

State of California
California Environmental Protection Agency
AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Response**

PUBLIC HEARING TO CONSIDER THE ADOPTION, AMENDMENT, AND REPEAL OF
REGULATIONS REGARDING CERTIFICATION PROCEDURES AND TEST
PROCEDURES FOR GASOLINE VAPOR RECOVERY SYSTEMS

Public Hearing Dates: May 21, 1998 and
August 27, 1998
Agenda Item No.: 98-5-6

I. Introduction:

On May 21 and August 27, 1998, the Air Resources Board (the "Board") conducted public hearings to consider the amendment of fifteen certification and test procedures and adoption of two new test procedures. Of these, two procedures, one proposed for adoption and one proposed for amendment, were withdrawn at the Board's direction.

On May 21, 1998, the Board heard comments and deferred further consideration of the proposed amendments and adoptions to August 27, 1998. At the August public hearing, the Board directed the withdrawal of two procedures referenced in Title 17, CCR, Sections 94011 and 94154, specifically procedure TP-201.5, "Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities" (proposed to be amended), and procedure TP-201.2D, "Determination of Onboard Refueling Vapor Recovery (ORVR) Compatibility of Phase II Vapor Recovery Systems of Dispensing Facilities" (proposed to be adopted).

Also, at the August 27 public hearing, the Board adopted Resolution 98-27 approving the adoption and the amendment of regulations that incorporate by reference one new and fourteen amended certification and test procedures. The revised regulations are Title 17, California Code of Regulations (CCR), Sections 94010, 94011, 94012, 94013, 94014, 94015, 94150, 94156, 94157, 94158, 94159, 94160, and 94162. The new test procedure is TP-201.3C, Determination of Vapor Piping Connections to Underground Gasoline Storage Tanks (Tie-Tank Test) [incorporated in 17 CCR 94011 and 94162]. The incorporated amended certification and test procedures are:

D-200, Definitions for Certification and Test Procedures for Vapor Recovery Systems

(Adopted: April 12, 1996) [incorporated in 17 CCR 94010],

TP-201.1A, Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities with Assist Processors (Adopted: April 12, 1996) [incorporated in 17 CCR 94011],

TP-201.3, Determination of Two Inch (WC) Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (Adopted: April 12, 1996) [incorporated in 17 CCR 94011 and 94150],

CP-202 Certification Procedure for Vapor Recovery Systems of Bulk Plants (Adopted: April 12, 1996) [incorporated in 17 CCR 94012],

TP-202.1 Determination of Emission Factor of Vapor Recovery Systems of Bulk Plants (Adopted: April 12, 1996) [incorporated in 17 CCR 94012 and 94156],

CP-203, Certification Procedure for Vapor Recovery Systems of Terminals (Adopted: April 12, 1996) [incorporated in 17 CCR 94013],

TP-203.1, Determination of Emission Factor of Vapor Recovery Systems of Terminals (Adopted: April 12, 1996) [incorporated in 17 CCR 94013 and 94157],

CP-204, Certification Procedure for Vapor Recovery Systems of Cargo Tanks (Adopted: April 18, 1977) [incorporated in 17 CCR 94014],

TP-204.1, Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks (Adopted: April 12, 1996) [incorporated in 17 CCR 94014 and 94158],

TP-204.2, Determination of One Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks (Adopted: April 12, 1996) [incorporated in 17 CCR 94014 and 94159],

TP-204.3, Determination of Leak(s) (Adopted: April 12, 1996) [incorporated in 17 CCR 94014 and 94160],

CP-205, Certification Procedure for Vapor Recovery Systems of Novel Facilities (Adopted: April 12, 1996) [incorporated in 17 CCR 94015],

TP-205.1, Determination of Efficiency of Phase I Vapor Recovery Systems of Novel Facilities (Adopted: April 12, 1996) [incorporated in 17 CCR 94015], and

TP-205.2, Determination of Efficiency of Phase II Vapor Recovery Systems of Novel

Facilities (Adopted: April 12, 1996)(incorporated in 17 CCR 94015).

After consideration of comments and testimony received during the 45-day public comment period and at the hearings, the Board directed staff to modify the regulations and provide a further 15-day period for public comment on these modifications. The modified regulations were made available to the public for a 15-day comment period between February 11, 1999 and February 26, 1999, pursuant to Government Code Section 11346.8(c). The “Notice of Public Availability of Modified Text” was mailed with the modified text of the regulations by February 11, 1999, as required by Title 1, CCR, section 44.

