



Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

JUN 18 2009

Mr. Jeff Deaton  
Design and Development Engineer  
Husky Corporation  
2325 Husky Way  
Pacific, MO 63069

APPROVAL LETTER 2009-2

Dear Mr. Deaton:

This letter is to inform you and Husky Corporation, of the Missouri Department of Natural Resources approval of the Husky 5885 pressure vacuum relief valve (P/V), for use in Missouri Stage II vapor recovery required gasoline dispensing facilities.

Husky Corporation requested the approval of the Husky 5885 EVR P/V valve at a Technical Review Committee meeting on August 21, 2008. The Husky 5885 EVR P/V valve is designed for use with vapor recovery systems. The vapor mechanism is exactly the same as the already approved Husky 4885 EVR P/V valve (MO 2006-1). The only difference between the Husky 4885 and 5885 is the addition of an internal screen to remove particulates coming up from the stack. The Husky 5885 EVR P/V valve has been CARB certified and approved (CARB 08-04) as the only Phase I EVR approved P/V valve as of October 1, 2008.

Subsequently, as there was no change in the P/V valve basic vapor construction, the TRC agreed that the Husky 5885 P/V valve could be approved with an engineering evaluation.

The MOPETP Technical Review Committee determined that a combination of engineering review along with some site testing would be required. The Husky 5885 EVR P/V valve was also placed on the vent at the Costco South County site for durability testing from September 24, 2008, through February 18, 2009, and still in place at the site. The valve (SN 2696830) passed the initial bench testing (MOTP-02) along with an archive copy (SN 2696810) at the Husky laboratory on September 23, 2008, before being placed on the vent at the site. The valve was removed from the vent and tested using both the MOPETP and compliance test methods at the site on February 18, 2009. The P/V valve passed all bench tests and also passed the system leak decay test on both testing days.

The results of the bench testing (MOTP-02) for all tests are provided graphically, in Figure 2.

### Approval Conditions

The Husky 5885 EVR P/V valve is approved with the following requirements/conditions:

