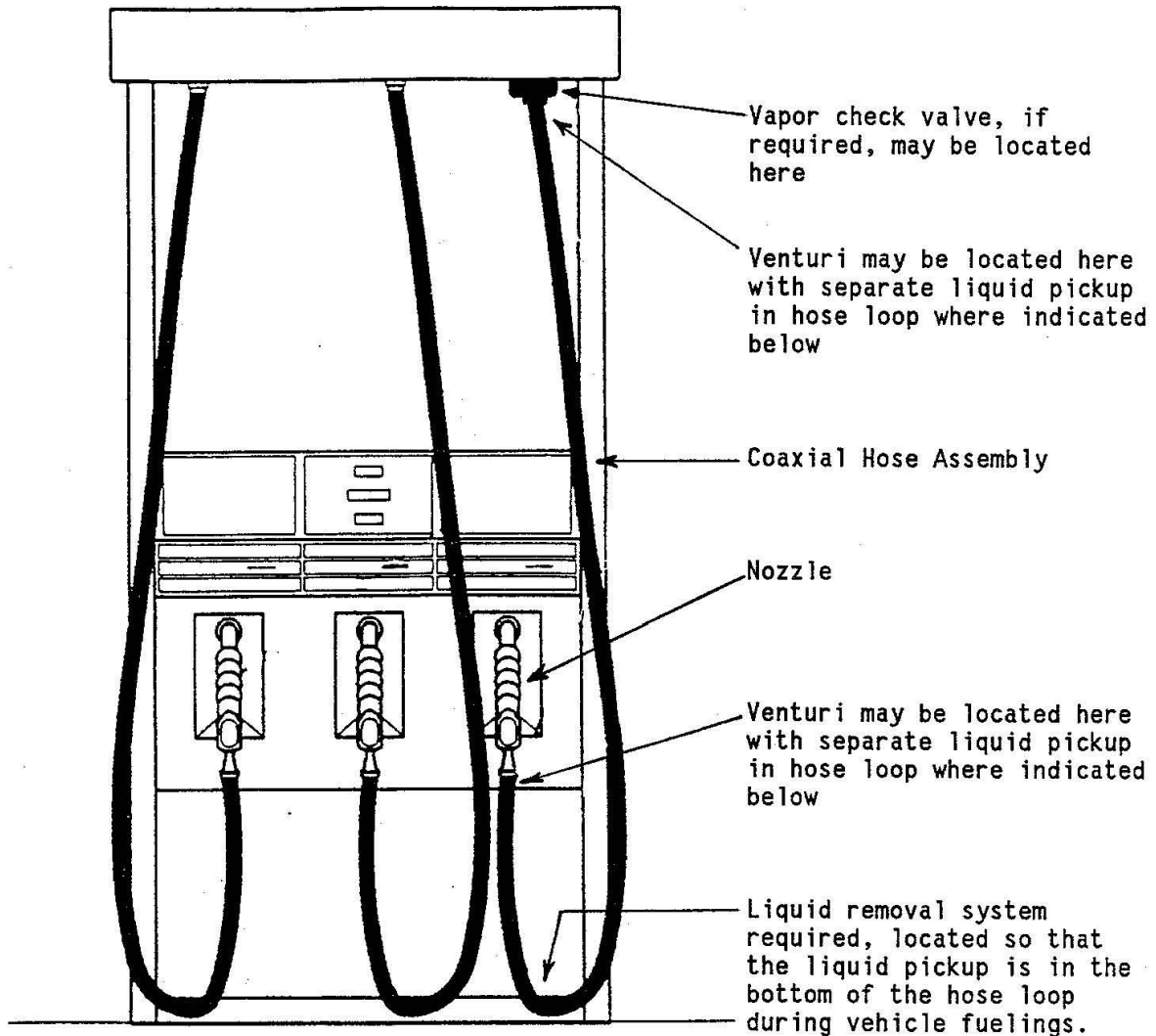
Exhibit 9c
Executive Order G-70-52-AM
High-Hang Coaxial Hose Configuration With Liquid Removal System
For New and Existing Installations



Notes:

1. Use 1 inch or larger inside diameter galvanized pipe for riser.
2. The maximum length of the hose assembly, including any breakaway valve, vapor check valve or pigtail hose, shall not exceed 13 feet.
3. An ARB certified liquid removal system must be installed and maintained according to the manufacturer's current specifications.
4. A flow limiter is required on all dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
5. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.
6. The hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider island ends protect the hose from damage by vehicle tires, the hose may touch the vertical face of the dogbone island at the option of the local air pollution control district.
7. Retractor must retract coaxial hose to top of dispensers when not in use.
8. Tension on hose clamp must not be in excess of that required to return hose to top of dispenser.

