



State of Illinois
Office of the State Fire Marshal

Checklist for Documenting UST Compatibility

SUBMIT THIS FORM WITH SUPPORTING DOCUMENTATION ATTACHED.

ALL COMPONENTS MUST BE LISTED IN DETAIL, & COMPATIBILITY DOCUMENTATION MUST CLEARLY IDENTIFY THE COMPONENTS.

Facility where equipment is located:

Facility Number: 2027395
Facility Owner: Graham Enterprise, Inc.
Facility Name: McHenry BP-GEI-137
Street Address: 5031 Bull Valley Road
City: McHenry
County: McHenry

UST Information:

Tank ID Number: 7
Tank Material: Steel FRP
Single Wall Double Wall X
Tank Volume: 7,000
Tank Product: E-85

Complete the checklist below, listing compatibility determination, method used and description. **All answers must be "YES" and supported with a sufficient description or supporting documentation** in order for your UST system to demonstrate compatibility with the blended fuel/biofuel product.

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
TANK	NO	YES		Containment Solutions double wall fiberglass tank
PIPING (incl. shear valves, flex connectors)	NO	YES		NUPI UL 971 double wall piping
CONTAINMENT SUMPS	NO	YES		Bravo tank sumps, part #B481-48-S-02 NUPI dispenser sumps, part #19DDS4215
PUMPS (STPs/Suction; Dispensers, hoses, nozzles)	NO	YES		FE Petro submersible pump, part #STPAG150-VL2

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
RELEASE DETECTION EQUIPMENT	NO	YES		Veeder Root sump sensor, part #794380-323, Veeder Root interstitial sensor, part #794380-345, Veeder Root probe, part #846391-407 Veeder Root PLLD, part #848480-003
SPILL PREVENTION EQUIPMENT	NO	YES		EBW Defender overspill, part #705556111BLK
OVERFILL PREVENTION EQUIPMENT	NO	YES		OPW drop tube, part #71SOM-412C
GASKETS & SEALS (installs after 10/13/18)	NO	YES		There will be no gaskets or seals that are not included in the existing compatibility forms for the equipment listed above
JOINT DOPES & ADHESIVES (installs after 10/13/18)	NO	YES		Gasola

Methods:

- Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored.
- Equipment or manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the component is compatible with, and be from the equipment or component manufacturer

Note: Owners and operators may find American Petroleum Institute's Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations*, useful in complying with the compatibility requirements.

In order to be in compliance with the 2015 federal UST regulation compatibility requirements for storing biofuels, you must keep documentation of compatibility of the UST system components listed on this page as long as you store the fuel.

For your records, you should update this checklist each time you repair or replace components of your UST system to ensure you have all the required compatibility documentation while storing biofuels.

Checklist Completed By: print name: Warren Cherner

date completed: 7-30-19

signature: Warren Cherner

position/title: Vice President



August 1, 2011

Fuel Storage Compatibility

This letter applies to all fiberglass fuel storage products manufactured since the inception of Containment Solutions, Inc. (CSI) on 1/1/1995 including:

- Single-wall underground tanks
- Double-wall underground tanks
- Triple-wall underground tanks
- ReTank® (In situ double-wall tank upgrade)
- BTU® (Bio fuel Tank Upgrade for fluid compatibility)
- Single-wall tank sumps
- Double-wall tank sumps

CSI single, double, and triple wall tanks are listed by Underwriters Laboratories Inc., under UL Standard 1316 - *Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures*.

All of the above Containment Solutions' products are compatible for use with the following fuels and fuel blends:

- Gasoline, jet fuel, aviation gasoline, motor oil (new or used), kerosene, diesel motor fuel
- Alcohol-gasoline blend motor fuels
 - Gasoline-ethanol blends with up to 100% ethanol
 - Gasoline-methanol blends with up to 100% methanol
- Biodiesel-diesel blends with up to 100% biodiesel (B100 per ASTM)
- Oxygenated motor fuels with up to 20% (by volume) methyl tertiary butyl ether (MTBE), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), or tertiary amyl ethyl ether (TAEE)
- Diesel fuel oil

For more information on CSI products or CSI Field Services contact:

Containment Solutions

1-877-CSI-TANK

sales@csiproducts.com

www.containmentsolutions.com

Sincerely,

Ron Shaffer

Vice President Sales & Marketing

Containment Solutions, Inc.



