State of California
AIR RESOURCES BOARD

Executive Order G-70-14-F

Relating to the Modification of the Certification of the
Red Jacket Aspirator Assist Service Station
Phase II Vapor Recovery System

Pursuant to the authority vested in the Air Resources Board (ARB) by Health and Safety Code Section 41954; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516;

IT IS ORDERED AND RESOLVED: That the certification issued on March 4, 1980, for the Red Jacket aspirator assist, Phase II vapor collection and disposal system is hereby modified

1. To include the Emco Wheaton A3006 vapor recovery nozzle as an alternative nozzle;

2. To include the Emco Wheaton A3007 vapor recovery nozzle, B.F. Goodrich co-axial hose assembly, and Emco Wheaton co-axial swivels, as components for an alternative hose configuration;

3. To delete the requirement for manifolding of vent pipes; and

4. To transfer certification of the alternate high hose configuration to the alternative high hose configuration certification, Executive Order G-70-52-E and subsequent G-70-52 modifications.

The system hereby modified is certified to be at least 95% effective at gasoline service stations in conjunction with Phase I vapor recovery systems which have been certified by the Air Resources Board. The system is described in Exhibits 1, 2, 3, 4, 5, and 6 attached hereto.

IT IS FURTHER ORDERED AND RESOLVED: That compliance with the applicable certification requirements and rules and regulations of the Division of Measurement Standards, the State Fire Marshal's Office, and the Division of Industrial Safety of the Department of Industrial Relations is made a condition of this certification.

IT IS FURTHER ORDERED AND RESOLVED: That the system certified hereby shall perform in actual use with the same effectiveness as the certification test system. Compliance with the applicable performance criterion shall be a condition of this certification, and failure to meet this criterion shall constitute grounds for revocation, suspension, or modification of this certification.

IT IS FURTHER ORDERED AND RESOLVED: That any alteration to the equipment, parts, design, or operation of the system certified hereby is prohibited, and deemed inconsistent with this certification, unless such alteration has been approved by the undersigned.

IT IS FURTHER ORDERED AND RESOLVED: That the OPW-7VE, Emco Wheaton A3006, and Emco Wheaton A3007 nozzles shall be 100 percent performance checked at the factory including checks or proper functioning of all automatic shut-off mechanisms.

IT IS FURTHER ORDERED AND RESOLVED: That during installation of the OPW-7VE, Emco Wheaton A3006, and Emco Wheaton A3007 nozzles they shall be performance tested for ability to dispense gasoline without difficulty in the presence of the station manager or other responsible individual. The station manager, owner or operator shall also be provided with instructions on the proper use of the nozzles, their repair and maintenance, and where nozzle replacements and nozzle components can be readily obtained. A copy of the nozzle warranty shall be made available to the station manager, owner or operator.

IT IS FURTHER ORDERED AND RESOLVED: That except for those non-retail outlets refueling special vehicles, in order for vapor return hoses longer than specified in this certification to be used, the system shall incorporate a liquid blockage detector which is acceptable to the undersigned.

Executed at Sacramento, California this 16th day of October, 1981.

