

Draft Vapor Recovery Defects List

Updated April 12, 2001

E.O. #	Equipment:	Defects:
All E.O.s	general	<p>absence or disconnection of any component required to be used in the Executive Order(s) that certified the system (a)</p> <p>any equipment defect which is identified in an Executive Order certifying a system pursuant to the Certification Procedures incorporated in Section 94001 of Title 17, California Administrative Code, as substantially impairing the effectiveness of the system in reducing air contaminants (j)</p> <p>dispenser disconnected from the riser</p> <p>dispensing rate greater than 10.0 gallons per minute</p>
	hoses	<p>a vapor hose crimped or flattened such that the vapor passage is blocked, or the pressure drop through the vapor hose exceeds by a factor of two or more the requirements in the system certified in the Executive Order(s) applicable to the system (b)</p> <p>any coaxial balance hose with 100 ml or more liquid in the vapor path</p>
	nozzles	<p>flexible cone damaged in the following manner: for booted type nozzles for vacuum assist type systems, more than ¼ of the flexible cone missing (d)(2)</p> <p>nozzle shutoff mechanisms which malfunction in any manner (e)</p>
	vapor return lines/swivels/valves/dry breaks	<p>vapor return lines, including such components as swivels, anti-recirculation valves and underground piping, which malfunction or are blocked, or restricted such that pressure drop through the lines exceeds by a factor of two or more requirements specified in the Executive Order(s) that certified the system (f)</p> <p>pressure/vacuum relief valves, vapor check valves, or dry breaks which are inoperative (i)</p>
	processing unit	<p>vapor processing unit inoperative or severely malfunctioning (g)</p> <p>vacuum producing device inoperative or severely malfunctioning (h)</p>
	phase I system	<p>more than two product hoses used with one vapor hose connected or more than three product hoses used with two vapor hoses connected during delivery</p>

E.O. #	Equipment:	Defects:
G-70-7-AD Hasstech VCP-2 and VCP-2A	nozzles	any bootless nozzle used with any coaxial hose
	hoses	any coaxial hose with a perforation exceeding 1/8 inch diameter
		any coaxial hose with slits or tears in excess of ¼ inch in length or cumulative damage which similarly compromises the integrity of the vapor hose
	collection unit	vacuum level at the inlet side of the collection unit less than 20 or greater than 40 inches water column
		any system A/L ratio of the system measured at a flow rate between six and twelve gallons per minute (6 – 12 gpm) less than 1.4 or greater than 2.0 to 2.4 less than 1.4 or greater than 2.4 measured at a flow-rate of six gallons per minute (gpm) or less, less than 1.4 or greater than 2.3 measured at a flow-rate of eight gpm, or less than 1.4 or greater than 2.15 measured at a flow-rate of ten gpm pressure greater than two inches water column which does not cause the unit to attempt incineration
processing unit	three consecutive unsuccessful attempts to ignite the incinerator processing unit emissions which exceed Ringelmann one-half (½) or ten percent (10%) opacity	
storage tank	static pressure greater than one inch (1") water column	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

E.O. #	Equipment:	Defects:
G-70-14-AA Red Jacket	nozzles	any nozzle boot torn in one or more of the following manners: a triangular-shaped or similar tear ½ inch or more on any side, or hole ½ inch or more in diameter or, slit 1 inch or more in length (c)(1)(2)
G-70-17-AD Emco Wheaton Balance		any faceplate or flexible cone damaged in the following manner: for balance nozzles and for nozzles for aspirator and eductor assist type systems, damage such that the capability to achieve a seal with a fill pipe interface is affected for ¼ of the circumference of the faceplate (accumulated) (d)(1)
G-70-23-AC Exxon Balance		
G-70-25-AA Atlantic Richfield Balance		
G-70-33-AB Hirt		
G-70-36-AD OPW Balance		
G-70-38-AB Texaco Balance		
G-70-48-AA Mobil Balance		
G-70-49-AA Union Balance		
G-70-52-AM Red Jacket, Hirt Balance		
G-70-53-AA Chevron Balance		
G-70-78 EZ-flow rebuilds		
G-70-107 Rainbow rebuilds		
G-70-125-AA Husky Model V		
G-70-127 OPW 11V		
G-70-134 EZ-flow rebuilds		
G-70-170 EZ-flow rebuilds		

