State of California
AIR RESOURCES BOARD

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

PUBLIC HEARING TO CONSIDER THE ADOPTION OF REGULATIONS FOR THE CERTIFICATION AND TESTING OF GASOLINE VAPOR RECOVERY SYSTEMS USING ABOVEGROUND STORAGE TANKS

Public Hearing Date: June 21, 2007
Agenda Item No.: 07-7-6

I. GENERAL

In furtherance of its mandate to attain and maintain ambient air quality standards throughout California, the Air Resources Board (ARB) described proposed regulations in the Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of Regulations for the Certification and Testing of Gasoline Vapor Recovery Systems Using Aboveground Storage Tanks (Staff Report), released May 4, 2007, incorporated by reference herein.

The proposal was based on ARB's authority to certify for sale and installation, vapor recovery equipment used at gasoline dispensing facilities (GDF) throughout California. The certified GDF equipment controls hydrocarbon emissions present in gasoline vapor to reduce the formation of ozone and controls benzene, a constituent of gasoline vapor that has been identified as a toxic air contaminant. The May 2007 proposal for equipment associated with above ground storage tanks (AST) followed an earlier rulemaking in which ARB approved the Enhanced Vapor Recovery (EVR) regulation for vapor recovery equipment used with underground storage tanks (UST). The EVR regulations established new performance standards and specifications for vapor recovery systems and components to further reduce emissions during the storage and transfer of gasoline at GDFs, and to increase system and component reliability. Vapor recovery equipment used with ASTs was not included in the EVR regulations. ARB staff developed new vapor recovery certification requirements to reduce emissions from ASTs and save gasoline through the establishment of new performance standards and specifications. These new performance standards and specifications control standing loss emissions unique to ASTs, which account for approximately 90 percent of the total statewide emissions for this category. Some of the performance standards and specifications are similar to the existing vapor recovery requirements for USTs. These similarities in performance standards and specifications will achieve consistency between AST and UST vapor recovery requirements.

On June 21, 2007, the Board conducted a public hearing to consider ARB staff's proposed regulations for the AST vapor recovery certification and test procedures. After consideration of written comments received during the 45-day public comment period prior to the hearing and testimony received at the public hearing, the Board adopted Resolution 07-27 to approve modifications to the certification and test procedures that were incorporated by reference.

In accordance with section 11346.8 of the Government Code, the Resolution directed the ARB Executive Officer to incorporate modifications into the proposed regulatory text, with such other conforming modifications as might be appropriate, and to make the modified text available for a supplemental comment period of at least 15 days.

The text of all the modifications to the originally posted certification and test procedures was made available for a supplemental 15-day public comment period by issuance of a "Notice of Public Availability of Modified Text." This Notice was mailed on October 24, 2007, to all parties that submitted written comments during the 45-day public comment period. On November 5, 2007 the Notice was mailed again to all parties identified in section 44(a), title 1, California Code of Regulations (CCR), and the 15-day comment period was extended to November 20, 2007. The Notice was also mailed to other persons generally interested in the ARB's rulemaking concerning vapor recovery requirements. The "Notice of Public Availability of Modified Text" listed the ARB internet web site from which interested parties could obtain the complete text of the incorporated documents that would be affected by the modifications to the original proposal, with all the modifications clearly indicated in strike and underline format. These documents were also published on ARB's internet web page (http://www.arb.ca.gov/regact/2007/ast07/ast07.htm) for this rulemaking on October 24, 2007.

The regulations amend and adopt provisions in title 17, CCR, sections 94010, 94011, 94016, and 94168 and their incorporated certification and test procedures. The amended certification and test procedures are: *Definitions for Vapor Recovery Procedures*, D-200, and *Efficiency and Emission Factor for Phase II Systems*, TP-201.2, which are referenced in section 94010 and 94011, respectively; *Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities Using Aboveground Storage Tanks*, CP-206, which is referenced in new section 94016, ; *Determination of Emission Factor for Standing Loss Control Vapor Recovery Systems Using Temperature Attenuation Factor at Gasoline Dispensing Facilities with Aboveground Storage Tanks*, TP-206.1, *Determination of Emission Factor for Standing Loss Control Vapor Recovery Systems Using Processors at Gasoline Dispensing Facilities with Aboveground Storage Tanks*, TP-206.2, and *Determination of Static Pressure Performance of Vapor Recovery Systems of Gasoline Dispensing Facilities with Aboveground Storage Tanks*, TP-206.3, which are referenced in a new section 94016. TP-206.3 is also incorporated by reference in new section 94168 for local

air pollution control and management district use in permitting GDFs and in the enforcement of the certification requirements.

