State of California

AIR RESOURCES BOARD

Executive Order G-70-25-D

Relating to the Modification of the Certification of the
Atlantic Richfield Balance
Phase II Vapor Recovery System

Pursuant to the authority vested in the Air Resources Board (ARB) by the 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 Executive Order G-70-25-C issued on January 22, 1980 for the Atlantic Richfield balance Phase II vapor collection and disposal system is hereby modified to include an alternate hose configuration, described in Exhibit 3. The system hereby modified is certified to be at least 95% effective in self-serve and/or attendant use at gasoline service stations in conjunction with Phase I vapor recovery systems which have been certified by the Air Resouces Board. The system is described in Exhibits 1 2, and 3 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 of 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 Emco Wheaton A3003 and OPW-7VC nozzles shall be 100 percent performance checked at the factory including checks of proper functioning of all automatic shut-off mechanisms.

IT IS FURTHER ORDERED AND RESOLVED: That during installation of the Emco Wheaton A3003 and OPW-7VC 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 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 17th day of April, 1980.

Thomas C. Austin
Executive Officer

# EXHIBIT 1

## EXECUTIVE ORDER G-70-25-D
## ATLANTIC RICHFIELD COMPANY BALANCE PHASE II
## VAPOR RECOVERY SYSTEM

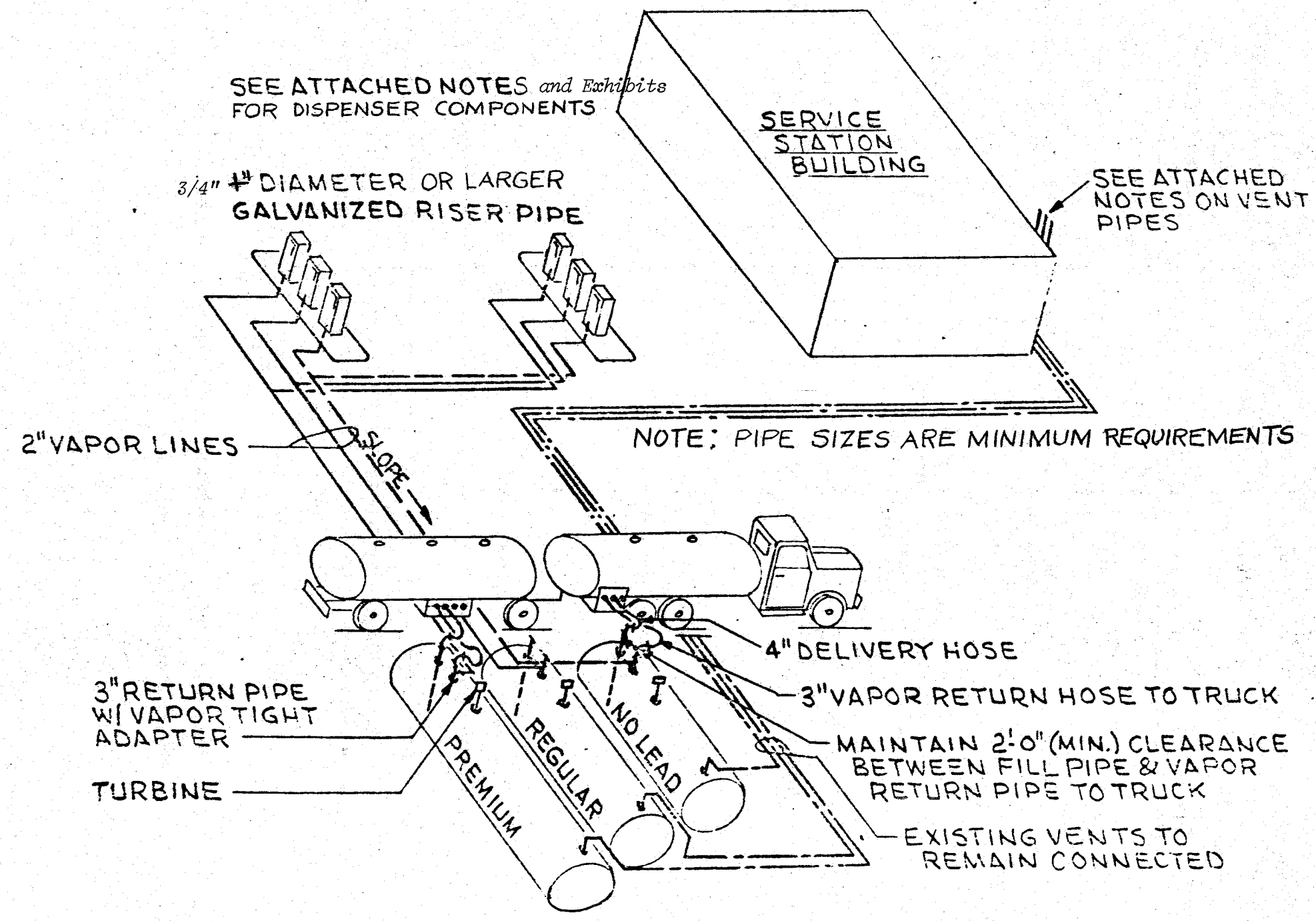