E.O. #	Equipment:	Defects:
<p>G-70-118-AB Amoco V-1</p>	<p>Husky V-1 nozzle</p> <p>OPW 11-VAA nozzle</p> <p>P/V valves</p>	<p>any nozzle with a defective vapor valve</p> <p>Blackmer model VR- ¾ pump not installed for each dispensing nozzle</p> <p>leak rate for any nozzle, including the vapor valve and, if present, the liquid removal system, exceeding 0.038 CFH at a pressure of two inches water column (2" wc), or 0.005 CFH at a vacuum of twenty seven inches water column (approximately 1 psi)</p> <p>system A/L of the system, uncorrected to standard temperature and pressure, measured at a flow rate of at least seven gallons per minute (7 gpm), less than 1.11 measured at a flow rate of seven gallons per minute (gpm), 1.08 at 8 gpm, 1.06 at 9 gpm, 1.04 at 10 gpm</p> <p>if a threaded tap to monitor the UST is installed and is not vapor tight except when test equipment is being connected to or removed from it</p> <p>phase I system not in compliance with the static pressure decay test criteria contained in G-70-118-AB Exhibit 4</p> <p>spill static pressure containment manholes which have drain valves not in compliance with the decay criteria with the drain valves installed as in normal operation</p> <p>efficiency compliance device (ECD) not functional, not installed, or installed incorrectly</p> <p>any ECD damaged such that at least one eighth (1/8) of the diameter is missing, or has cumulative damage equivalent to at least 1/8 of the diameter missing</p> <p>less than 2 unblocked vapor holes</p> <p>any ECD damaged such that a slit from the outer to inner edge exists, or has cumulative damage equivalent to this</p> <p>less than 3 unblocked vapor holes</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5 inches water column ("wc) pressure, or greater than 3.5 "wc pressure, or less than 6.0 "wc vacuum, or greater than 10.0 "wc vacuum</p>

E.O. #	Equipment:	Defects:
G-70-128 Bryant Fuel Cell AGT		any emergency vent with a leak at the operating pressure of the tank

E.O. #	Equipment:	Defects:
G-70-130A Petrovault AGT		<p>P/V valve on the tank vent with a rated pressure relief setting less than 2.5 inches or greater than 3.5 inches of water column gage</p> <p>any tank used for storage of gasoline or gasoline/methanol blended fuel, that hasn't been leak checked at or above the working pressure of the system and verified to be vapor tight prior to its first use or on a yearly basis thereafter</p>

E.O. #	Equipment:	Defects:
G-70-131-A Tank Vault AGT		any emergency vent with a leak at the operating pressure of the tank

E.O. #	Equipment:	Defects:
G-70-132-B Supervault AGT		<p>P/V valve on the tank vent with a rated pressure relief setting greater than 2.5 inches of water column gage</p> <p>any liquid leak, upon disconnecting the delivery line, greater than 10 ml per disconnect computed from the average of three disconnect operations</p> <p>any emergency vent with a leak at the operating pressure of the tank</p> <p>any tank used for storage of gasoline or gasoline/methanol blended fuel, that hasn't been leak checked at 150% of the maximum working pressure of the tank (P/V valve setting), or 5 inches of water column pressure and verified to be vapor tight, prior to its first use or on a yearly basis thereafter</p>

E.O. #	Equipment:	Defects:
G-70-139 Hirt VCS-200	processor	more than two nozzles which can dispense gasoline simultaneously per VCS-200 processor

E.O.#	Equipment:	Defects:
G-70-142-B Phase I AGT		<p>fill adapter not sealed with a dust cap when not in use</p> <p>equipment & fittings installed on trucks not leak free at the operating pressure of the tank</p>

E.O.#	Equipment:	Defects:
G-70-148-A Lube Cube AGT		<p>any liquid leak, upon disconnecting the delivery line, greater than 10 ml per disconnect computed from the average of three disconnect operations</p> <p>liquid trap in the vapor path between the vehicle fill pipe and the highest point in the vapor return path during fuel dispensing unless the coaxial hose is equipped with a liquid removal system with the liquid pickup located at the liquid trap</p> <p>P/V valve on the tank vent with a rated pressure relief setting greater than 2.5 inches of water column</p>

