State of California
AIR RESOURCES BOARD

Executive Order G-70-102-A

Certification of a Phase I Vapor Recovery System for Aboveground Storage Tanks with less than 40,000 Gallons Capacity for Gasoline or Gasoline/Methanol Blended Fuels

This Executive Order shall supersede Executive Order G-70-102, dated August 8, 1985.

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 displaced during the filling of storage tanks at service stations ("Phase 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 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 I 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 Board has determined that the Phase I (Cargo Tank to Storage) vapor recovery efficiency of aboveground, horizontal or vertical cylindrical storage tanks or rectangular storage tanks with less than 40,000 gallons capacity for gasoline or gasoline/methanol blended fuels and equipped with co-axial or two-point fill and vapor return adaptors, or remote or side fill and vapor return lines is greater than 95 percent by weight;

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; and

WHEREAS, I find the systems described in Exhibits 1 and 2 attached hereto conform with all the requirements set forth in Sections I through VII of the Certification Procedures;

NOW, THEREFORE, IT IS HEREBY ORDERED that this certification applies to aboveground, horizontal or vertical cylindrical storage tanks or rectangular storage tanks with less than 40,000 gallons capacity for gasoline or gasoline/methanol blended fuels and equipped with co-axial or two-point fill and vapor return adaptors, or remote or side fill and vapor return lines. The systems certified hereby are shown in Exhibits 1 and 2 attached.

IT IS FURTHER ORDERED that compliance with the rules and regulations of the local air pollution control district with jurisdiction where the installed system is located, shall be a condition of this certification;

IT IS FURTHER ORDERED that the tank and associated piping and other equipment not specifically listed as approved Phase I equipment in Exhibits 1 through 3 of Executive Order G-70-97-A shall comply with the rules and regulations of the local fire officials with jurisdiction where the installed system is located.

IT IS FURTHER ORDERED that all equipment and fittings installed on the tanks be leak free at the operating pressure of the tank (the P/V valve pressure relief setting) when tested in accordance with ARB Method 2-6, "Test Procedures for Gasoline Vapor Leak Detection Using Combustible Gas Detector" as last amended September 1, 1982, incorporated by reference in Section 94007 of Title 17, California Code of Regulations.

