

## Amendments to the Vapor Recovery Equipment Defects List

Note: The proposed amendments are shown in underline to indicate additions and ~~strikerough~~ to indicate deletions. All other portions remain unchanged and are indicated by the symbol “\* \* \* \*”.

California Environmental Protection Agency

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## **Vapor Recovery Equipment Defects List**

Adopted: September 23, 2002

Amended: June 22, 2005

Amended: June 17, 2008

Amended: June 11, 2012

# Vapor Recovery Equipment Defects List

Date of Issuance: ~~June 17, 2008~~ June 11, 2012

GVR All Systems/any E.O.		
equipment	defects	verification procedure
(a) system	(1) any equipment defect which is identified in an Executive Order (EO) certifying a system pursuant to the Certification Procedures incorporated in Section 94011 of Title 17, California Code of Regulations	as set forth in the applicable EO
	(2) absence, improper installation, or disconnection of any component required to be used in the EO(s) that certified the system	direct observation
	(3) installation or use of any uncertified component	direct observation
	(4) dispensing rate greater than ten (10.0) gallons per minute (gpm) or less than the greater of five (5.0) gpm or the limit stated in the EO measured at maximum fuel dispensing	when determined as part of any ARB approved test method or direct measurement for 30 seconds minimum
	(5) Phase I vapor poppet inoperative	direct observation
(b) nozzles	(1) nozzle automatic liquid shutoff mechanisms which malfunction in any manner	EPO No. 26-F-1/direct observation

Note: Each defect in the tables in this list has a specific alphanumeric identification. Every identification has three parts: i)

- i) the Executive Order (E.O.) number for the table in which the defect appears (or GVR- (general vapor recovery-) for this “GVR All Systems/any E.O.” page table only), ii)
- ii) a sequential letter for the equipment with which the defect is associated, ~~and iii).~~ As the “equipment” column in the table changes the equipment number sequence that is associated with the specific equipment begins again with the letter “a”.
- iii) a sequential number for the defect itself. As the “equipment” column in the table changes, the defect number sequence that is associated with the specific equipment begins again with the number one (“1”). The same is true for the equipment letter: at the start of a new table, the first identifying letter associated with the first equipment listed will be “a,” the second “b,” and so on. The Executive Order number (part i) is comprised of the characters which proceed the literal description of the system.

For example, the identification for the defect above which is written “installation or use of any uncertified component” is “GVR (a) (3)” ~~and the last defect on the next table (page 2) is “G-70-7(d) (1).”~~

See page 16 for additional examples of each of these changes.

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VR-201 series Healy Phase II EVR System <u>not including</u> <u>ISD</u>		
equipment	defects	verification procedure
(a) nozzles	(1) defective vapor valve  (2) any fueling point whose V/L ratio is determined to be at or below 0.80	TP-201.2B - <u>Flow and Pressure Measurement of Vapor Recovery Equipment</u> or equivalent, or VR-201 Exhibit 7 – <u>Nozzle Bag Test Procedure</u>  VR-201 Exhibit 5 – <u>Vapor to Liquid Volume Ratio for Healy Phase II EVR System</u>
(b) <del>system</del> <u>vapor pump</u>	(1) inoperative vapor pumps *	direct observation in accordance with the Healy IOMM, Scheduled Maintenance, section 1.1 paragraph 3 et seq.
(c) clean air separator <u>(CAS)</u>	(1) clean air separator static pressure performance failure *  <del>(2) clean air separator not in the proper operating configuration *</del>  (2) ball valves are not in the proper operating configuration as shown in <u>Figures in Exhibit 2 *</u>	VR-201 Exhibit 4 – <u>Determination of Static Pressure Performance of the Healy Clean Air Separator</u>  <del>direct observation shown in VR-201 Exhibit 2</del>  direct observation/ shown in VR-201 Exhibit 2 – <u>System Specifications</u>
(d) dispenser	(1) any dispenser with a dispenser piping test valve in the closed position	direct observation