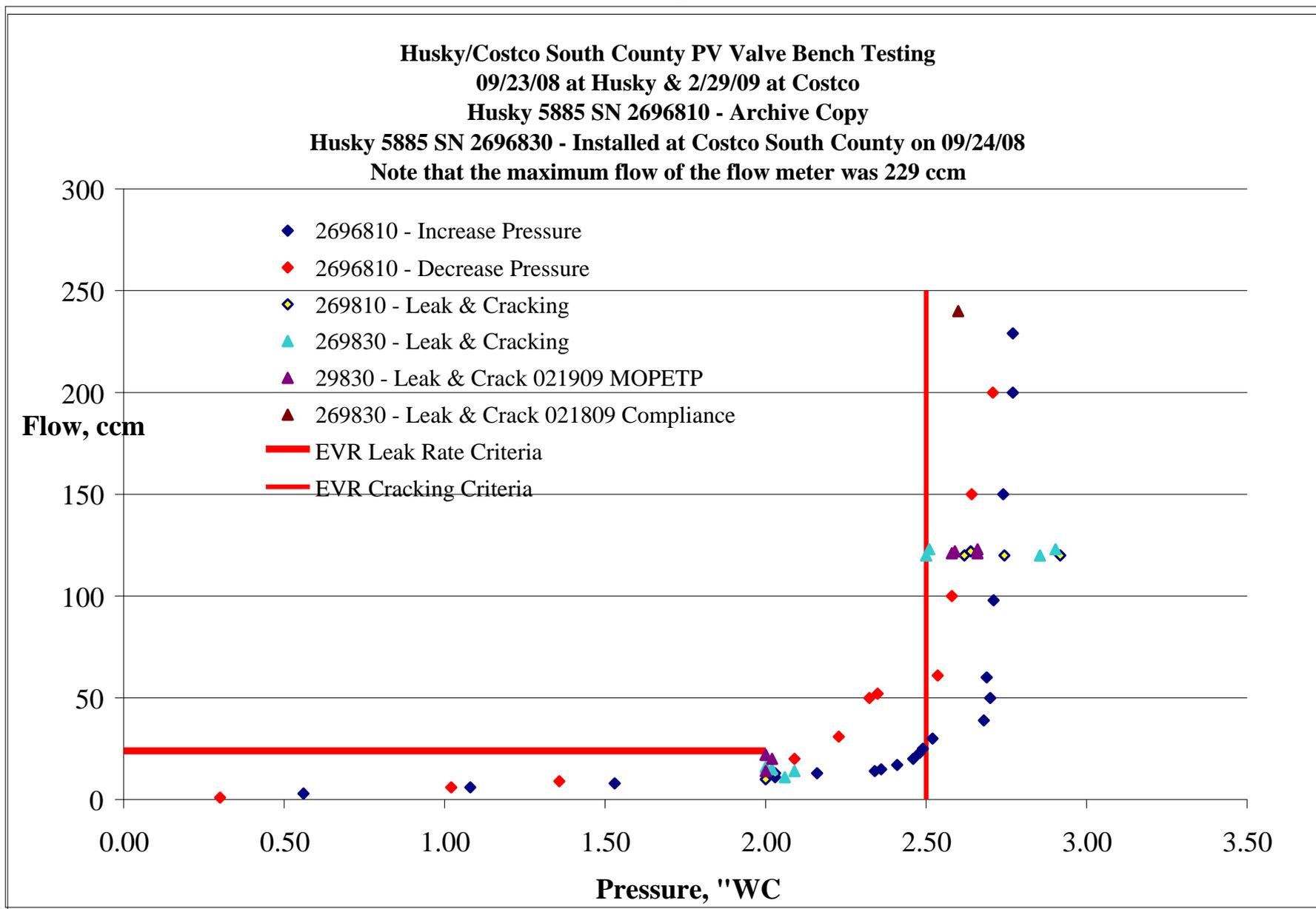
1. The Husky 5885 EVR P/V valves must be marked as shown on the archive sample and the photos in Attachment A.
2. The Husky 5885 EVR P/V valves must be installed according to the manufactures installation instructions (see Attachment B).
3. The older Husky 4885 P/V valves will no longer be approved for, new installations, or for replacement of existing valves. However, existing 4885 P/V valves may remain in service until expiration date or failure of bench testing.
4. All requirements and conditions of the CARB 08-04 are adopted by reference.

**Figure 1**

Husky 5885 EVR PV valve showing required markings



Figure 2

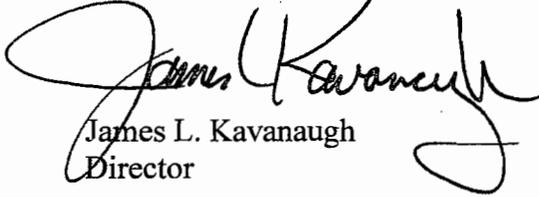


Mr. Jeff Deaton  
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Thank you for your cooperation in the MOPETP process. If you should have any questions about this approval, please contact Mr. Bud Pratt at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, or by telephone at (573) 751-4817.

Sincerely

AIR POLLUTION CONTROL PROGRAM



James L. Kavanaugh  
Director

JLK:bpt

Enclosures

c: Vapor Recovery

# Attachment A

	MODEL #5885 Recommended Installation, Maintenance and Inspection Instructions	5885
	<b>EVR Pressure Vacuum Vent</b>	

<sup>a</sup> WARNING Designed for use at motor fuel dispensing facilities only.

## INSTALLATION INSTRUCTIONS

NOTE: Always adhere to installation / usage instructions and warnings. Improper use may result in injury, damage or hazardous spill.

1. Remove the vent from the carton and visually inspect for any shipping damage.
2. Apply fuel resistant pipe sealant to the threads on the 2" vent stack.
3. Screw the Pressure Vacuum (P/V) vent onto the vent stack and tighten to a range of 20 to 50 ft-lbs with a suitable wrench.
4. DO NOT OVERTIGHTEN

## TESTING / MAINTENANCE / INSPECTION

Testing Criteria Per TP201.1E and Exhibit 3 of applicable Phase 1 E.O.

