State of California

AIR RESOURCES BOARD

Resolution 76-24

June 25, 1976

WHEREAS, Health and Safety Code Section 41500 requires the Board to review the rules and regulations and enforcement practices of the districts to determine whether reasonable action is being taken to achieve and maintain the state ambient air quality standards;

WHEREAS, Health and Safety Code Section 41504 provides that if, after a public hearing, the State Board finds that the rules and regulations of a district will not likely achieve and maintain the adopted ambient air quality standards, the State Board may establish such rules and regulations as it deems necessary to enable the district to achieve and maintain such ambient air quality standards;

WHEREAS, on May 7, 1976, the Southern California Air Pollution Control District amended Rule 463 of the District's Rules and Regulations;

WHEREAS, the Board finds that the rules and regulations of the District will not likely achieve and maintain the state ambient air quality standard for oxidant and that further amendments to Rule 463, as amended by the District, will enhance the likelihood of the District achieving and maintaining such ambient air quality standard;

WHEREAS, the Board has held a public hearing in accordance with Health and Safety Code Section 41502;

NOW, THEREFORE BE IT RESOLVED, that the Air Resources Board hereby amends Rule 463 of the Southern California Air Pollution Control District to read in entirety as set forth in Exhibit A attached hereto, as amended in accordance with the Board's instructions.

Exhibit A
Attachment to
Resolution 76-24
June 25, 1976

State of California

AIR RESOURCES BOARD

Southern California Air Pollution Control District
Rule 463. Storage of Organic Liquids

(a) A person shall not place, store or hold in any stationary tank, reservoir or other container of more than 150,000 liters (39,630 gallons) capacity, any organic liquid having a vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressures sufficient at all times to prevent organic vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, properly maintained and in operation:

(1) A floating roof, consisting of a pontoon-type, double-deck-type, or internal floating cover that rests on the surface of the liquid contents and is equipped with a closure device or devices between the tank wall and roof edge.

(A) Prior to February 1, 1977, a floating roof installation is subject to all the following specific conditions:

(i) No gap between the tank wall and the roof edge (including the closure device) shall exceed 0.3175 centimeters (1/8 inch) width for an accumulative length on the circumference of the tank, computed by dividing the diameter of the tank in feet, by 6.5.

(ii) The gap between the tank wall and the roof edge (including the closure device) shall in no case exceed 1/2 inch.

(iii) For the purpose of subsection (a)(1)(A) & (B), measurements shall be made with a 0.3175 centimeters (1/8 inch) diameter probe of at least 120 centimeters (3.9 foot) length. No violation shall exist unless the probe reaches liquid surface, without forcing.

(iv) All tank gauging and sampling devices or other appurtenant openings shall be designed to provide a projection into the liquid surface to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall be in a closed (i.e. no visible gap) position at all times except when the device or appurtenance is in actual use.

(v) Any emergency roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least nine-tenths of the area of the opening.

(vi) A floating roof shall not be used if the organic liquid stored has a vapor pressure of 569 mm Hg (11 psi) absolute or greater under actual storage conditions.

(vii) Any internal floating cover container shall not contain organic vapor in the space between the internal pan and fixed roof in a concentration greater than 50 percent of the lower explosive limit property of the organic liquid being stored.

(ii) The gap between the tank wall and the roof edge (including the closure device) shall in no case exceed 1/2 inch.

(iii) For the purpose of subsection (a)(1)(A) & (B), measurements shall be made with a 0.3175 centimeters (1/8 inch) diameter probe of at least 120 centimeters (3.9 foot) length. No violation shall exist unless the probe reaches liquid surface, without forcing.

(iv) All tank gauging and sampling devices or other appurtenant openings shall be designed to provide a projection into the liquid surface to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall be in a closed (i.e. no visible gap) position at all times except when the device or appurtenance is in actual use.

(v) Any emergency roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least nine-tenths of the area of the opening.

(vi) A floating roof shall not be used if the organic liquid stored has a vapor pressure of 569 mm Hg (11 psi) absolute or greater under actual storage conditions.

(vii) Any internal floating cover container shall not contain organic vapor in the space between the internal pan and fixed roof in a concentration greater than 50 percent of the lower explosive limit property of the organic liquid being stored.

(B) Effective February 1, 1977 a floating roof installation is subject to all the following specific conditions:

(i) There shall be no measurable gap between the tank wall and the roof edge (including the closure device). As used in this paragraph, measurable gap means an opening through which a probe of 0.3175 centimeters (1/8 inch) diameter can penetrate without forcing to reach liquid surface.

(ii) All tank gauging and sampling devices or other appurtenant openings shall be designed to provide a projection into the liquid surface to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall be in a closed (i.e. no visible gap) position at all times except when the device or appurtenance is in actual use.

(iii) Any emergency roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least nine-tenths of the area of the opening.

(iv) A floating roof shall not be used if the organic liquid stored has a vapor pressure of 569 mm Hg (11 psi) absolute or greater under actual storage conditions.

(v) Any internal floating cover container shall not contain organic vapor in the space between the internal pan and fixed roof in a concentration greater than 50 percent of the lower explosive limit property of the organic liquid being stored.

(2) A vapor recovery system, consisting of a vapor gathering system capable of collecting all organic vapors and gases discharged, and a vapor disposal system capable of processing such organic vapors and gases so as to prevent their emission to the atmosphere at an efficiency of at least 90 percent by weight. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except when gauging or sampling is actually taking place.

