

## 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)	<b>Phase II.</b> 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	<b>Phase I</b>
3	TP 201.1B Static Torque of Rotatable Phase I Adaptors	<b>Phase I</b>
4	TP 201.1C/D Pressure Integrity Check Drop Tube/Drain Valve	<b>Phase I</b>
5	ISD Operability Test (Ex.9 Veeder-Root or Ex.10 INCON) Pressure Sensor Operability Test	<b>Phase II.</b> 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	<b>Phase I/II.</b> 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)	<b>Phase II.</b>
8	Liquid Condensate Trap (Ex.9 of VR-201 or Ex.11 of VR-202)	<b>Phase II.</b> 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)	<b>Phase II</b>
10	Vapor to Liquid [V/L] Ratio (Ex.5)	<b>Phase II.</b> 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	<b>Phase II.</b> If ISD is installed at the facility.



Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
<b>Daily Vapor Collection Alarms</b> <b>Veeder Root</b> -Gross Collect Warn <b>Incon</b> -Daily Vapor Collection Warning	<b>Yellow</b> -Gross A/L test warning. Alarm will go to failure after 1 day.	Contact certified technician and inform of alarm warning condition. <b>This alarm must be cleared by a certified technician</b> unless the ISD self clears.	
<b>Daily Vapor Collection Alarms</b> <b>Veeder Root</b> -Gross Collect Fail <b>Incon</b> -Daily Vapor Collection Failure	<b>Red</b> -Gross A/L test failure on 2 <sup>nd</sup> day after 1 day warning alarm.	<b>This alarm must be cleared by a certified technician only.</b> 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.	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; <ul style="list-style-type: none"> <li>a) Replacing any damaged or worn face seals</li> <li>b) Repair or replace any misaligned face seals</li> <li>c) Replace any damaged or torn boots,</li> <li>d) Tighten any loose boot clamps</li> <li>e) Replace any damaged or loose spouts</li> </ul>
<b>Weekly Vapor Collection Alarms</b> <b>Veeder Root</b> -Degrd Collect Warn <b>Incon</b> -Weekly Vapor Collection Warning	<b>Yellow</b> -7 day degradation A/L test warning. Alarm will go to failure after 7 days.	Contact certified technician and inform of alarm warning condition. <b>This alarm must be cleared by a certified technician</b> unless the ISD self clears.	<b>INCON Only:</b> look through the flow meter site glass to see if air is flowing
<b>Weekly Vapor Collection Alarms</b> <b>Veeder Root</b> -Degrd Collect Fail <b>Incon</b> -Weekly Vapor Collection Failure	<b>Red</b> -7 day degradation A/L test on 8 <sup>th</sup> day after 7 day warning alarm.	<b>This alarm must be cleared by a certified technician only.</b> 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
<b>Pressure Alarm (Overpressure)</b> <b>Veeder Root</b> -ISD Gross Pressure Warning <b>Incon</b> -Weekly Ullage Pressure Warning	<b>Yellow</b> —Gross overpressure alarm warning. Alarm will go to failure after 7 days.	Per ARB Advisory 405-D. Operators can clear these alarms (without repairs or testing) <b>only</b> during the winter months from November 1-March 31 <sup>st</sup> . The advisory remains in effect until formally rescinded by ARB. Record alarm condition in Attachment I.	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)
<b>Pressure Alarm (Overpressure)</b> <b>Veeder Root</b> -ISD Gross Pressure Failure <b>Incon</b> -Weekly Ullage Pressure Failure	<b>Red</b> —Gross overpressure alarm failure on 8 <sup>th</sup> day after 7 day warning alarm	<b>This alarm must be cleared by a certified technician</b> from April 1-October 31.	Exhibit 7 Nozzle Bag Test ISD Operability Exhibit 9 or Exhibit 10 as applicable (pressure sensor only)
<b>Degradation Pressure Alarm (Overpressure)</b> <b>Veeder Root</b> -ISD Degr Pressure Warning <b>Incon</b> -Monthly Ullage Pressure Warning	<b>Yellow</b> —Degradation overpressure alarm warning. Alarm will go to failure after 30 days.	<b>Warning alarm</b> Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears.	Visually inspect hanging hardware at the affected dispenser(s) including;
<b>Degradation Pressure Alarm (Overpressure)</b> <b>Veeder Root</b> -ISD Degr Pressure Warning <b>Incon</b> -Monthly Ullage Pressure Warning	<b>Red</b> —Degradation overpressure alarm failure on 31 <sup>st</sup> day after 30 day warning alarm.	<b>Failure Alarm:</b> 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.	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