Franklin Fueling Systems

May 4, 2018

Subject: Franklin Fueling Overfill Prevention Valve (OPV) and Spill Prevention Equipment Fuel Compatibility

To Whom It May Concern,

This letter affirms that the materials used by Franklin Fueling Systems in the construction of the Overfill Prevention Valve (OPV) and Spill Prevention Equipment listed herein, as of the date of this letter, is compatible with the following fuels as defined by ASTM:

Group 1

- Gasoline (E0 to E10)
- Diesel (B0 to B5)
- Heating Fuels (Kerosene, Fuel Oil)

Group 2

- Mid-level Ethanol Fuel Blends (E11 to E50)
- Ethanol Fuel Blends (E51 to E83*)

*Commercially known as E85

Group 3

- Biodiesel Blends (B5 to B20) and Biodiesel (B100)

Group 4

- Aviation Fuels (AvGas, Jet Fuel)

Overfill Prevention Valves

Model Numbers		Groups
708591901, 708591902, 708592901, 708592902, 708593901, 708593902	Defender Series™ OPVs with standard drop tubes	1
708591921, 708591922, 708592921, 708592922, 708593923, 708593924, 708594901, 708594902	Defender Series™ OPVs, AGB	1, 2, 3, 4
708226901	Defender Series™ Remote fill splice kit	1, 2, 3, 4



Franklin Fueling Systems

Spill Containment

Model Numbers		Groups
702xxxxx, 705xxxxx, 715xxxxx	EBW Series Direct Bury Spill Containers	1
705545xxx, 705555xxx, 705556xxx	Defender Series™ Direct Bury Spill Containers	1, 2, 3, 4
DMP36xxxxxx, DMP42xxxxxx	Defender Series™ Multiports	1, 2, 3, 4
SWF-100-SS, SWV-101-SS	Stainless Steel Swivel Adapters	1, 2, 3**, 4
77720102	4" Top Seal Fill Cap	1, 2, 3
30430103, 30430104	4" Vapor Recovery Cap	1, 2, 3

**B100 not determined on this equipment

Please let me know if there are any other questions or concerns regarding Franklin Fueling Overfill Prevention Valve (OPV) and Spill Prevention Equipment Fuel Compatibility.

Regards,

Nicole Keppy
Franklin Fueling Systems
Product Manager, Service Station Hardware



Veeder-Root
125 Powder Forest Drive
P. O. Box 2003
Simsbury, CT 06070-7684
USA
Phone: (860) 651-2700
Fax: (869) 651-2719

January 13, 2011

Concerned Regulatory Agency

Re: Veeder-Root Compatibility with E85

To whom it may concern:

Veeder-Root TLS branded automatic tank gauging products have UL listings for product safety. The wetted component materials used with the below listed products are deemed by Veeder-Root to be compatible with ethanol 85 applications.

<u>VR Part Number</u>	<u>Description</u>
848480-003	Pressurized Line Leak Detector
846391-4XX, 5XX, 6XX	Mag Plus Probes for Alternative Fluids without water detection
846400-004,304,104	Mag Float Kit (5" cable) for Alternative Fluids 4", 3" & 2" floats
846400-014,314,114	Mag Float Kit (10" cable) for Alternative Fluids 4", 3" & 2" floats
846400-024,324,124	Mag Float Kit (20" cable) for Alternative Fluids 4", 3" & 2" floats
794380-323	Position Sensitive Pan/Sump Sensor
794380-344	MicroSensor
794380-345	Interstitial Solid State Sensor for Fiberglass Tanks
794380-430	Interstitial Sensor for Steel Tanks

The following sensor is exposed to Brine and is not of concern in an E85 application.

794380-301 Hydrostatic Sensor

Please contact Veeder-Root Technical Support at 1-800-323-1799 with further questions.

