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 AMENDMENT OF REGULATIONS REGARDING CERTIFICATION PROCEDURES AND TEST PROCEDURES FOR GASOLINE VAPOR RECOVERY SYSTEMS

Public Hearing Dates: June 24, 1999
Agenda Item No.: 99-5-2

I. Introduction:

On June 24, 1999, the Air Resources Board (the "Board") conducted public hearings to consider the amendment of four certification and test procedures.

At the June 24 public hearing, the Board adopted Resolution 99-23 approving the adoption and the amendment of regulations that incorporate by reference four amended certification and test procedures. The revised regulations are Title 17, California Code of Regulations (CCR), Sections 94011, 94153, 94154, and 94155. The incorporated amended certification and test procedures are:

CP-201, Certification Procedure for Vapor Recovery Systems of Dispensing Facilities

TP-201.4, Determination of Dynamic Pressure Performance of Vapor Recovery Systems of Dispensing Facilities

TP-201.5, Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities

TP-201.6, Determination of Liquid Removal of Phase II Vapor Recovery Systems of Dispensing Facilities

After consideration of formal comments received during the 45-day public comment period prior to the hearing, 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 August 30, 1999 and September 14, 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 August 30, 1999, as required by Title 1, CCR, section 44.

In a separate rulemaking proceeding, considered at a public hearing on March 23, 2000, the Board directed in Resolution 00-9 that the amendment of TP-201.5, as directed by Resolution 99-23, be set aside.

A Staff Report was prepared as the Initial Statement of Reasons for the proposed rulemaking. The Staff Report was released on May 7, 1999, 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's Executive Officer has also determined that pursuant to Government Code section 11346.5(a)(3)(B) the regulations will not affect small business. Therefore in accord with Government Code section 11346.9(a)(5) no alternatives that would lessen the adverse economic impact on small businesses were considered.

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. Background

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 ARB to adopt test methods to determine compliance with ARB and district non-vehicular emissions standards.

Since 1983, the Air Resources Board (ARB) 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 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 amended procedures support emissions measurement and verification of proper operation of installed systems. The May 7, 1999, staff report provides the complete background and reasons for adoption and revision of each of the procedures.

III. Changes to the Originally Proposed Certification and Test Procedures

At the hearing the staff presented, and the Board approved, modifications to the regulations originally proposed in the Staff Report released on May 7, 1999, in response to comments received and continuing review since the Staff Report was published. The modifications affect the text of certification and test procedures CP-201, TP-201.4, TP-201.5 and TP-201.6.

Modifications to CP-201

As originally noticed, CP-201 section 3.1.2 (10) proposed that applicants for certification notify all component manufacturers of the applicant's intended use of the components manufacturers' equipment when the applicant was not the manufacturer of all system components. As modified, CP-201 section 3.1.2 (10) would require notification as follows: When the applicant is requesting inclusion of one or more components on a certified system, the applicant shall notify the manufacturers, if any, named as the applicant or holder of the executive order for the certified system. When the applicant is requesting certification of one or more components as part of a new system, the applicant shall notify all manufacturers. The modification recognizes that more limited notification is necessary when the applicant is proposing an amendment to an existing certification because there is already a named holder for the executive order who has an interest in the amendment. When a new certification is being sought, notification of all manufacturers is needed to provide an opportunity for the other component manufacturers to provide information to the ARB staff as to the compatibility of the system components within the proposed vapor recovery system.

As originally noticed CP-201 section 3.2.2 proposed changing the one-year warranty period of vapor recovery system equipment. As modified, CP-201 section 3.2.2 would maintain the warranty period at one year as provided in the regulations currently in place.

As originally noticed, CP-201 did not provide for a "warranty notice tag." A modification adds a requirement for warranty notice tags on certified equipment and specifies information that is to be included on the warranty notice tag. A warranty notice tag is necessary to assure that the ultimate purchaser of the equipment has access to warranty information.

Modifications to TP-201.4

As originally noticed, TP-201.4 was not explicitly inapplicable to vapor assist type vapor recovery systems. Modifications in section 1 make this inapplicability clear.

