

Attachment A

Vapor Recovery Tests for Phase I Underground Storage Tanks and Assist Phase II EVR Systems

Phase I EVR Executive Orders VR-101-X, VR-102-X, VR-103-X, VR 104-X, VR-105-X. Phase II EVR Executive Orders VR-201-X (Non-ISD), Phase II-VR-202-X (ISD) Unless otherwise specified by a District representative, the tests noted in the table below shall be conducted in the following order. The order is specified to not bias any test(s) and for practicality purposes.

Test Order	Test	Notes
1	Clean Air Separator Test (Exhibit 4 if installed)	Phase II. If the station pressure is –2.00” WC or more negative, a vacuum test must be performed followed by a pressure test. If the pressure is less negative than –2.00”, WC a pressure test must be performed. Anytime a vacuum test is conducted a subsequent pressure test shall also be conducted immediately after the vacuum test.
2	TP 201.1E P/V Vent Valve Test	Phase I
3	TP 201.1B Static Torque of Rotatable Phase I Adaptors	Phase I
4	TP 201.1C/D Pressure Integrity Check Drop Tube/Drain Valve	Phase I
5	ISD Operability Test (Ex.9 Veeder-Root or Ex.10 INCON) Pressure Sensor Operability Test	Phase II. If ISD is installed at the facility. This test can be conducted during the pressure decay test. The vapor space shall be pressurized to 2.0” WC.
6	TP 96-1 Ten Inch Pressure Decay or TP 201.3 Two Inch Pressure Decay	Phase I/II. TP 201.3 shall be conducted and completed between sundown and a half hour after sunrise. TP 96-1 can be conducted at any time except when daytime temperatures exceed 100°F and there is direct sunlight on exposed metal vent pipe(s) and metal manhole cover(s) that are in contact with vapor space of the storage tanks. Exhibit 8 of EO VR 201/202 must be conducted in conjunction with either TP 201.3 or 96-1. If nitrogen is introduced through the vapor adaptor, the vapor coupler test assembly shall be leak checked in accordance with TP 201.3 (sections 5.5, 6.7-6.7.2) prior to conducting the TP 96-1 test. There shall be no vapor to liquid (V/L) tests conducted within 24 hours prior to conducting the TP 201.3 test. The submersible fuel pumps shall be turned off prior to conducting the TP 96-1 test. All P/V valves are to be removed and vent risers capped prior to conducting TP 96-1 test. The valves are to be reinstalled and vent risers un capped after the test is complete.
7	Arid Permeator (Ex. 15 of VR-202 if installed)	Phase II.
8	Liquid Condensate Trap (Ex.9 of VR-201 or Ex.11 of VR-202)	Phase II. Liquid Condensate Trap (Ex.9 of VR-201 or Ex.11 of VR-202). If Installed
9	VP1000/Dispenser Integrity Test (Ex 14 & IOM of VR-201/VR-202)	Phase II
10	Vapor to Liquid [V/L] Ratio (Ex.5)	Phase II. Per Exhibit 5 (Roots Meter) or Tri-Tester Version 2.01
11	ISD Operability Test (Ex.9 Veeder-Root or Ex.10 INCON) Vapor Flow Operability Test	Phase II. If ISD is installed at the facility.

Attachment A-1

ISD Alarm Response Requirements and Instructions

Alarm conditions shall not be cleared unless at a minimum the applicable troubleshooting tests and/or inspections listed have been conducted to clear the alarm condition. Other tests and/or inspections may be performed in lieu of those cited below provided the same ISD alarm does not occur within the next consecutive assessment period after resetting the alarm. Unless otherwise specified alarms conditions should only be cleared by person(s) that have the applicable certification/training as specified in Attachment K-Certification Requirements. All alarms and associated repairs and testing including inspection results shall be recorded in Attachment I-Inspection, Maintenance and Alarm Response log and made available to the District upon request.

Troubleshooting Tests and Inspections also include, but are not limited to, the lists referenced in the Veeder-Root ISD Troubleshooting Manual P/N 577013-819 located at <https://www.arb.ca.gov/vapor/isdresponse072208a.pdf> and the Incon Vapor Recovery Monitoring Troubleshooting and Diagnostics Guide located at http://www.franklinfueling.com/media/341026/405274001_EVR_Troubleshoot.pdf.

