

State of California
AIR RESOURCES BOARD

Resolution 81-71

December 4, 1981

Agenda Item No.: 81-25-3

WHEREAS, Sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the "Board") to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Section 41954 of the Health and Safety Code has required the Board to adopt procedures for determining the compliance of systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations ("Phase II vapor recovery systems") with performance standards which are reasonable and necessary to achieve or maintain any applicable ambient air quality standard;

WHEREAS, the Board has established certification procedures for Phase II vapor recovery systems in its "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations" (the "Certification Procedures"), incorporated by reference in Section 94001 of Title 17, California Administrative Code;

WHEREAS, the Board has established test procedures for determining 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" (the "Test Procedures"), incorporated by reference in Section 94000 of Title 17, California Administrative Code;

WHEREAS, the Test Procedures set forth standards relating to excessive spillage of liquid gasoline during fueling operations;

WHEREAS, Assembly Bill 127 (Statutes 1981, Chapter 902) amended Section 41954(b) of the Health and Safety Code to require the Board, by December 28, 1981, to adopt additional performance standards which are reasonable and necessary to assure that Phase II vapor recovery systems do not cause excessive gasoline liquid spillage when used in a proper manner;

WHEREAS, Assembly Bill 127 also added Section 41960.2 to the Health and Safety Code, which provides in subsection (b) that the Board shall identify equipment defects in Phase II vapor recovery systems which substantially impair the effectiveness of the systems in reducing air contaminants;

WHEREAS, Section 41960.2(c) of the Health and Safety Code provides that when a local air pollution control district determines that a Phase II system component has a defect specified by the Board, it is required to mark the component "Out of Order", and use of the component is prohibited until appropriate remedial action is taken;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with Section 11340), Part 1, Division 3, Title 2 of the Government Code;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project having significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available; and

WHEREAS, the Board finds:

That the amendments to the Certification Procedures set forth in Attachment D provide for additional performance standards for Phase II vapor recovery systems which are reasonable and necessary to assure that such systems do not cause excessive gasoline liquid spillage when used in a proper manner;

That the amendments to the Certification Procedures set forth in Attachment D are also reasonably necessary to maintain continued availability of Phase II systems during evaluation pursuant to new standards, and to minimize costs of certification;

That the amendments to the Test Procedures set forth in Attachment B, which delete the previous spillage performance standards for Phase II systems, are necessary and appropriate in light of the more stringent standards contained in Attachment D;

That the regulation set forth in Attachment E identifies equipment defects in Phase II vapor recovery systems which substantially impair the effectiveness of such systems in reducing air contaminants, and that the adoption of said regulation is reasonably necessary to implement the requirements of AB 127; and

That the amendments set forth in Attachments A through E would have no substantial adverse environmental impact, and therefore no alternatives and/or mitigation measures are required.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby amends Section 94000 of Title 17, California Administrative Code, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board hereby adopts the "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations," adopted on December 9, 1975, amended March 30, 1976, and last amended December 4, 1981, as set forth in Attachment B hereto.

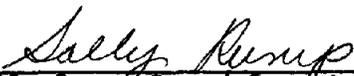
BE IT FURTHER RESOLVED that the Board hereby amends Section 94001 of Title 17, California Administrative Code, as set forth in Attachment C hereto.

BE IT FURTHER RESOLVED that the Board hereby adopts the "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations," adopted on March 30, 1976, amended on August 25, 1977, amended August 9, 1978, and last amended December 4, 1981, as set forth in Attachment D hereto.

BE IT FURTHER RESOLVED that the Board hereby adopts Section 94006 of Title 17, California Administrative Code, as set forth in Attachment E hereto.

BE IT FURTHER RESOLVED that the Board hereby adopts the opposing considerations and agency response summarized by staff, and directs the Executive Officer to prepare such summary in written form for inclusion in the Final Summary and Statement of Reasons for Proposed Rulemaking.

I certify that the above is
a true and correct copy of
Resolution 81-71, as adopted
by the Air Resources Board.