The newly incorporated, adopted, and amended certification and testing procedures were available during the regulatory action and will continue to be available after the regulatory action is finalized on ARB's Internet web site, as well as in print upon request from ARB staff from the Vapor Recovery Program. Because the newly incorporated certification and test procedures will be used by a very limited number of people, ARB has determined that it would be cumbersome, unduly expense, and otherwise impractical to publish the document in the CCR.

Fiscal Impact: In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons and businesses. In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action may have minor impacts on the creation or elimination of new jobs within the State of California, and may have minor impacts on the creation of new businesses and the elimination of existing businesses within the State of California, and minor impacts on the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report.

Pursuant to Government Code section 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action would create costs or savings to a state agency or in federal funding to the state, costs or mandates to any local agency or school district whether or not reimbursable by the State pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, or other nondiscretionary cost or savings to state or local agencies. Pages 39 through 47 of the Staff Report fully describe the cost impacts or mandates to local agencies or school districts.

The Executive Officer has determined that the proposed regulatory action would not have a significant statewide adverse economic impact directly affecting businesses including the ability of California businesses to compete with businesses in other states, or on representative private persons.

The Executive Officer has also determined, pursuant to title 1, CCR, section 4, that the proposed regulatory action would affect small businesses.

In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the Executive Officer has found that the reporting requirements in the regulations and incorporated documents that apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

The Board has further determined that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective as and less burdensome to affected private persons or businesses than the proposed action. Pages 51 through 53 of the Staff Report describe the alternatives to the regulations considered by the Board's staff. After considering the staff's alternatives, there having been no other alternatives presented or brought to its attention, the Board approved the regulations as the most effective actions.

II. MODIFICATIONS TO THE ORIGINAL PROPOSAL

At the hearing the staff presented, and the Board approved, modifications to the regulations originally proposed in the Staff Report released on May 4, 2007, in response to continuing review and comments received since the Staff Report was published. Subsequent to the hearing, as authorized by the Board in Resolution 07-27, the staff has also proposed additional conforming modifications that reflect technical improvements to the incorporated regulations. The modifications, described in detail below, affect the text of certification and test procedures CP-206, TP-206.1, and TP-206.3.

A. Final Regulation Order

As originally noticed, the regulation order did not include TP-201.2G in the list of test procedures incorporated by reference in Title 17, CCR. TP-201.2G has been added to the list of adopted test procedures incorporated by reference in section 94016.

B. Modifications to CP-206

As originally noticed, CP-206 sections 4 (Table 4-1), 4.4, 4.6, 5 (Table 5-1), and 5.14 specified U.S. EPA Method 21 (combustible gas detection devices) for vapor leak detection. U.S. EPA Method 21 is not specified in CP-201 (Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities) for leak detection. The change is to delete references to U.S. EPA Method 21 in CP-206 in order to be consistent with CP-201.

As originally noticed, sections 12.8 and 14.1 of the procedure require vapor recovery testing to be conducted at an operating gasoline dispensing facility (GDF). Additional language was added to require standing loss control vapor recovery testing to be done on a tank that does not transfer gasoline. Also, language was added to allow a non-operating GDF to be used as a test station if the applicant can demonstrate to the satisfaction of the Executive Officer that the vapor recovery system would be subject to the same use at a non-operating GDF as an operating GDF during the certification test. Sections 12.12 and 13.8 were added to require the applicant to identify the number of tanks, size of tanks, and

types of vapor recovery systems on tanks; and to specify and provide reasons for tank configurations that represent the worst case scenario from an emissions standpoint.

As originally noticed, section 15.4 of the procedure referenced U.S. EPA Method 301 to determine alternative test procedures. The date for this reference was added.

C. Post-Hearing Conforming Modifications to TP-206.1

As originally noticed section 1.1, Applicability, did not adequately describe the temperature attenuation factor, or specify the minimum 30-day time period during the summer months over which the temperature attenuation factor is determined. These changes clarify the applicability of the test procedure.

As originally noticed, section 3.1 did not specify the type or range requirements of the thermocouples. Language was added to require a Type K thermocouple that ranges from -328 to +2282E F.

As originally noticed, section 5.1 did not specify thermocouple and temperature probe compatibility. Language was added to require the thermocouples and temperature probes to be compatible with gasoline and water.

