

California Environmental Protection Agency



## Vapor Recovery Certification Procedure

Proposed CP-203

### Certification Procedure for Vapor Recovery Systems of Terminals

Adopted: April 12, 1996

Amended: [Date of Amendment]

**Note:** ~~Strikeout text is deleted text which was provided in 4/3/98 staff report.~~  
Underlined text is new text which was provided in 4/3/98 staff report.  
Double underlined text is new text proposed after 4/3/98 staff report.  
Sections of text not shown remain unchanged proposed in 4/3/98 staff report.

## 1.2 Legislative and Regulatory Requirements of Other Agencies

In addition to California's local Districts, other federal, state, or local agencies may have legal jurisdiction regarding vapor recovery systems. The applicant is solely responsible for:

- (1) compatibility of the applicant's equipment with the application of any other agency's test procedures;
- (2) testing of the applicant's equipment with such test procedures; and
- (3) compliance with performance standards and performance specifications in any other agency's regulations referencing such test procedures.

The ARB Executive Officer is not responsible for items (1) through (3) above.

Terminal facilities may be subject to a pretest leak check and different leak limits as specified by district and/or federal rules (40 CFR Part 63, Subpart R National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout stations)).

## 4 PERFORMANCE STANDARDS, PERFORMANCE SPECIFICATIONS, AND TEST PROCEDURES

**Warning:** The installation, operation, maintenance, and inspection of a vapor recovery system must be compatible with:

- (1) the application of specified performance standards, performance specifications, and test procedures and
- (2) the installation, operation, maintenance, and inspection of any other equipment associated with such system.

### 4.1 Performance Standards and Test Procedures

#### 4.1.1 Emission Factor

##### 4.1.1.1 Performance Standard

A vapor recovery system shall have a maximum emission factor of 0.29 #/E3G to obtain certification by this procedure. However, many facilities may be subject to lower emission limits as specified by local district and/or federal rules.

This performance standard shall also be a performance specification.

**Note:** For the purpose of comparing emission factors and efficiency values, the emission factor for uncontrolled displacement of gasoline vapors is defined as 8.4 pounds of hydrocarbon vapor displaced per thousand gallons of gasoline liquid dispensed (8.4 #/E3G). Thus, for example, ninety-six-point-five percent (96.5%) control efficiency by weight corresponds to emissions of 0.29 #/E3G.

8.4 #/E3G may not represent an accurate uncontrolled emission factor for vapors displaced during terminal transfer operations. 8.4 #/E3G corresponds to a hydrocarbon concentration of 55% as C3 for displaced vapors. Most terminal tests show lower concentrations of vapors entering the processing unit (20% to 40% as C3 is typical). One reason that the concentrations are lower is due to diesel and switch loading operations. Data on the vapor return line concentration must be collected if an accurate determination of mass efficiency is to be made on a case-by-case basis.

#### 4.2 Performance Specifications and Test Procedures

Performance specifications may be specified by the applicant in the required application information for each component or configuration of components of the vapor recovery system. Such performance specifications shall be the basis for any testing performed on any component or configuration of components when isolated from the rest of the system.

Other performance specifications shall be added, as appropriate after review of system information by the ARB Executive Officer.

~~Under Section 41954 (g) of the Health and Safety Code, Districts may establish more stringent performance specifications. In such cases, the more stringent District performance specification shall apply.~~

##### 4.2.1 Emission Factor

##### 4.2.1.1 Performance Specification

A vapor recovery system shall have a maximum emission factor of 0.29 #/E3G to obtain certification by this procedure. However, many facilities may be subject to lower emission limits as specified by local district and/or federal rules.

As a performance specification for compliance testing, this standard shall be applied at facility operating conditions which are not altered for or by testing

activities.

The facility operating conditions established during testing for the certification criterion shall each be specified as performance specifications subject to subsequent compliance testing.

**Note:** For the purpose of comparing emission factors and efficiency values, the emission factor for uncontrolled displacement of gasoline vapors is defined as 8.4 pounds of hydrocarbon vapor displaced per thousand gallons of gasoline liquid dispensed (8.4 #/E3G). Thus, for example, ninety-six-point-five percent (96.5%) control efficiency by weight corresponds to emissions of 0.29 #/E3G.

8.4 #/E3G may not represent an accurate uncontrolled emission factor for vapors displaced during terminal transfer operations. 8.4 #/E3G corresponds to a hydrocarbon concentration of 55% as C3 for displaced vapors. Most terminal tests show lower concentrations of vapors entering the processing unit (20% to 40% as C3 is typical). One reason that the concentrations are lower is due to diesel and switch loading operations. Data on the vapor return line concentration must be collected if an accurate determination of mass efficiency is to be made on a case-by-case basis.