Sally Rump, Board Secretary

Attachment A

Amend Section 94000, Subchapter 8, Chapter 1, Part III of Title 17, California Administrative Code as follows:

94000. Vapor Recovery Systems. The test procedures for determining compliance with emission standards for gasoline vapors displaced during the fueling of underground storage tanks and vehicles shall be as set forth in "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations" adopted on December 9, 1975, ~~amended March 30, 1976, and amended August 9, 1978~~ as last amended December 4, 1981.

NOTE: Authority Cited: Sections 39600, 39601 and 41954, Health and Safety Code. Reference: Sections 41954, 41955, 41956.1, 41959 and 41961, Health and Safety Code.

Attachment B

State of California

AIR RESOURCES BOARD

Test Procedures for Determining the Efficiency of
Gasoline Vapor Recovery Systems at Service Stations

Adopted: December 9, 1975

Amended: March 30, 1976

Amended: December 4, 1981

Note: To assist the user, the most recent amendments to these procedures are set forth in italics. Revisions have been made to Section 1. Introduction only. The remaining sections of the test procedures are unchanged.

State of California

AIR RESOURCES BOARD

Test Procedures for Determining the Efficiency of
Gasoline Vapor Recovery Systems at Service Stations

1. Introduction

The following test procedures are for determining the efficiency of vapor recovery systems (Sections 2 and 3) for controlling gasoline vapors emitted during the filling of storage tanks and vehicle fuel tanks.

The test procedures for determining the efficiency of systems for controlling gasoline vapors displaced during filling of underground storage tanks requires determination of the weight of gasoline vapors vented through the storage tank vent and the volume of gasoline dispensed. The percentage effectiveness of control is then calculated from these values.

The test procedures for determining the efficiency of systems to control gasoline vapors displaced during vehicle fueling requires that the weight of vapors collected at the vehicle, corrected for vent losses, be compared to the potential mass emission calculated for that vehicle. A standard test sample of the vehicle population is to be tested and an average efficiency calculated.

The potential mass emissions are determined during the fueling of vehicles by measuring the mass of hydrocarbons collected from

vehicles from which no leak occurred. Potential emissions are expressed as a function of the vapor pressures of the dispensed fuel, the temperature of the dispensed fuel and the temperature of the gasoline in the test vehicle tank. This relationship is used as the baseline or reference from which the efficiency of a vehicle fueling vapor control system is evaluated.

The sample of vehicles to be used for testing control systems shall be comprised of vehicles representative of the on-the-road vehicle population in terms of vehicle miles travelled. ~~During the vehicle test, no more than ten spitbacks will be allowed per 100 vehicles tested, a spitback being a forceful ejection of liquid gasoline occurring during the actual fueling operation with the amount of liquid lost greater than a few milliliters. Any systems which the Executive Officer determines increases the quantity of liquid lost through spitback or spillage over that quantity typical of non-vapor-recovery systems will be disapproved.~~

The test will be conducted during the normal operation of the service station. For vehicle fueling at a self-service station, the customers shall fuel the vehicles; at a full-service station, the service station attendant shall fuel the vehicles during the test period. No more than 30 days prior to the 100 vehicle efficiency test, the entire vapor recovery system is to be tested for leaks in accordance with the criteria specified in Title 19 Chapter 1 Subchapter 11.5 Section 1918.35 (j) and 1918.56 (j), in the State Fire Marshal's regulations, in addition the total ullage space shall not be more than

6,000 gallons. During the performance test, maintenance, adjustment, replacement of components or other such alteration of the control system is not allowed unless such action is specifically called for in the system's maintenance manual. Any such alteration shall be recorded on the day on which the alteration was performed. During the testing, the control system will be sealed in such a manner that unauthorized maintenance may be detected. Maintenance is to be performed only after notification of the person in charge of the testing except in case of an emergency. Unauthorized maintenance may be reason for immediate failure of the test.