Leak rate: Pressure = .05 CFH @ 2" wc, Vacuum = .21 CFH @ -4" wc.  
Cracking Pressure = 2 1/2" to 6" wc, Vacuum = -6" to -10" wc.



*Annually Inspect the P/V vent valve for foreign objects:*

1. Remove the screws that hold on the top cover. Do not remove the screens.
2. Remove any debris from inside the lower cover.
3. Check the drain holes in the lower cover.
4. Reinstall the top cover.
5. Tighten the screws firmly.

- All drive aways, maintenance and inspection activities must be logged using the serial number of the individual product.
- Apply city, state, or federal testing regulations as appropriate.

**ANY TEST / INSPECTION FAILURE REQUIRES IMMEDIATE EQUIPMENT REPLACEMENT OR REMOVAL FROM SERVICE.  
MADE IN THE USA**

## TROUBLESHOOTING GUIDE

Pressure Decay Test Failure...	1. Test vent to CARB TP201.1E. 2. Replace vent.
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### For stations with ISD monitoring

Vapor leak...	1. Verify other equipment is not the cause. 2. Test vent to CARB TP201.1E 3. Replace vent.
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Exceeds allowable system cracking pressure...	1. Replace vent
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## GENERAL TECHNICAL DATA

Fuel Type	Test and warranty for gasoline and diesel fuel
Body	Sand cast aluminum
Screens	Stainless Steel 40 mesh
Seal	Nitrile Foam
Covers	Aluminum
Weight	1.2 lbs
Threads	2" NPT
Case Quantity	20
Listings	CARB 
Patents	5,957,157

## ACCESSORIES

### **Part #5041 3" to 2" Threaded Adaptor**

#### Installation Procedure:

1. Visually inspect the o-ring and threads for chips, dirt & debris.
  2. Apply fuel resistant pipe sealant to the 3" NPT threads of the vent pipe.
  3. Screw the P/V vent adaptor onto the vent stack by hand.
  4. Apply fuel resistant pipe sealant to the 2" NPT threads of the P/V vent adaptor.
  5. Screw the P/V vent onto the adaptor and tighten to a range of 20 to 50 ft-lbs. with a suitable wrench. Do not overtighten.
- 

### **Part #5426 Test Adaptor**

NOTE: This adaptor is designed to fit on the inlet of the P/V Vent to allow for field and lab tests.

#### Installation Procedure:

1. Screw P/V Vent adaptor into the P/V Vent valve until hand tight. Make sure the seal is compressed.
2. Place the P/V Vent valve and adaptor on a flat surface.
3. Attach a 3/16" hose (Tygon fuel tubing) from test apparatus to hose barb on the side of the adaptor.
4. After testing, remove hose from barb and remove adaptor from vent.

## Attachment B



Linda S. Adams  
Secretary for  
Environmental Protection

### Air Resources Board

Mary D. Nichols, Chairman  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



Arnold Schwarzenegger  
Governor

September 26, 2008

# 08-04a

Mr. Brad Baker  
Executive Vice President  
Husky Corporation  
2325 Husky Way  
Pacific, Missouri 63069

Dear Mr. Baker:

HUSKY MODEL 5885 PRESSURE/VACUUM VENT VALVE IS THE REQUIRED  
REPLACEMENT PART FOR PHASE I ENHANCED VAPOR RECOVERY (EVR)  
SYSTEMS ON OCTOBER 1, 2008

In response to information provided by Husky Corporation (Husky), the California Air Resources Board (ARB) has determined that the Husky Model 5885 Pressure/Vacuum (P/V) vent valve is commercially available as a replacement part for all Phase I EVR systems and other Phase I systems installed at gasoline dispensing facilities (GDFs) as described below.

As of October 1, 2008, the Husky Model 5885 P/V vent valve is approved as the only replacement P/V vent valve for the Phase I vapor recovery systems as shown in Table 1. Listed in the table are Executive Orders for all Phase I EVR systems and the Executive Orders for the Phase I components of a number of vapor recovery systems for aboveground storage tanks (ASTs).

