

**ROUSH INDUSTRIES, INC.**777 Republic Drive  
Allen Park, Michigan 48101**VIA UPS OVERNIGHT and EMAIL (RMD.ODI@dot.gov)**

May 27, 2011

Mr. Frank Borris  
Director, Office of Defects Investigation  
National Highway Traffic Safety Administration (NVS-200)  
400 Seventh Street, SW  
Washington, D.C. 20590Re: Roush Industries, Inc.  
Defect Information Report

Dear Mr. Borris:

Enclosed please find Roush Industries' Defect Information Report pertaining to a defective valve installed on the fuel rail service port of the Roush Liquid Propane Autogas Fuel System ("Kit") that may be installed on model year 2009, 2010 and 2011 Ford E-Series Vans/Wagons/Shuttles/Cutaways (150, 250 and 350) with 5.4L Engines, and model year 2011 Ford E-450 Cutaways with 6.8L Engines. These Kits are advertised and sold in the market as the "ROUSH CleanTech Liquid Propane Autogas Fuel System". Should you need to speak with someone regarding this report, please do not hesitate to contact me directly:

Joseph Thompson  
President of Roush Clean Tech acting as the  
Authorized Representative of Roush Industries, Inc.  
Roush Industries, Inc.  
777 Republic Drive  
Allen Park, Michigan 48101  
Phone: (734) 466-6255  
Facsimile (734) 466-6940  
email: joseph.thompson@roush.com

Thank you,

A handwritten signature in black ink, appearing to read "J. Thompson", written over a horizontal line.

Joseph Thompson  
President of Roush Clean Tech acting as the  
Authorized Representative of Roush Industries, Inc.

Enclosure

cc: J.R. Jolliffe/Roush – General Counsel  
K. Weinstein/ Mayer, Brown LLP

## DEFECT INFORMATION REPORT

1. **Manufacturer's name/address:**

Roush Industries, Inc. ("Roush")  
777 Republic Drive  
Allen Park, Michigan 48101

2. **Equipment involved in this defect notification:**

The Roush branded "ROUSH CleanTech Liquid Propane Autogas Fuel System" ("Kit") used for installation on MY 2009, 2010 and 2011 Ford E-Series Vans/Wagons/Shuttles/Cutaway (150, 250 and 350) with 5.4L engines ("E-Series"), and MY 2011 Ford E-450 Cutaways with a 6.8L engine ("E-450 Cutaway"). The defect arises from a problem with the valve installed in the fuel rail service port of the Kit. The valve was manufactured by the following supplier ("Supplier"):

Schrader Bridgeport International, Inc.  
205 Frazier Rd  
Alta Vista, VA 24517

The country of origin of the valve is the United States of America.

3. Total number of equipment items and their part numbers: 140

- (a) 20 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P10C2-R150KIT-AA** .
- (b) 1 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P10C2-R150KIT -AC** .
- (c) 7 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P10C2-R350KIT -AC**.
- (d) 1 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P11C2-R150KIT -AA**.
- (e) 42 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P11C2-R150KIT -AB** .
- (f) 1 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P11C2-R350KIT -AA** .
- (g) 5 E-Series of the Roush branded Kit.  
The Kit is marked as Part # **P11C2-R350KIT -AB** .
- (h) 15 E-350 Shuttle of the Roush branded Kit.  
The Kit is marked as Part # **P10-SO-RKIT -BA**.
- (i) 16 E-450 Cutaway of the Roush branded Kit.  
The Kit is marked as Part # **PBC2-RKIT158- AB**.
- (j) 28 E -450 Cutaway of the Roush branded Kit.  
The Kit is marked as Part # **PBC2- RKIT176-AB**.
- (k) 4 E-450 Cutaway of the Roush branded Kit.  
The Kit is marked as Part # **PBC2-RKITMB-AC**.

4. **Approximate percentage of vehicles or equipment estimated to actually contain the defect:**

Roush has determined that approximately 20% of the Kits may contain the defect, however, Roush will include all Kits identified in item 3, above, in the recall.

**5. Description of the defect:**

The valve installed in the fuel rail service port of the Kit may be out of specification. This could result in insufficient compression on the o-ring and possible leakage of propane autogas.

**6. Chronological summary of events leading to this determination:**

Roush first became aware of a potential issue on May 6, 2011, when it received a call from a Roush CleanTech Authorized Service Center advising that the smell of liquid propane autogas was coming from the engine compartment of four recently delivered E-450 Cutaways in which the Kit had been installed. Upon investigation, the Roush CleanTech Authorized Service Center found a small amount of frost encircling the service port surface of each fuel rail, which indicated an apparent gas leak. Roush promptly commenced an internal investigation. Roush's investigation determined that approximately 20% of the machined-batched valves delivered from the supplier, Schrader Bridgeport International, Inc. ("Supplier"), on 10/8/2010, 1/7/2011 and 5/6/2011, which were installed in the service port of fuel rails of the Kit, were under the minimum specification for diameter. This led to insufficient compression of the o-ring and inadequate sealing performance at the fuel rail service port that could cause leakage of propane autogas.

On May 16, 2011, Roush contacted the Supplier, who confirmed that (a) it used a new outside machining supplier to machine valves without qualifying the machine processes or inspecting the parts, which allowed a high percentage of out-of-spec parts to be shipped, and (b) that the valves delivered to Roush on 10/8/2010, 1/7/2011 and 5/6/2011 were, in fact, machined by the new supplier.

Roush is not aware of any fires or other adverse safety consequence associated with this problem. Also, Roush believes that it is unlikely that the fuel leaks in question would have adverse safety consequences. Nevertheless, based on the information developed during its investigation, on May 20, 2011, Roush decided that a defect related to motor vehicle safety exists in Vehicles equipped with a Kit in which valves delivered on the three dates specified above were installed.

**7. Description of proposed remedy:**

The remedy for this condition will consist of removal of the existing valve from the fuel rail service port and replacing it with a new properly-machined valve.

**8. Program for remedy campaign (including program for reimbursing any consumer who obtained the remedy at his/her own expense within one year of the opening of the EA, or within one year of this 573 report, whichever is earlier):**

Working with the companies that installed the Kits in vehicles, Roush has already contacted all of the fleets that purchased the affected vehicles by telephone, in order to arrange for the free replacement of the valves in each such vehicle. Roush has sent out the replacement valves to all the customers.

In view of the fact that all of the affected vehicles are still under warranty, there is no need for a reimbursement program.