For systems which are identical in design and include the same components as systems tested and found to comply with the test procedures, but differ, primarily in size, the owner or vendor may demonstrate compliance capability and obtain approval by submitting engineering and/or test data demonstrating the relationship between capacity and throughput of each component whose performance is a function of throughput. Examples of such components include: blowers, catalyst, carbon or other adsorbant, compressors, heat exchangers, combustors, piping, etc.

Attachment C

Amend Section 94001, Subchapter 8, Chapter 1, Part III of Title 17, California Administrative Code as follows:

94001. Certification of Vapor Recovery Systems. The certification of gasoline vapor recovery systems at service stations shall be accomplished in accordance with the Air Resources Board's "Certification Procedures for Gasoline Vapor Recovery Systems at Service Stations" adopted on March 30, 1976, ~~amended on August 25, 1977, and amended August 9, 1978~~ as last amended December 4, 1981.

NOTE: Authority Cited: Sections 39600, 39601 and 41954, Health and Safety Code. Reference: Sections 41954, 41955, 41956.1, 41959 and 41961, Health and Safety Code.

State of California

AIR RESOURCES BOARD

Certification Procedures for Gasoline
Vapor Recovery Systems at Service Stations

I. General Applicability

These certification procedures are adopted pursuant to Section 41954 of the Health and Safety Code and are applicable to vapor recovery systems installed at gasoline service stations for controlling gasoline vapors emitted during the filling of storage tanks (Phase I) and vehicle fuel tanks (Phase II). Vapor recovery systems are complete systems and shall include all necessary piping, nozzles, couplers, processing units, underground tanks and any other equipment necessary for the control of gasoline vapors during fueling operations at service stations.

The certification procedures are not intended to be used to certify individual system components. For systems which are identical in design and include the same components as systems tested and certified, but differ, primarily in size, the manufacturer may demonstrate compliance capability and obtain certification by submitting engineering and test data demonstrating the relationship between capacity and throughput of each component whose performance is a function of throughput.

- G. System Time - Hours that the system needs to be capable of controlling vapor emissions. For the 90-day reliability test period, this would be 2160 hours (24 hours per day x 90 days).
- H. System Down-Time - The time (in hours) that the vapor recovery system is not operating as designed.
- I. *Spitback* - A loss of more than one milliliter of liquid gasoline occurring during the dispensing of gasoline into the vehicle fuel tank.
- J. *Spillage* - A loss of more than one milliliter of liquid gasoline from the gasoline nozzle occurring as a result of preparing to fuel a vehicle or at the end of a fueling operation in returning the nozzle to the dispenser.

III. General Standards

- A. Certification of a system by the California Air Resources Board does not exempt the system from compliance with other applicable codes and regulations such as fire, weights and measures, and safety codes.
- B. Phase II systems must be capable of fueling, without the use of nozzle spout extenders, any motor vehicle that may be fueled at service stations not equipped with vapor recovery systems.

II. Definitions

- A. Vapor-balance or displacement vapor recovery system - A gasoline vapor control system which uses direct displacement to force vapors into the underground tank (or bulk delivery tank) to prevent the emission of displaced vapors to the atmosphere during Phase I and/or Phase II operations.
- B. Vacuum-assisted or vacuum-assisted secondary system - A gasoline vapor control system, which employs a pump, blower, or other vacuum inducing devices, to collect and/or process vapors generated during vehicle fueling (Phase II) operations.
- C. Phase I - Control of vapors from underground tank fueling operations.
- D. Phase II - Control of vapors from vehicle fueling operations.
- E. Automatic Nozzle - ~~A nozzle which will dispense fuel without being hand-held.~~ *A hose nozzle valve provided with automatic closing features to safeguard its use.*
- F. On-Stream Efficiency Factor - That factor which indicates the fraction of time that the vapor recovery system is operating as the system was designed to operate.

