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OFFICE OF INVESTIGATION

April 6, 2009

Jeffrey L. Quandt, Chief
Vehicle Control Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue., S.E., Room W48-307
Washington, D.C. 20590

Re: NHTSA Investigation EA08-010
NHTSA Recall No. 08V-441

Dear Mr. Quandt:

I am writing to you on behalf of M-Heat Investors, LLC, the entity that purchased all of the assets of Micro-Heat, Inc. This letter and enclosed Engineering Test Report ("the Report") relate to the Investigation and Recall referenced above. The Report was recently completed by former Microheat engineers that investigated claims made by General Motors Corporation related to engine compartment fires in GMT 900 vehicles equipped with a Microheat heated windshield washer fluid module. As you know, GM issued the Recall in connection with 41 reported vehicle fires, although only 13 of the vehicles were equipped with the Microheat module. In addition, in GM's April 25, 2008 letter to NHTSA GM stated that it "found only two fires that may be related to the heated washer fluid system". For all these reasons, we believe that the enclosed Report is critical to an assessment of GM vehicle fires and warrants your immediate consideration.

As you know, on September 8, 2008, NHTSA closed its Engineering Analysis into non-crash engine compartment fires in GM vehicles after GM announced that it would conduct a safety recall of certain vehicles equipped with Microheat's heated windshield washer fluid system. According to GM, "a short-circuit on the printed circuit board for the washer fluid heater module may overheat the control-circuit ground wire. This may cause other electrical features to malfunction, create an odor, cause smoke. In rare cases it may cause a fire." Significantly, the GM Recall only addressed vehicles containing a Microheat module, even though the majority of the reported fires involved vehicles not equipped with the Microheat module. Also, the GM Recall did not call for replacement of the Microheat module, only a modification of a wiring harness.

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In April 2008, prior to the Recall, Microheat provided GM information regarding its original MH35 module in connection with NHTSA's investigation. However, GM never advised Microheat as to the status of the investigation or that GM reached the conclusion quoted above until after GM announced the Recall last August. NHTSA never contacted Microheat during the investigation.

As reflected in the information Microheat supplied to GM during the NHTSA investigation, Microheat engineers were never able to replicate a "short-circuit" on the printed circuit board or other thermal events with characteristics similar to those experienced by field returns. Based on the direction of GM, Microheat's focus, at that time, attempted to recreate these characteristics by subjecting unprotected PC boards (that is, boards without the benefit of the silicone potting material that was used for encapsulation) to excessive moisture and salt conditions never likely to be experienced in vehicles in service.

After GM announced the Recall, Microheat engineers began tests that subjected the original MH35 module design to negative 400 volt electrical transients. In 2006, GM requested Microheat to increase its protection diode in later generation modules to 400 volts based on GM's experience with transient voltages in certain of its vehicles. GM asked Microheat to implement this change, even though the GM design specifications for the vehicle stated that protection for up to a negative 150 volt transient was sufficient.

The enclosed Report confirms that non-conforming, negative 400 voltage transients generated by sources other than Microheat's windshield washer fluid heater module, and not moisture, most likely caused the "short-circuit" on the PC boards and other thermal events witnessed on field returns. Microheat's former engineers have yet to determine the source of the voltage transients although they confirm the transients do not emanate from the windshield washer fluid heater or anything otherwise under Microheat's control. In addition, we are concerned that these transients could also affect other devices in the vehicle, which could be the root cause of the GM vehicle fires.

M-Heat Investors and the authors of the enclosed Report believe that it is extremely important that GM review these findings, and that NHTSA analyze the Report and re-open its investigation promptly. To the extent GM vehicles continue to experience these high voltage transients, this phenomenon may present a substantial risk of fire. From the photographs we have seen, the resulting fires can have a devastating, and possibly life threatening, effect due to extensive damage to the vehicles and surrounding property. There is documented evidence these incidents include "key-off" fires, which involve short circuits that continue even after the vehicle ignition is turned off. Such incidents pose the alarming risk that an engine compartment fire

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could commence after a vehicle is parked and turned off, for example, in a consumer's garage or adjacent to the consumer's home.

Given the gravity of the issues concerning vehicle fires, we strongly believe we have an obligation to share our findings so that General Motors, NHTSA and the public is aware of the genuine risks that appear to exist in operating these vehicles. Please be advised we intend to release the Report as appropriate.

Sincerely,

M-Heat Investors, LLC



Peter Jacullo, its President

cc: Mark Fisher, GM Director
Supply Risk Management
Gay Kent, GM Director
Product Investigations