Regards,

Bob Moss
VP Engineering



RCRX.MH6262

Pumps, Power Operated, Flammable Liquid

[Page Bottom](#)

Pumps, Power Operated, Flammable Liquid

[See General Information for Pumps, Power Operated, Flammable Liquid](#)

FRANKLIN FUELING SYSTEMS INC

MH6262

3760 MARSH RD

MADISON, WI 53718-6900 USA

Submersible type transfer pump-motor assembly, Model STP with or without T, with or without AG or AP, with or without F, with or without H, with or without R, with or without V, with or without W, with or without K, with or without M, followed by 33, 75, 150, 200, VS2 or VS4, may be followed by A, B, C or J, followed by -XXX, where X is any numeric character or VL1, VL1.5, VL2 or VL3, followed by two characters. All models have been evaluated for use with gasoline-ethanol blends with concentrations from E0 to E10 (up to E85 for models with suffix AG or AP). Models with AG or AP suffix have also been evaluated for diesel/biodiesel blends with nominal biodiesel concentrations up to 20 percent biodiesel (B20) and biodiesel (B100). Models with suffix VS2 are only for use with Model IST-VFC or MAG-VFC motor controllers. Models with suffix VS4 are only for use with MAG-VFC motor controller.

Model STP with or without AG, F, R, S or T, with or without AG, followed by 3, followed by D, followed by -XXX-XX where X may be any numeric character.

Model STP with or without AG, F, R, S or T, with or without AG, followed by 5, followed by C, D, G, or H, followed by -XXX-XX where X may be any numeric character.

All models have been evaluated for use with gasoline-ethanol blends with concentrations from E0 to E10, 20 percent ETBE or MTBE with 80 percent gasoline, and 17 percent TAME with 83 percent gasoline.

Submersible type transfer pump-motor assembly, Models IST or IST VS4 with or without T, with or without AP, with or without F, with or without R, with or without V, with or without W, with or without K, with or without M, followed by 1, 2, 3, VL1, VL1.5, VL2 or VL3, followed by two characters, Model IST only for use with Model IST-VFC or MagVFC motor controller, Model IST VS4 only for use with Model MagVFC motor controller. IST Models have been evaluated for use with gasoline-alcohol blends with alcohol concentrations from E0 to E85. Also evaluated for diesel/biodiesel blends with nominal biodiesel concentrations up to 20 percent biodiesel (B20), and biodiesel (B100).

Submersible type transfer pump-motor assembly, Models 9000-01, 9000-02. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Transfer pump-motor assembly, Model VP500. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Model 2000C. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Models VP500/C1, VP500/C2. Maximum outlet pressure 50 psi. Models have been evaluated for use with Gasoline/ethanol blends at levels designated as "gasohol" (E10 maximum).

Trademark and/or Tradename: "F. E. Petro", "HEALY"

[Last Updated](#) on 2016-05-30

[Questions?](#)

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Sealant Application Guide

This information is provided solely as a guide. Recommendations are based on a wide variety of customer experience. Federal Process suggests that users always test the product for compatibility prior to use.

GASOILA®
CHEMICALS

Soft-Set E-Seal Hard Set PLS-2 100 JC-30 NT Fas Seal ATS



Acids-Dilute
Acids-Concentrate
Air-Compressed
Alcohol
Aliphatic Solvents
Aromatic Solvents
Brine
Butane
Caustic-Dilute
Caustic-Concentrate
Chlorinated Solvents
Coal Tar
Cutting Oils
Diesel Fuels
E-10 and E-85 Gas
Ethanol 100%
Ethylene Glycol
Fatty Acids & Liquids
Freon
Gasoline
Glycerine
Heating Oils
Helium-Gaseous
Inert Gases
Jet Fuel
Kerosene
Ketones
LPG
Methanol 100%
Methyl Chloride
Mineral Oils
Naphthas
Natural Gas
Nitrogen-Gaseous
Petroleum Solvents
Propane
Refrigerants
Soap-Liquid
Steam
Toluene
Vegetable Oils
Water-Hot or Cold
Xylene



SMARTFLEX

SMARTFLEX Single & Double wall complete piping system is engineered for the conveyance of fuels, Gasoline mixtures E-85 and Bio-fuels. SMARTFLEX is the best certified choice for Product lines, Vent lines and Remote fill lines.

SMARTFLEX Piping System, Dispenser Sumps and Tank Sumps are 100% Ethanol Compatible.

For any additional questions and concerns, please contact me at:

John Autry - jautry@nupiamerica.com
National Sales Manager
Smart Flex Division
Office: 281-590-4471
Cell: 832-341-1213

John Autry
National Sales Manager
Smart Flex Division

Date:

NUPI Americas, Inc.