$$\text{On-Stream Efficiency Factor} = \frac{t_s - t_d}{t_s}$$

Where t_s = System Time, Hours

t_d = System Down-Time, Hours

IV. Performance Standards

- A. The system shall complete an operational test of at least 90 days. During the test, replacement of components or alteration of the control system is not allowed, except that the Executive Officer may allow replacement or alteration of a component if the component has been damaged due to an accident or vandalism and if he/she determines that the replacement or alteration would not affect the operational test results. No maintenance or adjustment to the system will be allowed during the certification test unless such action is specifically called for in the system's maintenance manual. The control system will be sealed in such a manner that unauthorized maintenance or adjustment may be detected. Maintenance or adjustment is to be performed only after notification of the person in charge of the testing, except in case of an emergency. Unauthorized maintenance or adjustment may be reason for immediate failure of the test.

A system component submitted to the Executive Officer for evaluation subsequent to July 1, 1977, may be subjected to a shorter operational test, if the Executive Officer determines that the reliability of the component may be adequately demonstrated in a period shorter than 90 days.

- B. The system shall prevent emission to the atmosphere of at least 90 percent or that percentage by weight of the gasoline vapors displaced during the filling of the stationary storage tank as required by applicable air pollution control district rules and regulations. The percentages of control shall be determined as described in Section 2.0 of the "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations" as incorporated in Title 17, ~~subchapter-8~~, Section 94000, California Administrative Code.
- C. The system shall prevent emission to the atmosphere of an average of at least 90 percent or that percentage by weight of the gasoline vapors displaced during the filling of the vehicle fuel tanks as required by applicable air pollution control district rules and regulations. The specified percentage of control shall be determined by multiplying the on-stream efficiency factor (definition F, Section II) by the efficiency of the system as determined by testing in accordance with the procedures in Section 3.0 of the "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations" as incorporated in Title 17, ~~Chapter-1, subchapter-8~~, Section 94000 of the California Administrative Code.

- D. *No more than ten spitbacks or twenty instances of spillage per 100 vehicle fuelings shall occur during the testing in accordance with the procedures in Section 3.0 of the "Test Procedures for Determining the Efficiency of Gasoline Vapor Recovery Systems at Service Stations" as incorporated in Title 17, Section 94000 of the California Administrative Code. In addition, the Executive Officer shall certify only those systems which he or she determines: (i) will not increase the quantity of liquid lost through spitback or spillage over that quantity typical of non-vapor recovery systems, (ii) can be expected to perform with such durability and reliability that excessive spitbacks or spillage will not be caused by failure of critical system components, and (iii) incorporate provisions to prevent a buildup, during fueling of the vehicle, of pressure in the vehicle fuel tank sufficient to cause forceful ejection of gasoline. This determination shall be based on data obtained during the testing in accordance with Section 3 of the Test Procedures referred to above, failure mode testing, evaluation of reliability and durability of the system, and such other performance testing as the Executive Officer deems necessary.*
- E. **-D-** Prior to Air Resources Board certification of the vapor recovery system, plans and specifications for the intended

generic system shall be submitted to the State Fire Marshal's Office for review to determine whether the system creates a hazardous condition or is contrary to adopted fire safety regulations. Final determination by the State Fire Marshal may be contingent upon a review of each pilot installation of the proposed system. Compliance with the State Fire Marshal's requirements shall be a precondition to certification by the Air Resources Board.

F.-E. Prior to Air Resources Board certification, the system shall be submitted for type approval to the California Department of Food and Agriculture, Division of Measurement Standards and certified by such Division. Only those systems meeting the requirements of the California Business and Professions Code and the California Administrative Code will be issued certificates of approval by the Division of Measurement Standards; such certification shall be a precondition to certification by the Air Resources Board. Certification testing by Measurement Standards and the Air Resources Board may be conducted concurrently.

G.-F. Prior to certification of the system, the manufacturer of the system shall submit the system to the California Occupational Safety and Health Administration (Cal OSHA) for determining compliance with appropriate safety regulations.

This may be conducted concurrently with certification testing by the Air Resources Board. Compliance with Cal OSHA requirements shall be a precondition to certification by the Air Resources Board.