E.O. #	Equipment:	Defects:
G-70-150-AE Marconi Vapor Vac		<p>improper functioning of any automatic shut-off mechanism</p> <p>mini-boot installed and vapor check valve missing</p> <p>vapor check valve installed and mini-boot missing</p> <p>more than 15 feet of inverted coaxial hose</p> <p>fuel dispensed with VaporVac operating improperly</p> <p>missing solenoid vapor valves</p> <p>a pressure drop through the system greater than one-half inch (0.5") water column at 60 SCFH</p> <p>internal diameter of the dispenser-to-riser connector, including all fittings, less than three-fourths inch (3/4")</p> <p>any fueling point associated with a vapor line disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded</p> <p>any vapor return line not manifolded below grade at the tanks exception: for installations with a vapor return line directly to only one tank, and for which a manifold on the tank vents will be used to provide part of the vapor return path to other tanks, the vent manifold may be used as an alternative to the underground manifold only in existing installations where the vapor piping is already installed, and shall not be used in "new" installations where vapor piping is being installed. For installations with dedicated vapor piping directly to each tank, the vent manifold is approved for both new and existing installations and an additional tank manifold below grade is optional but not required</p> <p>phase I system not in compliance with the static pressure decay test criteria contained in G-70-150-AE Exhibit 3</p> <p>coaxial phase I systems used with new installations of the system</p>

<p>G-70-150-AE Marconi Vapor Vac continued</p>		<p>spill containment manholes which have drain valves not in compliance with the static pressure decay criteria with the drain valves installed as in normal operation</p> <p>manholes with cover-actuated drain valves used in new installations</p> <p>the use of booted and non-booted nozzle types with the same vapor pump</p> <p>any dispenser flow rate less than six or greater than ten gallons per minute (6.0-10.0 gpm)</p>
	<p>Catlow ICVN nozzle</p>	<p>system A/L less than 0.90 or greater than 1.10</p> <p>less than 3 unblocked vapor holes</p> <p>no efficiency compliance device</p> <p>efficiency compliance device slit from base to the rim</p>
	<p>Emco Wheaton A4505 nozzle</p>	<p>system A/L less than 0.90 or greater than 1.10</p> <p>less than 3 unblocked vapor holes</p> <p>no vapor guard</p> <p>vapor guard 1/8 of circumference missing or cumulative damage equivalent to at least 1/8 of the circumference missing</p>
	<p>Emco Wheaton A4500 nozzle</p>	<p>system A/L less than 1.0 or greater than 1.20</p> <p>less than 3 unblocked vapor holes</p>
	<p>Husky V34 6200 nozzle</p>	<p>system A/L less than 0.90 or greater than 1.10</p> <p>no vapor splash guard</p>
	<p>Husky V34 6250 nozzle</p>	<p>system A/L less than 0.90 or greater than 1.10</p> <p>no vapor splash guard</p> <p>a 1.5 inch slit in vapor splash guard or cumulative damage equivalent to a 1.5 inch slit</p> <p>any hole greater than 3/8 inch in vapor splash guard or cumulative damage greater than 3/8 inch hole</p>
	<p>Husky V3 6201 nozzle</p>	<p>system A/L less than 1.0 or greater than 1.20</p> <p>all vapor holes blocked</p>
	<p>OPW 11VAI nozzles</p>	<p>system A/L less than 1.0 or greater than 1.20</p>

<p>G-70-150-AE Marconi Vapor Vac continued</p>	<p>OPW 11VAI nozzles continued</p> <p>OPW12VW nozzle</p> <p>P/V valves</p>	<p>less than 4 unblocked vapor holes</p> <p>spout of material other than stainless steel</p> <p>system A/L less than 0.90 or greater than 1.10</p> <p>all vapor holes blocked</p> <p>no vapor escape guard (VEG)</p> <p>VEG with $\frac{3}{4}$ of the circumference missing or cumulative damage equivalent to at least $\frac{3}{4}$ of the circumference missing</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>
--	--	---

E.O. #	Equipment:	Defects:
<p>G-70-152 Moiser Brothers AGT</p>		<p>a leak in emergency vent installed on the tank, at operating pressure</p> <p>any tank used for storage of gasoline, that hasn't had its vapour recovery system leak checked at, or above the working pressure of the system (P/V valve setting), and verified to be vapor tight, prior to its first use or on a yearly basis thereafter</p>

E.O. #	Equipment:	Defects:
<p>G-70-153-AD Dresser Wayne Wayne Vac</p>	<p>all nozzles</p> <p>OPW 11VAI and Husky</p>	<p>any splash guard that interferes with the operation of a VEG or VSG unit</p> <p>any dispensing rate greater than 10.0 gallons per minute</p> <p>any fueling point not capable of demonstrating an A/L compliance with its performance standard described in G-70-153-AD, Exhibit 2, page 4</p> <p>any dispensing which occurs while the vacuum pump is inoperable or while the LED on the dispenser computer control board continues to flash three times every few seconds</p> <p>any integral vapor valve not installed, installed incorrectly, or not operating properly is a defect for that nozzle and all nozzles at the same fueling point (dispenser side)</p> <p>any leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>less than 2 unblocked vapor holes</p>

