



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Memorandum

MEMO 7/14/2009 TO FILE FROM ODI



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Memorandum

Subject: ACTION: EA08-010 Memo to Public File

Date: July 14, 2009

From: Derek Rinehardt
Office of Defects Investigation

In Reply Refer To: NVS-213

To: Randy Reid,
Correspondence Research Division
Office of Defects Investigation

This memorandum describes certain data acquired by the Office of Defects Investigation in support of EA08-010 (closed investigation – 9/8/08) as described below and requests that it be added to the publicly accessible electronic data repository in Artemis in association with investigation EA08-10. While every effort is made to disclose data related to the subject investigation, certain data contained in investigation files may be confidential, privileged, or otherwise contain data protected from public disclosure pursuant to “The Privacy Act of 1974” 5 U.S.C. § 552a, “The Freedom of Information Act” 5 U.S.C. § 552, and/or 49 C.F.R. Part 512.

Attachments:

1. A copy of an email sent to Jeff Quandt on 5/27/09 from Joe Trubak of M-Heat Investors, LLC in reference to NHTSA investigation EA08-010.



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Memorandum

MEMO 5/27/2009 TO ODI FROM
MICROHEAT

From: Joe Trubak [mailto:joe.trubak@microheat.com]
Sent: Wednesday, May 27, 2009 2:03 PM
To: Quandt, Jeff (NHTSA)
Subject: RE: Contact information

Dear Mr. Quandt,

Thank you for taking my telephone call and spending the time to discuss the GM vehicle fires.

As I explained to you, the purpose of my call was to express my frustration of how I thought GM was purposely misdirecting their response regarding the letter that Gay Kent sent to you dated May 13, 2009 regarding the MicroHeat Transient report.

Per the May 13th letter, the first M-Heat Claim is that in 2006 GM requested Microheat to increase a protection diode to 400V due to vehicle transients. GM's response focused on a PV test issue in 2008. Everything they state in the paragraph is true. However, it is regarding a different diode change, diode D4 & D5, that has absolutely nothing to do with the Microheat test report. The Microheat Engineering Test Report specifically references components D1, Q1, C33, Q6, Q7 and D13 through D16. Furthermore, in our conversation you referenced moisture causing field issues. Up until this transient testing, all testing focused on contaminated moisture on the printed circuit board. This contaminated moisture test showed signs of copper trace etching and different component failures not present in the field failures. The Transient Test Report conclusion goes into detail comparing the field failures with the lab transient failures and their similarities.

The second point GM addressed is the transient on the battery (not switched) line. The GM specification calls for the transient test to be run on this line. GM's statement that they are "unaware of any warranty claims on other electronic modules related to voltage transients" is quite amazing. GM engineers requested Microheat to increase the input diode D1 voltage rating to 400 volts in 2006 because they were experiencing other field failures. GM personnel and the NHTSA web site state that GM has numerous unwanted activations of heaters, windows, seats, etc, and fires that they can't explain. All of these could be a result of a transient issue. In addition, in the past Microheat was accused of a GM vehicle fire that ultimately was determined to be caused by the Bussed Electrical Center (BEC). This particular device is mounted within inches of the heated wash unit in the vehicle. This BEC device is full of high current circuits with a multilayer printed circuit board and I would assume susceptible to transients.

Although I do not have access to the actual cause of each vehicle fire, in GM's conclusion they refer to Microheat's (non-conclusive) failures as a trend while they appear to ignore "miscellaneous electrical systems" and "unknown" as possible transient failure modes.

GM's closing statement "To date, GM has not identified any additional underhood fires related to the HWFS module on GMT900 vehicles in which the recall service was performed." is extremely narrow. Some questions that I would like to see answers to are: How many vehicles had the recall service? Why did they only mention GMT900, what about the other platforms that had the recall service? Being that the actual recall fix of adding the fuse only protects the vehicle wire harness, the heated wash unit should still short and fail. On vehicles that had the recall service performed, did any of the heated wash units fail? Most importantly, did they have additional incidences on vehicles without heated wash?

Again, thank you for your time. If you have any questions, I would be happy to discuss this further with you.

Joe Trubak
248 489 2400

From: Jeff.Quandt@dot.gov [mailto:Jeff.Quandt@dot.gov]
Sent: Wednesday, May 27, 2009 10:14 AM
To: Joe Trubak
Subject: Contact information

Mr. Trubak,

You can rely to this e-mail with any information you would like to submit to ODI.

Regards,
Jeff Quandt