As originally noticed TP-201.4 provided ambiguous and incorrect specifications for test apparatus and its performance. Modifications in sections 5.1, 5.3 and 6.3 clarify and correct these specifications and require a check of the apparatus' backpressure.

As originally noticed, TP-201.4 did not specify opening all Phase I poppet valves and contained unneeded wording regarding rags. Modifications to section 7.3.6 require all Phase I poppets to be

opened and delete reference to rags.

As originally noticed, TP-201.4 requirements for adding gasoline to underground piping were somewhat vague. Modifications to section 7.3.3 clarify the methodology and specify a range in the quantity of gasoline to add.

Modifications to TP-201.5

The proposed amendments and modifications to TP-201.5 are set aside as directed by Board Resolution 00-9.

Modifications to TP-201.6

As originally noticed, TP-201.6 might have been considered applicable to vapor assist type vapor recovery systems. Modifications to section 1 make the procedure explicitly inapplicable to vapor assist type vapor recovery systems.

Minor Editorial Corrections

In addition to changes approved by the Board, minor editorial corrections have been made.

In CP-201, the handwritten annotation “or where it can be found on the compo" [sic] which appeared in staff’s proposed 15-day changes has been replaced with “or where it can be found on the component.”

In TP-201.4, the text of section 7.3.3.1 originally proposed for addition by the 45-day notice has been properly marked as such an addition where the approved 15-day change list attached failed to do so.

IV. Environmental and Economic Impacts

The proposal is not expected to have any adverse environmental impacts. Rather, the revised test methods will assist air quality decision-makers with improved information regarding performance of vapor recovery systems. The revised test procedures will provide greater uniformity and improved quality assurance practices for vapor recovery testing performed in California.

The economic impacts of this proposal are expected to be minimal for testing contractors and the industrial community. Some small costs will result from updating test equipment.

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 Hirt Combustion Engineers Inc., the Wayne division of Dresser Equipment Group, Inc., Gilbarco Inc., OPW Fueling Components, Husky, and San Diego Air Pollution Control District.

No public testimony relating to the proposal as modified was presented at the June 24 public hearing.

Comments on each certification and test procedure are summarized below with ARB staff response.

Certification Procedure CP-201

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne opposes the initially proposed 3-year warranty requirement.

Response
This requirement has been eliminated, maintaining the 1-year warranty requirement.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended annual inspections of vapor recovery systems.

Response
CP-201 is directed toward certification of vapor recovery systems rather than regulation of their day to day operation and maintenance. Local district regulations and permit conditions typically mandate inspection frequency. The recommendation is declined as inconsistent with the intent and purpose of CP-201.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended changing the table of maximum allowable pressure drops in Section 4.2.1 based on ARB comments that these pressure drops are inapplicable to certain older systems.

Response
Application of the pressure drops to systems certified before 1996, when CP-201 was previously last amended, is inappropriate; the table applies to systems certified after April 12, 1996. The more restrictive pressure-drop requirements adopted in 1996, however, are intentional and are achieved by newer systems. The 1996 replication in TP-201.4 of this table was inappropriate since it inadvertently made the requirements applicable to older systems. This problem is corrected by deletion of the table from TP-201.4. No change in the requirements for new systems in CP-201 is appropriate.

Comment by Gilbarco, Inc.

Gilbarco recommended adding pressure drop across the entire hanging hardware assembly to information required in Section 3.1.1(1)(d).

Response
The requirement that applicants specify allowable pressure drop "through the system as a whole and for each system component" allows calculation of pressure drop across the entire hanging hardware assembly if the pressure drops are considered additive. Further, there is no prohibition against including a specification of pressure drop across the entire hanging hardware assembly. The change is considered unnecessary.

Comment by Gilbarco, Inc.
Gilbarco recommended adding language in Section 3.1.11 requiring submission, with an application for certification of an entire system, of agreements from manufacturers of all components of the system to comply with requirements specified by the applicant for certification.

Response
The change is considered unnecessary and such agreements between private parties would not necessarily be enforceable by regulatory agencies. However, there is no prohibition against submission of such agreements.