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

VR-202 series Healy Phase II EVR System Including ISD		
equipment	defects	verification procedure
(a) nozzles	(1) defective vapor valve  (2) any fueling point whose V/L ratio is determined to be at or below 0.80	TP-201.2B - <u>Flow and Pressure Measurement of Vapor Recovery Equipment or equivalent</u> , or VR-202 Exhibit 7 – <u>Nozzle Bag Test Procedure</u>  VR-202 Exhibit 5 – <u>Vapor to Liquid Volume Ratio for Healy Phase II EVR System</u>
(b) <del>system</del> vapor pump	(1) inoperative vapor pumps *	direct observation in accordance with the Healy IOMM, Scheduled Maintenance, section 1.1 paragraph 3 et seq.
(c) clean air separator (CAS)	(1) clean air separator static pressure performance failure *  (2) clean air separator not in the proper operating configuration *  (2) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2 *	VR-202 Exhibit 4 – <u>Determination of Static Pressure Performance of the Healy Clean Air Separator</u>  direct observation/ shown in VR-202 Exhibit 2  direct observation/ shown in VR-202 Exhibit 2 – <u>System Specifications</u>
(d) dispenser	(1) any dispenser with a dispenser piping test valve in the closed position	direct observation

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

VR-203 series VST Phase II EVR System <del>sans not including</del> ISD		
equipment	defects	verification procedure
(a) <u>VST nozzle</u>	<p>(1) more than 30 percent (30%) of a nozzle face seal is missing (e.g., a triangular or similar shape in which greater than two and one half (2.5) inches of the face seal circumference is missing (accumulated))</p> <p>(2) more than <del>0.4375</del> square inches of a nozzle vapor collection sleeve is missing (e.g., a rectangular shape of greater than nine sixteenths (9/16) inch or more on each side, a circular shape of eleven sixteenths (11/16) inch or more in diameter, or a triangular shape of seven eighths (7/8) inch on the side</p> <p>(3) <del>total</del> <u>cumulative</u> slit length in the convolution/s exceeds 18.0 inches</p> <p><del>(4) insertion interlock mechanism which will allow dispensing when the convolution is uncompressed</del></p>	<p>direct measurement/ observation</p> <p>direct measurement/ observation</p> <p>direct measurement/ observation</p> <p><del>direct observation/GDF-09</del></p>
(b) <u>EMCO nozzle</u>	<p>(1) more than 0.4 square inches of a nozzle boot face material is missing (e.g., a triangular or similar shape in which greater than 7/16 inches of the boot face circumference is missing (accumulated))</p> <p>(2) slit across seven (7) consecutive bellows convolutions</p> <p>(3) a 360 degree cut around the bellows convolutions</p>	<p><u>direct measurement/ observation</u></p> <p><u>direct measurement/ observation</u></p> <p><u>direct measurement/ observation</u></p>
(c) <u>all nozzles</u>	<p>(<del>5</del>1) defective vapor valve</p> <p>(<del>6</del>2) vapor valve leak rate exceeds 0.07 cubic feet per minute at a pressure of two (2) water column inches</p> <p>(3) <u>nozzle lever has spring tension (live lever) when the vapor recovery sleeve or bellows/convolutions is uncompressed</u></p>	<p><del>VR-203 Exhibit 40</del> <u>Exhibit 7 – Nozzle Bag Test Procedure</u></p> <p><u>TP-201.2B - Flow and Pressure Measurement of Vapor Recovery Equipment</u></p> <p><u>direct observation</u></p>
( <del>b</del> d) <u>hoses</u>	<p>(1) <del>475</del> <u>150</u> ml or more liquid in the vapor path</p> <p>(2) any hose with a visible opening</p>	<p>direct measurement/ sections 6.1 to 6.5 of VR-203 Exhibit 5 - <u>Liquid Removal Test Procedure</u></p> <p>direct observation</p>
( <del>e</del> e) <u>VST ECS processor-ing unit</u>	<p>(1) <del>unit inoperative</del> *</p> <p>(<del>2</del>2) ball valves are not locked in the proper operating configuration as shown in Figures in <u>Exhibit 2 * 2B-2</u></p> <p>(<del>3</del>3) unit is not on or <u>not</u> in the automatic vapor processor mode*</p>	<p><del>direct observation</del></p> <p>direct observation/ <u>shown in VR-203 Exhibit 2– System Specifications</u></p> <p>diagnostic section within the <u>VST ECS Membrane Processor: Veeder-Root Pressure Management Control (section 12 of IOMM) of the Pressure Measurement Control (section 16) of IOM</u></p>