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
Vapor Leak Alarm Veeder Root -ISD Vapor Leakage Warn Incon -Weekly Ullage Pressure Leak Test Warning	Yellow –Leak alarm warning. Alarm will go to failure after 7 days.	Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears.	Exhibit 4- Clean Air Separator TP-201.1E- P/V Valve TP-201.1C or TP-201.1D- Drop tube drain valve integrity TP-96-1- 10 inch Pressure Decay B-3 Dispenser Vapor Line Integrity Test (IOM)
Vapor Leak Alarm Veeder Root -ISD Vapor Leakage Fail Incon -Weekly Ullage Pressure Leak Test Failure	Red – Leak alarm failure on 8 th day after 7 day warning alarm	This alarm must be cleared by a certified technician only. Contact certified technician and inform of alarm failure condition. The technician must perform all repairs and testing prior to clearing the alarm condition. Record alarm condition and any tests/repairs in Attachment I.	Exhibit 7-Nozzle Bag Test ISD Operability Exhibit 9 or Exhibit 10 as applicable (pressure sensor only),

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
Daily Vapor Collection Alarms Veeder Root -Gross Collect Warn Incon -Daily Vapor Collection Warning	Yellow -Gross A/L test warning. Alarm will go to failure after 1 day.	Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears.	B 3/4/5/6 Dispenser Vapor Line Integrity Test (IOM) Exhibit 5-V/L Ratio Exhibit 7-Nozzle Bag Test ISD Operability Exhibit 9 or Exhibit 10 as applicable (vapor flow meter only). Visually inspect hanging hardware at the affected dispenser(s) including; a) Replacing any damaged or worn face seals b) Repair or replace any misaligned face seals c) Replace any damaged or torn boots, d) Tighten any loose boot clamps e) Replace any damaged or loose spouts INCON Only: look through the flow meter site glass to see if air is flowing
Daily Vapor Collection Alarms Veeder Root -Gross Collect Fail Incon -Daily Vapor Collection Failure	Red -Gross A/L test failure on 2 nd day after 1 day warning alarm.	This alarm must be cleared by a certified technician only. Contact certified technician and inform of alarm failure condition. The technician must perform all repairs and testing prior to clearing the alarm condition. Record alarm condition and any tests/repairs in Attachment I.	
Weekly Vapor Collection Alarms Veeder Root -Degrd Collect Warn Incon -Weekly Vapor Collection Warning	Yellow -7 day degradation A/L test warning. Alarm will go to failure after 7 days.	Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears.	
Weekly Vapor Collection Alarms Veeder Root -Degrd Collect Fail Incon -Weekly Vapor Collection Failure	Red -7 day degradation A/L test on 8 th day after 7 day warning alarm.	This alarm must be cleared by a certified technician only. Contact certified technician and inform of alarm failure condition. The technician must perform all repairs and testing prior to clearing the alarm condition. Record alarm condition and any tests/repairs in Attachment I.	

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
<p>Pressure Alarm (Overpressure) Veeder Root-ISD Gross Pressure Warning Incon-Weekly Ullage Pressure Warning</p>	<p>Yellow—Gross overpressure alarm warning. Alarm will go to failure after 7 days.</p>	<p>Per ARB Advisory 405-D. Operators can clear these alarms (without repairs or testing) only during the winter months from November 1-March 31st. The advisory remains in effect until formally rescinded by ARB. Record alarm condition in Attachment I.</p>	<p>Check the CAS ball valve positions and the ball valve near the ISD pressure sensor, Exhibit 4, TP-201.1 E , TP 96-1, B-3 Dispenser Vapor Line Integrity Test (IOM), Exhibit 5 V/L Ratio Flow Rate Verification (Section 1.2.4 (IOM), Exhibit 7 Nozzle Bag Test ISD Operability Exhibit 9 or Exhibit 10 as applicable (pressure sensor only)</p>
<p>Pressure Alarm (Overpressure) Veeder Root-ISD Gross Pressure Failure Incon-Weekly Ullage Pressure Failure</p>	<p>Red—Gross overpressure alarm failure on 8th day after 7 day warning alarm</p>	<p>This alarm must be cleared by a certified technician from April 1-October 31.</p>	<p>Visually inspect hanging hardware at the affected dispenser(s) including;</p>
<p>Degradation Pressure Alarm (Overpressure) Veeder Root-ISD Degr Pressure Warning Incon-Monthly Ullage Pressure Warning</p>	<p>Yellow—Degradation overpressure alarm warning. Alarm will go to failure after 30 days.</p>	<p>Warning alarm Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears.</p>	<p>a) Replacing any damaged or worn face seals b) Repair or replace any misaligned face seals c) Replace any damaged or torn boots d) Tighten any loose boot clamps e) Replace any damaged or loose spouts</p>
<p>Degradation Pressure Alarm (Overpressure) Veeder Root-ISD Degr Pressure Warning Incon-Monthly Ullage Pressure Warning</p>	<p>Red—Degradation overpressure alarm failure on 31st day after 30 day warning alarm.</p>	<p>Failure Alarm: Contact certified technician and inform of alarm failure condition. The technician must perform all repairs and testing prior to clearing the alarm condition. Record alarm condition and any tests/repairs in Attachment I.</p>	