James D. Boyd
Executive Officer

EXHIBIT 1

Executive Order G-70-14-*E*

Red Jacket Aspirator Assist Service Station
Phase II Vapor Recovery System

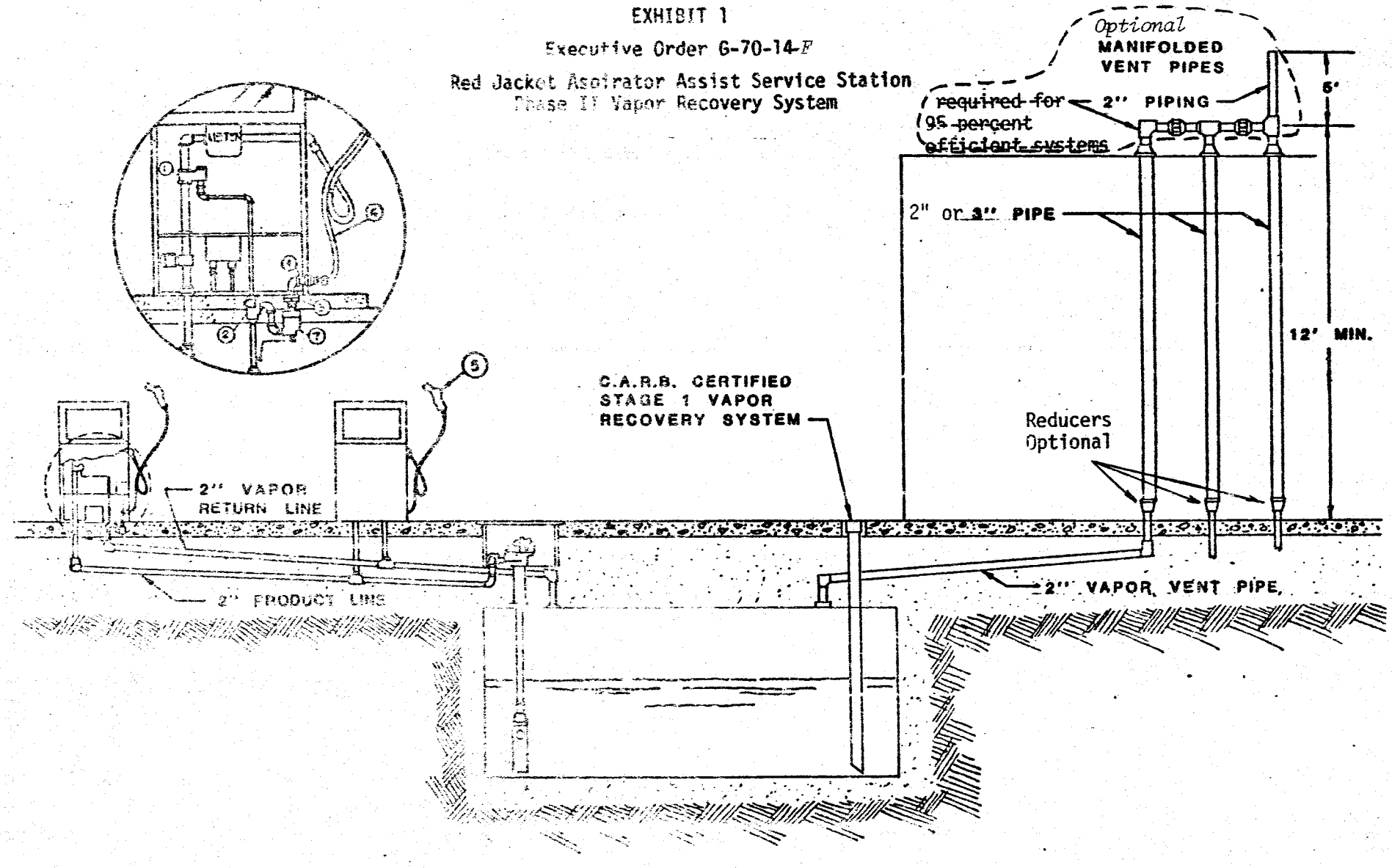


EXHIBIT 2

Executive Order G-70-14-*E*

Red Jacket Aspirator Assist Service Station

Phase II Vapor Recovery System

Component List

Item	Manufacturer and Model	State Fire Marshal Identification Number	Substitute Equipment: Manufacturer and Model	Substitute Equipment: State Fire Marshal Identification Number
1. Modulating Valve	Red Jacket 188 - 185	GVRC002:001:1		
2. Aspirator, without fluid by-pass tubing	Red Jacket 104 - 016	GVRC002:001:2		
3. Vapor Check Valve	Red Jacket 188 - 184	GVRC002:001:3		
4. Vapor Screen	Red Jacket 176 - 032	GVRC002:001:4		
5. Nozzle, unleaded	OPW-7VE-49	GVRC-002:008:17	*Emco Wheaton A3006 (unleaded)*	*GVRC 005:007:20*
Nozzle, leaded	OPW-7VE-36	GVRC-002:008:15	*Emco Wheaton A3006 (leaded)*	*GVRC 005:007:20*
Nozzle, unleaded	OPW-7VE-47	GVRC-002:008:16		
Nozzle, leaded	OPW-7VE-34	GVRC-002:008:14		
6. Vapor Return Hose	5/8 in. I.D. by 8 ft.			
7. Recirculation Trap*	OPW-78*	GVRC-002:008:12*		
8. Swivels				
Vapor Hose	State Fire Marshal Approved. 0.495 in. I.D. Minimum			
9. Eductor System (For vapor return piping with insufficient slope, see Exhibit 3.)				
Eductor	Red Jacket 141-182	GVRC:002:001:13		
Pressure Relief Valve	Red Jacket 144-073	GVRC:002:001:14		
Liquid Check Valve	Red Jacket 088-129	GVRC:002:001:15		
Liquid Tank	Red Jacket 081-055	GVRC:002:001:16		
10. Overhead Retractor (Optional, see ~~Exhibit 4~~ *latest version of Executive Order G-70-52*	Red Jacket 171-057	GVRC:002:001:17		
11. Flow Limiter†	*Emco Wheaton A-10†*	*GVRC 001:007:1†*		