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation)

<u>VR-203 series VST Phase II EVR System sans not including ISD</u>		
<u>equipment</u>	<u>defect</u>	<u>verification procedure</u>
	<del>(4) processor alarms for emission factor are activated for two consecutive 24 hour periods</del> <del>(5) unit fails to activate when the UST pressure is less than or equal to 0.4 water column inch</del> <del>(6) hydrocarbon concentration exceeds 12 percent (12%)</del>	<del>direct observation</del> <del>VR-203 Exhibit 9</del> vapor processor status report
<u>(f) vapor polisher</u>	<u>(1) ball valves are not in the proper operating configuration as shown in Figure in Exhibit 2 (except when maintenance or testing is being conducted.) *</u> <u>(2) unit is not on or in the automatic vapor processor mode (except when maintenance or testing is being conducted.) *</u>	<u>direct observation / shown in Figures in VR-203 Exhibit 2 – System Specifications</u> <u>PMC Diagnostic report per ‘PMC Diagnostic Menus’ section within the Veeder-Root Vapor Polisher: Pressure Management Control (section 15 of IOMM)</u>
<u>(g) thermal oxidizer</u>	<u>(12) ball valves are not in the proper operating configuration as shown in Figure in Exhibit 2 *</u> <u>(23) thermal oxidizer indicator panel “power on” lamp off *</u>	<u>direct observation / shown in Figures in VR-203 Exhibit 2 – System Specifications</u> <u>direct observation</u>
<u>(h) clean air separator (CAS)</u>	<u>(1) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2 * (except when maintenance or testing is being conducted.)</u> <u>(2) clean air separator static pressure performance failure *</u>	<u>direct observation/ shown in VR-203 Exhibit 2 – System Specifications</u> <u>VR-203 Exhibit 14 -Determination of Static Pressure Performance of the Healy Clean Air Separator</u>
<u>(d) vapor return lines</u>	<del>(1) pressure drop through the vapor path exceeds five (5.00) water column inches at a flow rate of 60 cubic foot per hour (CFH) and eight (8.00) water column inches at a flow rate of 80 CFH</del>	<del>TP201.4 Methodology 1 or equivalent</del>

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

Example of specific three part alphanumeric identification:

Part i example: The EO number is comprised of the characters that precede the literal description of the system (VR-203 series VST Phase II EVR System sans not including ISD).

Part ii example: A second model of nozzle has been added to that EO therefore nozzles are now lettered as a, b and c (VST, EMCO, and all nozzles).

Part iii example: In VR-203 the verification procedure for the defect ‘unit is inoperative’ is different for all three processors listed in this EO. You will note that the VR-203 table has changes related to this as VR-203 (e) (1) through VR-203 (g) (1) VR-204 series VST Phase II EVR System Including ISD.