1511 Superior Way, Houston, TX 77039 Tel: (281) 590 4471 Fax: (281) 590 5268 E-mail: info@nupiamerica.com
Web: www.nupiamerica.com



July 23, 2019

Warren Cherner
Vice President
Metro Tank & Pump Co
Phone: 847-365-4000
Email: Warren@MetroTank.com

Dear Mr. Cherner,

Franklin Fueling Systems has determined that Fuel Ethanol, also known commercially as E85, containing 51 % to 83 % ethanol by volume, is compatible with AGB models of the Defender Series Over Fill Prevention Valve, specifically part numbers 708591921, 708591922, 708592921, 708592922, 708594901.

Sincerely,

A handwritten signature in blue ink, appearing to read "Loren Swalheim", with a long horizontal flourish extending to the right.

Loren Swalheim
Director, Global Technical Services
Franklin Fueling Systems



S. Bravo Systems, Inc.

2929 Vail Avenue
Commerce, CA 90040
1-800-AT-BRAVO
www.sbravo.com

Wednesday - August 25 - 2010

R3 10.21.13

RE: Bravo Fiberglass Sumps and Alternative fuels

This letter is to certify the compatibility of Bravo (S. Bravo Systems, Inc.) Single and Double Wall Fiberglass Containment Sumps with Alternative Fuels such as Biodiesel and Ethanol blended fuels. It also addresses compatibility with DEF Diesel Exhaust Fluid.

Bravo Fiberglass products are engineered with the same UL Listed materials used in the manufacture and certification of Fiberglass Tanks, matching the UL Standard 1316. Since our Fiberglass containment sumps are Built like a Tank, they can withstand continuous fuel exposure to Biodiesel, Ethanol and Alcohol blends without failure.

All DoubleWall Containment Sumps are engineered to be fully compliant with the California State Water Resource Control Board Assembly Bill AB-2481 for DoubleWall Sumps and Continuous Monitoring Systems.

The following Single and Double Wall Containment Sumps manufactured by Bravo Systems in Commerce, California are compatible with Biodiesel and Ethanol fuel blends up to B100 and E100, respectively.

- | | |
|---|--------------------------|
| > B3XX Series Spill Buckets | > B1XXX Series UDC Sumps |
| > B4XX Series Tank Sumps & Covers | > B7XXX Series UDC Sumps |
| > B5XX Series Planter Transition Sumps | > B8XXX Series UDC Sumps |
| > B6XX Series Walkover Transition Sumps | > B9XXX Series UDC Sumps |
| > B7XX Series H-20 Rated Transition Sumps | |
| > B8XX Series Transition Sumps | |

Bravo Systems also certifies that these products are compatible with and approved for use in secondarily containing DEF Diesel Exhaust Fluid.

Each respective Series may be UL Listed in addition to being manufactured of UL recognized materials approved for use in the manufacture of Fiberglass UST tanks. Any other relevant documentation will be located in the documents area of each product's respective webpage.

Please feel free to contact us with any questions you may have at 800-AT-BRAVO.

Additionally, you may find further information at www.sbravo.com.

Sincerely,

Jonathan E. Smith
Director of Brand Management
S. Bravo Systems, Inc.



**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER VR-102-Q

Relating to Certification of Vapor Recovery Systems

**OPW Phase I Vapor Recovery System
(Including Remote-Fill and Remote-Additive Configuration)**

WHEREAS, the California Air Resources Board (CARB) has established, pursuant to California Health and Safety Code Sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during the filling of underground gasoline storage tanks, in its Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities (CP-201), as last amended April 23, 2015, incorporated by reference in Title 17, California Code of Regulations, Section 94011;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of Phase I vapor recovery systems with emission standards;

WHEREAS, OPW Fueling Components, Inc. (OPW) requested and was granted certification of the OPW Phase I Vapor Recovery System (OPW System) pursuant to CP-201 by Executive Order VR-102-A, first issued on October 10, 2002, and last modified on August 18, 2016, by Executive Order VR-102-P;

WHEREAS, Executive Order VR-102-P expires on May 31, 2017;

WHEREAS, CP-201 provides a process for the renewal of Phase I EVR system certifications;

