



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

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TO: All Interested Parties

The California Air Resources Board (ARB) has received several inquiries regarding the applicability of currently certified vapor recovery systems for facilities that dispenses E85 (85% ethanol, 15% gasoline) fuel. We have determined that facilities that dispense E85 are subject to the vapor recovery permitting requirements of the local air pollution control districts or air quality management districts (districts) because E85 meets the legal definition of gasoline. Section 41950(c) of the California Health and Safety Code (HSC) defines gasoline as a petroleum distillate with a Reid vapor pressure (RVP) greater than four pounds. E85 is a petroleum distillate with a RVP greater than four pounds. Because the HSC section 41954 requires the use of ARB certified vapor recovery systems and because ARB has never certified a vapor recovery system for dispensing E85, the currently certified vapor recovery systems are not approved for use with E85. The lack of certification is of additional concern due to serious material compatibility issues with ethanol. According to the Handbook for Handling, Storing, and Dispensing E85 issued by the U.S. Department of Energy, brass, zinc, lead, aluminum, terne (lead-tin alloy) plated steel are considered incompatible with ethanol.

While we recognize that existing gasoline vapor recovery systems are not compatible with E85, we do not wish to discourage interested parties from pursuing certification of E85 compatible vapor recovery systems. In an effort to promote the development of such systems, ARB is willing to grant a limited number of "Research and Development" (R&D) approvals that will allow the installation of uncertified vapor recovery systems. The purpose of the R&D approvals is to allow an E85 proponent (possibly a component manufacturer or E85 fuel supplier) to install a system which will be used to generate data to support the certification of vapor recovery systems that are compatible with E85. The authority to designate an installation as an R&D test site is provided in Section 13.1.6. of **CP-201, Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities** which states:

"Test site designation may be requested by the applicant, or by another person, for facilities other than the certification test site(s), for the purpose of research and development, or independent evaluation of a system prior to its certification. Approval of such a test site shall be at the discretion of the Executive Officer."

Interested parties who wish to install E85 compatible equipment for the purposes of R&D must submit a complete R&D application to ARB. The application must contain the following information:

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

- Define the goals and objectives of the R&D test site
- Identify the uncertified equipment to be installed
- Specify the type of testing to be conducted and the testing frequency to determine material compatibility and compliance with the applicable performance standards or specifications listed in CP-201 for underground storage tanks (USTs) and Interim guidelines for aboveground storage tanks (ASTs).
- Identify the proposed date for submitting an application for certification
- Provide ARB and District staff the opportunity to observe installation and observe testing.
- Allow ARB or local district access to the facility for purpose of conducting testing for evaluation and test method development.

We like to reemphasize that the purpose of the R&D approval is to allow installation of uncertified equipment for the purpose of generating data that are use to support a certification application. Such testing should not be construed as certification testing.

All R&D approvals will be based on our evaluation of the proposed R&D plan. Several R&D applicants may collaborate where testing could be done at one facility. Our R&D approval will have a term of one year. Renewals for up to three years may be granted based on the submission of test data and increments of progress towards certification of the vapor recovery system.

Test sites, including those for R&D, are exempt **only** from the prohibition against installing uncertified system or equipment, and are not exempt from any other applicable rules or regulations such as the permitting requirements of the districts. All test data collected from the test site shall be made available to ARB and district staff.

Vapor recovery equipment manufacturers and any interested parties may submit an application for certification at any time. CP-201 (may be downloaded from ARB web site at <http://www.arb.ca.gov/testmeth/vol2/vol2current.htm>) describes the vapor recovery certification process for USTs. Section 11 of CP-201 specifies the information needed for the application. If the application is acceptable for testing, an operational test of at least 180-days will begin at a designated test site. During the operational test, ARB staff will conduct tests to verify compliance with applicable performance standards and specifications. An Executive Order certifying the system will be issued if the system successfully complies with all the requirements. For ASTs, the certification process is described in the Interim guidelines which can be downloaded from ARB's website at <http://www.arb.ca.gov/vapor/above/aststdspec110201.pdf>.

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A vapor recovery equipment manufacturer working in collaboration with R&D applicants could submit an application for certification. Alternatively, all R&D applicants working together may submit a certification application for E85 compatible vapor recovery system.

If you have questions or need further information, please contact Joe Guerrero at (916) 324-9487 or by e-mail at jguerrer@arb.ca.gov, or Vincent Bunac at (916) 327-7420 or by e-mail at vbunac@arb.ca.gov.

Sincerely,



George Lew, Chief
Engineering and Certification Branch
Monitoring and Laboratory Division

cc: Teresa Sewell
Monterey Bay Unified APCD

Ben Shaw
South Coast AQMD

Peter Ward
California Energy Commission