VR-204 series VST Phase II EVR System Including ISD		
equipment	defect	verification procedure
(a) VST nozzle	(1) more than 30 percent (30%) of a nozzle face seal is missing (e.g., a triangular or similar shape in which greater than two and one half (2.5) inches of the face seal circumference is missing (accumulated))	<u>direct measurement/ observation</u>
	(2) more than 0.4 square inches of a nozzle vapor collection sleeve is missing (e.g., a rectangular shape of greater than nine sixteenths (9/16) inch or more on each side, a circular shape of eleven sixteenths (11/16) inch or more in diameter, or a triangular shape of seven eighths (7/8) inch on the side	<u>direct measurement/ observation</u>
	(3) cumulative slit length in the convolution/s exceeds 18.0 inches	<u>direct measurement/ observation</u>
(b) EMCO nozzle	(1) more than 0.4 square inches of a nozzle boot face material is missing (e.g., a triangular or similar shape in which greater than 7/16 inches of the boot face circumference is missing (accumulated))	<u>direct measurement/ observation</u>
	(2) slit across seven (7) consecutive bellows convolutions	<u>direct measurement/ observation</u>
	(3) there is a 360 degree cut around the bellows convolutions	<u>direct measurement/ observation</u>
(c) all nozzles	(1) defective vapor valve	<u>VR-204 Exhibit 7 – Nozzle Bag Test Procedure</u>
	(2) vapor valve leak rate exceeds 0.07 cubic feet per minute at a pressure of two (2) water column inches	<u>TP-201.2B - Flow and Pressure Measurement of Vapor Recovery Equipment</u>
	(3) nozzle lever has spring tension (live lever) when the vapor recovery sleeve or bellows/convolutions is uncompressed	<u>direct observation</u>
(d) hoses	(1) 150 ml or more liquid in the vapor path	<u>direct measurement/ sections 6.1 to 6.5 of VR-204 Exhibit 5 - Liquid Removal Test Procedure</u>
	(2) any hose with a visible opening	<u>direct observation</u>
(e) VST ECS processor	(1) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2 *	<u>direct observation/ shown in VR-204 Exhibit 2 – System Specifications</u>
	(2) unit is not on or in the automatic vapor processor mode *	<u>diagnostic section within the Veeder-Root ISD Manual (section 12 of IOMM)</u>
(f) vapor polisher	(1) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2 * (except when maintenance or testing is being conducted.)	<u>direct observation / shown in Figures in VR-204 Exhibit 2 – System Specifications</u>
	(2) unit is not on or in the automatic vapor processor mode (except when maintenance or testing is being conducted.) *	<u>diagnostic section within the Veeder-Root ISD Manual (section 12 of IOMM)</u>
(g) thermal oxidizer	(1) ball valve/s are not in the proper operating configuration as shown in Figures in Exhibit 2 *	<u>direct observation/ shown in VR-204 Exhibit 2 – System Specifications</u>
(h) clean air separator (CAS)	(1) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2* (except when maintenance or testing is being conducted.)	<u>direct observation/ shown in VR-204 Exhibit 2 – System Specifications</u>
	(2) clean air separator static pressure performance failure *	<u>VR-204 Exhibit 14 - Determination of Static Pressure Performance of the Healy Clean Air Separator</u>

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).



<u>VR-207 series EMCO Wheaton Retail Phase II EVR System with HIRT VCS 100 Thermal Oxidizer not Including ISD</u>		
<u>equipment</u>	<u>defects</u>	<u>verification procedure</u>
<u>(a) EMCO nozzle</u>	<u>(1) more than 0.4 square inches of a nozzle boot face material is missing (e.g., a triangular or similar shape in which greater than 7/16 inches of the boot face circumference is missing (accumulated))</u>	<u>direct measurement/ observation</u>
	<u>(2) slit across seven (7) consecutive bellows convolutions</u>	<u>direct measurement/ observation</u>
<u>(b) all nozzles</u>	<u>(1) insertion interlock mechanism which will allow dispensing when the bellows is uncompressed</u>	<u>direct observation/ GDF-09</u>
	<u>(2) defective vapor valve</u>	<u>VR-207 Exhibit 7 – Nozzle Bag Test Procedure</u>
	<u>(3) vapor valve leak rate exceeds 0.07 cubic feet per minute at a pressure of two (2) water column inches</u>	<u>TP-201.2B - Flow and Pressure Measurement of Vapor Recovery Equipment</u>
<u>(c) hoses</u>	<u>(1) 150 ml or more liquid in the vapor path</u>	<u>direct measurement/ sections 6.1 to 6.5 of VR-207 Exhibit 5 - Liquid Removal Test Procedure</u>
	<u>(2) any hose with a visible opening</u>	<u>direct observation</u>
<u>(d) thermal oxidizer</u>	<u>(1) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2 *</u>	<u>direct observation/ shown in VR-207 Exhibit 2 – System Specifications</u>
	<u>(2) thermal oxidizer indicator panel "power on" lamp off *</u>	<u>direct observation</u>
<u>(e) vapor return lines</u>	<u>(1) pressure drop through the vapor path exceeds 0.95 water column inches at a flow rate of 60 cubic foot per hour (CFH) and 1.52 water column inches at a flow rate of 80 CFH</u>	<u>TP-201.4 Methodology 1 and Exhibit 6 – Required Items in Conducting TP-201.4</u>