A Staff Report was prepared as the Initial Statement of Reasons for the proposed rulemaking. The Staff Report was released on April 3, 1998, and is incorporated by reference herein. The Final Statement of Reasons updates the Staff Report by explaining why the proposed test methods were modified, as well as summarizing the public comments received and presenting the Board’s responses to the comments.

The Board has determined that this regulatory action does not impose a mandate on local agencies or school districts.

The Board has further determined, for the reasons set forth in the Initial Statement of Reasons, that no alternatives considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons, than the action taken by the Board.

II. Need for Adoption of New and Amended Procedures

Health and Safety Code (H&SC) Section 41954 requires the Board to adopt procedures for certifying systems to control gasoline vapor emissions during gasoline marketing operations. Section 39607(d) of the Health and Safety Code requires the Board to adopt test methods to determine compliance with Board and district non-vehicular emissions standards.

Since 1983, the Board has adopted 61 test methods for determining emissions from non-vehicular, or stationary, sources, and certification and test procedures related to certification and measurement of the emissions from gasoline vapor recovery systems and related equipment.

The new test procedure and the fourteen revised certification and test procedures are part of the Board’s ongoing effort to provide the most updated and accurate procedures for certifying systems to control gasoline vapor emissions during gasoline marketing operation and measuring the emission of air pollutants. In addition to supporting certification of vapor recovery systems and equipment, the new and amended procedures support emissions measurement and verification of proper operation of installed systems. The April 3, 1998, staff report provides background and reasons for adoption and revision of each of the procedures.

III. Changes to the Originally Proposed Certification and Test Procedures

As described above, the Board directed the withdrawal of two procedures referenced in Title 17, CCR, section 94011 from the rulemaking. Modifications to other certification and test procedures have been made in response to the comments received during the 45 days prior to the public hearings. The reasons for the withdrawal and the modifications in response to comments and testimony are explained in Sections V and VI, below.

On its own initiative, the Board also proposed several modifications which were included in the 15-day package. These changes are described in the 15-day package and include: allowing suitable turbine meters as an alternative to rotary type positive displacement meters in TP-202.1 Section 5.1; adding language noting differences between federal, state and district leak test requirements in CP-203 Section 1.2; allowing suitable turbine meters as an alternative in TP-203.1 Section 5.1.1; adding language related to test duration to TP203.1 Section 7 to be consistent with USEPA regulations; and changes related to leak test compatibility with EPA Method 21 procedures in TP-204.3 Section 8.3.1.

Finally, staff made editing changes to the proposed test methods to correct errors and improve readability, also included in the 15-day package. These editing changes are non-substantive.

IV. Environmental and Economic Impacts

The proposal is expected to have minimal environmental impacts. Rather, the proper use of the new and revised certification and test procedures will help to reduce emissions from affected vapor recovery systems. The exemption for airport refuelers is the exception. Additional emissions from airport refueler cargo tanks venting to atmosphere are estimated at 200 pounds or 0.01 tons per year. This is not a permanent exemption; it will expire when at least two venting control systems are certified by the ARB.

The economic impacts of this proposal, as stated in the April 1998 Initial Statement of Reasons (ISOR), were significantly changed by the withdrawal of the ORVR compatibility procedure. The ISOR estimated additional costs to equipment manufacturers to conduct the ORVR compatibility testing. Thus, with the withdrawal of the ORVR procedure, there are no significant cost increases in certification testing due to the adoption and amendment of the regulations.

V. Summary of Comments and Testimony Received in Response to 45-Day Notice and Received at Hearing and Agency Responses

Comments were received in response to the 45-day notice from Arid Technologies Inc. (ARID), Kinder Morgan, Corporate Air Craft Inc., the Bay Area Air Quality Management District, OPW, Hasstech, Inc., Robert C. Thompson, and Healy Systems, Inc. Oral testimony at the May 21, 1998, public hearing was presented by James W. Healy, Ted Tiberi, Jeff Trask, and Donald L. Leiniger. All the oral testimony at the May 21, 1998,

public hearing and most of the written comments related to TP-201.5 and TP-201.2D, which have been withdrawn from this rulemaking. Because these test procedures have been withdrawn from the rulemaking, the Board has not summarized or responded to the testimony or comments relating to TP-201.2D and TP-201.5. No oral testimony was given at the August 27, 1998, public hearing. Summarized below are the comments and recommendations for modifying the other procedures, as well as the Board's response to each comment. The comments are organized by the procedures to which they apply.

