



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

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

JUN 19 2009

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

APPROVAL LETTER 2009-5

Dear Mr. Deaton:

This letter is to inform you and Husky Corporation, of the Missouri Department of Natural Resources approval of the Husky 5827 Balance Flow Equalizer, for use in Missouri Stage II vapor recovery required gasoline dispensing facilities.

Husky Corporation requested the approval of the Husky 5827 Balanced Flow Equalizer at a Technical Review Committee (TRC) meeting on August 21, 2008. The Husky 5827 Balanced Flow Equalizer is designed to reduce gasoline dispensing flows to a maximum of 10 gpm (the Federal dispensing limit). Four Husky 5827 Balanced Flow Equalizers were approved as part of the Husky VLX nozzle approval (2007-1) having been tested as part of a full system along with Husky VLX nozzles at the Costco St. Peters facility in November 2007. Separate approval was requested at the August 21, 2008, TRC meeting. Twelve Husky 5827 Balance Flow Equalizers were installed on September 24, 2008, at the Costco South County facility for testing.

The Husky 5827 Balance Flow Equalizer has been CARB certified and approved (CARB 96-13) for use with CARB approved Phase II vapor recovery systems. Subsequently, as there was no change in the balance flow equalizer's basic construction, the TRC agreed that the Husky 5827 balance flow equalizer could be approved with limited testing and an engineering evaluation.

The twelve Husky 5827 Balance Flow Equalizers were hung at the Costco South County site from September 24, 2008, through present and tested on September 24, 2008, and February 18, 2009, (MOTP-03 and MOTP-04). The Husky 5827 was also bench tested for backpressure using MOTP-02 on September 23, 2008. All tests were passed.

The only problem noted with the Husky 5827 Balance Flow Equalizers was that one was found to be missing the internal connection to the Goodyear LX hose causing liquid gasoline to flow

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into the vapor area and causing meter creep (November 17, 2008). The hose had been disposed of before the question of where the internal connection was so it is uncertain what happened. Also, one Husky 5827 had to be replaced due to a drive off on January 31, 2009. No problems were reported during the testing at the Costco St. Peters facility in November 2007.

Approval Conditions

The Husky 5827 Balance Flow Equalizer is approved with the following requirements/conditions:

1. The Husky 5827 Balanced Flow Equalizer must be marked as shown in Figure 1.
2. The Husky 5827 Balanced Flow Equalizer must be installed according to the manufacturers installation instructions (see Figure 2 and Figure 3). Note that the equalizer may be installed directly into the dispenser casting or into the breakaway.
3. The Husky 5827 Balanced Flow Equalizer is to be used to reduce the gasoline dispensing flow to 10 gpm or less.
4. All requirements and conditions of the CARB 08-04 are adopted by reference.

Figure 1. Husky 5827 Balance Flow Equalizer showing required markings



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Figure 2
Husky 5827 Balanced Flow Equalizer installed after the Husky 5900 STB

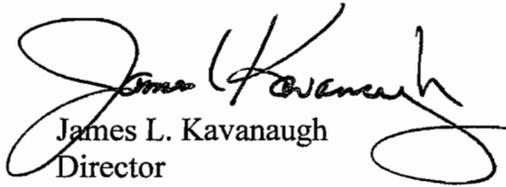


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Thank you for your cooperation in the MOPETP process. If you should have any questions about this approval, please contact Mr. Bob Randolph at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, by email at bob.randolph@dnr.mo.gov or by telephone at (573) 751-4817.

Sincerely

AIR POLLUTION CONTROL PROGRAM



James L. Kavanaugh
Director

JLK:brt

Enclosures

c: Vapor Recovery

Attachment A



Cal/EPA
California
Environmental
Protection
Agency



Air Resources Board

P.O. Box 2815
2020 L Street
Sacramento, CA
95812-2815

June 12, 1996



Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

Arthur C. Fink, Jr.
Vice President of Engineering
Husky Corporation
1+ Dailey Industrial Park
Post Office Box 67
Pacific, Missouri 63069

Dear Mr. Fink:

#96-13

Approval of the Husky Models 4490 & 5827 Flow Regulators

You requested California Air Resources Board (CARB) certification of the Husky Models 4490 and 5827 fuel flow regulator units. These devices are designed to limit the dispensing rate of gasoline to 10 gallons per minute (gpm) at any pressure up to 50 psig.

The model 4490 flow regulator can be utilized on any type of gasoline dispensing system. It is equipped with 3/4" female threads at both ends, and is mounted either on the product line under the dispenser or the 3/4" fuel hose before it connects to the coaxial adapter at the side of the dispenser.

The model 5827 flow regulator is equipped with the standard male and female coaxial hose fittings used on vapor recovery systems, and is mounted on the coaxial hose either at the dispenser connection or at the breakaway. Product flows through the inner passage and displaced vapor from the vehicle is returned through the outer passage.

Both units shall be installed in accordance with the manufacturer's instructions and all applicable codes. The manufacturer's name, model number, and direction of flow shall be incorporated as part of the U.L. Listing Mark. The Listing Mark shall be a U.L. approved adhesive backed label. The lot number shall be etched into the aluminum body at assembly.

As required by CARB certification procedures, the necessary approvals from the Office of the State Fire Marshal and the Division of Occupational Safety and Health have been obtained. I find that the use of the 4490 and 5827 flow regulator units, when properly installed, will not adversely affect the performance of the vapor recovery system. Therefore, the Husky Models 4490 and 5827 product flow regulators are certified for use with CARB approved Phase II vapor recovery systems.

If you have any questions or need further assistance, please contact Ranjit Bhullar at (916) 323-7370 or Laura McKinney at (916) 327-1525.

Sincerely,

A handwritten signature in black ink, appearing to read "James J. Morgester".

James J. Morgester, Chief
Compliance Division

cc: Mr. Jim Johnson, Chairman
CAPCOA Vapor Recovery Committee

Mr. Gary Hunter, Manager
CARB Compliance Assistance Section