WHEREAS, CP-201 authorizes the Executive Officer to renew the certification of the OPW System if an evaluation determines that there are no identified deficiencies;

WHEREAS, additional time is necessary to gather and evaluate information needed to complete the certification renewal of the Husky Model 5885 pressure-vacuum (P/V) vent valve;

WHEREAS, CP-201 provides that the CARB Executive Officer shall issue an Executive Order if he or she determines that the vapor recovery system, including modifications, conforms to all of the applicable requirements set forth in CP-201;

WHEREAS, Executive Order G-01-032 delegates to the Chief of the Monitoring and Laboratory Division the authority to certify or approve modifications to certified Phase I and Phase II vapor recovery systems for gasoline dispensing facilities (GDF); and

WHEREAS, I, Michael T. Benjamin, Chief of the Monitoring and Laboratory Division, find that the OPW Phase I Vapor Recovery System (including components that are compatible with E85 fuel blends), as amended to include the components listed above, conforms with all of

the requirements set forth in CP-201, and results in a vapor recovery system which is at least 98.0 percent efficient as tested in accordance with test procedure TP-201.1, Volumetric Efficiency for Phase I Systems (July 26, 2012); and

NOW THEREFORE, IT IS HEREBY ORDERED that the OPW System is certified to be at least 98.0 percent efficient when installed and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components. Exhibit 2 contains the performance standards and specifications, typical installation drawings, and maintenance intervals for the OPW System as installed in a GDF. Exhibit 3 contains the manufacturing specifications. Exhibit 4 contains the manufacturer warranties. Exhibit 5 is the below-grade vaulted tank configuration.

IT IS FURTHER ORDERED that compliance with the applicable certification requirements, rules, and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board are made conditions of this certification.

IT IS FURTHER ORDERED that each component manufacturer listed in Exhibit 1 shall provide a warranty for the vapor recovery component(s) to the initial purchaser. The warranty shall be passed on to each subsequent purchaser within the warranty period. The warranty shall include the ongoing compliance with all applicable performance standards and specifications, and shall comply with all warranty requirements in Section 16.5 of CP-201. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer's warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

IT IS FURTHER ORDERED that the certified OPW system shall be installed, operated, and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manual. Equipment shall be inspected annually per the procedures identified in the CARB Approved Installation, Operation, and Maintenance Manual. This inspections requirement shall also apply to systems certified by Executive Orders VR-102-A to P. A copy of this Executive Order and the CARB Approved Installation, Operation, and Maintenance Manual shall be maintained at each GDF where a certified OPW System is installed.

IT IS FURTHER ORDERED that equipment listed in Exhibit 1, unless exempted, shall be clearly identified by a permanent identification showing the manufacturer's name, model number, and serial number.

IT IS FURTHER ORDERED that any alteration in the equipment, parts, design, installation, or operation of the system provided in the manufacturer's certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification, and is subject to enforcement action, unless the alteration has been submitted in writing pursuant to the process for Executive Order amendments set forth in Section 18 of CP-201 and approved in writing by the CARB Executive Officer or his delegate. Any sale, offer for sale, or installation of any system or component without CARB's approval as set forth above is subject to enforcement action.

IT IS FURTHER ORDERED that the following requirements be made a condition of certification. The owner or operator of the OPW system shall conduct and pass the following tests no later than 60 days after startup and at least once every three (3) years after startup testing, using the following test procedures. Shorter time periods may be specified by the District.

- TP-201.3, Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities (July 26, 2012);
- TP-201.1B, Static Torque of Rotatable Phase I Adaptors (October 8, 2003); and
- Depending on the system configuration, either TP-201.1C, Leak Rate of Drop Tube/Drain Valve Assembly (October 8, 2003) or TP-201.1D, Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves (October 8, 2003).

Districts may specify the sequencing of the above tests. Notification of testing and submittal of test results shall be done in accordance with District requirements and pursuant to the policies established by that District. Districts may require the use of alternate test form(s), provided they include the same minimum parameters identified in the datasheet referenced in the test procedure(s). Alternate test procedures, including the most recent versions of test procedures listed above, may be used if determined by the CARB Executive Officer or his delegate, in writing, to yield equivalent results. Testing the Pressure/Vacuum (P/V) vent valve will be at the option of the Districts. If P/V vent valve testing is required by the District, the test shall be conducted in accordance with TP-201.1E, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves (October 8, 2003) and Exhibit 2.

