

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER VR-202-AA

Relating to Certification of Vapor Recovery Systems

**Assist Phase II Enhanced Vapor Recovery (EVR) System
Including In-Station Diagnostics (ISD)**

WHEREAS, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code Sections 25290.1.2, 39600, 39601, and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations (Phase II EVR system) in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201) as last amended June 4, 2019, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase II vapor recovery systems with emission standards;

WHEREAS, Franklin Fueling Systems, Inc. (FFS) requested and was granted certification of the Assist Phase II EVR System including ISD pursuant to the CP-201 on August 31, 2005, by Executive Order VR-202-A, and last modified on November 5, 2019, by Executive Order VR-202-Z;

WHEREAS, ARID Technologies, Inc. (ARID) requested an extension of the vapor piping distance limitation between the Permeator AT-150 active tank pressure management system and the underground storage tank(s);

WHEREAS, ARID has demonstrated that the Permeator AT-150 and Veeder-Root version 1.06 software comply with applicable performance standards of CP-201 when subjected to challenge mode testing that included pressure increases while dispensing and the ability to process a feed rate of 350 gallons per hour of gasoline vapors at a concentration of 61 percent propane;

WHEREAS, CP-201 provides that the CARB Executive Officer shall issue an Executive Order if he or she determines that the vapor recovery system conforms to all of the applicable requirements set forth in CP-201;

WHEREAS, Executive Order G-01-032 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF); and

WHEREAS, I, Catherine Dunwoody, Chief of the Monitoring and Laboratory Division find that the Assist Phase II EVR System including ISD, as amended to include the components listed above, conforms with all requirements set forth in CP-201, including compatibility when fueling vehicles equipped with onboard refueling vapor recovery systems, and results in a vapor recovery system which is at least 95 percent efficient and does not exceed 0.38 pounds of hydrocarbons per 1,000 gallons of gasoline transferred when tested pursuant to TP-201.2, Efficiency and Emission Factor for Phase II Systems (July 26, 2012);

NOW, THEREFORE, IT IS HEREBY ORDERED that the Assist Phase II EVR System including ISD is certified to be at least 95 percent efficient and does not exceed 0.38 pounds of hydrocarbon per 1,000 gallons of gasoline transferred in attended and/or self-service mode when used with an CARB-certified Phase I vapor recovery system and installed, operated, and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the equipment certified for use with the Assist Phase II EVR System including ISD. Exhibit 2 contains the performance standards, specifications, typical installation drawings, and maintenance intervals applicable to the Assist Phase II EVR System including ISD as installed in a GDF. Exhibit 3 contains the manufacturing specifications. Exhibit 4 is the test procedure for verifying performance of the Healy Clean Air Separator. Exhibit 5 is the vapor to liquid ratio test procedure for verifying performance of the Healy 900 Nozzle. Exhibit 6 is the manufacturer warranties. Exhibit 7 is the nozzle bag test procedure. Exhibit 8 provides Required Items in Conducting TP-201.3. Exhibit 9 is the Veeder-Root ISD Operability Test Procedure. Exhibit 10 is the INCON ISD Operability Test Procedure. Exhibit 11 is the procedure for verifying performance of the Liquid Condensate Trap. Exhibit 12 is the Veeder-Root Maintenance Tracker (optional). Exhibit 13 is the below-grade vaulted tank configuration. Exhibit 14 is the dispenser integrity test. Exhibit 15 is the test procedure for verifying the performance of the ARID Permeator AT-150 processor.

IT IS FURTHER ORDERED that compliance with the applicable certification requirements, rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.;

IT IS FURTHER ORDERED that each component manufacturer listed in Exhibit 1 shall provide a warranty for the vapor recovery components to the initial purchaser. The warranty shall be passed on to each subsequent purchaser within the warranty period. The warranty shall include the ongoing compliance with all applicable performance standards and specifications and shall comply with all warranty requirements in Section 16.5 of CP-201. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

IT IS FURTHER ORDERED that every certified component manufactured by FFS, ContiTech USA, Inc., Veeder-Root, VST and ARID shall meet the manufacturing performance specifications as provided in Exhibit 3.

IT IS FURTHER ORDERED that the certified Assist Phase II EVR System including ISD shall be installed, operated, and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manual. Equipment shall be inspected weekly, quarterly, and annually per the procedures identified in the CARB Approved Installation, Operation, and Maintenance Manual. These inspections shall also apply to systems certified by Executive Orders VR-202-A through Z. A copy of this Executive Order and the CARB Approved Installation, Operation and Maintenance Manual shall be maintained at each GDF where an Assist Phase II EVR System including ISD is installed.

IT IS FURTHER ORDERED that equipment listed in Exhibit 1, unless exempted, shall be clearly identified by permanent identification number showing the manufacturer's name and model number.

IT IS FURTHER ORDERED that any alteration in the equipment parts, design, installation, or operation of the system provided in the manufacturers' certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification, unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the CARB Executive Officer or his or her delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. The owner or operator of the Assist Phase II EVR System including ISD shall conduct and pass the following tests no later than 60 days after startup and at least once in each 12 month period, using the following test procedures. Shorter time periods may be specified by the District.

