

Attachment L

Vapor Recovery Tests for Phase I Underground Storage Tanks and Balance Phase II EVR Systems (VST Membrane Processor)

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-203-X (Non-ISD), Phase II-VR-204-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	Determination of ECS Processor Activation Pressure (Exhibit 9)	Phase II.
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	Exhibit.10 Veeder-Root 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	Exhibit 7 (Nozzle Bag Test)	Phase II. This test can be conducted during the pressure decay test. The vapor space shall be pressurized to 2.0" WC.
7	TP 96-1 Ten Inch Pressure Decay or TP 201.3 Two Inch Pressure Decay	<p>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.</p> <p>Exhibit 4 (Required items) of EO VR 203/204 must be conducted in conjunction with either TP 201.3 or 96-1.</p> <p>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.</p> <p>The submersible fuel pumps shall be turned off prior to conducting the TP 96-1 test.</p> <p>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 uncapped after the test is complete. Vapor valve must be in manual mode in the closed position.</p>
8	Liquid Condensate Trap (Ex.16 of VR-203/VR-204)	Phase II. Liquid Condensate Trap. If Installed

9	Exhibit 5 Liquid Removal Option 1 Pre EVR Balance Systems TP 201.6C Option 1 (Exhibits 8c, 9c, 10, 11 of EO G-70-52-AM)	Phase II. Must conduct flow rate verification for each grade point prior to starting liquid removal test. The flow rates for all grade points must be tested and verified to be with the range of 6.0-10.0 gallons per minute (gpm). A minimum of one gallon of gasoline must be dispensed when measuring flowrate. If the flowrate is determined to be outside of 6.0-10.0 gpm during the initial flow rate screening the flow rate of the given must be retested by timing for a minimum of 30 seconds.
10	TP 201. 4 Dynamic Back Pressure Methodology 1	Phase II. Exhibit 6 (Required items) of EO VR 203/204 must be conducted in conjunction with TP 201.4
11	Exhibit 17 Veeder-Root Vapor Flow Meter Operability Test	Phase II. If ISD is installed at the facility. EO 204-X
12	Exhibit 8 VST ECS Hydrocarbon Sensor Verification Test	Phase II

Attachment L-1-VST Membrane Processor 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>.

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
Vapor Leak Alarm Veeder Root -ISD Vapor Leakage Warn	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. Record alarm condition and any tests/repairs in Attachment I.	
Vapor Leak Alarm Veeder Root -ISD Vapor Leakage Fail	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 10, 11 of VR-204-X TP-201.1E- P/V Valve TP-201.1C or TP-201.1D-Drop Tube integrity test. TP-96-1- 10 inch Pressure Decay VR 204-X Exhibit 10 & 14,

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
Pressure Alarm (Overpressure) Veeder Root -ISD Gross Pressure Warning	Yellow —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) only during the winter months from November 1-March 31 st . The advisory remains in effect until formally rescinded by ARB. Record alarm condition in Attachment I.	
Pressure Alarm (Overpressure) Veeder Root -ISD Gross Pressure Failure	Red —Gross overpressure alarm failure on 8 th day after 7 day warning alarm	This alarm must be cleared by a certified technician from April 1-October 31.	TP-201.1E- P/V Valve TP-201.1C or TP-201.1D-Drop Tube integrity test. TP-96-1- 10 inch Pressure Decay Exhibit 9, 10 of VR-204-X
Degradation Pressure Alarm (Overpressure) Veeder Root -ISD Degr Pressure Warning	Yellow —Degradation overpressure alarm warning. Alarm will go to failure after 30 days.	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.	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
Degradation Pressure Alarm (Overpressure) Veeder Root -ISD Degr Pressure Warning	Red —Degradation overpressure alarm failure on 31 st day after 30 day warning alarm.	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.	c) Replace any damaged or torn boots d) Tighten any loose boot clamps e) Replace any damaged or loose spouts

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
Vapor Processor Emission Alarm Veeder Root-VP Emission Warn	Yellow –Mass emission 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. Record alarm condition and any tests/repairs in Attachment I.	Exhibit 8, 9 of VR-204-X Inspector boots for damage
Vapor Processor Emission Alarm Veeder Root-VP Emission Fail	Red – Mass emission warning. Alarm will go to failure on 2nd day.	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.	
Collection Alarm Veeder Root-Flow Collect Warn	Yellow –Collection alarm 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. . Record alarm condition and any tests/repairs in Attachment I.	Visually inspect hanging hardware at the affected dispenser(s) including; Replace any damaged or torn boots Exhibit 5, Option 1 of VR-204-X Exhibit 6, TP 201.4 Methodology 1 Exhibit 17 (Veeder Root)
Collection Alarm Veeder Root-Flow Collect Fail	Red – Collection alarm failure on 2nd 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.	

Alarm Condition- ISD Display Message	Indicator Light and Alarm Condition	Alarm Response	Tests/Inspections
PMC Sensor/Fault Communication Alarm (for NON ISD facilities)	Yellow –Self Test, component failed or reported error condition	Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears. . Record alarm condition and any tests/repairs in Attachment I.	See table 5 found in Section 15 of IOM of VR-203-X
PMC Setup (for NON ISD facilities)	Red -Self Test, component missing or not configured.	Contact certified technician and inform of alarm warning condition. This alarm must be cleared by a certified technician unless the ISD self clears. . Record alarm condition and any tests/repairs in Attachment I.	PMC setup diagnostic checklist in trouble shooting section found in Section 15, IOM of VR-203-X