As originally noticed, section 5.3 specified the Leak Detection Solution requirements. This section has been removed.

As originally noticed, section 6.1 detailed the thermocouple calibration requirements. This section has been renumbered to section 6.2. The new section 6.1 specifies that the tank shall be filled to 50 percent ullage through the top or side mounted product adaptor using a camlock fitting.

As originally noticed, section 6.2 specified that a static pressure performance test was required after the calibrated thermocouples were in place. This section has been renumbered to section 6.4. The section renumbered as 6.2 specifies the thermocouple calibration procedure, the use of cold, ambient, and hot water baths, and the accuracy requirements of National Institute of Standards and Technology (NIST) traceable thermometer and thermocouple. Section 6.2 also includes procedures for troubleshooting and documentation.

As originally noticed, section 6.3 specified the tank ullage and filling requirements. The language of the originally noticed section 6.3 has been incorporated into section 6.1. The new section 6.3 specifies the thermocouple and float apparatus installation procedures. Section 6.4 has been renumbered as section 6.5.

As originally noticed, section 6.6 restricted deliveries and dispensing during the test period. This section has been renumbered to section 7.6 and the new section 6.6 includes language to invalid data for 24 hours immediately after the test when other test procedures are conducted.

As originally noticed, section 6.7 indicated that fuel Reid Vapor Pressure (RVP) shall be measured. Language was changed to indicate that the fuel RVP may be measured.

As originally noticed, section 7.1 specified the thermocouple and float apparatus installation. Section 7.1 has been renumbered as section 6.3. As a result, section 7.2 has been renumbered to 7.1 to reflect this change and the reference to section 7.7 has been removed.

As originally noticed, renumbered section 7.4 did not include an option to test outside the summer months. Language was added to specify that testing outside the summer months may be allowed if approved by the Executive Officer.

As originally noticed, section 7.7 required precision checks and detailed these procedures in sections 7.7.1, 7.7.2, 7.7.3, and 7.7.4. The precision check requirements were deleted, as were sections 7.7.1 through 7.7.4.

A new section 7.6 is added to specify that no deliveries or dispensing are allowed during the 30-day testing period.

As originally noticed, section 8 did not specify post thermocouple calibration requirements. Language was added to section 8.3 to specify the post thermocouple calibration requirements in accordance with section 6.2

As originally noticed, section 9.1 and section 9.2 required the daily fuel surface temperature range to be determined over a 30 consecutive day period. Language was added to change the time period for determining the daily fuel surface temperature from 30 consecutive days to a minimum of 30 days.

D. Modifications to TP-206.3

As originally noticed, the first three subsections in section 4 were incorrectly number as section 4.5. These sections were renumbered as sections 4.1, 4.2, and 4.3.

As originally proposed, section 4.5 did not specifically require the use of an electronic pressure measuring device or digital pressure indicator to measure tank pressure. Language was added to require that electronic pressure measuring devices or digital pressure indicators be used because they are more accurate than mechanical pressure gauges.

As originally proposed, section 5.3 would have required combustible gas analyzers to be calibrated every 180 days with 2.1 mole percent of methane by volume. This requirement has been deleted and the modified provision requires calibration in accordance with manufacturer's instructions.

As originally proposed, section 6.4 requires that the minimum ullage be 25 percent of the tank capacity and maximum ullage be 75 percent of tank capacity. Language was added to clarify that the maximum and minimum ullage applies to aggregate tanks when tanks are manifolded.

As originally proposed, section 6.5 incorrectly references equation 9-1 in section 9.

Language was added to correct the reference to equation 8-1 in section 8. As originally proposed section 6.6 requires that nozzles be properly hung in the dispenser. Language was added to require that dispenser covers be in place and no dispensing be allowed during the test. This modification will make TP-206.3 consistent with the currently adopted TP-201.3 (Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems at Dispensing Facilities), which is used to determine the static pressure of underground storage tank.

As originally proposed, section 6.11 requires the leak test assembly to be installed per Figure 1. Language was added to allow other leak test assembly configurations by stating that Figure 1 is an example and that other examples could be found in Figures 1 to 3 in TP-201.3. The title of Figure 1 has been changed to reflect that the figure is an example.

