

State of California
AIR RESOURCES BOARD

SECOND Notice of Public Availability of Modified Text

PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE VAPOR RECOVERY
CERTIFICATION AND TEST PROCEDURE REGULATIONS FOR
ENHANCED VAPOR RECOVERY

Public Hearing Date: March 23, 2000
Public Availability Date: December 12, 2000
Deadline for Public Comment: December 27, 2000

At its March 23, 2000, public hearing, the Air Resources Board (the "Board") approved the amendment of sections 60030, 94010, 94011, 94148, 94149 and 94154, title 17, California Code of Regulations (CCR), adoption of section 94163, title 17, CCR, and repeal of section 94155, title 17, CCR, which incorporate by reference the following certification and test procedures for vapor recovery systems. The amended procedures are:

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

Revised Title: Definitions for Vapor Recovery Procedures

CP-201 Certification Procedure for Vapor Recovery Systems at
Gasoline Dispensing Facilities

TP-201.1 Determination of Efficiency of Phase I Vapor Recovery
Systems of Dispensing Facilities without Assist Processors

Revised Title: Volumetric Efficiency for Phase I Systems at Dispensing
Facilities

TP-201.1A Determination of Efficiency of Phase I Vapor Recovery
Systems of Dispensing Facilities with Assist Processors

Revised Title: Emission Factor for Phase I Systems at Dispensing Facilities

TP-201.2 Determination of Efficiency of Phase II Vapor Recovery
Systems of Dispensing Facilities

Revised Title:	Emission Factor for Phase II Systems
TP-201.2A	Determination of Vehicle Matrix for Phase II Vapor Recovery Systems of Dispensing Facilities
Revised Title	Determination of Vehicle Matrix for Phase II Systems
Method TP-201.2B	Determination of Flow versus Pressure for Equipment in Phase II Vapor Recovery Systems of Dispensing Facilities
Revised Title:	Pressure Integrity of Vapor Recovery Equipment
Method TP-201.2C	Determination of Spillage of Phase II Vapor Recovery Systems of Dispensing Facilities
Revised Title:	Spillage from Phase II Systems
Method TP-201.5	Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities

The adopted procedures are:

TP-201.2D	Post Fueling Drips from Nozzle Spouts
TP-201.2E	Gasoline Liquid Retention in Nozzles and Hoses
TP-201.2F	Pressure-Related Fugitive Emissions
TP-201.2H	Determination of Hazardous Air Pollutants from Vapor Recovery Processors
TP-201.2O	Pressure Integrity of Drop Tube Overfill Protection Devices

The repealed procedure is:

TP-201.3A	Determination of 5 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities
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At the hearing the staff presented, and the Board approved, modifications to the regulations originally proposed in the Staff Report released on February 4, 2000 in response to continuing review and comments received since the Staff Report was published. The modifications affected the text of certification and test procedures D-200, CP-201, TP-201.1, TP-201.1A, TP-201.2, TP-201.2B, TP-201.2C, TP-201.2D, TP-

201.2E, TP-201.2F, TP-201.2H, TP-201.2O and TP-201.5. TP-201.2A is not being modified.

The modified procedures were made available for public comment from September 29, 2000 to October 27, 2000. Based on comments received, additional revisions are proposed for the following certification and test procedures: D-200, CP-201, TP-201.2, TP-201.2B, TP-201.2D and TP-201.5.

Modifications to D-200

A definition has been added for “spitback” as this term is used in the test procedures. The acronym “ID” has been redefined to mean “inside diameter.” The abbreviations “eng. eval.,” “sec.,” “spec.,” and “std.” have been defined as “engineering evaluation,” “section,” “specification” and “standard,” respectively.

Modifications to CP-201

Amendments to Health and Safety Code section 41954, effective January 1, 2001, affect the certification requirements of vapor recovery systems. One of the changes requires that state board “shall test” (modified from “may test”) gasoline vapor recovery systems for the purpose of determining whether the systems may be certified. Thus, portions of CP-201 that allowed engineering evaluation as an alternative to testing have been revised to require both engineering evaluation and testing. These include section 2.4.3, Table 3-1, Table 4-1, Table 5-1, Table 6-1, Table 7-1, Table 8-1, Table 8-2 and Table 16-2.