*Not requried for overhead dispensers, see Exhibits 4 and ~~5.~~ *latest version of Executive Order G-70-52.*

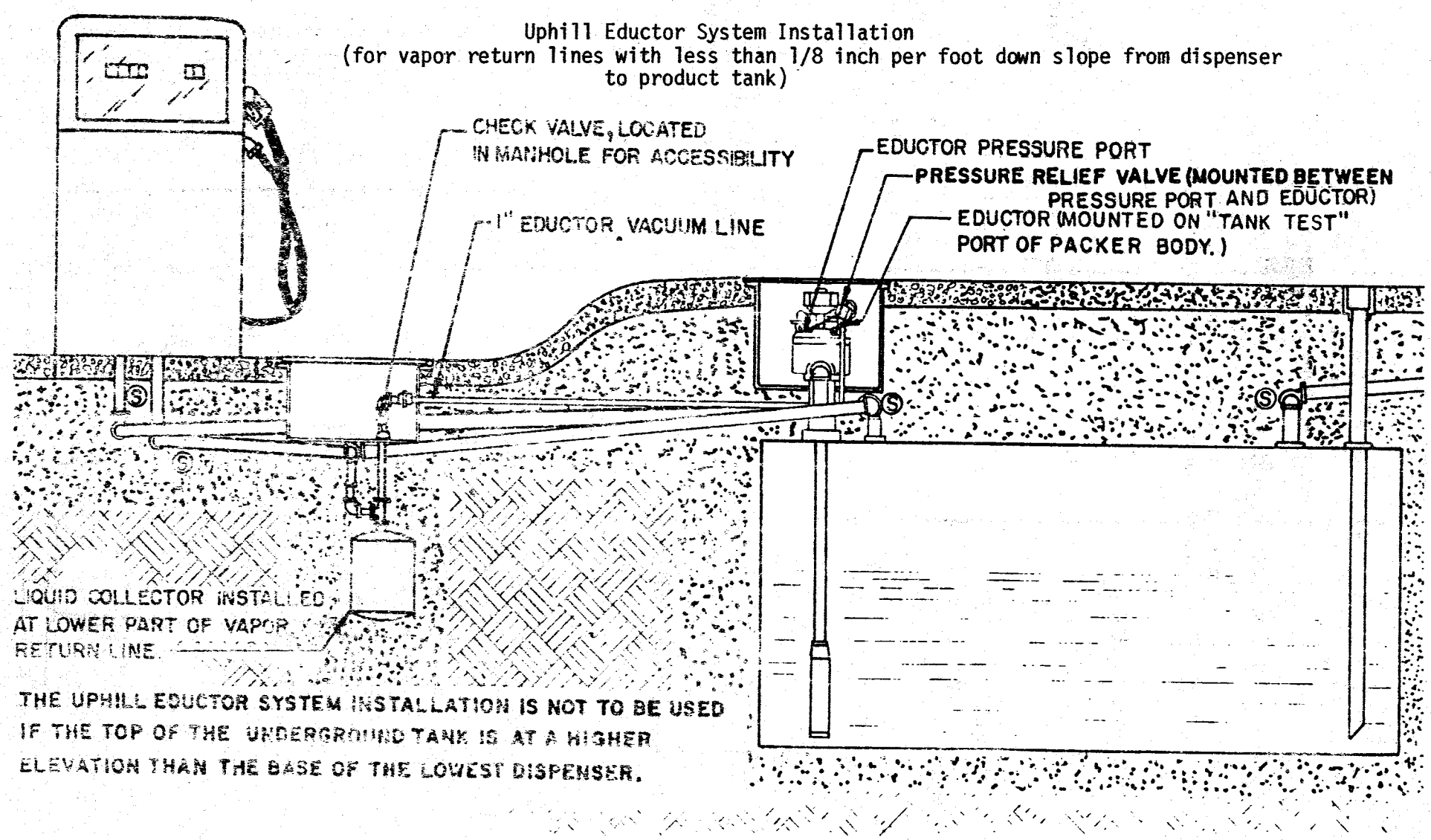
†*Required with Emco Wheaton nozzle only.*