V. General Requirements Applicable to Certification of all Control Systems

A. An operating and required maintenance manual shall be submitted to the Executive Officer for each gasoline vapor control system submitted for certification. The operating manual shall, as a minimum, contain:

1. Identification of critical operating parameters affecting system operation, e.g., maximum dispensing rates; liquid to vapor flow rate ratios; pressures; etc. The operating range of these parameters associated with normal, in-compliance operation of the control system shall be identified. These operating data shall be determined and/or verified during the performance test of the system.
2. Identification of specific maintenance requirements and maintenance schedules necessary to ensure on-going operation in compliance with the applicable standards. Maintenance requirements shall be clearly identified as being capable of performance by the operator, or as requiring authorized service only. Operating manuals shall provide clear instruction on operator

maintenance and shall provide clear warnings against unauthorized service. Maintenance schedules shall, at a minimum, reflect the life of individual components such as regulators, compressors, nozzles, pressure vacuum valves, catalysts, combustor components, etc. Systems requiring maintenance which the Executive Officer finds unreasonable will be disapproved.

3. Identification of system components for each control system certified. Components shall, as applicable, be identified by brand name, part number, and/or performance characteristics. The identification shall be sufficiently clear so as to allow determination of comparability between tested and untested models, and/or to allow determination of the adequacy of replacement parts.
 4. A warranty statement which complies with the requirements of Paragraph V. C. herein.
- B. Indicating gauges, or alarms, or detection devices, or combination thereof, shall be included in each control system as required to enable monitoring of the critical system operation parameters. The gauges and alarms shall serve to alert and warn the gasoline service station owner or operator with an audible signal or warning light when the gasoline vapor control system is malfunctioning. Such gauges and alarms shall, as applicable,

include temperature and pressure indicators, pass/fail hydrocarbon detectors, etc. These shall indicate the performance of critical components such as compressors, carbon canisters, etc. Specific examples of necessary devices are: temperature indicators installed in control systems which utilize refrigeration as a control technique; pressure indicators installed in control systems which utilize compression as a control technique; hydrocarbon breakthrough detectors installed in control systems which utilize carbon adsorption or flexible bladders or seals as a control technique, and pressure differential indicators on vapor return lines to detect liquid blockage of the lines.

- C. The manufacturer of the vapor recovery system shall provide a three-year warranty for the system. An exception to the warranty may be for those components of the system which the maintenance manual identifies as having expected useful lives of less than three years; the warranty in these cases may specify the expected life.

The manufacturer of each vapor recovery system shall warrant in writing to the ultimate purchaser and each subsequent purchaser that such vapor recovery system is:

1. Designed, built, and equipped so as to conform at the time of sale with the applicable regulations; and
2. Free from defects in materials and workmanship which cause such vapor recovery system to fail to conform with applicable regulations for three years.

- D. The adequacy of methods of distribution, replacement parts program, the financial responsibility of the applicant, and other factors affecting the economic interests of the system purchaser shall be evaluated by the Executive Officer and determined by him or her to be satisfactory to protect the purchaser. A determination of financial responsibility by the Executive Officer shall not be deemed to be a guarantee or endorsement of the applicant.
- E. The Executive Officer shall certify only those systems which, on the basis of an engineering evaluation of the system design and component quality, can be expected to perform with reasonable durability and reliability over the three-year warranty period specified in Paragraph V.C. herein.
- F. *Whenever these Certification Procedures are amended to include additional performance standards or other requirements for certification of systems, any system which is certified as of the effective date of the additional standards or requirements shall remain certified for a period of six months from such date, or until the Executive Officer has determined whether the system conforms to the additional standards or requirements, whichever occurs first. However, if during this period the system manufacturer does not comply with such conditions as the Executive Officer deems necessary to*

assure prompt evaluation of the system pursuant to the additional standards or requirements, the Executive Officer may revoke the prior certification.

