State of California
AIR RESOURCES BOARD

Executive Order G-70-38-AB

Relating to Certification of the Texaco Balance
Phase II Vapor Recovery System

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 the 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 Texaco Balance Phase II vapor recovery system has been evaluated pursuant to the Certification Procedures and Test Procedures and certified May 18, 1979 under Executive Order G-70-38;

WHEREAS, the certification of the Texaco Balance Phase II vapor recovery system was modified on October 31, 1979; under Executive Order G-70-38-A;

WHEREAS, The Texaco Balance Phase II vapor recovery system was recertified on February 8, 1983, under Executive Order G-70-38-AA;

WHEREAS, clarification of the Phase I delivery procedures and requirements has been requested by local air pollution control districts;

WHEREAS, I find that coaxial vapor recovery hoses when used with balance Phase II vapor recovery systems result in an improvement to the performance of the systems;

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 the vapor recovery system conforms to all of the requirements set forth in Sections I through VII of the Certification Procedures.

NOW THEREFORE, IT IS HEREBY ORDERED that Executive Order G-70-38-AA is hereby modified to specify that delivery may be made only from cargo tank compartments which are connected to the Phase I vapor recovery system, and that simultaneous delivery from cargo tank compartments which are not connected to the Phase I system is prohibited.

IT IS FURTHER ORDERED that this system is certified to be at least 95 percent effective in the self-serve and/or attendant use at gasoline service stations when used with the Texaco Phase I vapor recovery system for underground storage tanks as certified in the latest revision of Executive Order G-70-20. A typical piping arrangement for this Phase II system is described in Exhibit I. Certified components which may be used with this system are listed in the latest revision of Executive Order G-70-52.

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

IT IS FURTHER ORDERED that compliance with the certification requirements and rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the State Fire Marshal's Office, 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 system certified hereby shall perform in actual use with the same effectiveness as the certification test system. Compliance with this 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 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 Executive Officer or his/her designee.