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

<u>VR-208 series EMCO Wheaton Retail Phase II EVR System with HIRT VCS 100 Thermal Oxidizer not Including ISD</u>		
<u>equipment</u>	<u>Defects</u>	<u>verification procedure</u>
<u>(a) EMCO nozzle</u>	<u>(1) more than 0.4 square inches of a nozzle boot face material is missing (e.g., a triangular or similar shape in which greater than 7/16 inches of the boot face circumference is missing (accumulated))</u>	<u>direct measurement/ observation</u>
	<u>(2) slit across seven (7) consecutive bellows convolutions</u>	<u>direct measurement/ observation</u>
<u>(b) all nozzles</u>	<u>(1) insertion interlock mechanism which will allow dispensing when the bellows is uncompressed</u>	<u>direct observation/ GDF-09</u>
	<u>(2) defective vapor valve</u>	<u>VR-208 Exhibit 7 – Nozzle Bag Test Procedure</u>
	<u>(3) vapor valve leak rate exceeds 0.07 cubic feet per minute at a pressure of two (2) water column inches</u>	<u>TP-201.2B - Flow and Pressure Measurement of Vapor Recovery Equipment</u>
<u>(c) hoses</u>	<u>(1) 150 ml or more liquid in the vapor path</u>	<u>direct measurement/ sections 6.1 to 6.5 of VR-208 Exhibit 5 - Liquid Removal Test Procedure</u>
	<u>(2) any hose with a visible opening</u>	<u>direct observation</u>
<u>(d) thermal oxidizer</u>	<u>(1) ball valves are not in the proper operating configuration as shown in Figures in Exhibit 2 *</u>	<u>direct observation/ shown in VR-208 Exhibit 2 – System Specifications</u>
	<u>(2) thermal oxidizer indicator panel “power on” lamp off *</u>	<u>direct observation</u>
<u>(e) vapor return lines</u>	<u>(1) pressure drop through the vapor path exceeds 0.95 water column inches at a flow rate of 60 cubic foot per hour (CFH) and 1.52 water column inches at a flow rate of 80 CFH</u>	<u>TP-201.4 Methodology 1 and Exhibit 6 – Required Items in Conducting TP-201.4</u>

\* When the identified defect is detected in the listed equipment, the defect determination applies to all affected interrelated systems (which may include all systems at the motor vehicle fueling operation).

## Defect Identification Methods Used In the Verification Procedure Column

- ~~1. TP201.5: Determination (by Volume Meter) of Air to Liquid (A/L) Volume Ratio of Vapor Recovery Systems of Dispensing Facilities, Adopted April 12, 1996~~
- ~~2. TP201.4: Determination of Dynamic Pressure Performance of Vapor Recovery Systems of Dispensing Facilities~~
- ~~3. TP201.3: Determination of Two-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities~~
- ~~4. GDF-01: Bag Test for Multi-Nozzle Vacuum Assist Systems~~
- ~~5. Method 9: 40 Code Federal Regulations Part 60 Appendix A: Reference Method 9/ EPA Section 3.12 Visible Determination of the Opacity of Emissions from Stationary Sources~~
- ~~6. G-70-187 Exhibit 5: Fillneck Vapor Pressure Regulation Fueling Test~~
- ~~7. EPO No. 26-F-1: Vapor Recovery Systems Field Compliance Testing~~
- ~~8. GDF-02: Bag Test for Single-Nozzle Vacuum Assist Systems~~
- ~~9. GDF-09: Phase II Balance System Nozzle Insertion Interlock Operation Determination~~
10. G-70-191 Exhibit 2: Specifications for the Healy ORVR Phase II Vapor Recovery System (4.a-4.d)
11. G-70-204 Exhibit 2: System Specifications/Vaporsaver (1.A-1.D)
- ~~12. G-70-209 Exhibit 5: Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities~~
13. VR-201 Exhibit 4: Determination of Static Pressure Performance of the Healy Clean Air Separator
14. VR-201 Exhibit 5: Vapor to Liquid Volume Ratio for Healy Phase II EVR System
15. VR-201 Exhibit 7: Nozzle Bag Test Procedure
16. VR-202 Exhibit 4: Determination of Static Pressure Performance of the Healy Clean Air Separator
17. VR-202 Exhibit 5: Vapor to Liquid Volume Ratio for Healy Phase II EVR System
18. VR-202 Exhibit 7: Nozzle Bag Test Procedure
19. VR-203 Exhibit 10: Nozzle Bag Test Procedure
20. VR-203 Exhibit 5: Liquid Removal Test Procedure
21. VR-203 Exhibit 9: Determination of VST Processor Activation Pressure