Comment by Gilbarco, Inc.
Gilbarco recommended adding language in Section 3.1 requiring submission, with an application for certification of retrofit equipment, of approval from the party originally granted certification of the system to be retrofitted.

Response
Such a requirement is considered unnecessary and could potentially lead to imposition of inappropriate conditions and requirements on manufacturers of retrofit equipment. Any certification holder may, however, specify requirements for the system or system components that are necessary for the system to meet the requirements mandated in the regulations.

Comment by Gilbarco, Inc.
Gilbarco recommended eliminating the initially proposed 3-year warranty minimum period and retaining the previous 1-year warranty requirement.

Response
This change was made.

Comment by Gilbarco, Inc.
Gilbarco made various comments and recommendations related to matters that have been discussed at workshops but are not directly related to the current revision of CP-201 and

the certification and test procedures.

Response
These recommendations will be considered at an appropriate time; they do not relate to the current rulemaking.

Comment by OPW Fueling Components
OPW recommended that manufacturers seeking certification of retrofit equipment not be required to notify makers of previously certified competing equipment when seeking certification.

Response
This issue was resolved by the 15-day modifications to Section 3.1.2 (10). As modified the regulation requires notification of all component makers when a new system is to be certified but requires notification of only the holder of the original certification when certification of a retrofit component is sought.

Comment by OPW Fueling Components
OPW recommends that in the proposed regulation the requirement relating to "expected useful life" be deleted.

Response
The change was made.

Comment by OPW Fueling Components
OPW recommended that the new requirement for warranty tags be eliminated.

Response
Provision of warranty tags is considered a reasonable requirement that does not impose any significant costs or inconvenience on equipment makers. As modified, the warranty tag provision for a "shelf-life" or "sell-by" date is required only if applicable; that is, the date is only required when appropriate because of the manufacturer's warranty policy. The success of the warranty tag program, and any problems reported, will be reviewed periodically and the requirements will be revised if necessary.

Comment by Husky
Husky recommended changes to the requirement for notifying other equipment manufacturers when seeking certification of retrofit equipment.

Response
This issue was resolved by the 15-day modifications to Section 3.1.2 (10). As modified, the regulation requires notification of all component makers when a new system is to be

certified but requires notification of only the holder of the original when certification of a retrofit component is sought.

Comment by Husky
Husky recommended that the warranty tag requirement allow the date of manufacture to be either on the tag or the component.

Response
The warranty tag requirement requires the tag to be "affixed" to the equipment, and does not prohibit permanently affixing it. The recommended change is unnecessary.

Test Procedure TP-201.4

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended that the title of TP 201.4 be changed to indicate it is applicable to balance type vapor recovery systems only.

Response
This recommendation has been addressed in the 15-day modifications, which make TP-201.4 explicitly inapplicable to assist systems.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended that a note be added that the test can be done while the station is in operation and other dispensers are operating.

Response
Since operation under such circumstances is not explicitly prohibited the change is unnecessary.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended that information pertinent to testing the underground piping of assist systems be added.

Response
TP-201.4 is specifically inapplicable to assist systems and the recommended change is thus inappropriate.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended deleting reference to draining the vapor return riser when it is disconnected.

Response
This change is appropriate and has been made in the 15-day changes.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended adding instructions to read rotameters at the center of the indicator ball.

Response
Instructions are normally supplied with rotameter gauges and different rotameters have different types of indicators. The method of reading the rotameter in making measurements normally will be the same as the method used in calibration, and errors will thus be negligible. The change is unnecessary.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended referring to the midpoint of the indicator range rather than the average reading in Section 12.1.

Response
Because multiple measurements are required in certification testing, averaging is necessary. The recommended change is inappropriate.

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended eliminating reference to executive orders and instead specifying explicit pressure drop requirements.

Response
Replication of the pressure-drop requirements in TP-201.4 is inappropriate. Because of the change in the pressure-drop specification, systems certified before 1996 are not necessarily the same as systems certified after 1996 and, for this reason, only the executive order is authoritative. Furthermore, inclusion of certification specifications or standards is inappropriate in a test method, which should, instead, focus on definition of measurement procedures.

Comment by San Diego APCD
The APCD recommended that applicability of the procedure to vacuum assist type vapor recovery systems be made explicit.

