June 4, 2010

Mr. Daniel C. Smith
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Recall Management Division (NVS-215)
1200 New Jersey Avenue, SE - Room W45-306
Washington, D.C. 20590
Dear Mr. Smith:
The following information is submitted pursuant to the requirements of 49 CFR 573.6 as it applies to a determination by General Motors of a safety defect involving various 2006-2009 model year vehicles.
573.6(c)(1): Cadillac, Chevrolet, GMC, Buick, Saturn and Hummer Brands of General Motors
573.6(c)(2)(3)(4): This information is shown on the attached sheet.
573.6(c)(5): General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2006-2009 model year Buick Lucerne; Cadillac DTS; HUMMER H2; 2008-2009 model year Buick Enclave; Cadillac CTS; 2007-2009 model year Cadillac Escalade, Escalade ESV, Escalade EXT; Chevrolet Avalanche, Silverado, Suburban, Tahoe; GMC Acadia, Sierra, Yukon, Yukon XL; Saturn OUTLOOK; and 2009 model year Chevrolet Traverse vehicles equipped with a heated washer fluid system (HWFS). A recall was implemented in 2008 for many of the vehicles listed above to add a fuse to the control circuit harness to address the potential consequences of a printed circuit board (PCB) electrical short. However, there have been new reports of thermal incidents on HWFS modules after this improvement was installed. These incidents resulted from a new failure mode attributed to the device's thermal protection feature. The significance varies from minor distortion to considerable melting of the plastic around the HWFS fluid chamber. In rare circumstances, it is possible for the heated washer module to ignite.
573.6(c)(6): On August 27, 2008, GM announced safety recall 08048 ( $08 \mathrm{~V}-441$ ) on certain 2006-2008 model year Buick Lucerne; Cadillac DTS; HUMMER H2; 20072008 model year Cadillac Escalade, Escalade ESV, Escalade EXT; Chevrolet Avalanche, Silverado, Suburban, Tahoe; GMC Acadia, Sierra, Yukon, Yukon XL; Saturn OUTLOOK; and 2008 model year Buick Enclave vehicles equipped with a heated washer fluid module.

The investigation found shorts on the module PCB that could result in fires. The recall consisted of adding a fuse to the 5 volt control circuit to prevent a PCB short from progressing.
In the first quarter of 2009, GM began to receive reports of thermal incidents on vehicles that had received a fuse or had been built with a fuse. In June 2009, GM found evidence that indicated during the PCB short or soon after, one of the two heater relays was activated and overheated the fluid chamber because the module's internal thermal protection device (solder cup) did not function as designed. The first confirmed report of this failure mode resulted in smoke only.
In August 2009, GM reviewed with NHTSA the field data for post recall unattended fires. At that time there were none confirmed.
In September 2009, the NHTSA informed GM of an attended vehicle fire on a post recall module. GM obtained that module and in October 2009 confirmed that the cause of the fire was due to a short on the PCB that resulted in solder flowing, bridging the 12 volt terminals at the base of the module. GM continued to monitor the field performance of the HWFS. In December 2009, GM informed the NHTSA about the results of the module analyzed in October and the solder cup failure mode. At that time there were no confirmed reports of fires related to failure of the solder cup.
In February 2010, Product Investigations received the first confirmation of an unattended fire on a fused module. This incident was in a 2008 Buick Lucerne. A second one with the same root cause was confirmed a short time later on a 2008 GMC Acadia. In April 2010, GM became aware of a third unattended fire in a 2008 Buick Enclave. One attended fire for the same root cause was confirmed on a 2007 GMC Yukon. On May 14, 2010, data analysis and projections of future incidents were completed for the potential condition.
Four fires are believed to have occurred due to the failure of the solder cup. Three of these occurred while the vehicles were unattended.
The issue was presented to the Field Performance Evaluation Review Committee and on June 1, 2010, the Executive Field Action Decision Committee decided to conduct a safety recall.
573.6(c)(8): Dealers will permanently disable and remove the heated washer fluid module. An updated page for the Owner Manual will be provided and inserted in the Owner Manual to document that the feature has been permanently disabled and removed from the vehicle.
GM will compensate the owner for the loss of this feature.
It is anticipated that the dealer bulletin will be sent on June 7, 2010 and owner letters will be mailed on June 14, 2010.

Pursuant to 577.11(e), GM will provide reimbursement to owners for repairs completed on or before ten days after the owner mailing is completed, according to the plan submitted on January 22, 2009.
573.6(c)(9): General Motors provided copies of the dealer bulletin and owner letter under separate cover.

## Sincerely,

 Director, Product Investigations and Safety Regulations

N100153
Attachment
$\qquad$ $:$
$\qquad$
$\qquad$
$\qquad$路
号

















N
VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR
PLUS INCLUSIVE DATES OF MANUFACTURE

Outlook
Outlook
Outlook

NNNN

## Microheat, Inc.

* All involved vehicles will be corrected as necessary.
573.6(c)(2)(iv):
Farmington Hills, MI 48331-3408, United States
$\begin{array}{ll}06 / 2005 & 03 / 2007 \\ 08 / 2006 & 07 / 2008 \\ 05 / 2007 & 09 / 2008\end{array}$
1,365,070
1,854
1,523
2,864
399
$2009 \quad 399$
2006
2007
2008
2009
MAKE
Saturn
Saturn
Saturn

Hummer
Hummer
Hummer
Hummer