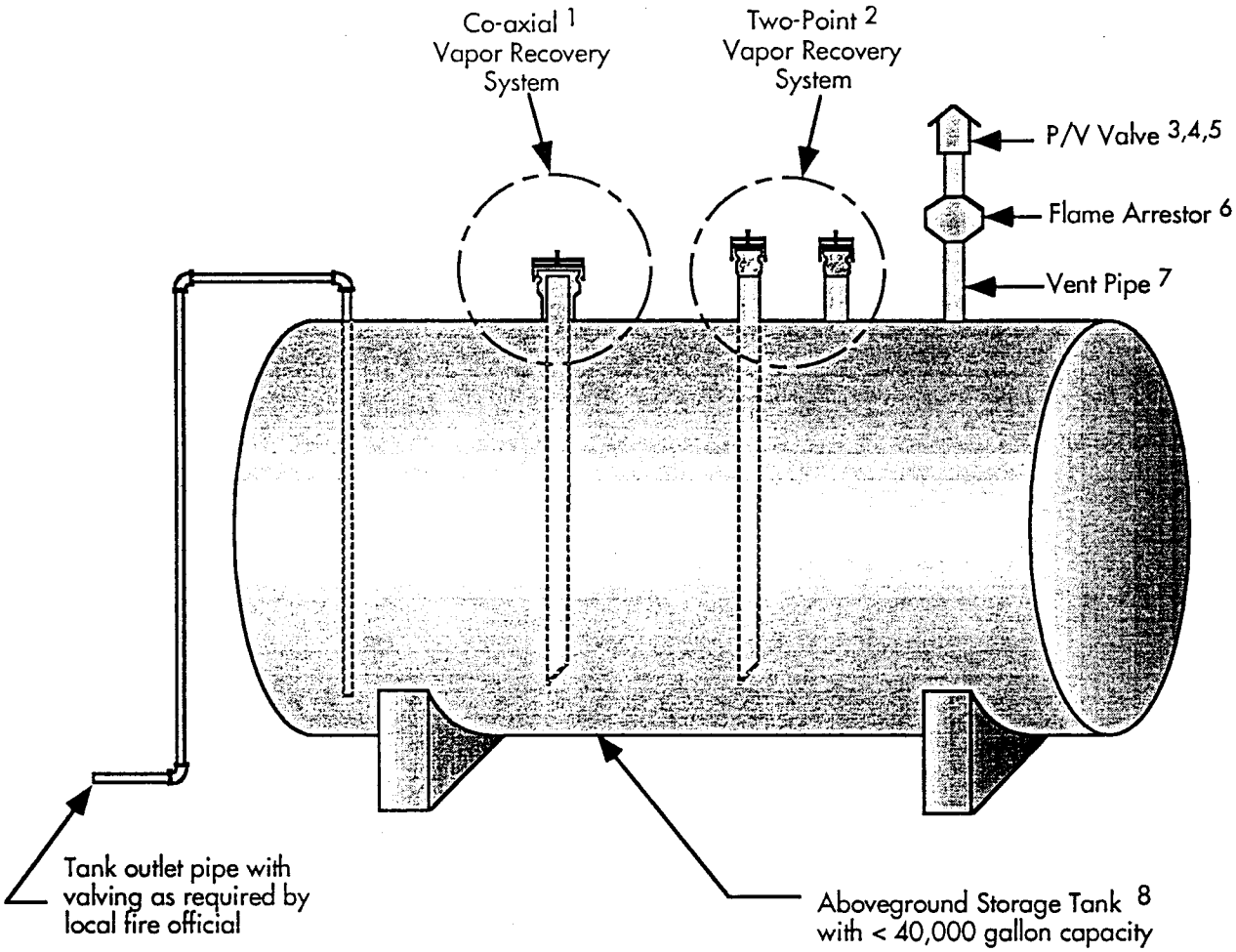
IT IS FURTHER ORDERED that compliance with all applicable certification requirements and rules and regulations of the Division of Measurement Standards, the Office of the State Fire Marshal, and the Division of Occupational Safety and Health of the Department of Industrial Relations shall be a condition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

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 this 28th day of May 1993, at Sacramento, California.

James D. Boyd
Executive Officer

Exhibit 1
Executive Order G-70-102-A



1. Air Resources Board certified Phase I coaxial vapor recovery equipment is listed in Executive Order G-70-97-A (Exhibits 2 & 3).

2. Air Resources Board certified Phase I two-point vapor recovery equipment is listed in Executive Order G-70-97-A (Exhibits 1 & 3) and G-70-142 series.

3. Air Resources Board certified pressure/vacuum (P/V) valves are listed in Executive Order G-70-97-A (Exhibit 3) and ARB approval letters 92-20, 92-21, 92-28 and et . seq.

4. Tanks installed prior to August 9, 1978, and subject to certification shall be equipped with a P/V relief valve with a minimum pressure relief setting of 90 percent of the tank's design working pressure rating or +8 ounces per square inch (gauge), whichever is less.