The ORVR compatibility requirements in Table 2-1 and Table 4-1 have been revised to be consistent with the revised Phase II standard. A footnote has been added to Table 2-1 to advise that amendments to Health and Safety Code section 41954 require certification of only those systems that are ORVR compatible after January 1, 2001. The April 1, 2003 operative date is retained as systems certified before January 1, 2001 may continue to be sold and installed until April 1, 2003.

Table 3-1 contains the performance requirements for Phase I systems. The static pressure performance requirement has been revised to reference the section 3.2 of CP-201, rather than TP-201.3. Section 3.2 has been revised to clarify that the leak decay requirements for Phase I systems are independent of the Phase II system and provides a new equation to determine allowable Phase I leak decay. Language has been added to section 3.4.1 to clarify that both the product and the vapor adaptors shall not leak. Two methods for testing the Phase I vapor adaptor, bagging or leak detection solution, are now provided in Table 3-1 and section 3.4.2.

The test procedure reference for P/V valves has been clarified in section 3.5. An

editorial correction was made to the P/V valve leak rate.

Section 3.6 specifies requirements for containment boxes. Section 3.6.1 has been modified to clarify that cover-actuated drain valves shall be tested with both the lid installed and with the lid removed. New language has been added to section 3.6.2 to clarify the allowable use of drain valves at Phase I product connections.

As originally noticed, section 3.6.5 required that a small hand pump be carried on every cargo tank delivery vehicle as a means of evacuating fuel from a containment box. This section has been deleted, as it is not applicable to the Phase I certification.

Section 3.7 has been revised to clarify that liquid (not gaseous) leak detection solution is to be used for testing vapor connections and fittings.

Section 4.2 has been modified to add the reference to TP-201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, as the applicable test procedure for determining compliance with the static pressure performance requirement for Phase II systems.

Section 4.6.1 allows exclusion of pressure data attributable to improper Phase I deliveries when evaluating a Phase II system. Section 4.6.1 has been revised to cite sections 4.1.2 and 4.1.3 of CP-204 to define improper Phase I operations. Section 4.6.2 has been modified to clarify that the integrity of the vapor recovery system, rather than the underground storage tank, is presumed inadequate if the pressure does not deviate from atmospheric pressure. Section 4.6.4 has been added to define the frequency of pressure data collection.

Section 4.7.3 sets forth vapor recovery nozzle dimension requirements. Section 4.7.3 (c) has been modified to require a “retaining spring **or collar** to terminate **at least 3.0 inches (7.6 cm)** from the terminal end.” (additions in bold).

Section 4.10 discusses nozzle/dispenser compatibility. Section 4.10.2 has been revised to require that the nozzle cannot be hung on the dispenser with the nozzle valves, rather than the hold-open latch, in the open position.

Section 4.11 has been revised to clarify the GDF modifications that trigger the unihose MPD configuration.

Section 4.12.4 has been modified to clarify that minimum vapor return piping slope requirements apply per foot of run.

The benzene emission limits for both destructive and non-destructive processors have been removed from Table 8-1, Table 8-2 and section 8.1. The maximum hydrocarbon

feedrate to the processor has been increased from 3.8 to 5.7 lb/1000 gallons in Table 8-1, Table 8-2 and section 8.3.

Section 9.2 has been revised to clarify that for systems that include components not manufactured by the applicant, the applicant shall provide information that shows that all components meet the warranty requirements.

Section 9.3 has been modified to clarify that system manuals be provided to the owner/operator of the GDF at the time the vapor recovery system or component is installed and not all subsequent owner/operators.

Section 11.1.6 has been revised to delete language requiring test results for the vapor recovery system application be accessible by a personal computer and reported in a common spreadsheet format.

Section 13.3.2 has been revised to delete language that allowed failure of a non-system specific component to be excluded without compromising the validity of the operational test. Section 13.3.4 has been modified to reference the UST pressure standards. Section 3.3.5 has been revised to clarify that if performance tests during the operational test show a change that results in the degradation of a performance standard or specification when extrapolated through the end of the warranty period, the Executive Officer may extend or terminate the operational test.

Section 13.7 discusses certification requirements for aboveground storage tanks. This section has been deleted as aboveground tanks are certified under a separate certification procedure, CP-205.