<p>G-70-153-AD Dresser/ Wayne Wayne Vac continued</p>	<p>V34 6200-4 nozzles</p> <p>OPW 11VAI nozzle</p> <p>Husky V34 6200 nozzle</p> <p>Husky V34 6200 and V34 6250 nozzles</p> <p>Emco Wheaton A4505 nozzle</p> <p>Catlow ICVN and Richards Astrovac nozzles</p> <p>OPW 12VW nozzle</p> <p>P/V valves</p>	<p>vapor escape guard (VEG) not installed or installed incorrectly</p> <p>any VEG damaged such that at least one-eighth (1/8) of the circumference is missing, or which has cumulative damage equivalent to at least 1/8 of the circumference missing</p> <p>new or rebuilt replacement nozzles with a spout made of material other than stainless steel</p> <p>less than 2 unblocked vapor holes</p> <p>vapor splash guard (VSG) not installed or installed incorrectly</p> <p>any VSG damaged such that at least a one and one-half (1.5) inch slit has developed, or which has cumulative damage equivalent to at least a 1.5 inch slit</p> <p>any VSG flange portion that does not make contact with or cover the entire fill-pipe opening when properly latched into a vehicle fill-pipe meeting ARB's standard</p> <p>any VSG with a hole greater than three-eighths (3/8) inch or which has cumulative damage greater than a 3/8 inch hole</p> <p>less than 3 unblocked vapor holes</p> <p>vapor guard (VG) not installed or installed incorrectly</p> <p>any VG damaged such that at least one-eighth (1/8) of the circumference is missing, or which has cumulative damage equivalent to at least 1/8 of the circumference missing</p> <p>less than 3 unblocked vapor holes</p> <p>efficiency compliance device (ECD) not installed or installed incorrectly</p> <p>any ECD damaged with a slit from the base to the rim</p> <p>all vapor holes blocked</p> <p>vapor escape guard (VEG) not installed or installed incorrectly</p> <p>any VEG damaged such that at least three-quarters (3/4) of the circumference is missing, or which has cumulative damage equivalent to at least 3/4 of the circumference missing</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>
---	---	---

E.O. #	Equipment:	Defects:
G-70-154-AA Tokheim MaxVac	general	any dispensing rate exceeding ten (10.0) gallons per minute when only one nozzle associated with the product supply pump is operating
	nozzles	any nozzle with a defective vapor valve (all nozzles at the same fueling point shall be immediately removed from service and the vapor path shall be closed as soon as practicable)
	OPW 11VAI and Husky V34 6200-5 nozzles	any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column
		efficiency compliance device (ECD) not installed or damaged such that at least one-fourth (1/4) of the circumference is missing or which has cumulative damage equivalent to at least 1/4 of the circumference missing
	Husky V34 6200	less than 2 unblocked vapor holes
		less than 2 unblocked vapor holes
	Husky V34 6200 and V34 6250	vapor splash guard missing (VSG) or damaged such that at least a one and one-half (1.5) inch slit has developed or which has cumulative damage equivalent to at least a 1.5 inch slit
		VSG damaged such that greater than a three-eighths (3/8) inch hole has developed, or which has cumulative damage greater than a 3/8 inch hole
	Emco Wheaton A4505	vapor guard not installed
	Catlox ICVN and Richards Astrovac	less than 7 unblocked vapor holes
	efficiency compliance device (ECD) not installed	
	less than 4 unblocked vapor holes	
P/V valves	any nozzle with an ECD damaged with at least one-fourth (1/4) of the circumference missing or which has cumulative damage equivalent to at least 1/4 of the circumference missing	
	no pressure/vacuum (P/V) valve on any gasoline vent pipe	
	P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum	
MaxVac system	system A/L ratio measured at a flow rate between seven and ten gallons per minute (7 - 10 gpm) , not within the values listed in the table in G-70-154AA Exhibit 2	

E.O. #	Equipment:	Defects:
G-70-157 Ecovault AGT		<p>compartment size in a split tank configuration that is less than 500 gallons</p> <p>P/V valve on the tank vent with a rated pressure relief setting less than 2.5 inches or greater than 3.5 inches of water column gage</p> <p>any liquid leak, upon disconnecting the delivery line, greater than 10 ml per disconnect computed from the average of three disconnect operations</p> <p>any tank used for storage of gasoline that hasn't had the complete vapory recovery system leak checked at 150% of the maximum working pressure of the system (P/V valve setting), or 5 inches of water column gage pressure, whichever is greater, and verified to be vapor tight, prior to its first use or on a yearly basis thereafter</p>