Response
This has been addressed in the 15-day modifications that make TP-201.4 explicitly inapplicable to vapor assist systems.

Test Procedure TP-201.5

Because the Board has directed that the amendments to TP-201.5 be set aside, this final statement of reasons does not include any summary of comments or ARB responses for

this test procedure.

Test Procedure TP-201.6

Comment by Wayne division of Dresser Equipment Group, Inc.
Wayne recommended making the test procedure explicitly applicable to balance type vapor recovery systems only by changing the title.

Response
This has been done in the 15-day changes, by modification of Section 1 rather than by changing the title.

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

During the 15-day comment period between August 30, 1999 and September 14, 1999 three additional comment letters were received from Tokheim Corporation, Wayne/Dresser and Hirt Combustion Engineers. The comments in these three letters are summarized below with the staff response.

General Comments

Comment in September 10, 1999 letter from Wayne/Dresser
Wayne suggested that changes be identified in the regulation after it is amended to clarify new and revised requirements. Wayne states that this format works very effectively for Weights and Measures.

Response
During the rulemaking process both the 45-day and 15-day texts of the regulations, show the changes to the regulations. These texts have always been available as part of the rulemaking file and are now available on the ARB's web site for each rulemaking. The ARB believes that a permanent identifier of the changes in the regulations' format would not be helpful for vapor recovery procedures due to the complicated and numerous changes that are made to the certification and test procedures. In fact, the format suggested by Wayne would likely lead to greater confusion for users of the vapor recovery methods.

Certification Procedure CP-201

Comment in September 14, 1999 letter from Tokheim Corporation
Tokheim was unclear about the purpose of the proposed notification requirements and what response is expected from the notified manufacturer. Tokheim was only interested in knowing if a component is granted an approval to be used on their system.

Response
The notification requirements are intended to provide certification holders advance notice that a component manufacturer is seeking to be certified on their system. In the past, there have been some instances when certification holders objected to certain components being used on their system, but did not have an opportunity to provide timely comments or objections based on the certification standards and specifications.

Comment in September 14, 1999 letter from Tokheim Corporation
Tokheim was pleased that the warranty period was kept at one year and believes field enforcement is a better way to ensure higher quality equipment. Tokheim asked whether warranty tag procedures currently used conform to the requirements in CP-201.

Response
This question can't be answered without looking at the tag, but tagging requirements are fairly straightforward: the tag should provide a notice of the warranty, indicate date of manufacture, indicate maximum shelf-life or "sell by" date if applicable, and be designed and identified as a notice to be removed only by the ultimate owner of the installed equipment and no other party. Equipment manufacturers can review their tags carefully in the context of these requirements and contact ARB's Compliance Division if there are issues regarding the tagging requirement, which they find unclear.

Comment in September 10, 1999 letter from Wayne/Dresser
Wayne is requesting that the balance testing criteria and all approvals related to it be changed to pre-1996 values in CP-201 and TP-201.4 procedures until further work has been done to justify the changes. Wayne has four reasons to justify this request:

1. No documented data suggesting why or how the '96 criteria was developed.
2. The '96 criteria appears in error when examining and comparing before/after graphs as there is no linear correlation.
3. The Exxon Executive Order No.G-70-23-AC specifies use of 20/60/100 criteria on devices installed after the effective date of the EO and use of the 40/60/80 on devices installed after the effective date of the EO. Wayne states this is contrary to what was agreed to at the May 7 hearing and is not fair to Exxon.
4. Data has been provided to CARB that hanging hardware can provide very high pressure-drops, which lead to non-compliance. Separate approvals and test procedures need to be developed for hanging hardware to distinguish the systems and allow users to select hardware that will pass the compliance tests.

Response

As Wayne points out, a problem with the 1996 dynamic-pressure-performance criteria is that the criteria were incorrectly being applied to systems certified prior to 1996. This problem is fixed by the amendments: the 1996 criteria have been taken out of the test procedure (TP-201.4) and placed in the certification procedure (CP-201) to allow each system to be tested to the dynamic-pressure-performance criteria that was in effect at the time the system was certified. This will result in all systems being subject to the pre-1996 criteria at 20/60/100 except for Exxon, which was certified after 1996. This clarification in the applicability of the dynamic-pressure-performance criteria was communicated to all air pollution control districts in a July 15, 1999 letter from James J. Morgester of ARB's Compliance Division.