Exhibit 3

Executive Order G-70-14-*F*

Red Jacket Aspirator Assist Service Station
Phase II Vapor Recovery System

Uphill Eductor System Installation
(for vapor return lines with less than 1/8 inch per foot down slope from dispenser to product tank)



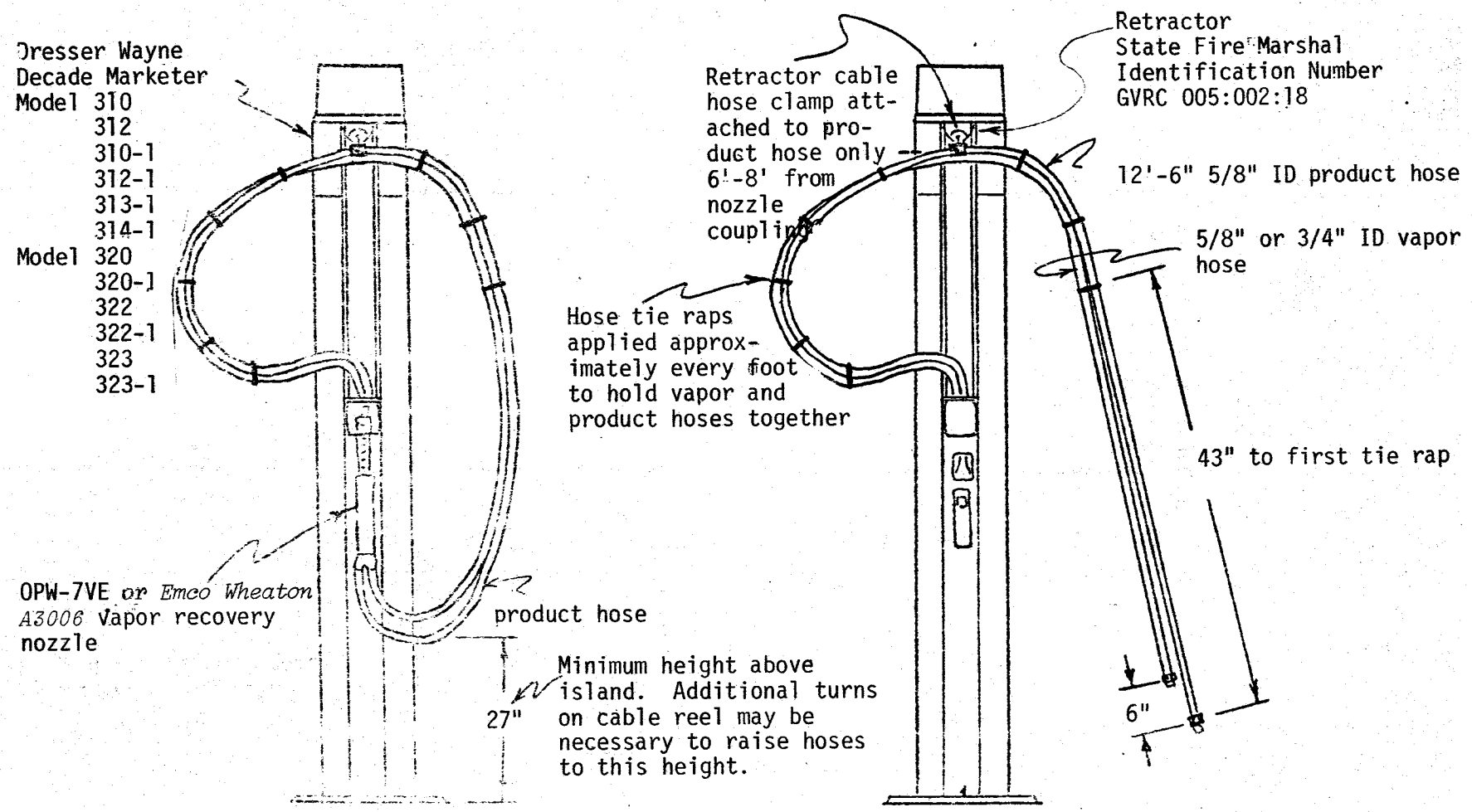
THE UPHILL EDUCTOR SYSTEM INSTALLATION IS NOT TO BE USED IF THE TOP OF THE UNDERGROUND TANK IS AT A HIGHER ELEVATION THAN THE BASE OF THE LOWEST DISPENSER.

