

California Air Resources Board
Phase I EVR System
Installer/Contractor Training Plan Guidelines

April 14, 2006

These guidelines were established for developing a plan to train contractors in the installation and testing of their Phase I enhanced vapor recovery (EVR) system as required in Section 11.5.2 of CP-201, Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities. Proper installation, inspection and maintenance of Phase I EVR systems is critical to reduce emissions, minimize troubleshooting for installers, minimize down time for station operators, limit re-inspections for district inspectors, and ensure ongoing compliance.

Section 1: Administrative Requirements

The manufacturer shall:

1. Identify the training format in the preliminary application submittal. The training should include, as identified in Section 2 below, a lecture, hands-on demonstration, system and component testing, and an examination.
2. Provide a schedule of courses, including location, time, duration, fees, and dates. Identify who will receive the schedule and how it will be made available. ARB staff shall be provided a schedule and notified in writing at least two weeks in advance of scheduled training.

Section 2: Course Requirements

At a minimum, the course work shall include the following topics (if applicable):

I. Lecture

A) Background

1. Overview of Phase I EVR system operation
2. ARB Phase I EVR Executive Order
3. ARB Approved IOM Manual
4. Local Permits / Authority to Construct

B) Pre-Installation

1. Safety
2. Checklist
3. Installation requirements and specifications
4. Standard tools
5. System specific tools
6. Proper use of pipe sealant, or other sealant
7. Site preparation

C) Installation Instructions

1. Riser preparation
2. Drop tube
3. Overfill prevention devices
4. Spill containers
5. Containment components
6. Adaptors
7. ATG caps
8. P/V vent valves
9. Ball floats
10. Proper use of pipe sealant

D) Maintenance Instructions

1. Checklist(s)
2. Drain valves
3. Adaptors
4. P/V vent valves
5. Drop tubes
6. Drop tubes with overfill prevention devices
7. Ball floats
8. Other(s)

E) Troubleshooting and Repair

1. Checklist(s)
2. Example "Maintenance Log" – recording maintenance, inspection, testing, repairs, and results

II. Hands-On Demonstration

- A) Spill container
- B) Riser pipe preparation
- C) Drain valve
- D) Drop tube with overfill prevention device
- E) Drop tube
- F) Adaptors
- G) P/V vent valves
- H) Other(s)

III. Compliance Testing

A) Safety

B) How to conduct the following ARB compliance test procedures:

1. TP-201.1B: Static Torque of Rotatable Phase I Adaptors
2. TP-201.1C: Leak Rate of Drop Tube / Drain Valve Assembly

3. TP-201.1D: Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves
4. TP-201.1E: Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves
5. TP-201.3: Determination of 2 Inch WC Static Pressure Performance
6. Other tests specific to the Executive Order

C) Testing Tools

1. Torque wrench
2. Flow meters
3. Test stands
4. Digital manometers, magnahelic gauges
5. Other(s)

D) Records

1. On site maintenance, inspection, and testing logs

Section 3: Exam

The exam portion of the training course will be specific to each manufacturer. For example, the exam may consist of a written, multiple choice, or fill in the blank test and a “hands on” assembly. The manufacturer must also identify the pass/fail criteria.

Section 4: Certification

Upon successful completion of the course, the manufacturer shall provide each participant with written documentation such as a certificate of completion. The certificate shall identify the appropriate Executive Order number and revision, date of training, name of participant, and expiration date. A wallet card certificate is recommended to demonstrate an individual has been trained. Certificates shall be valid for a maximum of two years from the date of course completion unless otherwise specified by ARB.

In addition, each manufacturer shall maintain an updated list of those individuals who have completed the course and make such list available for public access. For example, such list could be posted on the manufacturer’s web site or the manufacturer could maintain a telephone call center. The manufacturer should review and update the list of certified individuals on a monthly basis. The manufacturer shall provide information in the installation and maintenance manual on where to access a list of certified individuals and where to get information on the manufacturer’s training program. The goal is to provide the GDF owner/operator or regulator with a means to verify an individual is certified and/or how to receive training.

Section 5: Re-Certification

As stated above, the certification will expire two years from the date of completion. After such time, an individual must be re-certified by the manufacturer.

The manufacturer must notify certified individuals in writing of any changes to the Executive Order, equipment, installation instructions, or any of the elements outlined in the training plan. Changes may require recertification prior to the two year expiration date.

Section 6: Revisions to the Training Plan

Revisions to the Training Plan may be initiated by the manufacturer to improve the course outline or material presented or it may be required because of a modification to the Executive Order. Any revisions to the Training Plan must be approved by ARB in writing.