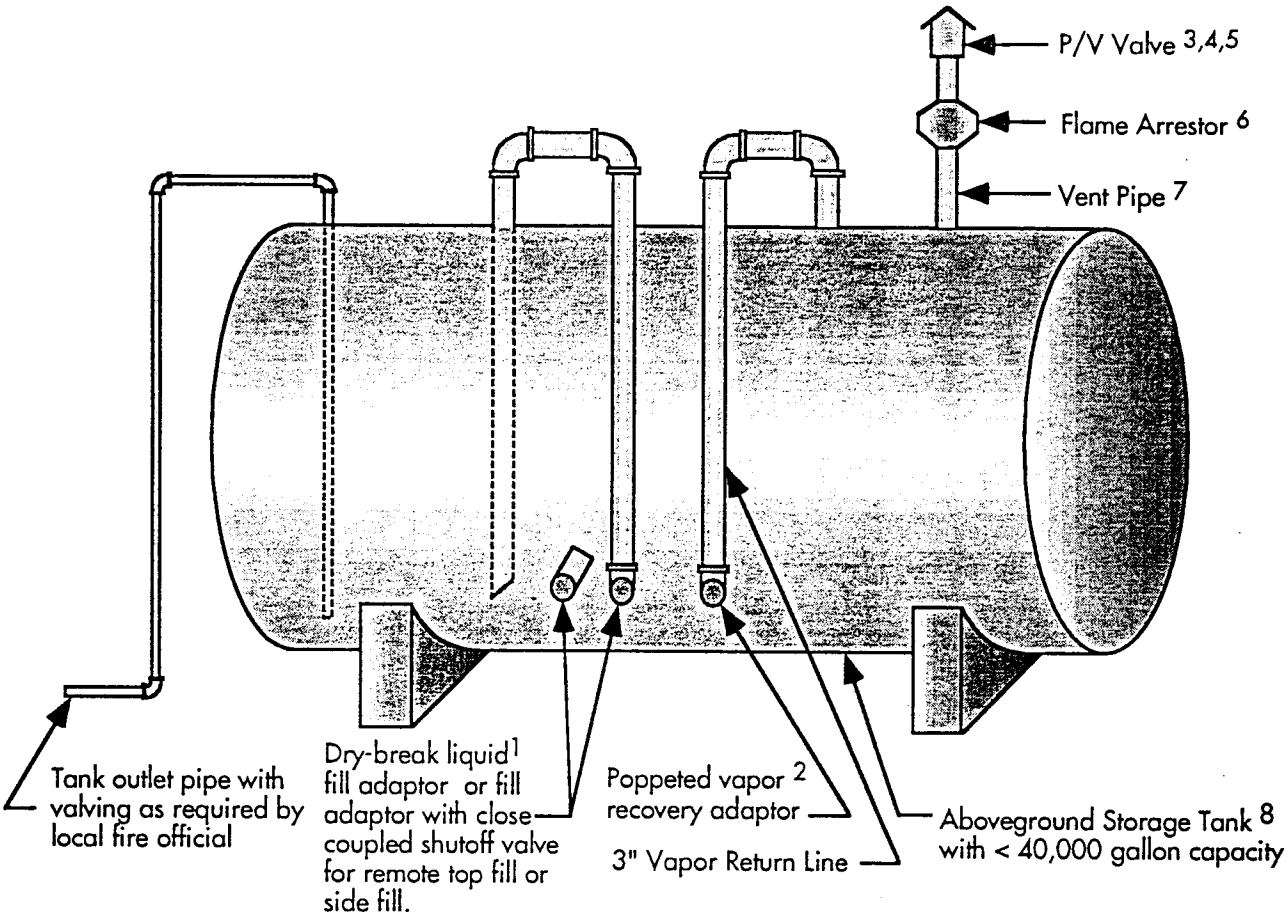
5. Tanks installed after August 9, 1978, shall be designed to be compatible with a P/V relief valve with a minimum pressure setting of 8 ounces per square inch (gauge).

6. Flame arrestor is required if the vent pipe diameter is 3" or more or if required by local fire offical.

7. Vent pipe diameter must be approved by local fire offical.

8. Storage tank may be a horizontal or vertical cylindrical tank or a rectangular tank.

Exhibit 2
Executive Order G-70-102-A



1. Dry-break liquid fill adaptor or fill adaptor with close coupled shutoff valve with leak rate of no more than 10 ml per disconnect computed from the average of three consecutive disconnects. An anti-siphon valve in the liquid fill line is recommended or as required by the local fire official.

2. Air Resources Board certified Phase I two-point vapor recovery equipment is listed in Executive Order G-70-97-A (Exhibits 1 & 3) and G-70-142 series.

3. Air Resources Board certified pressure/vacuum (P/V) valves are listed in Executive Order G-70-97-A (Exhibit 3) and ARB approval letters 92-20, 92-21, 92-28 and et. seq.

4. Tanks installed prior to August 9, 1978, and subject to certification shall be equipped with a P/V relief valve with a minimum pressure relief setting of 90 percent of the tank's design working pressure rating or 8 ounces per square inch (gauge), whichever is less.

5. Tanks installed after August 9, 1978, shall be designed to be compatible with a P/V relief valve with a minimum pressure setting of 8 ounces per square inch (gauge).

6. Flame arrestor is required if the vent pipe diameter is 3" or more or if required by local fire official.

7. Vent pipe diameter must be approved by local fire official.

8. Storage tank may be horizontal or vertical cylindrical tank or rectangular tank.