EXHIBIT 2

Executive Order G-70-25-D
ARCO Phase II Balance
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. Nozzle | Emco Wheaton A3003 (Extended Spout, Large Diaphram) Vapor Recovery Nozzle (Unleaded) | GVRC 001:007:5 | OPW 7-V Model C-47<br>OPW 7-V Model C-49<br>(unleaded) | GVRC 001:008:19 |
| | Emco Wheaton A3003 (Short Spout, Large Diaphram) Vapor Recovery Nozzle (leaded) | | OPW 7-V Model C-22<br>OPW 7-V Model C-24<br>(leaded) | GVRC 001:008:18 |
| 2. Vapor Hose | 3/4 in. ID by 8 ft. | | 5/8 in. ID by 8 ft. | |
| 3. Riser | 3/4 ~~1~~ in. or larger diameter Galvanized Pipe | | | |
| 4. Swivels | | | | |
| a. Nozzle | State Fire Marshal Approved 0.495 in. ID minimum | | | |
| b. Island | State Fire Marshal Approved. 0.495 in. ID minimum | | | |
| 5. Flow Limiter+ | Emco Wheaton A-10 | GVRC 001:007:1 | | |
| 6. Recirculation Trap | Emco Wheaton A008-001 | GVRC 001:007:4 | OPW 78, 78-S, 78-E, or 78-ES<br>Emco Wheaton A 88-001<br>Emco Wheaton A 88-001 | GVRC 001:008:13<br>GVRC 005:007:8<br>GVRC 005:007:9 |

Maximum Pressure Drop Through the System*
(Includes Nozzle, Vapor Hose, Swivels, Recirculation Trap, and Underground Piping)

| Flow (CFH) | $\Delta$("$H_2O$) |
|---|---|
| 20 | less than 0.15 |
| 60 | less than 0.45 |
| 100 | less than 0.95 |

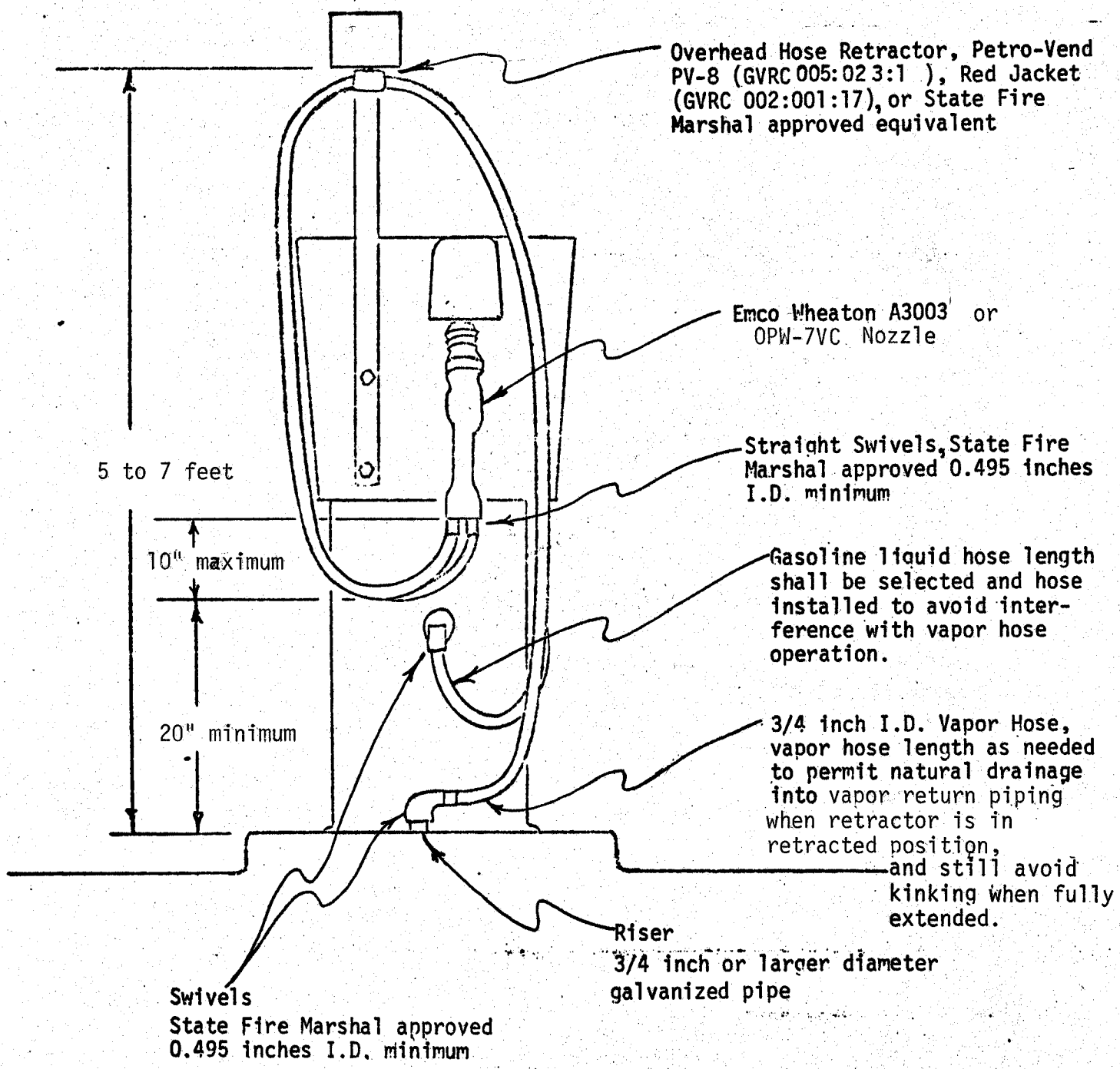
*Pressure drop test to be conducted with drybreak to underground tank open.

