UPDATED INFORMATIVE DIGEST OF PROPOSED ACTION

Sections Affected: California Code of Regulations, Title 17, sections 94010-94015, 94150, 94156-94160, 94162.

Background

Vapor recovery systems have been used in California to control hydrocarbon emissions for more than twenty years. In 1975, the Legislature required the Air Resources Board ("ARB" or "Board") to "adopt procedures for determining the compliance of any system designed for the control of gasoline vapor emissions during gasoline marketing operations, including storage and transfer operations, with performance standards which are reasonable and necessary to achieve or maintain any applicable ambient air quality standard." (Health and Safety Code Section 41954(a))

Under state law, the ARB is directed to certify vapor recovery systems so that all systems meet minimum standards. To comply with state law, the Board adopted the certification and test procedures found in Title 17, Code of Regulations, Section 94000 et seq. In addition, the test procedures, which are used to determine compliance with non-vehicular emission standards, are found in Title 17, Code of Regulations, Section 94100 et seq.

Until recently, California air pollution control districts could require use of their own vapor recovery test methods for permitting and compliance testing purposes. This ability changed with the revision of Health and Safety Code Section 41954(h) in January 1997, to prohibit any local air pollution control district from requiring test procedures for testing performance of a gasoline vapor recovery system unless the procedures have been adopted by the ARB or found by the ARB to be equivalent to the state adopted methods.

Description of the Regulatory Action

The ARB is amending the fourteen existing vapor recovery procedures listed below:

Section 94010	"D-200" - Definitions for Certification and Test Procedures for Vapor Recovery Systems (Adopted: April 12, 1996)
Section 94011	"TP-201.1A" - Determination of Efficiency of Phase I Vapor Recovery Systems of Dispensing Facilities with Assist Processors (Adopted: April 12, 1996)
	"TP-201.3" - Determination of Two Inch (WC) Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (Adopted: April 12, 1996)
Section 94012	"CP-202" - Certification Procedure for Vapor Recovery Systems of Bulk Plants (Adopted: April 12, 1996)

	"TP-202.1" - Determination of Emission Factor of Vapor Recovery Systems of Bulk Plants (Adopted: April 12, 1996)
Section 94013	"CP-203" - Certification Procedure for Vapor Recovery Systems of Terminals (Adopted: April 12, 1996)
	"TP-203.1" - Determination of Emission Factor of Vapor Recovery Systems of Terminals (Adopted: April 12, 1996)
Section 94014	"CP-204" - Certification Procedure for Vapor Recovery Systems of Cargo Tanks (Adopted: April 18, 1977)
	"TP-204.1" - Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks (Adopted: April 12, 1996)
	"TP-204.2" - Determination of One Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks (Adopted: April 12, 1996)
	"TP-204.3" - Determination of Leak(s)(Adopted: April 12, 1996)
Section 94015	"CP-205" - Certification Procedure for Vapor Recovery Systems of Novel Facilities (Adopted: April 12, 1996)
	"TP-205.1" - Determination of Efficiency of Phase I Vapor Recovery Systems of Novel Facilities (Adopted: April 12, 1996)
	"TP-205.2" - Determination of Efficiency of Phase II Vapor Recovery Systems of Novel Facilities (Adopted: April 12, 1996)

Amendments to Title 17, CCR, sections 94010-94015, 94150, 94156, 94157, 94158, 94159, and 94160 incorporate, by reference, the above-mentioned changes to definitions and test procedures for gasoline dispensing facilities, bulk plants, terminals, cargo tanks, and novel facilities.

The Board is also amending Title 17, CCR, section 94011, and adopting section 94162 to incorporate by reference the following <u>new</u> test procedure:

"TP-201.3C" - Determination of Vapor Piping Connections to Underground Gasoline Storage Tanks (Tie-Tank Test) (Adopted: [date of adoption])

Lastly, the Board has withdrawn the proposed adoption of one new test procedure and proposed amendment to one existing test procedure. Withdrawing these test procedures from the rulemaking allows additional data to be collected for a future rulemaking. The two methods are

listed below:

Section 94011 and Section 94154 "TP-201.2D" - Determination of Onboard Refueling Vapor Recovery (ORVR) Compatibility of Phase II Vapor Recovery Systems of Dispensing Facilities

Section 94011 "TP-201.5" - Determination of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities (Adopted: April 12, 1996)

Procedures Submitted in Rulemaking

In the submitted provisions, that is, the single adopted procedure and the fourteen amended existing vapor recovery systems certification and test procedures, the Board addresses certification and test procedures for (1) airport refuelers, (2) a tie-tank test, and (3) technical improvements.