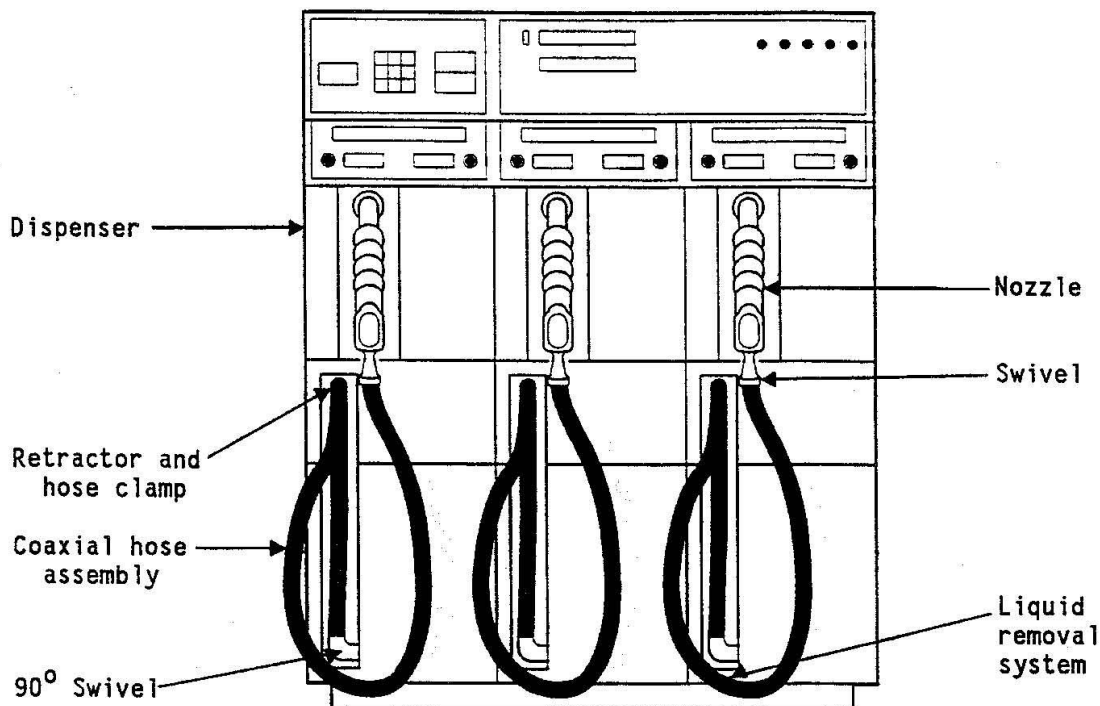
EXHIBIT 10
Executive Order G-70-52-AM
High-Hang Coaxial Hose Configuration With Liquid Removal System
For New and Existing Installations



Notes:

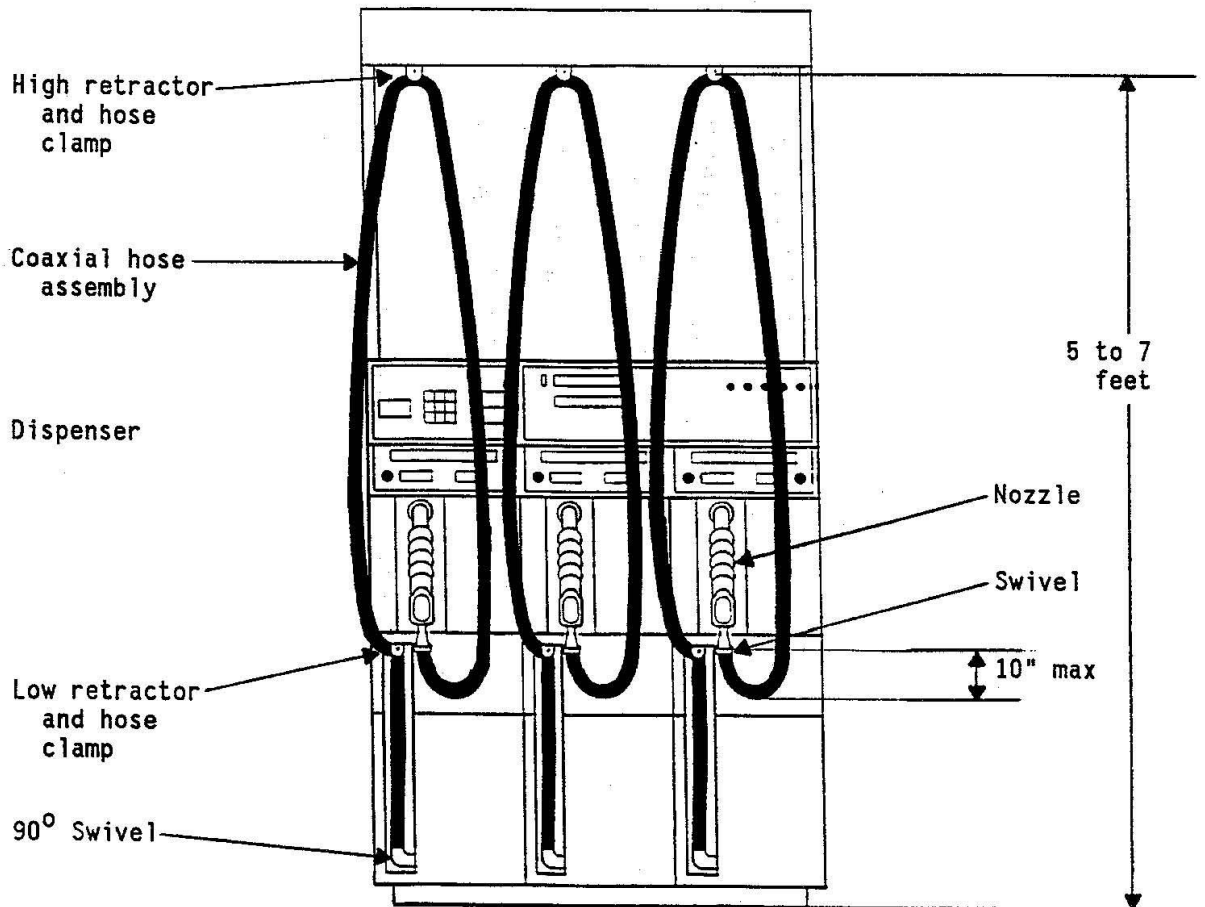
1. Use 1 inch or larger inside diameter galvanized pipe for riser.
2. The maximum length of the hose assembly is 10-1/2 feet.
3. An ARB certified liquid removal system must be installed and maintained according to the manufacturer's current specifications.
4. A flow limiter is required on all dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
5. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.
6. The hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider island ends protect the hose from damage by vehicle tires, the hose may touch the vertical face of the dogbone island at the option of the local air pollution control district.