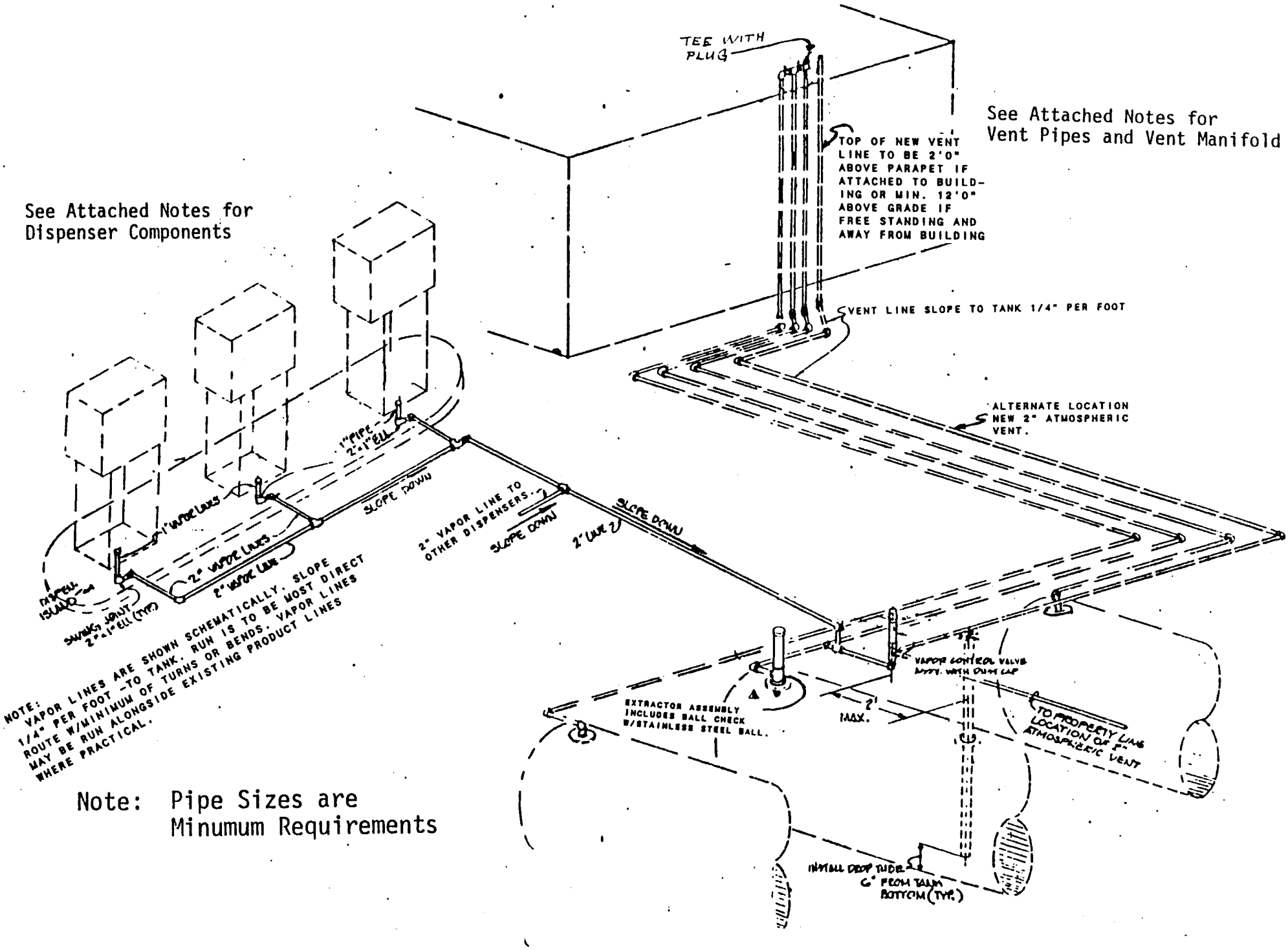
IT IS FURTHER ORDERED that the certified Phase II vapor recovery system shall, at a minimum, be operated in accordance with the manufacturer's recommended maintenance intervals and shall use the manufacturer's recommended operation, installation, and maintenance procedures.

IT IS FURTHER ORDERED that the certified Phase II vapor recovery system shall be performance tested during installation for ability to dispense gasoline and collect vapors without difficulty in the presence of the station manager or other responsible individual. The station manager, owner, or operator shall be provided with instructions on the proper use, maintenance, and repair of the system, and where system components can be readily obtained. A copy of the system warranty shall also be made available to the station manager, owner, or operator.

Executed at Sacramento, California this 19th day of December 1990.

James D. Boyd
Executive Officer

Exhibit 1
Executive Order G-70-38-AB
Texaco Balance Phase II Vapor Recovery System



Note: Pipe Sizes are Minumum Requirements

EXECUTIVE ORDER G-70-38-AB
NOTES TO ACCOMPANY EXHIBIT 1

1. For non-retail outlets which fuel special vehicles, the installation of vapor recovery hoses longer than specified in the latest version of Executive Order G-70-52 are allowed if 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 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 arranged to cease dispensing when a blockage occurs.

   c. The Executive Officer of the Air Resources Board or his/her designee has approved the plans for compliance with condition b.

2. The maximum allowable pressure drop through a system including nozzle, vapor hose, swivels, and underground piping is:

   a. 0.15 inch water at a flow of 20 CFH;
   b. 0.45 inch water at a flow of 60 CFH;
   c. 0.95 inch water at a flow of 100 CFH;

   The drybreak to the underground must be open during the pressure drop test.

3. The vent pipes and vent manifold shall be adequately supported throughout their length and, when they are supporting weights in addition to their own, additional supports may be required such as anchoring to a building or other structure.

4. All vapor return and vent piping shall be equipped 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. Float check valves (or alternative equipment, design, or operating procedures acceptable to the Air Resources Board) are required for all underground manifolded piping systems installed on or after November 13, 1980, to prevent contamination of unleaded gasoline with leaded gasoline, via vapor recovery piping, during underground storage tank loading or overfill.