The ARB agrees that separate pressure-drop requirements for hanging hardware components will help users stay in compliance. These requirements have been included in the another rulemaking, which was approved by the Board on the March 23, 2000.

Comment in September 10, 1999 letter from Wayne/Dresser
Wayne suggests the certification program be divided such that the basic components of the system obtain stand-alone certification instead of certifying the system as a whole. This would avoid "finger-pointing" when the "system" does not meet requirements after certification, as different manufacturers make system components. Wayne provides a breakdown of how vapor recovery equipment could be certified by component.

Response
Health & Safety Code section 41954 requires that ARB certify vapor recovery systems, not system components. However, staff recognizes the testing burden that may develop if a particular piece of equipment is desired to be certified on several systems. Staff has identified several types of vapor recovery equipment as "non-specific system components" in another rulemaking, the Enhanced Vapor Recovery proposal approved by the Board on March 23, 2000. For non-specific system components some testing requirements may be waived for subsequent certifications, once the component has demonstrated that it meets standards for one system.

Test Procedure 201.4

Comment in September 14, 1999 letter from Tokheim Corporation
There would be an advantage to measuring the pressure drop across the hanging hardware, the dispenser and the underground piping separately and assigning limits for each separately.

Response
This is beyond the scope of TP-201.4 since testing compliance of various components and segments of an installed system would require disassembly of the system. ARB considers it undesirable to promulgate test procedures intended for routine field use which require

disassembly of the tested system. Further, the sum of the pressure drops across the all components of the intact system is the actual pressure drop affecting vapor emissions at the nozzle/vehicle interface. ARB agrees that test procedures for measuring pressure drop across individual components, and criteria for maximum values of such pressure drops, may be desirable both as a clear cut standard for manufacturers and vendors, particularly when multiple vendors supply components of a vapor recovery system. Test procedures and requirements for individual components would also provide a basis for inspection of product performance prior to installation. Individual component pressure-drop requirements are included in another rulemaking, the Enhanced Vapor Recovery amendments, which were approved by the Board at the March 23, 2000 hearing.

Test Procedure TP-201.5

Because the Board has directed that the amendments to TP-201.5 be set aside, this final statement of reasons does not include any summary of comments or ARB responses for this test procedure.

Test Procedure 201.6

Comment in September 14, 1999 letter from Tokheim Corporation
The method should be explicitly applicable to vacuum assist vapor recovery systems as well as balance systems. Both should be capable of meeting the liquid removal requirement imposed by CP-201.

Response
It is not normally possible to test liquid removal performance of a vapor assist system without disassembling the system since liquid gasoline can neither be poured into the vapor passage or drained from it without disassembly. ARB considers it undesirable to promulgate test procedures intended for routine field use which require disassembly of the tested system.

Comment in September 13, 1999 letter from Hirt Combustion Engineers, Inc.
The modified version of TP-201.6 no longer applies to our bootless vapor recovery system certified by Executive Order #G-70-177. Although Exhibit 1 of the certification requires the used of a liquid removal device in a balance type coaxial hose, there will be no way to verify performance.

Response
Staff agrees that the revisions TP-201.6 will make the test procedure applicable only to balance systems with nozzles with boots or bellows. As state above, this is to avoid disassembly of gasoline dispensing equipment to conduct the test. Staff plan to develop a new procedure to address liquid removal for assist systems.

Comment in September 13, 1999 letter from Hirt Combustion Engineers, Inc.
Lowering the requirement from 10 ml/gallon to 5 ml/gallon will reduce the ability of our system to maintain its minimum required A/L ratio. Hirt suggests numerous liquid removal standards based on dispensing flowrates.

Response
Systems are required to meet all applicable performance standards. Hirt systems are required to meet the A/L standards regardless of the liquid removal requirement. The variable liquid removal standards suggested by Hirt would introduce unnecessary complication in the liquid removal standard.