EXHIBIT 11
Executive Order G-70-52-AM
Low-Profile Dispenser with Retractor and Liquid Removal System
For New and Existing Installations



- Notes:
1. Use 1 inch or larger inside diameter galvanized pipe for riser.
 2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
 3. An ARB certified liquid removal system must be installed and maintained according to manufacturer's specifications.
 4. Retractor must retract coaxial hose to dispenser when not in use. The hose must fit snugly against the dispenser from the low retractor to the 90° swivel.
 5. Tension on retractor hose clamp must not be in excess of that required to return hose to dispenser.
 6. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.
 7. The hose may not touch the island or the ground when not in use. In the case of a dogbone island where the wider island ends protect the hose from damage by vehicle tires, the hose may touch the vertical face of the dogbone island at the option of the local air pollution control district.

EXHIBIT 11a
Executive Order G-70-52-AM
Low-Profile Dispenser with Retractors
For New and Existing Installations



- Notes:
1. Use 1 inch or larger inside diameter galvanized pipe for riser.
 2. A flow limiter is required on dispensers that have a maximum flowrate in excess of 10 gpm. A flow limiter may be required on all gasoline dispensers at the option of the local air pollution control district.
 3. Low retractor must be present and must retract hose to dispenser when not in use. Hose must fit snugly against dispenser from low retractor to 90 degree swivel.
 4. High retractor must retract hose fully when hose is not in use and must provide natural drainage from high retractor to the 90° swivel.
 5. Tension on retractor hose clamp must not be in excess of that required to return hose to dispenser.
 6. The Emco Wheaton and EZ-flo A4001 and A4003 nozzles are permitted only when used in conjunction with approved vapor check valves.

EXHIBIT 1¹
Equipment List
Hanging Hardware

Component	Manufacturer / Model
Nozzle	VST Model VST-EVR-NB, VST-EVR-NB (Rebuilt) Or VST Model VST-EVR-NB (G2), VST-EVR-NB (G2 Rebuilt) Or EMCO Models A4005EVR, RA4005EVR (Rebuilt) (Figure 1A-1)
Coaxial Curb Hose	VST Model VDV-EVR Series or VDVP-EVR Series Or Veyance Model Maxxim Premier Plus (“NV” stamped on nozzle end) (Figure 1A-2)
Coaxial Whip Hose	VST Model VSTA-EVR Series or VSTAP-EVR Series Or Veyance Model Maxxim Premier Plus (Figure 1A-2)
Breakaway Coupling	VST Model VSTA-EVR-SBK, VSTA-EVR-SBK (Reattachable) ² Or EMCO Model A4119EVR Or OPW Model 66CLP (Figure 1A-2)

Allowable Hanging Hardware Combinations

Processor	Nozzle		Hose		Breakaway		
	VST	EMCO	VST	Veyance	VST	EMCO	OPW
VST Membrane	●		●	●	●	●	●
Veeder Root Vapor Polisher	●	●	●	●	●	●	●
FFS Clean Air Separator	●	●	●	●	●	●	●
Hirt VCS 100	●	●	●	●	●	●	●
VST Green Machine	●		●	●	●	●	●

¹ The local air district may require a permit application when changing between alternate components.

² The lower half of the VST reattachable breakaway, identified with a VST logo, cannot be used on the VST non-reattachable or rebuilt breakaways (previously certified by Executive Orders VR-203 A to O).