+Not required with OPW 7-V Model C nozzles.

*Exhibit 3*

*Executive Order G-70-25-D*

*ARCO Phase II Balance Vapor Recovery System*
*Alternate Hose Configuration*




**Notes:**

1. Flow limiter Emco Wheaton A-10 (GVRC 001:007:1) required with Emco Wheaton nozzle.
2. Recirculation trap not required.
3. **Use 6 to 8 hose ties, with first tie approximately 24 inches from nozzle.**
4. Vapor return piping may be installed inside dispenser and through the dispenser cabinet.

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Notes to Accompany Exhibits 1, 2 *and 3*

1. Vent pipes shall be adequately supported throughout their length and when they are supporting weights in addition to their own, additional supports may be required - anchor to building or other structure.

2. Tank vent pipes two inches or less in nominal inside diameter shall not be obstructed by any device unless the tank and its associated piping & other equipment is protected to limit back pressure development to less than the maximum working pressure of the tank, piping and other equipment by the installation of an approved pressure/vacuum vent, rupture disc or other venting devices installed in the tank vent pipes.

3. Tank vent pipes shall terminate into the open atmosphere and shall be not less than 12 feet above the adjacent ground level. The outlet shall vent upward or horizontally and be located to eliminate the possiblity of vapors accumulating or traveling to a source of ignition or entering adjacent buildings.

4. All vapor return and vent piping shall be provided with swing joints at the base of the riser to each dispensing unit, at each tank connection, and at the base of the vent riser where it fastens to a building or other structure. When a swing joint is used in a riser containing a shear section the riser must be rigidly supported.

5. Each vapor hose shall be located such that the center line of the hose fitting, at the recirculation trap (if externally mounted) or at the dispenser cabinet swivel mounting (if trap is internally mounted), is not more than 3-1/2 inches above the top surface of the island and is as close as possible to the top surface of the island. *(Does not apply to alternate hose configuration, Exhibit 3.)*

6. 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 alternate hose configuration, Exhibit 3.)*

7. State Fire Marshal approved swivels for this system shall be selected and installed on hoses to prevent hose kinking.

8. Product hoses one foot or more longer than the vapor hose shall be installed at each dispenser to provide for full extension of the vapor return hose. *(Does not apply to alternate hose configuration, Exhibit 3.)*

9. If any OPW 78 series *or Emco Wheaton A94-001* recirculation trap is internally mounted in any dispenser, the top of the recirculation trap shall not be higher than the top surface of the dispenser island and a vapor recovery piping shear section which meets State Fire Marshal requirements shall be installed.