<b><u>Defect Identification Methods Specified In the Verification Procedure Column</u></b>		
<u>1.</u>	<u>TP-201.2B</u>	<u>Flow and Pressure Measurement of Vapor Recovery Equipment</u>
<u>2.</u>	<u>TP-201.3</u>	<u>Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities</u>
<u>3.</u>	<u>TP-201.4</u>	<u>Dynamic Back Pressure</u>
<u>4.</u>	<u>TP-201.5</u>	<u>Determination (by Volume Meter) of Air to Liquid (A/L) Volume Ratio of Vapor Recovery Systems of Dispensing Facilities</u>
<u>5.</u>	<u>GDF-01</u>	<u>Bag Test for Multi-Nozzle Vacuum Assist Systems</u>
<u>6.</u>	<u>GDF-02</u>	<u>Bag Test for Single-Nozzle Vacuum Assist Systems</u>
<u>7.</u>	<u>GDF-09</u>	<u>Phase II Balance System Nozzle Insertion Interlock Operation Determination</u>
<u>8.</u>	<u>Method 9</u>	<u>40 Code Federal Regulations Part 60 Appendix A: Reference Method 9 / EPA Section 3.12 Visible Determination of the Opacity of Emissions from Stationary Sources</u>
<u>9.</u>	<u>EPO No. 26-F-1</u>	<u>Vapor Recovery Systems Field Compliance Testing</u>
<u>10.</u>	<u>G-70-187 Exhibit 5</u>	<u>Fillneck Vapor Pressure Regulation Fueling Test</u>
<u>11.</u>	<u>G-70-191 Exhibit 2</u>	<u>Specifications for the Healy ORVR Phase II Vapor Recovery System (4.a-4.d)</u>
<u>12.</u>	<u>G-70-191 IOMM</u>	<u>Healy Systems VP1000 Dispenser Mounted Vacuum Pump Installation &amp; Service Guide, Scheduled Maintenance Instructions, Weekly Inspection, bullet 4 et Seq.</u>
<u>13.</u>	<u>G-70-204 Exhibit 2</u>	<u>System Specifications/Vaporsaver (1.A - 1.D)</u>
<u>14.</u>	<u>G-70-209 Exhibit 5</u>	<u>Determination (by Volume Meter) of Air to Liquid Volume Ratio of Vapor Recovery Systems of Dispensing Facilities, Adopted April 12, 1996</u>
<u>15.</u>	<u>VR-201 IOMM</u>	<u>Healy IOMM, Scheduled Maintenance, section 1.1 paragraph 3 et Seq.</u>
<u>16.</u>	<u>VR-201 Exhibit 2</u>	<u>System Specifications</u>
<u>17.</u>	<u>VR-201 Exhibit 4</u>	<u>Determination of Static Pressure Performance of the Healy Clean Air Separator</u>
<u>18.</u>	<u>VR-201 Exhibit 5</u>	<u>Vapor to Liquid Volume Ratio for Healy Phase II EVR System</u>
<u>19.</u>	<u>VR-201 Exhibit 7</u>	<u>Nozzle Bag Test Procedure</u>
<u>20.</u>	<u>VR-202 IOMM</u>	<u>Healy IOMM, Scheduled Maintenance, section 1.1 paragraph 3 et Seq.</u>
<u>21.</u>	<u>VR-202 Exhibit 2</u>	<u>System Specifications</u>
<u>22.</u>	<u>VR-202 Exhibit 4</u>	<u>Determination of Static Pressure Performance of the Healy Clean Air Separator</u>
<u>23.</u>	<u>VR-202 Exhibit 5</u>	<u>Vapor to Liquid Volume Ratio for Healy Phase II EVR System</u>
<u>24.</u>	<u>VR-202 Exhibit 7</u>	<u>Nozzle Bag Test Procedure</u>
<u>25.</u>	<u>VR-203 Exhibit 2</u>	<u>System Specifications</u>
<u>26.</u>	<u>VR-203 Exhibit 5</u>	<u>Liquid Removal Test Procedure (sections 6.1 to 6.5)</u>
<u>27.</u>	<u>VR-203 Exhibit 7</u>	<u>Nozzle Bag Test Procedure</u>
<u>28.</u>	<u>VR-203 Exhibit 13</u>	<u>Hirt VCS 100 Processor with Indicator Panel Operability Test Procedure</u>
<u>29.</u>	<u>VR-203 Exhibit 14</u>	<u>Determination of Static Pressure Performance of the Healy Clean Air Separator</u>
<u>30.</u>	<u>VR-203: section 12 of IOMM</u>	<u>Diagnostic section within the VST ECS Membrane Processor: Veeder-Root Pressure Management Control (section 12 of IOMM)</u>
<u>31.</u>	<u>VR-203: section 15 of IOMM</u>	<u>PMC Diagnostic report per 'PMC Diagnostic Menus' section within the Veeder-Root Vapor Polisher: Pressure Management Control (section 15 of IOMM)</u>
<u>32.</u>	<u>VR-204 Exhibit 2</u>	<u>System Specifications</u>
<u>33.</u>	<u>VR-204 Exhibit 5</u>	<u>Liquid Removal Test Procedure (sections 6.1 to 6.5)</u>
<u>34.</u>	<u>VR-204 Exhibit 7</u>	<u>Nozzle Bag Test Procedure</u>