The Husky Model 5885 P/V vent valve has met the operational standards and specifications of the ARB's Certification Procedures for Vapor Recovery Systems at Gasoline Dispensing Facilities, including CP-201, dated May 25, 2006, and CP-206, dated May 2, 2008. The P/V vent valve has been determined to be compatible with the Phase I vapor recovery systems listed in Table 1. Finally, the Husky Model 5885 P/V vent valve has also been determined to be commercially available as a replacement part in accordance with Section 19.1 of CP-201 and Section 20.1 of CP-206.

The Husky Model 5885 P/V vent valve is the required replacement P/V vent valve for all Phase I EVR Executive Orders with the exception of Executive Order VR-101-K as it applies to the storage of E85 fuel (85 percent ethanol and 15 percent gasoline).

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

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**Table 1**  
**Executive Orders for Phase I Vapor Recovery Systems**

<b>Executive Order Number, including revision letter</b>	<b>Description</b>
VR-101 A through K	<a href="#">Phil-Tite Phase I Vapor Recovery System</a>
VR-102 A through I	<a href="#">OPW Phase I Vapor Recovery System</a>
VR-103 A through D	<a href="#">EBW Phase I Vapor Recovery System</a>
VR-104 A through D	<a href="#">CNI Manufacturing Phase I Vapor Recovery System</a>
VR-105 A through B	<a href="#">EMCO Wheaton Retail Phase I Vapor Recovery System</a>
G-70-97-A	<a href="#">Stage I Vapor Recovery Systems for Underground Gasoline Tanks at Service Stations</a>
G-70-102-A	<a href="#">Certification of a Phase I Vapor Recovery System for Aboveground Storage Tanks with less than 40,000 Gallons Capacity for Gasoline</a>
G-70-142-A and B	<a href="#">Phase I Vapor Recovery System for Aboveground Gasoline Storage Tanks</a>
G-70-150 AE	<a href="#">Modification to the Certification of the Marconi Commerce Systems (MCS), Inc. "Formerly Gilbarco" Vapor Vac Phase II Vapor Recovery System (includes Phase I equipment)</a>

As noted in the above table, the Husky Model 5885 P/V vent valve is the approved replacement component for Phase I vapor recovery systems at ASTs covered by the following Executive Orders: G-70-97A, G-70-102-A, G-70-142-B, and G-70-150AE, which includes requirements for Phase I equipment. A number of GDFs with ASTs, including those with below-grade vaulted tanks, must upgrade to EVR-certified Phase I systems by January 1, 2013. Operators of GDFs with ASTs are advised to contact the local air pollution control district or air quality management district for applicable district requirements for Phase I vapor recovery systems.

District inspectors will be able to determine that a P/V vent valve installed at a GDF is in compliance with this requirement by checking the label on the outer shell, including the manufacturer name and model number, and/or the date stamp at the top of the P/V vent

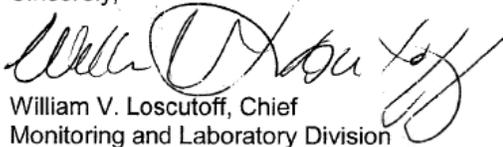
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valve. The enclosure shows the approved Husky Model 5885 P/V vent valve, two versions of the Husky Model 4885 P/V vent valve, and the OPW Model 623 P/V vent valve. The approved Husky Model 5885 valve has two yellow labels with black letters. One label provides the performance specifications and the other label has the words, **EVR Approved**. Any Husky Model 4885 or OPW Model 623 P/V vent valve manufactured on or after October 1, 2008, can not be installed in California. The OPW Model 623 P/V vent valve has a production date stamp (month/year) at the top of the valve. The Husky Model 4885 P/V vent valve has a **remove after** date stamp at the top that is five years after the month and year of production. Husky will further identify the 4885 valves that are not approved for sale in California by a green label containing the performance specifications and the statement, **Not approved for use in California**.