E.O. #	Equipment:	Defects:
G-70-158-A Firesafe AGT		<p>P/V valve installed on the tank vent with a rated pressure relief less than 2.5 inches of water gauge</p> <p>system not leak checked at 150 percent of the maximum working pressure of the tank, or 5 inches of water column gauge, whichever is greater, and verified to be vapor tight</p>

E.O.#	Equipment:	Defects:
G-70-160 AGT Vault		<p>a leak in emergency vent installed on the tank, at operating pressure</p> <p>any liquid leak upon disconnecting the delivery line greater than 10ml per disconnect computed from the average of three disconnect operations</p> <p>P/V valve installed on the tank vent with a rated pressure relief less than 2.5 inches of water gauge</p>

E.O.#	Equipment:	Defects:
G-70-161 Hoover Containment Systems /Fuelmaster AGT		<p>a leak in emergency vent installed on the tank, at operating pressure</p> <p>any liquid leak upon disconnecting the delivery line greater than 10ml per disconnect computed from the average of three disconnect operations</p> <p>P/V valve on the tank vent with a rated pressure relief setting less then 2.5 inches of water column gage</p>

E.O.#	Equipment:	Defects:
G-70-162-A Steel Tank Institute Fireguard AGT		<p>any liquid leak upon disconnecting the delivery line greater than 10ml per disconnect computed from the average of three disconnect operations</p> <p>P/V valve on the tank vent with a rated pressure relief setting less than 2.5 or greater than .3.5 inches of water column gauge</p>

E.O. #	Equipment:	Defects:
G-70-164-AA Hasstech VCP-3A	nozzles	any leak rate exceeding 0.038 CFH at a pressure of two inches water column (2" wc), or 0.005 CFH at a vacuum of forty inches water column (40" wc)
	OPW 11VAI	remote vapor valve defective or not installed flow actuated vapor valve defective or not installed
	OPW 11VAI steel spout	less than 6 unblocked vapor holes
	OPW 11VAI aluminum spout	less than 4 unblocked vapor holes
	Husky V3 6201	remote vapor valve defective or not installed flow actuated vapor valve defective or not installed all vapor holes blocked
	Husky V34 6200-8	integral vapor valve defective or not installed all vapor holes blocked among the 6 encircling the spout
	Emco Wheaton A4500	any visible puncture or tear of the vapor guard/vapor seal assembly less than 3 unblocked vapor holes
	Emco Wheaton A4500-002	remote vapor valve defective or not installed flow actuated vapor valve defective or not installed
	flow actuated vapor valve	any leak rate exceeding 0.038 CFH at a pressure of two inches water column (2" wc), or 0.005 CFH at a vacuum of forty inches water column (40" wc)
	collection unit	any system A/L ratio of the system measured at a flow rate greater than six gallons per minute (6 gpm) not within the values listed in G-70-164-AA
		normal operating level at the inlet of the collection unit less than 30 inches water column vacuum
	processing unit	emissions which exceed Ringelmann one-half (½) or ten percent (10%) opacity twenty (20) consecutive unsuccessful attempts to ignite the process unit twenty (20) non-consecutive unsuccessful attempts to ignite the process unit which does not cause the alarm to be activated

<p>G-70-164-AA Hasstech VCP-3A continued</p>	<p>processing unit continued</p> <p>ECS-1 electronic control and status panel</p> <p>audible alarm</p> <p>pressure switches</p> <p>P/V valves</p>	<p>dispensing when the process unit is disabled</p> <p>panel does not display "CALL FOR SERVICE" when the number of unsuccessful attempts to ignite the burner in a twenty-four hour period reaches twenty</p> <p>status panel does not indicate the system status</p> <p>status panel does not take data points at least every 0.5 seconds</p> <p>ratio of process unit/solenoid valve time less than 0.90</p> <p>VCP-3A system does not include an audible alarm which sounds if any of the following conditions have occurred: the submerged turbine pump has been activated for two seconds without causing activation of the collection unit; or the processing unit has made twenty (20) consecutive unsuccessful attempts to ignite; or the processing unit has made twenty (20) non-consecutive unsuccessful attempts to ignite in a 24 hour period</p> <p>processing unit in-line pressure switch not installed</p> <p>in-line pressure switch not set to activate at a nominal inlet pressure of 1 inch water column</p> <p>collection unit tank outlet pressure switch not installed</p> <p>tank pressure switch does not activate the system when the tank pressure exceeds 0.1 inches of water column</p> <p>storage tank pressures less than 0.5" or greater than 1" water column for more than occasional brief periods</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>
--	---	--