<b><u>Defect Identification Methods Specified In the Verification Procedure Column</u></b>		
<u>35.</u>	<u>VR-204 Exhibit 13</u>	<u>Hirt VCS 100 Processor with Indicator Panel Operability Test Procedure</u>
<u>36.</u>	<u>VR-204 Exhibit 14</u>	<u>Determination of Static Pressure Performance of the Healy Clean Air Separator</u>
<u>37.</u>	<u>VR-204: section 12 of IOMM</u>	<u>'Diagnostic' section within the Veeder-Root ISD Manual (section 12 of IOMM)</u>
<u>38.</u>	<u>VR-207 Exhibit 2</u>	<u>System Specifications</u>
<u>39.</u>	<u>VR-207 Exhibit 5</u>	<u>Liquid Removal Test Procedure (sections 6.1 to 6.5)</u>
<u>40.</u>	<u>VR-207 Exhibit 6</u>	<u>Required Items in Conducting TP-201.4</u>
<u>41.</u>	<u>VR-207 Exhibit 7</u>	<u>Nozzle Bag Test Procedure</u>
<u>42.</u>	<u>VR-208 Exhibit 2</u>	<u>System Specifications</u>
<u>43.</u>	<u>VR-208 Exhibit 5</u>	<u>Liquid Removal Test Procedure (sections 6.1 to 6.5)</u>
<u>44.</u>	<u>VR-208 Exhibit 6</u>	<u>Required Items in Conducting TP-201.4</u>
<u>45.</u>	<u>VR-208 Exhibit 7</u>	<u>Nozzle Bag Test Procedure</u>
<u>46.</u>	<u>VR-208 Exhibit 8</u>	<u>Indicator Panel Operability Test Procedure</u>