Lastly, unless a P/V vent valve needs to be replaced, GDFs with a P/V valve(s) listed under the Executive Orders listed in Table 1 and in all the approval letters pertaining to the Executive Orders may continue their use, either for the remainder of their useful life or the allowable in-use period, as provided in Section 19.1 of CP-201 and in Section 20.1 of CP-206. The final deadline by which to remove all Husky Model 4885 P/V vent valves and OPW Model 623 P/V vent valves at GDFs for underground storage tanks in California is May 31, 2012.

If you have questions or need further information regarding this letter, please contact Frances Cameron at (916) 445-9314 or via email at [fcameron@arb.ca.gov](mailto:fcameron@arb.ca.gov), or Pat Bennett at (916) 322-8959 or via email at [pbennett@arb.ca.gov](mailto:pbennett@arb.ca.gov).

Sincerely,

  
William V. Loscutoff, Chief  
Monitoring and Laboratory Division

Enclosure

cc: See next page

Mr. Brad Baker  
September 26, 2008  
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cc: Jim Swaney  
San Joaquin Valley Air Pollution Control District

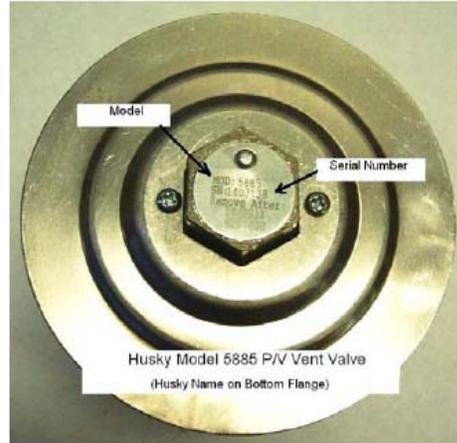
John Marvin  
Bay Area Air Quality Management District

Gary Ma  
Yolo-Solano Air Quality Management District

Danny Luong  
South Coast Air Quality Management District

Randy Smith  
San Diego County Air Pollution Control District

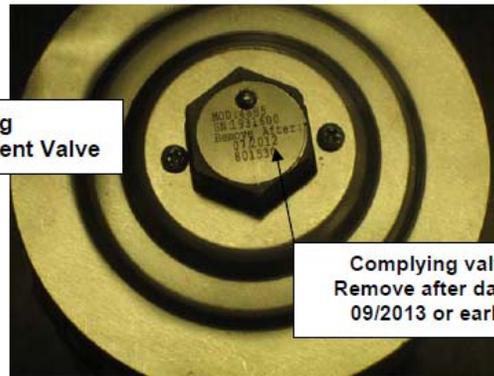
**Attachment 1: Complying Husky Pressure/Vacuum Vent Valves**



**Complying Husky 5885 P/V Vent Valve**

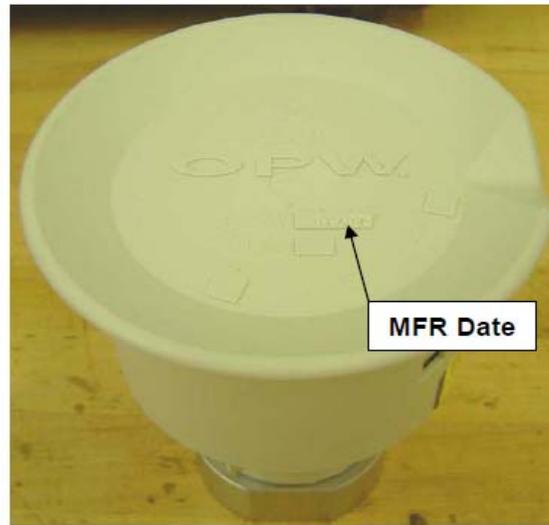


**Complying Husky 4885 P/V Vent Valve**



**Complying valve: Remove after date is 09/2013 or earlier**

**Attachment 1, continued: Complying OPW Pressure/Vacuum Vent Valve**



**OPW 623V P/V Vent Valve**  
MFR date is 09/08 or earlier

**Not approved for use in California Husky 4885 Pressure/Vacuum Vent Valve**  
(Remove after date is 10/2013 or after)



**OPW 623V is not approved in Missouri at this time.**