E.O. #	Equipment:	Defects:
G-70-165 Healy Model 600	<p>general</p> <p>nozzle</p> <p>central vacuum unit</p> <p>P/V valve</p>	<p>dispensing rate exceeding ten (10.0) gallons per minute when only one nozzle associated with the product supply pump is operating</p> <p>any nozzle with a vapor guard missing, or damaged such that a slit from the outer edge of the open end flange to the spout anchor clamp, or which has a equivalent cumulative damage</p> <p>any nozzle which has fewer than four unblocked vapor collection holes</p> <p>any nozzle with a defective vapor valve</p> <p>any leak rate exceeding 0.038 CFH at a pressure of two inches water column (2" wc), or 0.005 CFH at a vacuum of eighty three inches water column (approx. 3 psi)</p> <p>any A/L less than 1.00 or greater than 1.20 measured at a flow-rate between seven and ten gallons per minute</p> <p>dispensing when the central vacuum unit is disabled</p> <p>threaded tap not vapor tight except when test equipment is being connected to or removed from it</p> <p>more fueling points than can be simultaneously operated within the A/L range specified in G-70-165 Exhibit 2</p> <p>vacuum level outside of the range specified in G-70-165 Exhibit 2 for more than three seconds, measured while dispensing is occurring</p> <p>product dispensed when the vapor return line valve is closed</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>

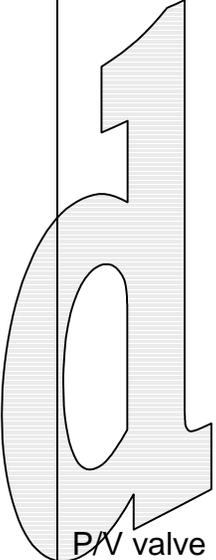
E.O.#	Equipment:	Defects:
G-70-167 Bakersfield Tank Company Enviro- Vault AGT		<p>any liquid leak upon disconnecting the delivery line greater than 10ml per disconnect computed from the average of three disconnect operations</p> <p>liquid trap in the vapor path between the vehicle fill pipe and the highest point in the vapor return path during fuel dispensing unless the coaxial hose is equipped with a liquid removal system with the liquid pickup located at the liquid trap</p> <p>P/V valve installed on the tank vent with a rated pressure relief setting greater than 2.5 inches of water column gage</p>

E.O.#	Equipment:	Defects:
G-70-168 Bryant Fuel Systems AGT		<p>P/V relief vent installed in the manway on the tanks not leak free at the operating pressure of the tank</p> <p>P/V valve on the tank vent for systems that do not utilize a vapor processor with a rated pressure relief setting of less than 8 ounces per square inch</p> <p>any liquid leak upon disconnecting the product delivery line(s) when filling the tank or loading transport vehicles greater than 10 ml per disconnect computed from the average of three disconnect operations</p>

E.O. #	Equipment:	Defects:
G-70-169-AA Franklin Electric Intellivac	<p>OPW 11VAI nozzle</p> <p>Husky V34 6250 nozzle</p>	<p>any system A/L ratio of the system measured at a flow rate between six and ten gallons per minute (6 – 10 gpm) less than 0.88 or greater than 1.08</p> <p>voltages less than 90 or greater than 135 volts do not cause the system to shut down on systems designed to operate with 115 volts</p> <p>voltages less than 180 or greater than 270 volts do not cause the system to shut down on systems designed to operate with 230 volts</p> <p>the pump control does not automatically sense conditions that cause high power levels and shut down</p> <p>the system does not restart automatically after less than three shut down send signal wait-restart cycles</p> <p>the system does restart automatically after three or more shut down send signal wait-restart cycles</p> <p>the system does not generate an error signal when a liquid blockage in the vapor path is sustained for more than 15 seconds</p> <p>any nozzle with a defective vapor valve (including all nozzles at the same fueling point (dispenser side)) guidance: when one nozzle is defective tag all associated with dispenser side</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>efficiency compliance device (ECD) not installed or installed incorrectly</p> <p>ECD damaged such that at least ¼ of the circumference is missing or which has cumulative damage equivalent to at least ¼ of the circumference missing</p> <p>fewer than two unblocked vapor collection holes</p> <p>any nozzle with a vapor splash guard (VSG) missing</p>