IT IS FURTHER ORDERED that the OPW system shall be compatible with gasoline in common use in California at the time of certification, including E85 (85% ethanol/15% gasoline) for specific components listed in Exhibit 1. Any modifications to comply with future California gasoline requirements shall be approved in writing by the CARB Executive Officer or his delegate.

IT IS FURTHER ORDERED that GDF installations permitted for E85 fuel that use the PV-ZERO-E85 P/V vent valve shall be subject to a throughput limitation of 1.2 million gallons per year (100,000 gallons per month).

IT IS FURTHER ORDERED that the certification of the OPW Phase I Vapor Recovery System with the exception of the Husky Model 5885 P/V vent valve is renewed and valid through May 31, 2021.

IT IS FURTHER ORDERED that to provide the Executive Officer with the necessary time to fully gather and evaluate information to make a determination regarding the renewal certification of the Husky Model 5885 P/V vent valve, the certification of the Husky Model 5885 P/V vent valve is extended through May 31, 2018.

IT IS FURTHER ORDERED that Executive Order VR-102-P, issued on August 18, 2016, is hereby superseded by this Executive Order. OPW Phase I Vapor Recovery Systems certified under Executive Orders VR-102-A through P may remain in use at existing installations for up to four year after the expiration date of this Executive Order when the certification is not renewed. This Executive Order shall apply to new installations or major modification of existing Phase I Systems.

Executed at Sacramento, California, this 29th day of May 2017.



Michael T. Benjamin, Chief
Monitoring and Laboratory Division

Attachments:

- Exhibit 1 OPW Phase I Vapor Recovery System Equipment List
- Exhibit 2 Installation, Maintenance and Compliance Standards and Specifications
- Exhibit 3 Manufacturing Performance Standards and Specifications
- Exhibit 4 Manufacturer Warranties
- Exhibit 5 Vaulted Aboveground Storage Tank Configuration (*Optional*)

Exhibit 1

OPW Phase I Vapor Recovery System Equipment List

Equipment **Manufacturer/Model Number**
(GAS/E85) = Identifies that these components are approved for standard gasoline & E85 fuel blends

Spill Containers¹

Direct Bury Spill Container OPW 1-Series (GAS/E85)
(Figure 1-1)

1-2100 Series

1WW-21XXY-ZEVR -G

1-2200 Series

1WW-22XQZ-G

1-3100 Series

1WW-3VVUTZ-G

1-Series legend

WW A or Blank (Aluminum Cover)

 C (cast Iron or Ductile)

 SC (Sealable Cover, Cast Aluminum)

 PC (Plow Ring Rain Tight Cast Iron Ductile,
 1-2000 only)

 PSC (Plow Ring Sealable Cover, Cast
 Aluminum, 1-2200 only)

XX 00 (5 Gal)

X 0 (5 Gal)

Y C (Cast Iron Base)

 Blank (composite base)

Z D (drain valve)

 P (plug)

VV 1 (5 gallon)

 15 (15 gallon)

 7 (5 gallon, steel cover)

U 0 (no gauge)

 1 (float gauge)

 2 (sensor)

 3 (float and sensor)

 4 (alternate sensor)

T 1 (single wall, cast iron 2100 style base)

 2 (double wall)

 3 (single wall, cast iron 3100 style base)

Q 0 (flange adaptor, cast iron base)

 4 (no flange, 4" thread cast iron base)

G Color (varies)

¹ Drain valves are an optional component for OPW 1-Series product spill containers. If a drain valve is not installed in the OPW 1-Series product spill container, then either an OPW factory installed drain plug or OPW field drain plug kit 1DP-2100 must be installed.