Exhibit 54

Executive Order G-70-14-*F*

Red Jacket Aspirator Assist Service Station
Phase II Vapor Recovery System
Alternative Hose Configuration

Dresser Wayne Decade Marketer



Notes: 1. Recirculation trap not required.
2. Hose swivels not required at dispenser end of hoses.
3. *Flow Limiter Emco Wheaton A10 GVRC 001:007:1 required with Emco Wheaton A3006 nozzle.*

(Exhibit 4 is transferred to Executive Order G-70-52-E)

~~Exhibit 4~~
~~Executive Order G-70-14-E~~

Red Jacket Aspirator Assist Service Station
Phase II Vapor Recovery System
Alternate Dispenser Configuration
Red Jacket Overhead Hose Retractor System

FLUID HOSE LENGTH:	12 Feet
VAPOR HOSE LENGTH:	As needed to permit natural drainage into dispenser and still avoid kinking when fully extended
VAPOR HOSE DIAMETER:	5/8" inside diameter.
RETRACTOR REEL:	Ametek, Aero-Motive, Searle, or approved equivalent. State Fire Marshal Identification Number GVRC:002:001:17
CABLE LENGTH:	10 Feet
RECIRCULATION TRAP:	None
SWIVELS:	360^{0} in-line on each end of both fluid and vapor hose. State Fire Marshal Approved 0.495 in. I.D. minimum.

INSTALLATION DIMENSIONS:

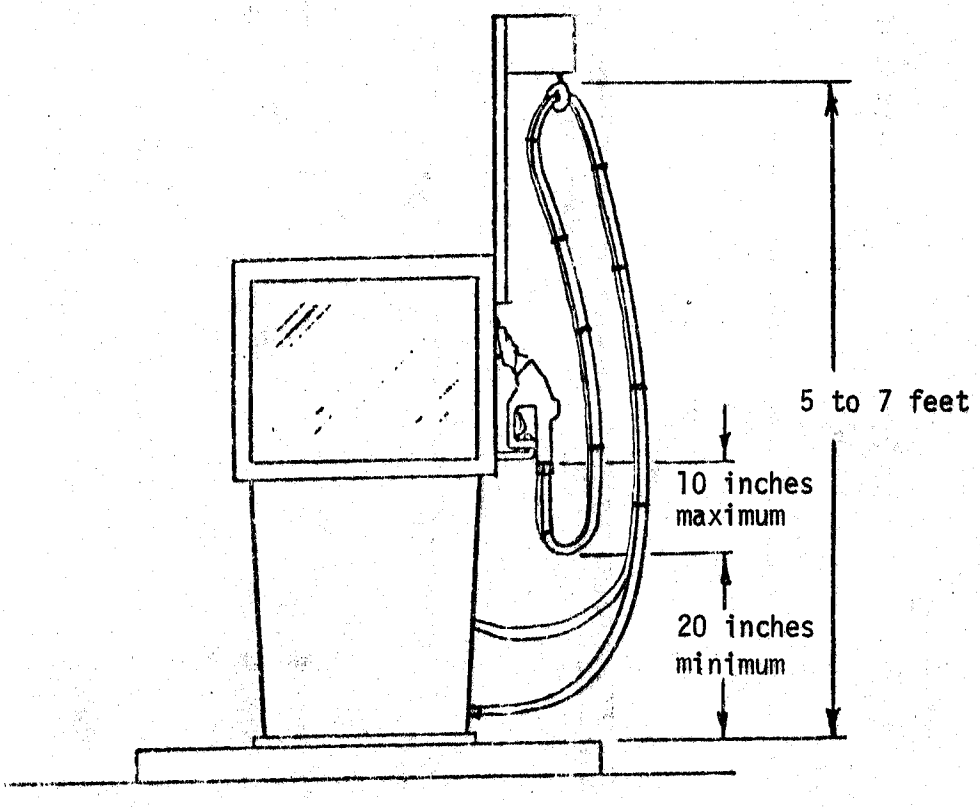


Exhibit 6

Executive Order G-70-14-F

Red Jacket Aspirator Assist Service Station Phase II Vapor Recovery System Alternative Hose Confirmation With B.F. Goodrich Co -Axial Hose

Component List

Item	Manufacturer and Model	State Fire Marshal Identification Number	Substitute Equipment: Manufacturer and Model	Substitute Equipment: State Fire Marshal Identification Number
1. Nozzle	Emco Wheaton A3007 Vapor Recovery Nozzle (unleaded) Emco Wheaton A3007 Recovery Nozzle (leaded)	GVRC 005:007:21		
2. Co-Axial Hose	B.F. Goodrich Co-Ax 8 to 9 feet long	GVRC 005:014:001		
3. Swivels				
a. Nozzle	Emco Wheaton A110-001	GVRC 005:007:12		
b. Island	Emco Wheaton A93-001	GVRC 005:007:10		
	or			
	A92-001	GVRC 005:007:11		
5. Flow Limiter	Emco Wheaton A-10	GVRC 001:007:1		
6. Recirculation Trap	OPW 78	GVRC 002:008:12		

Notes to Accompany Exhibits 1, 2, 3, 4, 5, *and 6*

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1. One-inch or larger branch lines connecting to a two-inch return pipe are required.

2. Each vapor hose shall be located such that the center line of the hose fitting, at the swivel mounting at the dispenser housing, is not more than 3-1/2 inches above the top surface of the island, and is as close to the surface of the island as possible. (Does not apply to Exhibits 4 ~~and 5~~) *and alternative high hose configurations. See latest version of Executive Order G-70-52).*

3. For dispenser islands greater than 5 feet in width, each vapor hose length shall not be longer than the sum of one-half the dispenser island width, in feet, plus 6 feet. (Does not apply to Exhibits 4 ~~and 5~~) *and alternative high hose configurations. See latest version of Executive Order G-70-52).*

4. Product hose length shall be selected for each dispenser to provide for full extension of the vapor return hose. (Does not apply to Exhibits 4, *5, 6, and alternative high hose configurations. See latest version of Executive Order G-70-52).*

5. State Fire Marshal approved swivels (and offsets if necessary) for this system shall be selected and installed on hoses to prevent hose kinking.

6. For only those non-retail outlets which fuel special vehicles, the installations of vapor recovery hoses longer than specified in this certification *or in the latest version of Executive Order G-70-52* are allowed provided the following conditions are met:

   a. The non-retail outlet fuels special vehicles such as large trucks, large skip loaders, off-the-road equipment, etc. where reaching the fill pipe requires longer hoses.

   b. The vapor return hose length is no longer than required.

   c. The vapor return hoses are arranged to be self-draining or provisions are made to drain the hoses after each refueling or the system incorporates an approved liquid blockage detection system arranged to cease dispensing when a blockage occurs.

   d. The Executive Officer of the Air Resources Board has approved the plans for compliance with conditions b and c.

7. For those dispensers classified as non-commercial by the Division of Measurement Standards and are not required to be tested and sealed by Weights and Measures officials, the use of recirculation traps is optional. However, the use of recirculation traps is recommended by the Division of Measurement Standards in any installation where the user utilizes the gallonage figures.