(1) Current certification procedures require an annual leak test to ensure that gasoline cargo tanks do not release vapors to the atmosphere. While the cargo tank must be free of vapors in order to safely conduct the leak test, current regulations prohibit purging vapors directly to the atmosphere. Airport refuelers, defined as small airplane fuel cargo tanks, have difficulty preparing for the annual test for a number of reasons. These cargo tanks operate only at the airport and are not licensed for public roads. Airports do not have facilities to process purged vapors. These cargo tanks cannot qualify for a one day license in order to travel to a vapor processor. The amended regulation will allow a temporary exemption for airport refuelers of less than 5,000-gallon capacity to purge vapors to the atmosphere before the annual test.

This exemption will expire when at least two ARB-certified mobile vapor processors are available. These processors would travel to the airports and could thus be used to degas the airport refuelers of the vapors on-site.

(2) The tie-tank test procedure is adopted to check for proper underground plumbing configurations at gasoline dispensing facilities. For example, the test can verify that a diesel underground storage tank is kept separate from the plumbing for the gasoline tanks. This procedure was requested by several air pollution control districts to assist with their permitting and inspection of gasoline dispensing facilities. The test is voluntary and may be used at district discretion.

(3) Several other minor changes are made to the remaining procedures. The improvements include clarifications to the test procedures as requested by private testers, districts and ARB staff who use these procedures.

Each certification procedure references test procedures that are used to verify that the system

complies with the applicable performance standards and to establish performance specifications. Performance specifications will be used by the district's or the ARB's staff to verify that the installed systems are operating properly. Adoption of these procedures in Title 17, CCR, Sections 94148-94162 allows the districts to enforce the performance standards or performance specifications without the districts having to formally adopt the test procedures. Title 17, CCR, Section 94100 provides that test procedures adopted by the Board shall be used to determine compliance with non-vehicular emission standards of the Board or district.

Procedures Withdrawn from Rulemaking

The April 1998 notice and staff report/initial statement of reasons included two test procedures that the Board has withdrawn from the rulemaking. The following describes the test procedures and the reasons for withdrawal:

(1) ORVR Compatibility Test

Staff had proposed a new test procedure, "TP-201.2D" - Determination of Onboard Refueling Vapor Recovery (ORVR) Compatibility of Phase II Vapor Recovery Systems of Dispensing Facilities. The proposed new test procedure is withdrawn from this rulemaking. The method was intended to ensure that new vehicles equipped with ORVR could be fueled at service stations with Phase II vapor recovery equipment without causing additional emissions. ORVR provides a new way to capture refueling vapors that occur when motor vehicles fill up with gasoline. Instead of routing the vapors back to the underground tank at a gasoline dispensing facility, such as a service station, as happens with conventional vapor recovery, with ORVR, the vapors are routed to a canister of activated charcoal onboard the vehicle. Because there are no vapors to capture, vacuum assist type service station vapor recovery systems may forcibly ingest air into the underground tanks when fueling ORVR vehicles. When air enters the vapor space underground, emissions can result from vapor growth. The proposed new ORVR test procedures were designed to ensure that vapor recovery systems control or minimize vapor growth.

The vapor recovery equipment found at gasoline dispensing facilities (known as Phase II vapor recovery) must be certified by the Air Resources Board before sale in California. Certification involves a complete engineering evaluation of the system, a durability test and several tests to measure whether emission standards are achieved. The ORVR compatibility test was intended to be added to this existing battery of certification tests.

The ORVR test was proposed to be applied only to new or modified systems seeking certification. This means that the existing, installed systems at an estimated 14,000 gasoline- dispensing facilities would not have been subject to retrofit or replacement at this time. A future proposal may address existing systems if data become available that indicate that the existing systems should be evaluated for ORVR compatibility.

Testimony at the May 1998 meeting revealed considerable concerns from stakeholders regarding

the limited emission data set that was used to support the need for the ORVR test. Also, there was criticism about the application of the new procedure only to new certifications, in that this would discourage vapor recovery equipment manufacturers from developing new and better technology. Additional testing is underway to resolve these issues and the ORVR compatibility test is to be addressed in a future rulemaking.

(2) A/L Test

Several revisions were proposed to "TP-201.5" - Determination of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities. The major change was to modify the piping of the test equipment to allow vapors normally emitted during the test 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.

Comparable Federal Regulation

There are no comparable federal regulations that certify gasoline vapor recovery systems for service stations, bulk plants, cargo tanks, and novel facilities. However, for terminals, the U.S. Environmental Protection Agency (U.S. EPA) has established a National Emission Standard for Hazardous Air Pollutants (NESHAP) at 10 milligrams/Liter (0.08 pounds per thousand gallons) in Title 40, Code of Federal Regulations, Section 63.420 through 63.429. There are currently eight terminals in California that are certified with emissions above this limit. A sentence was added to CP-203 to alert facilities that compliance with the lower emission standard is required under federal law when the standard applies to the terminal facility as specified in federal law. For terminal facilities to which neither the federal standard nor a differing district standard applies, the current standard of 0.29 pounds per thousand gallons is retained as the threshold limit.