Exhibit 1 (continued)

OPW Phase I Vapor Recovery System Equipment List

<u>Equipment</u>	<u>Manufacturer/Model Number</u>
Spill Containers	Multiport Spill Container OPW 1-Series (GAS/E85) (Figure 1-2) 1-2100SH Series 1-2100Y-ZSH P700 Series P7MM-HHKK P500 Series P5MM-ZHHBJJJ P5MM-NN-HHKK 1-Series legend MM 11 (Composite Base) 11C (Cast Iron Base) 61 (Cast Iron Base) 61C (Cast Iron Base) NN Blank (5 gallon) 15 (15 gallon) HH EVR (Enhanced Vapor Recovery) FL (Fibrelite) KK DV (drain valve) PL (plug) Y C (Cast Iron Base) Blank (composite base) Z D (drain valve) P (plug) JJJ -14 (14" center spacing) BUCKET (16" or larger center spacing)
Replacement Drain Valve Kit	OPW 1DK-2100 (GAS/E85)
Replacement Drain Plug Kit	OPW 1DP-2100 (can be used with any OPW 1-Series Spill Containers) (Figure 1-3 and Figure 1-4)
Dust Caps	OPW 634LPC (product) (GAS/E85) (Figure 1-5) OPW 1711LPC (vapor) (GAS/E85) (Figure 1-6)

Exhibit 1 (continued)

OPW Phase I Vapor Recovery System Equipment List

<u>Equipment</u>	<u>Manufacturer/Model Number</u>
Dust Caps (continued)	OPW 634TT-EVR (product) (GAS/E85) (Figure 1-7) OPW 1711T-EVR (vapor) (GAS/E85) (Figure 1-8) CompX CSP1-634LPC (Figure 1-9) CompX CSP3-1711LPC (vapor) (Figure 1-10) CompX CSP2-634LPC (product) (Figure 1-11) CompX CSP4-1711LPC (vapor) (Figure 1-12)
Product Adaptor	OPW 61SALP (Figure 1-13) OPW 61SALP-MA (GAS/E85) (Figure 1-15)
Vapor Adaptor	OPW 61VSA (Figure 1-14) OPW 61VSA-MA (GAS/E85) (Figure 1-16)
Pressure/Vacuum Vent Valve	FFS PV-Zero (GAS/E85) (Figure 1-17) OPW 723V (Figure 1-18) Husky 5885 (Figure 1-19)
Jack Screw Kit	OPW 61JSK-4410 (Only used with Composite Base Spill Container) (Figure 1-20) OPW 61JSK-44CB (Only used with Cast Iron Base Spill Container) (Figure 1-20) OPW 61JSK-4RMT (Only Used on Remote-Fill Configuration) (Figure 1-20) OPW 71JSK-44MA (GAS/E85) (Figure 1-21) OPW 71JSK-4RMT (GAS/E85) (Figure 1-21)
Face Seal Adaptor	OPW FSA-400 OPW FSA-400-S (GAS/E85) (Figure 1-22)
Drop Tube	OPW 61T (various lengths) OPW 61T-SS (various lengths) (GAS/E85)

Exhibit 1 (continued)

OPW Phase I Vapor Recovery System Equipment List

<u>Equipment</u>	<u>Manufacturer/Model Number</u>
Drop Tube Overfill Prevention Device ²	OPW 61SO (Figure 1-23) OPW 61SOM-412C-EVR (GAS/E85) OPW 71SO (Figure 1-24) OPW 71SO Testable (Figure 1-25) OPW 71SOM-412C (GAS/E85) (Figure 1-26)
Multiport	OPW (Configuration Only)
Remote Fill	OPW (Configuration Only)
Remote Additive Fill	OPW (Configuration Only)
Tank Bottom Protector²	OPW/Pomeco 6111-1400
Tank Gauge Port Components²	OPW 62M (Cap and Adaptor) (Figure 1-27) OPW 62M-MA (GAS/E85) (Figure 1-28) Morrison Brothers 305XPA1100AKEVR (GAS/E85) (cap & adaptor kit) Morrison Brothers 305-0200AAEVR (GAS/E85) (replacement adaptor) Morrison Brothers 305XP-110ACEVR (GAS/E85) (replacement cap) Veeder-Root 312020-952 (cap & adaptor)
Fuel Lock²	McGard FL1 – Stick Only Fuel Lock (125007) (GAS) (Figure 1-29) McGard FL2 – Stick/Sampling Fuel Lock (125008) (GAS) (Figure 1-29)
Bladder Plug	McGard PSI104
Emergency Vent	Exhibit 5 (for below-grade vaulted tank configuration)

² If these components are installed or required by regulations of other agencies, only those components and model numbers specified above shall be installed or used.