In determining whether a previously certified system conforms with any additional performance standards or other requirements adopted subsequent to certification of the system, the Executive Officer may consider any appropriate data obtained in the previous certification testing or evaluation of the system in lieu of new testing or evaluation.

VI. Application for Certification

- A. An application for certification of a vapor recovery system (Phase I or Phase II) may be made to the Air Resources Board by any manufacturer. Certification will be granted to any applicant meeting the applicable standards and criteria.
- B. The application shall be in writing, signed by an authorized representative of the manufacturer, and shall include the following:
 1. A detailed description of the configuration of the vapor recovery system including but not limited to the following:
 - a. The underground piping configuration and specifications (pipe sizes, lengths, fittings, material(s), etc.);
 - b. Gasoline dispensing nozzle to be used for Phase II;

- c. Engineering parameters for pumps and vapor processing units to be used as part of the vapor recovery system; and
 - d. Allowable pressure drops through the system.
2. Evidence demonstrating the vapor recovery reliability of the system or device for 90 days;
3. A description of tests performed to ascertain compliance with the general standards, and the results of such tests;
4. A statement of recommended maintenance procedures, equipment performance checkout procedures, and equipment necessary to assure that the vapor recovery system, in operation, conforms to the regulations, plus a description of the program for training personnel for such maintenance, and the proposed replacement parts program;
5. Six copies of the service and operating manuals that will be supplied to the purchaser;
6. A statement that a vapor recovery system, installed at an operating facility, will be available for certification testing no later than one month after submission of the application for certification. The facility submitted for certification testing shall have a minimum throughput of 100,000 gallons per month and shall include at least six nozzles of each type submitted for approval. There shall

not be more than two types of nozzles at any one test facility.

7. The retail price of the system and an estimate of the installation and yearly maintenance costs;
8. A copy of the warranty or warranties provided with the system;
9. If the application is for a system previously tested, but not certified, the application shall include identification of the system components which have been changed; including all new physical and operational characteristics; together with any new test results obtained by the applicant; and
10. Such other information as the Executive Officer may reasonably require.

VII. Fees and Testing

- A. A fee not to exceed the actual cost of certification will be charged by the Air Resources Board to each applicant submitting system(s) for certification. The applicant is required to demonstrate ability to pay the cost of testing prior to certification testing. This may take the form of posting a bond of not less than \$20,000. A resolution of certification of the system will not be issued until the test fee has been paid in full to the Air Resources Board.

- B. Testing may be conducted by an independent contractor under contract to the Air Resources Board. The contractor will be responsible solely to the Air Resources Board for the conduct of the certification test and the test results.

VIII. Certification

- A. If the Executive Officer determines that a vapor recovery system conforms to all requirements set forth in paragraphs I through VII herein, he or she shall issue an order of certification. The order may prescribe the conditions for issuance of the certification including but not limited to: a minimum allowable on-stream factor, maximum allowable monthly throughput, installation constraints, operating parameters, compliance with safety codes and regulations, compliance with measurement standards regulations, and approval for use at self-service stations or at only attendant-serve stations.
- B. If after certification of a system the manufacturer wishes to modify the system, the proposed modifications must be submitted to the Executive Officer in a format specified by the Executive Officer for approval prior to their implementation. Such modifications may include substitution of components, elimination of components and modification of the system configuration. No person shall install or operate a system which is different in any significant respect from the system certified by the Air Resources Board.

- C. If after certification of a system, the Executive Officer finds the system to no longer meet the specified certification specifications, the Executive Officer may, as appropriate, revoke or modify his or her prior certification. Except in cases where the public safety requires immediate protection, the Executive Officer shall not revoke or modify a prior certification without the manufacturer's consent unless the Executive Officer conducts a public hearing. The manufacturer shall be notified of the public hearing in writing and the notification shall be given so as to be received by the manufacturer at least ten days before the hearing date.
- D. Any manufacturer of a system shall, as a condition of certification of the system by the Air Resources Board, agree that so long as only one such system is certified by the Air Resources Board, such manufacturer shall either: (1) agree to enter into such cross-licensing or other agreements as the Executive Officer determines are necessary to ensure adequate competition among manufacturers of such systems to protect the public interest; and (2) agree as a condition to such certification that if only such system from one manufacturer is made available for sale to the public, the Executive Officer shall, taking into consideration the cost of manufacturing the system and the manufacturer's suggested retail price, and in order to protect the public interest, determine the fair and reasonable retail price of such system, and may require, as a condition to continued certification of such system, that the retail price not exceed the retail price determined by the Executive Officer.