E.O. #	Equipment:	Defects:
G-70-179 Catlow ICVN-VI	P/V valve	<p>efficiency compliance device (ECD) not installed or installed incorrectly</p> <p>ECD damaged such that at least $\frac{3}{4}$ of the diameter is missing or which has cumulative damage equivalent to at least $\frac{3}{4}$ of the diameter missing</p> <p>any nozzle which has fewer than four unblocked vapor collection holes in the spout</p> <p>any nozzle with a defective vapor valve</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>a Blackmer model VRFC pump not installed for each dispensing nozzle</p> <p>any system A/L ratio of the system measured at a flow rate between six and ten gallons per minute (6 - 10 gpm) less than 0.92 or greater than 1.12</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>

draft

E.O. #	Equipment:	Defects:
G-70-183 Healy/Franklin Vac Assist	 P/V valve	<p>any nozzle with a vapor guard missing</p> <p>a vapor guard damaged such that a slit exists from the outer edge of the open end flange to the spout anchor clamp, or which has an equivalent cumulative damage</p> <p>any nozzle which has fewer than four unblocked vapor collection holes in the spout</p> <p>any nozzle with a defective vapor valve</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of eighty-three inches water column</p> <p>any A/L ratio less than 1.00 or greater than 1.20 measured at a flow-rate between six and ten gallons per minute</p> <p>voltages less than 90 or greater than 135 volts do not cause the system to shut down on systems designed to operate with 115 volts</p> <p>voltages less than 180 or greater than 270 volts do not cause the system to shut down on systems designed to operate with 230 volts</p> <p>the system does not automatically sense conditions that cause high power levels and shut down</p> <p>the system does not restart automatically after less than three shut down send signal wait restart cycles</p> <p>the system does restart automatically after three or more shut down send signal wait restart cycles</p> <p>the system does not generate an error signal when a liquid blockage in the vapor path is sustained for more than 15 seconds</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>

E.O. #	Equipment:	Defects:
<p>G-70-186 Healy Model 400 ORVR</p>		<p>operating pressure range at the nozzle boot/fill-pipe interface less than ½ inches water column vacuum or greater than ¼ inches water column pressure</p> <p>any nozzle vapor valve leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of eighty-three inches water column</p> <p>dispensing when the central vacuum unit is disabled for maintenance or for any other reason</p> <p>system allowed to operate when the tap is not vapor tight</p> <p>more fueling points than can be supported by the central vacuum unit as per G-70-186, Exhibit 2, page 3</p> <p>system not operating within the vacuum level range as per G-70-186, Exhibit 2, page 3</p> <p>CVU valve closed when the test is not being conducted</p> <p>product dispensed when the CVU valve is closed</p> <p>9466 Check Valve removed or bypassed during testing of the system</p> <p>monitor not set to light the "low" vacuum indicator at the beginning of dispensing when the system vacuum level is below sixty-five inches water column (65" WC)</p> <p>run light not set to light when 65 inches water column or higher vacuum is present</p> <p>monitor does not sound an alarm and record a vacuum failure when the pressure switch does not sense sixty-five inches of vacuum being created within fifteen seconds of the time from which the system is energized for three consecutive dispensings, under normal operating conditions</p> <p>system does not operate within the vacuum level range for the Healy Central Vacuum Unit specified in G-70-186</p> <p>vacuum levels are below the range specified in G-70-186, for more than three seconds, measured while dispensing is occurring</p> <p>low "vacuum" indicator light does not flash on the monitor when vacuum levels are below the range specified in G-70-186, for more than three seconds, measured while dispensing is occurring</p> <p>monitor does not sound an alarm or record a no-vacuum failure after one hour of a low vacuum condition</p> <p>pressure sensor not capable of measuring the true vapor line vacuum or installed in a location that will cause interference with normal flow</p>

<p>G-70-186 Healy Model 400 ORVR continued</p>	<p>P/V valve</p>	<p>characteristics</p> <p>vent light not lighting when venting is occurring</p> <p>second light not illuminated or the alarm not sounding after ten hours of venting have has been recorded in a calendar day</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>
--	------------------	---