- TP-201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012);
- Exhibit 8, Required Items in Conducting TP-201.3;
- Exhibit 4, Determination of Static Pressure Performance of the Healy Clean Air Separator (*applicable, if a Clean Air Separator is installed*);
- Exhibit 5, Vapor to Liquid Volume Ratio;
- Exhibit 9 or Exhibit 10, Veeder-Root or INCON ISD Operability Test Procedures;
- Exhibit 11, Liquid Condensate Trap Compliance Test Procedure (if applicable);
- Exhibit 14, Dispenser Integrity Test;
- Exhibit 15, Determination of Performance of the ARID Permeator AT-150 Processor (*applicable, if a Permeator AT-150 is installed*).

Districts may specify the sequencing of the above tests. Notification of testing, and submittal of test results, shall be done in accordance with District requirements and pursuant to policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternative test procedures, including most recent versions of the test procedures listed above, may be used if determined by the CARB Executive Officer or his or her delegate, in writing, to yield equivalent results.

IT IS FURTHER ORDERED that the following requirements are made a condition of certification. The owner or operator of the Assist Phase II EVR System including ISD shall conduct, and pass, the following tests no later than 60 days after startup using Exhibit 7, Nozzle Bag Test Procedure. TP-201.4, Dynamic Back Pressure (July 3, 2002), shall be conducted in accordance with the conditions listed in item 1 of the Vapor Recovery Piping Configurations Section of Exhibit 2. Districts have the authority to require conducting of Exhibit 5, Vapor to Liquid Volume Ratio, in lieu of TP-201.4, Dynamic Back Pressure (July 3, 2002), provided that at least two gallons of product are introduced into the system through each dispenser riser prior to conducting the test. Notification of testing, and submittal of test results, shall be done in accordance with District requirements and pursuant to the policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternative test procedures, including most recent versions of the test procedures listed above, may be used if determined by the CARB Executive Officer or his delegate, in writing, to yield equivalent results.

IT IS FURTHER ORDERED that, except as provided above, Districts at their discretion will specify the testing, related sequencing, and testing frequency of the nozzle vapor valves. If nozzle vapor valve tests are required by the District, the test shall be conducted in accordance with Exhibit 7, Nozzle Bag Test Procedure.

IT IS FURTHER ORDERED that the Assist Phase II EVR System including ISD shall be compatible with gasoline in common use in California at the time of certification. The Assist Phase II EVR System including ISD is not compatible with gasoline containing more than 15 percent methanol, 15 percent ethanol, or 15 percent methyl tertiary butyl ether. Any modifications to comply with future California gasoline requirements shall be approved in writing by the CARB Executive Officer or his or her delegate.

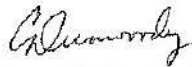
IT IS FURTHER ORDERED that Assist Phase II EVR System including ISD installations using the ARID Permeator AT-150 Processor must use Veeder-Root version 1.06 or subsequent ISD software.

IT IS FURTHER ORDERED that the certification of the Assist Phase II EVR System including ISD is valid through December 1, 2023.

IT IS FURTHER ORDERED that Executive Order VR-202-Z issued on November 5, 2019, is hereby superseded by this Executive Order. Assist or Healy Phase II EVR Systems including ISD certified under Executive Order VR-202-A through Z may remain in use at existing installations up to four years after the expiration date of this Executive Order when the certification is not renewed. Veeder-Root ISD version 1.01 shall not remain in use after July 1, 2012, for multi-product dispensers with fuel blending, and INCON ISD versions 1.0.0 and 1.1.0 shall not remain in use after January 1, 2014, for multi-hose dispensers.

IT IS FURTHER ORDERED that this Executive Order shall apply to new installations or major modifications of Phase II Systems with a throughput of more than 600,000 gallons per year and replacements of Veeder-Root or INCON ISD at existing gasoline dispensing facilities. The installation of the ISD System is not authorized on a GDF with a throughput of less than or equal to 600,000 gallons per year.

Executed at Sacramento, California this 21st day of October, 2021.



Catherine Dunwoody, Chief
Monitoring and Laboratory Division

Attachments:

- Exhibit 1 Equipment List
- Exhibit 2 System Specifications
- Exhibit 3 Manufacturing Performance Standards and Specifications
- Exhibit 4 Determination of Static Pressure Performance of the Healy Clean Air Separator
- Exhibit 5 Vapor to Liquid Volume Ratio
- Exhibit 6 Manufacturer Warranties
- Exhibit 7 Nozzle Bag Test Procedure
- Exhibit 8 Required Items in Conducting TP-201.3
- Exhibit 9 Veeder-Root ISD Operability Test Procedure
- Exhibit 10 INCON VRM Operability Test Procedure
- Exhibit 11 Liquid Condensate Trap Compliance Test Procedure
- Exhibit 12 Veeder-Root Maintenance Tracker (Optional)
- Exhibit 13 Below-Grade Vaulted Tank Configuration
- Exhibit 14 Dispenser Integrity Test
- Exhibit 15 Determination of Performance of the ARID Permeator AT-150 Processor