



RECEIVED
483-215

2004 APR -7 P 2 1b

OFFICE OF
DEFECTS INVESTIGATION

04V-151
(3 pages)

March 26, 2004

Mr. K. N. Weinstein
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W., Room 5321
Washington, D.C. 20590

Dear Mr. Weinstein:

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 certain 2004 Cadillac SRX model vehicles.

573.6(e)(1): Cadillac Division of General Motors Corporation.

573.6(e)(2)(3)(4): This information is shown on the attached sheet.

573.6(e)(5): General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2004 SRX model vehicles equipped with all wheel drive. These vehicles have a condition in which the antilock brake system (ABS) may temporarily isolate the driver from the foundation brake system for a maximum of 1.25 seconds and result in an increase in braking distance. If this condition occurs, the ABS pump will activate and create a noise that the vehicle operator may hear, and the brake pedal will pulse. This feedback would be maintained during the entire event. An increase in braking distance could result in a vehicle crash.

This condition may only occur during the first few seconds of driving, after the initial ignition cycle. The ABS and StabiliTrak® features will not be available, from the moment after the event, until the ECU resets on the next ignition cycle. The driver will be alerted to this condition because the instrument panel ABS telltale lamp will illuminate and the Driver Information Center (DIC) will alert the driver of a StabiliTrak® error until the ECU resets, which occurs after the ignition is cycled off and then on again.

573.6(e)(6): On January 12, 2004, General Motors Product Investigations was notified of a field report event that occurred in December 2003 in Florida. The driver had reported that he experienced a longer braking distance than he expected after the following sequence of events:

Driver started vehicle,

- Driver reversed vehicle approximately "6 to 8" feet,
- Driver stopped vehicle, placed vehicle in "park", and exited vehicle with engine running,
- Driver returned to vehicle and slowly drove forward into the garage,
- Driver depressed the brake pedal, and
- Vehicle continued forward approximately "1 to 2 feet" until the vehicle stopped when the front bumper of the vehicle hit material stored in the garage.

During January and February 2004, Delphi and GM investigated the condition described in the field report and analyzed the anti-lock brake system design. The investigation revealed that a complex scenario of events was required to create the condition.

Product Investigations

Mail Code: 480-100-304 • 30500 Mound Road • Warren, MI 48090-9055
Phone: (586) 986-8029 • Fax: (586) 947-2318
2190 - 64018 073 Letter.doc



The investigation determined that the technical cause of the condition is a reference velocity (V_{ref}) calculation in the logic of the Anti-Lock Brake System/Traction Control System (ABS/TCS) controller (ECU) that "loops" under certain unanticipated vehicle conditions. The looping of the calculation causes V_{ref} to increase to a level such that when the brake pedal is depressed, are applied; the controller logic initiates an ABS event. By design, the ABS event isolates the foundation brakes from the driver's control and decreases the value of V_{ref} over time. These actions continue until V_{ref} matches the speed provided to the ECU by the wheel speed sensors. The solution to the condition is to reprogram the ECU to preclude the looping condition from occurring.

On February 26, 2004 the condition was reviewed with the FPE Director. Preparation of a FPE report was requested and the issue was then reviewed with the GMNA Senior Management Committee. On March 23, 2004 GM made the decision to conduct a safety recall.

573.6(c)(8): This information will be included in the service procedure of the draft dealer bulletin.

Pursuant to 577.11(e), GM does not believe notification about reimbursement is required for this recall. Involved vehicles are covered by the new vehicle warranty.

573.6(c)(9): Draft and final copies of the dealer bulletin and owner notification will be forwarded when available. General Motors plans to begin this safety recall in the second quarter of 2004.

Sincerely,



Gay P. Kent
Director
Product Investigations

573.6(c)(2)(3)(4)

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

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES (FROM) (TO)</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
Cadillac	SRX	2004	11,375	3/03	1/04	SRX	* Unknown

* All involved vehicles will be corrected.

2135 / 0401B