E. Editorial Corrections

Throughout the Certification Procedure CP-206 and each of the test procedures corrections to wording, grammar and numbering have been made to improve the clarity of the regulations. Cross-references have been added and corrected to improve clarity. Additionally, amendments to the text of the regulations as published in title 17, CCR, and included in Appendix B of the Staff Report, omitted TP-201.2G, Bend Radius Determination for Underground Storage Tank Vapor Return Piping. This test procedure cited in CP-206 has been incorporated by reference in title 17, CCR, section 94016.

III. SUMMARY OF COMMENTS AND AGENCY RESPONSES

During the 45-day comment period, the Board received comments from:

ORGANIZATION	REPRESENTATIVE
California Air Pollution Control Officers Association (CAPCOA)	Mel Zeldin (written)
Steel Tank Institute (STI)	Dana Schmidt (written)
California Independent Oil Marketers Association (CIOMA)	Jay McKeeman (oral and written)
California Cotton Ginners and Growers Association (CCGGA)	Roger Isom (oral)

During the 15-day comment period, the Board received comments from:

California Independent Oil Marketers Association (CIOMA)	Jay McKeeman (written)

Following is a summary of each comment and the Board's response.

A. Comment by CAPCOA

1. Comment: CAPCOA supports the proposed regulations. The regulation for Enhanced Vapor Recovery (EVR) on aboveground storage tanks is based on readily available, proven technologies, and complements the existing EVR regulation for underground storage tanks. It will improve equipment performance and reliability and further reduce emissions of smog-forming volatile organic compounds from gasoline dispensing facilities. The CAPCOA Vapor Recovery Subcommittee has been working with ARB staff and appreciates the openness and cooperation ARB staff has shown working with the Subcommittee and stakeholders in developing this regulation.

   Response: The Board appreciates CAPCOA's support of the regulations.

B. Comments by STI

2. Comment: Since existing technologies will meet the certification requirements, why must certification testing be done? There are considerable costs for both manufacturers and ARB staff, and it is estimated that manufacturer costs could exceed $300,000 for a single piece of equipment.

Response: The California Health and Safety Code (H&SC) requires ARB to test gasoline vapor control systems whenever a new performance standard or specification is adopted. Existing technologies, such as protected aboveground storage tanks, have demonstrated that they may meet the new performance standards and specifications based on field evaluations conducted by ARB to understand the relationship between ambient temperature and fuel temperature. However, these evaluations were not performed in accordance to CP-206, and are not considered certification tests.

The estimated cost for a system to go through the certification process is:

Standing Loss Control	Phase I	Phase II
<$15,000	<$31,000	<$100,000

Systems and components previously certified under the enhanced vapor recovery program may be subject to abbreviated testing if determined to be appropriate by an engineering evaluation. This would reduce the estimated cost for certification. Additionally, certification costs would be reduced some if individual equipment or component certification does not require all the testing listed in CP-206.

3. Comment: CP-206 states that compatibility testing investigation may be required during the Phase I and Phase II certification testing. This procedure is not included in CP-206 and therefore is not documented. Open-ended investigations are a concern because it can lead to rapidly increasing costs of testing without predetermined parameters.

   Response: The determination of system compatibility is documented in CP-206, sections 4.9 and 14. Compatibility is important to determine that the Phase II system does not conflict with the Phase I system, and must be determined on a case-by-case basis using data collected as part of monitoring described in section 14 of CP-206.

4. Comment: The deadline for certification testing is January 1, 2009. Certification testing is required to be performed during the summer months, which leaves only summer 2008 for certification testing of all 15 types of protected tanks, all Phase I equipment, and all Phase II equipment. It is not practical for this testing to be completed in the time allotted.

   Response: There is no deadline for certification testing. January 1, 2009 is both the effective and operative date for the regulation. This means that new installations or major modifications of existing facilities are subject to the new requirements on or after January 1, 2009. Standing loss controls are required to undergo certification testing during the summer months

(June 1 to September 30). Phase I and Phase II certification testing do not have this requirement and may begin at any time. ARB staff is willing to work cooperatively with STI and other manufacturers to start testing during the summer of 2007. In response to STI's comments that the number of tanks to be tested was not clear, CP-206, section 13.8 was added to allow the manufacturers to specify those tanks that represent a worse case scenario from an emissions standpoint. The approval of the selected number of test tanks is conditional on an engineering evaluation and the approval by the Executive Officer to minimize the number of tanks necessary for testing and to provide adequate time to complete certification testing.