Language has been added to renumbered section 15 to require that the Executive Officer shall certify only vapor recovery systems that can be expected to comply with the system's certification over the warranty period. This is consistent with the revisions to Health and Safety Code 41954 (c)(1)(B) which are effective January 1, 2001.

Renumbered section 17 has been revised to add applicable performance standards, performance specifications, operating parameters, limitations, warranty and factory testing requirements to the items included in the certification Executive Order.

Section 19.1.5 has been added to parallel the provision in section 4.11, which permits continued use of dispensers with multiple hoses under specified conditions.

ISD Appendix to CP-201

Section 2.1.1.3 prescribes degradation malfunction criteria for monitoring air to liquid ratio (A/L). Section 2.1.1.3 has been revised to assess degradation on a weekly basis,

rather than within 7 days to avoid possible conflict with the “gross failure” test in section 2.1.1.2.

Modifications to TP-201.2

Section 5.1.2 has been modified to require use of an analyzer with a destructive detection principle at certain test points. Previously, section 5.1.2 allowed, but did not require such an analyzer. This change makes section 5.1.2 consistent with Table 5-1, Recommended Continuous Analyzer concentration ranges. In addition, language has been added to section 5.1.2 to allow other measurement methods if the Executive Officer determines that equivalent results can be obtained.

Section 5.14 has been revised to clarify the equipment necessary to check vehicle fillpipe requirements.

The following language has been added to section 9.4.2 to clarify how the fuelings should be conducted for the 200-car test; “The fueling shall be conducted “hands off” at the high clip rate with no top-offs. Fuel is dispensed until the first nozzle shutoff after a minimum of six gallons is dispense.” Section 9.4.2.3 provides criteria for invalidating data from a dispensing episode based on minimum dispensing volume (six gallons) and dispensing flow rate (6.0 to 10.0 gallons/minute). An additional criterion has been added to invalidate data from the fueling if more than one premature shut-off occurs before a minimum of six gallons is dispensed.

Modifications to TP-201.2B, Appendix 1

The modifications to the equipment listed in section 5 resulted in renumbering of several sections. References to the renumbered sections have been corrected in section 5.14.

Modifications to TP-201.2D

A reference to the regulation containing vehicle fillpipe specifications has been added to section 3.3.

Section 7.6 has been modified to clarify that the nozzle is to be kept as still as possible when counting the drops that spill from the nozzle in the five second period.

Modifications to TP-201.5

Figure 1, Gas Volume Meter and Air to Liquid Adaptor, has been modified to clarify that the passage depicted is the intake passage and require the length of the 2 inch ID passage in the volume gas meter inlet manifold be between six and eighteen inches.

Section 5.3 has been revised to make the pipe specifications consistent with Figure 1.

Language has been added to section 7.9 to address test results obtained before the test apparatus was correctly adjusted. The section now states "If A/L test equipment is adjusted, then the prior test runs for that nozzle shall not be used."

Procedure for Commenting

Board Resolution 00-9 sets forth the Board's action approving changes to Title 17, California Code of Regulations, sections 60030, 94010, 94011, 94148, 94149 and 94154, 94155 and 94163, and approving the amendment of the incorporated certification and test procedures for vapor recovery systems. In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt sections 60030, 94010, 94011, 94148, 94149 and 94154, 94155 and 94163, Title 17, California Code of Regulations, and the incorporated certification and test procedures for vapor recovery systems, D-200, CP-201, TP-201.1, TP-201.1A, TP-201.2, TP-201.2A, TP-201.2B, TP-201.2C, TP-201.5, TP-201.2D, TP-201.2E, TP-201.2F, TP-201.2H and TP-201.2O, as modified, after making them available to the public for comment for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

The Resolution and the text of the regulations and incorporated certification and test procedures, as modified, and as further modified, are available on the Board's Web site at <http://www.arb.ca.gov/regact/march2000evr/march2000evr.htm>. Copies of these documents can also be obtained by contacting Mr. George Lew at (916) 327-0900. Test methods and standard operating procedures incorporated into the certification and test procedures are also available from Mr. Lew.

Written comments on the further modifications must be submitted to the Clerk of the Board, Air Resources Board, P.O. Box 2815, Sacramento, California 95812, no later than December 27, 2000, for consideration by the Executive Officer prior to final action. Only comments relating to the above-described modifications to the regulations shall be considered by the Executive Officer.