(3) Other equipment of equal efficiency, provided an application for such equipment is submitted to and approved by the Air Pollution Control Officer.

(b) A person shall not place, store or hold in any above-ground stationary tank, or other container of 150,000 liters (39,630 gallons) or less capacity any gasoline unless such tank is equipped with a pressure-vacuum valve which is set to within ten percent of the maximum allowable working pressure of the container or is equipped with conservation controls as indicated in subsection (a).

(c) Exemption:

The provisions of subsection (b) shall not apply to any container of 7,570 liters (2,000 gallons) or less capacity installed and in service prior to January 9, 1976, nor to any container of 950 liters (251 gallons) or less capacity installed on or after January 9, 1976.

(d) Definitions

(1) Efficiency, as used in subsections (a)(2) and (a)(3) compares controlled emissions to those emissions which would

(2) A vapor recovery system, consisting of a vapor gathering system capable of collecting all organic vapors and gases discharged, and a vapor disposal system capable of processing such organic vapors and gases so as to prevent their emission to the atmosphere at an efficiency of at least 90 percent by weight. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except when gauging or sampling is actually taking place.

(3) Other equipment of equal efficiency, provided an application for such equipment is submitted to and approved by the Air Pollution Control Officer.

(b) A person shall not place, store or hold in any above-ground stationary tank, or other container of 150,000 liters (39,630 gallons) or less capacity any gasoline unless such tank is equipped with a pressure-vacuum valve which is set to within ten percent of the maximum allowable working pressure of the container or is equipped with conservation controls as indicated in subsection (a).

(c) Exemption:

The provisions of subsection (b) shall not apply to any container of 7,570 liters (2,000 gallons) or less capacity installed and in service prior to January 9, 1976, nor to any container of 950 liters (251 gallons) or less capacity installed on or after January 9, 1976.

(d) Definitions

(1) Efficiency, as used in subsections (a)(2) and (a)(3) compares controlled emissions to those emissions which would

occur from a fixed or cone roof tank in the same product service without a vapor recovery system. These base line emissions shall be calculated by using the criteria outlined in API Bulletin 2518. Floating roof tank emissions shall be calculated using the criteria contained in API Bulletin 2517 modified by the application of seal factors which consider modern technology of floating roof seals.

(2) The true vapor pressure (psi absolute) of stored liquid product may be determined by using the API nomograph for conversion of Reid Vapor Pressure to true vapor pressure.

(e) Effective dates

(1) The owner or operator of any container subject to subsection (a) of this rule, which is installed on or after June 25, 1976 shall comply with the provisions of subsection (a) at the time of installation.

(2) The owner or operator of any container subject to subsection (a) of this rule that is used exclusively to store petroleum distillates shall be in compliance with the provisions of subsection (a) on June 25, 1976.

(3) The owner or operator of any existing container subject to subsection (a) of this rule [other than oil field storage tanks used exclusively to store crude petroleum with a capacity of 254,000 liters (67,200 gallons) or less, as noted in Section (e)(4)] that is used to store organic liquids other than petroleum distillates and who must alter such container to meet these provisions, shall be in compliance by July 1, 1977, and shall comply with the following increments of progress:

(A) June 1, 1976. Submit to the Air Pollution Control Officer a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this rule.

(B) August 2, 1976. Negotiate and sign all necessary contracts for emission control systems, or issue orders for the purchase of component parts to accomplish emission control.

(C) September 1, 1976. Initiate on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(D) June 1, 1977. Complete on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(E) July 1, 1977. Assure final compliance with the provisions of this rule.

(4) The owner or operator of any existing oil field storage tank used exclusively to store crude petroleum with a capacity of 254,000 liters (67,200 gallons) or less subject to subsection (a) of this rule who must alter such container to meet these provisions, shall be in compliance by September 1, 1977, and shall comply with the following increments of progress:

(A) August 1, 1976. Submit to the Air Pollution Control Officer a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this rule.

(A) June 1, 1976. Submit to the Air Pollution Control Officer a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this rule.

(B) August 2, 1976. Negotiate and sign all necessary contracts for emission control systems, or issue orders for the purchase of component parts to accomplish emission control.

(C) September 1, 1976. Initiate on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(D) June 1, 1977. Complete on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(E) July 1, 1977. Assure final compliance with the provisions of this rule.

(4) The owner or operator of any existing oil field storage tank used exclusively to store crude petroleum with a capacity of 254,000 liters (67,200 gallons) or less subject to subsection (a) of this rule who must alter such container to meet these provisions, shall be in compliance by September 1, 1977, and shall comply with the following increments of progress:

(A) August 1, 1976. Submit to the Air Pollution Control Officer a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this rule.

(B) October 2, 1976. Negotiate and sign all necessary contracts for emission control systems, or issue orders for the purchase of component parts to accomplish emission control.

(C) November 1, 1976. Initiate on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(D) August 1, 1977. Complete on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(E) September 1, 1977. Assure final compliance with the provisions of this rule.

(5) The owner or operator of any container subject to subsection (b) of this rule which is installed on or after June 25, 1976 shall comply with the provisions of subsection (b) at the time of installation.

(6) The owner or operator of any container subject to subsection (b) of this rule which was operating or in the process of being installed or constructed before June 25, 1976 shall be in compliance with the requirements of subsection (b) by August 1, 1976.