C. Comments by CIOMA

45-day

5. Comment: We have concerns that the extensive and expensive certification process, especially for carbon canister, shade, and insulated tanks, will lead to a single source for certified systems. We request that the operative date of the regulations not begin until at least two systems are certified.

   Response: The Board has recognized these concerns. Staff has worked with stakeholders to voluntarily certify Standing Loss Control systems during the summer of 2007. ARB staff will continue to work with manufacturers of vapor recovery equipment to certify vapor recovery systems in a time efficient and cost effective manner. ARB staff understands the desire to have at least two systems certified. However, requiring a minimum two certified systems discourages innovations and the timely implementation of new requirements and is not required under state law; notably Health and Safety Code section 41954 does not require the certification of two systems before their use is mandated.

6. Comment: We suggest ARB staff be required to prepare two status reports on the evolution of certifications to understand how development of these technologies is progressing as regulatory implementation dates mature. We recommend these reports be prepared by September 2008 and January 2011 to evaluate:
   a. Development of the technology
   b. Certification status
   c. Certified system
   d. Economic analysis

   Response: In Board Resolution 07-27 the Board direct the Executive Officer to make available on the ARB Vapor Recovery webpage a report listing certified components/systems and their corresponding costs by no

later than October 1, 2008, and again by no later than January 5, 2011. Additionally, in these reports, staff shall evaluate the appropriateness of the regulatory effective dates based on availability of certified components/systems and their associated costs.

7. Comment: We request that ARB keep track of qualified installers/applicators for certified insulation installment. If there appear to be insufficient resources, the deadline should be adjusted allowing owner/operators to comply with the requirements in a timely, organized and cost-effective manner.

   Response: Among the requirements for installation, operation, and maintenance of the AST vapor recovery systems, CP-206 requires that certification applicants/manufacturers submit to ARB a plan, including a training contact person or contact telephone number, for training installers in the proper installation of AST systems. Given this requirement, staff anticipates that vapor recovery certification applicants/manufacturers will post the names of trained, qualified installers/contractors. In the event that users/industry believes there may be insufficient installers/contractors, the ARB vapor recovery web page has an advisory form to complete and submit to ARB. ARB staff will investigate and determine the availability of equipment, components, etc. If ARB determines that contractors or equipment are not available, the Executive Officer is authorized to change the effective and operative dates as provided in CP-206, section 2.4.4.

8. Comment: We request the term “commercially available” be defined in the D-200 document. We feel the current definition referenced in other locations and providing a delay of 3-8 weeks in delivery of needed parts is unacceptable.

   Response: The issue raised by CIOMA is outside the scope of the amendments proposed in the rulemaking because no amendments were proposed on the availability of components of systems that meet the currently operative program standards and specifications for vapor recovery. An amendment to the definitions in D-200 would affect all currently operative vapor recovery certification programs, such as the certification program for bulk tanks. A modification to an agency’s originally noticed proposal, such as the adoption of a definition for commercial availability, is barred by Government Code 11346.8 whenever the modification is not sufficiently related to the original text of the proposal so that the public is adequately placed on notice that the modification might result from the originally proposed regulatory action. Since amendments to these other vapor recovery certification programs were not noticed for 45-days in the original notice for this rulemaking, Government Code section 11346.8 bars the adoption of the definition in

D-200 as the definition would be equally applicable to all vapor recovery certification programs, not solely vapor recovery certification for ASTs.

15-day

9. Comment: Re-statement of comment number 7 above, with an added request to require ARB staff to report the number or qualified installers/inspectors four months prior to the implementation date, and allow the Executive Officer to administratively extend the deadline if problems are perceived, without going back to the Board.

   Response: See the responses to comment numbers 6 and 7 (CIOMA 45-day comments). The effective and operative dates may be changed by the Executive Officer as provided in CP-206, section 2.4.4 when either no system has been certified or no system will be commercially available by the operative dates.

10. Comment: Re-statement of comment number 8 above, with the added statement that CIOMA did not see any changes regarding the definition of "commercially available," or have any meetings to discuss the definition with ARB staff.

    Response: See the response to comment number 8, above.

D. Comments from CCGGA

11. Comment: We request ARB staff start the certification process using the same site (Firebaugh, California) with all the combinations of white paint and pressure/vacuum relief valves even before this rule has gone to the Office of Administrative Law for final approval.

    Response: ARB staff began voluntary certification testing on August 16, 2007, in Firebaugh, California prior to OAL regulatory approval. A certification executive order will not be issued until the regulation is adopted.