



SAN DIEGO AIR POLLUTION CONTROL DISTRICT
COMPLIANCE DIVISION
10124 OLD GROVE ROAD
SAN DIEGO CA 92131-1649
PHONE (858) 586-2650 FAX (858) 586-2651

APCD USE ONLY
SECTOR
ID#
NOV#

ISD VAPOR FLOW METER OPERABILITY TEST (INCON and Veeder-Root)

Exhibit 17 & 19 of VR-204-X and Exhibit 10 of VR-208

Facility Name: _____ A/C or PO Number: _____ Time of Test: _____

(Record exact time of test in order to demonstrate proper test sequencing as required in Attachment L)

SITE AND TEST EQUIPMENT	
Gas Volume Meter Last Calibration Date:	
Pre-Test Leak Check Successfully Conducted ¹ :	<input type="checkbox"/> YES <input type="checkbox"/> NO

FLOW METER OPERABILITY TEST RESULTS

Fueling Point ²	Flow Meter Serial Number ³	Initial Meter Total from ISD ⁴ (gal)	Final Meter Total from ISD ⁴ (gal)	Gas Volume (per ISD) ⁵ (gal)	Initial Meter Total from GVM ⁶ (ft ³)	Final Meter Total from GVM ⁶ (ft ³)	Gas Volume (per GVM) ⁷ (ft ³)	Gas Volume (per GVM) ⁸ (gal)	% Difference ⁹	Post Leak Check ¹⁰ Pass or Fail	Pass or Fail or Non-Test ¹¹	Comments ¹²

Exhibit 17 & 19 of VR-204-X and Exhibit 10 VR-208-X

Facility Name: _____

A/C or PO Number: _____

Time of Test: _____

(Record exact time of test in order to demonstrate proper test sequencing as required in Attachment L)

FLOW METER OPERABILITY TEST RESULTS

Fueling Point ²	Flow Meter Serial Number ³	Initial Meter Total from ISD ⁴ (gal)	Final Meter Total from ISD ⁴ (gal)	Gas Volume (per ISD) ⁵ (gal)	Initial Meter Total from GVM ⁶ (ft ³)	Final Meter Total from GVM ⁶ (ft ³)	Gas Volume (per GVM) ⁷ (ft ³)	Gas Volume (per GVM) ⁸ (gal)	% Difference ⁹	Post Leak Check ¹⁰ Pass or Fail	Pass or Fail or Non-Test ¹¹	Comments ¹²

SITE SHUTDOWN TEST RESULTS (Veeder-Root only)

Is the power to the submersible pumps off after removing power from the TLS Console?

YES NO

There shall be no dispensing when the TLS power is off. Must be performed by a certified Veeder-Root Contractor

DISPENSER SHUTDOWN MAPPING VERIFICATION (Incon only)

Dispenser #	Fuel Dispensed after Proper Shutdown?	Fuel Dispensed after Re-Enabled?	Dispenser #	Fuel Dispensed after Proper Shutdown?	Fuel Dispensed after Re-Enabled?
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
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	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Foot Notes:

- ¹ Leak checks shall be conducted in a shaded area or away from direct sunlight. Leak checks may be conducted during the testing to ensure leak integrity of test equipment.
- ² Fueling Point: Indicate which fueling point (e.g. 1, 2, 3, etc...) is being tested.
- ³ Vapor Flow Meter Serial Number: there must be one flow meter per dispenser.
- ⁴ **For Veeder-Root ISD Only:** Refer to VR-204-X IOM for directions on how to download ISD reports. Use alarm code IV8700 to download the air flow meter totals. Record to the nearest thousandth (i.e. 0.001), in gallons. Note: A period of two (2) minutes is required by the ISD system to receive and document total flow from the vapor flow meter.
For Incon ISD Only: Refer to VR204/208-X IOM for directions on how to download ISD report.
- ⁵ Gas Volume (per ISD) = Final Meter Total (per ISD) – Initial Meter Total (per ISD); record to the nearest thousandth, in gallons.
- ⁶ Gas Volume Meter (GVM; e.g. Rootsmeter). Record to the nearest hundredth (i.e. 0.01), in cubic feet (ft³). Note: Final volume values may be biased if the ball valve and nozzle handle are not activated at the same time. In addition, ensure the dispenser is not activated during the test. The test requires the nozzle be squeezed and liquid product must not flow from the dispenser.
- ⁷ Gas Volume (per GVM) = Final Meter Total (per GVM) – Initial Meter Total (per GVM); record to the nearest hundredth, in cubic feet.
- ⁸ Convert the gas volume from cubic feet to gallons: Gas Volume (in gallons) = Gas Volume (in cubic feet) * 7.481
- ⁹ % Difference: $\%Difference = \frac{GasVolume(perISD) - GasVolume(perGVM)}{GasVolume(perGVM)} * 100\%$, record to the nearest tenth percent (i.e. 0.1%).
- ¹⁰ Post Leak Check only required if a vapor flow meter is not within range (i.e. the % Difference is greater than 15%).
- ¹¹ If % Difference is greater than 15%, complete the test on the other side of the dispenser. If both sides of the % Difference on both sides of the dispenser are greater than 15%, then complete a post-test leak check. If the Post Leak Check Passes, then the vapor flow meter is not in compliance. Non-tests include: Nozzle spouts that are damaged such that the nozzle adaptor cannot fit on the nozzle spout.
- ¹² Comments (e.g. reason for non-test, equipment adjustments, etc.)