Attachment E

Add Section 94006, Subchapter 8, Chapter 1, Part III of Title 17, California Administrative Code as follows:

Section 94006. Defects Substantially Impairing the Effectiveness of Vapor Recovery Systems Used in Motor Vehicle Fueling Operations.

For the purposes of Section 41960.2 of the Health and Safety Code, the following constitute equipment defects in systems for the control of gasoline vapors resulting from motor vehicle fueling operations which substantially impair the effectiveness of the systems in reducing air contaminants:

(a) Absence or disconnection of any component required to be used in the Executive Order(s) that certified the system.

(b) A vapor hose which is crimped or flattened such that the vapor passage is blocked, or the pressure drop through the vapor hose exceeds by a factor of two or more the requirements in the system certified in the Executive Order(s) applicable to the system.

(c) A nozzle boot which is torn in one or more of the following manners:

1. Triangular-shaped or similar tear 1/2 inch or more to a side, or hole 1/2 inch or more in diameter or,

2. Slit 1 inch or more in length.

(d) Faceplate or flexible cone which is damaged in the following manner:

1. For balance nozzles and for nozzles for aspirator and eductor assist type systems, damage shall be such that the capability to achieve a seal with a fill pipe interface is affected for 1/4 of the circumference of the faceplate (accumulated).

2. For nozzles for vacuum assist-type systems, more than 1/4 of the flexible cone missing.

(e) Nozzle shutoff mechanisms which malfunction in any manner.

(f) Vapor return lines, including such components as swivels, anti-recirculation valves and underground piping, which malfunction or are blocked, or restricted such that pressure drop through the lines exceeds by a factor of two or more requirements specified in the Executive Order(s) that certified the system.

(g) Vapor processing unit which is inoperative.

(h) Vacuum producing device which is inoperative.

(i) Pressure/vacuum relief valves, vapor check valves, or dry breaks which are inoperative.

(j) Any equipment defect which is identified in an Executive Order certifying a system pursuant to the Certification Procedures incorporated in Section 94001 of Title 17, California Administrative Code, as substantially impairing the effectiveness of the system in reducing air contaminants.

All nozzles affected by the above defects are to be considered defective.

NOTE: Authority Cited: Sections 39600, 39601 and 41960.2, Health and Safety Code. Reference: Sections 41954 and 41960.2, Health and Safety Code.

Memorandum

To : Huey D. Johnson
Secretary
Resources Agency

Date : December 30, 1981

Subject: Filing of Notice of
Decision of the Air
Resources Board

From : Air Resources Board

Pursuant to Title 17, Section 60007(b), and in compliance with Air Resources Board certification under section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decision and response to environmental comments raised during the comment period.

Sally Rump

Sally Rump
Board Secretary

attachments
Resolution 81-71

RECEIVED BY
Office of the Secretary

DEC 30 1981

Resources Agency of California

State of California
AIR RESOURCES BOARD

Response to Significant Environmental Issues

Item: Public Hearing to Consider Amendments to Sections 94000 and 94001 and Adoption of Section 94006 in Title 17, California Administrative Code, and to Consider Amendments to Certification and Test Procedures for Vapor Recovery Systems.

Agenda Item No.: 81-25-3

Public Hearing Date: December 4, 1981

Response Date: December 4, 1981

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any environmental issues pertaining to this item. The staff also identified no environmental issues.

Response: N/A

CERTIFIED:

Sally Kemp
Board Secretary

Date:

12/24/81

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