E.O. #	Equipment:	Defects:
<p>G-70-187 Healy 400 ORVR ATS</p>	<p>nozzle</p> <p>central vacuum unit</p> <p>phase II vapor recovery system</p> <p>P/V valve</p>	<p>any operating pressure at the nozzle boot/fill-pipe interface less than $-\frac{1}{2}$" or greater than $\frac{1}{4}$" water column</p> <p>any concatenation of all nozzle boot tears greater than $\frac{1}{2}$" in length</p> <p>dispensing when the central vacuum unit is disabled</p> <p>system vacuum less than 65" or greater than 85" water column</p> <p>more than the maximum number of fueling points or simultaneous fueling points that can be supported by the central vacuum unit as listed in G-70-187 Table 4</p> <p>system does not achieve an operating vacuum of 65" water column within 15 seconds after the system is energized</p> <p>system does not achieve an operating vacuum of 65" water column for three consecutive dispensing episodes</p> <p>system does not achieve an operating vacuum of 65" water column within a one hour period for any single dispensing episode</p> <p>vacuum level dropping below 60" water column for more than three seconds after the system has reached 65" water column, measured while dispensing is occurring</p> <p>vacuum level above 90" water column measured while dispensing is occurring</p> <p>product dispensing when the non-restrictive ball valve installed in the vapor return line is closed</p> <p>any venting through system monitor vent in excess of ten hours in any calendar day not attributable to a Phase I fuel delivery</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>P/V valve which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>

E.O.#	Equipment:	Defects:
G-70-190 Guardian Containment /Armor Cast AGT		<p>any emergency vent installed on the tank not a type with a viton seal and not vapor tight at the operating pressure tank when tested in accordance with ARB test procedures</p> <p>remote fill and vapor recovery lines not installed whenever direct fill and vapor recovery connections would require the fuel delivery operator to climb onto the tank to make the connections</p> <p>liquid trap in the vapor path between the highest point in the vapor return path and the storage tank vapor headspace during fuel dispensing unless a liquid trap and evacuation system are included in the system</p> <p>liquid trap in the vapor path between the vehicle fill pipe and the highest point in the vapor return path during fuel dispensing unless the coaxial hose is equipped with a liquid removal system with the liquid pickup located at the liquid trap</p> <p>P/V valve installed on the tank vent with a rated pressure relief setting less than 2.5 or greater than 3.5 inches of water column gauge</p>

E.O. #	Equipment:	Defects:
G-70-191 Healy ORVR	P/V valve	<p>vapor collection boot not installed or installed incorrectly</p> <p>any nozzle with a vapor collection boot which has one half of the mini-boot faceplate or greater missing</p> <p>any integral vapor valve not installed, installed incorrectly, or not operating properly</p> <p>any nozzle vapor valve leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>an system A/L less than 1.00 or greater than 1.20 measured at a flow rate between six and ten gallons per minute</p> <p>the system does not generate an error signal when a liquid blockage in the vapor path is sustained for more than 15 seconds</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>

E.O. #	Equipment:	Defects:
G-70-194 Containment Solutions Hoover Vault AGT		<p>any emergency vent installed on the tank without a viton seal or vapor tightness at the operating pressure</p> <p>P/V valve on the tank vent with a rated pressure relief setting less than 2.5 inches or greater than 3.5 inches of water column gage</p> <p>P/V valve on the tank vent with a rated vacuum relief setting less than 6 inches or greater than 10 inches of water column gauge</p>

E.O. #	Equipment:	Defects:
G-70-195 Cretex Companies FuelVault AGT		<p>any emergency vent installed on the tank without a viton seal or vapor tightness at the operating pressure</p> <p>P/V valve on the tank vent with a rated pressure relief setting less than 2.5 inches or greater than 3.5 inches of water column gage</p>

E.O. #	Equipment:	Defects:
G-70-196 SaberVac	<p>Husky 605104 nozzle</p> <p>VR System</p> <p>pipng</p> <p>P/V valve</p>	<p>vapor splash guard (VSG) missing</p> <p>VSG with a 1.5 inch or larger slit or with cumulative damage equivalent to a 1.5 inch or larger</p> <p>VSG with a 3/16 inch or larger hole or with cumulative damage equivalent to a 3/16 inch or larger hole</p> <p>when properly latched into a vehicle fillpipe meeting the CARB standard, the VSG flange portion does not make contact with or cover the entire fillpipe opening</p> <p>system A/L less than 0.85 or greater than 1.05</p> <p>underground storage tank gauge pressure greater than 2 inches water column over an extended period as defined by E.O. G-70-196 Exhibit 2 SaberVac VR System</p> <p>pressure drop through the system exceeding ½ inch water column at 60 SCFH</p> <p>dispensing of product from any fueling point associated with a disconnected vapor line</p> <p>no pressure/vacuum (P/V) valve on any gasoline vent pipe</p> <p>which opens at less than 2.5" water column (wc) pressure, or greater than 3.5" wc pressure, or less than 6.0" wc vacuum, or greater than 10.0" wc vacuum</p>