Test Procedures TP-202.1 & TP-203.1

Comment in June 2, 1998, letter from Kinder Morgan Energy Partners L.P.

Kinder Morgan requested that TP-203.1 not specify bagging of any valve on the vacuum side.

Staff Response:

Staff agrees with this recommendation. One simple way to detect leakage from a valve is to surround the valve with a plastic bag. This can be potentially damaging to tanks if a vacuum valve is included in the bagging. This issue also affects TP-202.1. The necessary changes to prohibit bagging of vacuum valves were added to appropriate sections of TP-202.1 (for bulk plants) and TP-203.1 (for terminals). These revisions were described in the 15-Day Notice.

Certification Procedure CP-204

Comment in August 17, 1998, letter from Corporate Aircraft Inc.

Corporate Aircraft Incorporated (CAI) requested that CP-204 exempt (from certain purging restrictions) aircraft refueling tankers up to 5,000-gallons capacities (instead of 2000 gallons), thus including airport refuelers with 3000- to 5000-gallon capacities serving large forest fire fighting aircraft.

Staff Response:

Staff agrees that refuelers with capacities to 5,000 gallons cannot be readily tested in the same manner as highway-capable cargo tanks. In CP-204, Section 7.3.2.3, the middle paragraph in the warning box was changed to read:

“Airport refueler is defined as a cargo tank which has a total capacity no greater than 5,000 gallons;”

This same change was made to Section 3.5 of the definitions of D-200. These revisions were described in the 15-Day Notice.

VI. Summary of Comments Received in Response to the 15-Day Notice

During the 15-day comment period between February 11, 1998 and February 26, 1998 the one additional comment letter was received from ARID Technologies Inc., summarized below with the staff response.

Test Procedures TP-201.2D and TP-201.5

Comment in February 26, 1999, Letter from ARID Technologies Inc.:

Why did the Board remove TP-201.2D and TP-201.5 from the rulemaking? Is there an “implied time frame” for action on ORVR problems?

Staff Response:

On-Board Vapor Recovery (ORVR) systems collect the same gasoline vapors that are collected by Phase II vapor recovery (Phase II) systems. An ORVR system collects the vapors in a canister installed in (on-board) the vehicle. The Phase II system collects the vapors from the vehicle’s tank and routes them to a tank at the gasoline dispensing facility, i.e., the service station. One test procedure, TP-201.2D, initially proposed for adoption but subsequently withdrawn from this rulemaking, would have determined the effects of ORVR on Phase II vapor recovery systems.

The need for, and benefit of, the ORVR compatibility test was initially estimated on theoretical, worst-case-assessment scenarios. Testing was undertaken to verify the actual assessments in parallel with the development of the proposed changes. Testing has not yet demonstrated that the need predicted from theoretical emissions estimates actually exists. The limited test data currently available suggest that the need may, in fact, be less than predicted by the theoretical model. We note that the introduction of vehicles equipped by manufacturers with ORVR will occur over a period of years, so that any emissions posing a need for these procedural changes will materialize in future years rather than being a current, significant impact on the environment. We also note that the costs of requiring ORVR compatibility are potentially significant. When validated test data are available to better quantify and verify the emissions impact of ORVR and Phase II interactions, proposals requiring ORVR compatibility through the modification of certification and test procedures will be considered.

TP-201.5, Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities, initially proposed for amendment but also subsequently withdrawn from this rulemaking, determines the ratio of flow of vapor to the flow of liquid for Phase II vapor recovery systems. The major change proposed was to

modify the piping of the test equipment to allow vapors normally emitted during the test in the to be routed back to the underground storage tank. This also reduced the amount of air entering the underground storage tank during testing, thus minimizing vapor growth and fugitive emissions. Districts and test personnel were strongly in favor of the test procedure revisions. Side-by-side comparison tests had been conducted on the two major system types in California with virtually the same test result. However, before the August 1998 Board hearing, staff learned that some vapor recovery systems may not give equivalent test results for both the proposed and current versions of the A/L test. Thus, consideration of the A/L test method revisions was withdrawn. Additional testing is underway to resolve this issue and the A/L test procedure revisions will be addressed in a future rulemaking.