By Recall Management Division at 3:30 pm, Apr 03, 2014



Ms. Nancy Lewis Associate Administrator for Enforcement National Highway Traffic Safety Administration 1200 New Jersey Avenue SE, Room W45-306 Washington, DC 20590

April 3, 2014

Dear Ms. Lewis,

Re.: Submission of Part 573 report for certain 2014 MY Mazda3 and 2014-2015 MY Mazda6 vehicles

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, "Defect and Noncompliance Reports," Mazda North American Operations (MNAO), on behalf of Mazda Motor Corporation of Hiroshima, Japan (Mazda), submits the following information concerning a voluntary recall action that it is initiating.

14V-173

(3 pages)

Sec. 573.6 (c)(1) - Manufacturer's Name:

Mazda Motor Corporation with Designated Agent:

David Robertson, Group Manager Environmental, Safety and Powertrain Engineering Mazda North American Operations 46976 Magellan Drive Wixom, MI 48393

Sec. 573.6 (c)(2) - Potentially Affected Vehicles:

2014 Model Year Mazda3 vehicles equipped with 2.5L engine built from June 12, 2013 through December 18, 2013. 2014-2015 Model Year Mazda6 vehicles equipped with 2.5L engine built from May 20, 2013 through December 4, 2013. Plant information and the VIN range are as follows;

Vehicle	2014MY Mazda3 2014-2015MY Mazda6
Plant	Hofu plant. 888-1, Nishinoura, Hofu, Yamaguchi, 747-0835, Japan
VIN range	Mazda3: JM1BM1***E1 100061 - 162638 Mazda6: JM1GJ1***E1 124523 - 162747 JM1GJ1***F1 162851 - 163097

Sec. 573.6 (c)(3) - Estimated Population of Vehicles Potentially Affected:

Approximately 5,700 vehicles in the United States and its federalized territories are potentially affected.

Sec. 573.6 (c)(4) - Estimated Percentage of Affected Vehicles with the Defect Condition:

Unknown

Sec. 573.6 (c)(5) - Description of the Defect:

On certain Mazda3 and Mazda6 vehicles equipped with the regenerative engine braking system, the Power Control Module (PCM) may incorrectly determine that there is a failure of the system energy storage capacitor when the vehicle is operating under heavy rain or through deep puddles. Under such operation the generator belt may get very wet and slip, which can be incorrectly identified by the PCM as a failure of the energy storage capacitor, even though the capacitor is operating normally. If the system believes the energy storage capacitor has failed it will prohibit the charging system from operating and will illuminate the 'Charging system warning light' (and the message display will indicate 'Charging system malfunction'). If the vehicle continues to operate under this condition the battery will slowly be drained, eventually resulting in illumination of the Malfunction Indicator Light (MIL) and poor acceleration. If operation continues further, it will likely result in loss of steering assist, windshield wiper operation and the engine will finally stop operating due to the lack of electrical energy for the spark plugs and PCM..

Sec. 573.6 (c)(6) - Chronology of Events:

- In April 2013, the first report was received from the Japanese market, which described the error message, which meant "Charging system malfunction", was displayed on the instrument panel on a vehicle equipped with the regenerative engine braking system. As a result of the investigation, we assumed that it was caused by a temporary voltage reduction of the battery; however, the detailed cause could not be identified so we decided to monitor the occurrence of the concern in the field.
- In July 2013, the second report was received from the Japanese market, which described that while operated on a water-covered road, the warning light illuminated, resulting in engine stall and inability of restart it. As a result of duplicating the condition we found that when the vehicle is operating on a water-covered road, even though the capacitor is normal, it may be incorrectly identified as failed.
- In October 2013, even though similar concerns were reported sporadically, they occurred just after heavy rainfall, so we believed that it may occur under this limited condition. We proceeded to clarify the specific condition of the defect and evaluate modifications of the PCM software to address the situation.

Two reports of the same defect were received from the United States.

- In November 2013, the modifications of the PCM software was completed, we began to prepare the modified software for the mass-production vehicles. As there were varying specifications for each model, the software updates were sequentially applied to the different specification models. The countermeasure for all models were completed in Jan 2014.
- In December 2013, we began additional verification of the conditions under which the failure can occur.
- In February 2014, as a result of the additional verification, we found that the defect may potentially occur in varying conditions of heavy rainfall and wet roads, including puddles on the road.
- In March 2014, If the vehicle continues to operate under this condition the battery will slowly be drained eventually resulting in illumination of the Malfunction Indicator Light (MIL) and poor acceleration. Furthermore it may result in loss of steering assist, windshield wiper operation and the engine will finally stop operating due to the lack of electrical energy for the spark plugs and PCM.

Mazda decided to implement a recall campaign to update the PCM software on the vehicles built prior to the modified software being available.

Sec. 573.6 (c)(7) - Basis of Non-Compliance Determination:

Not applicable.

Sec. 573.6 (c)(8) - Service Program:

Owners of record will be notified of this issue and instructed to take their vehicles to a Mazda dealer to reprogram the Power Control Module software with modified one to decide precisely whether a capacitor is on failure or not. The inspection/repair will be performed free of charge to the vehicle owners.

A copy of the reimbursement application form to be sent to owners and dealers as an attachment to the owner notification letter will be provided along with the owner notification letter when it is available. With respect to reimbursement, customers will be reimbursed based on the submission of a receipt indicating the amount paid by the customer to remedy this problem.

Dealers will be notified of the voluntary recall in the middle of April, 2014. The mailing of owner notification letters by first class mail will begin in late April, 2014.

Sec. 573.6 (c)(9) - Service Program for Tire Replacement:

Not applicable.

Sec. 573.6 (c)(10) – Copy of notification letters:

A copy of "owner notification letter" will be submitted when it becomes available.

Sec. 573.6 (c)(11) - The Manufacturer's Campaign Number:

Mazda has assigned recall number 7314D to this action.

A Sincerely yours,

David Robertson, Group Manager, Environmental, Safety & Powertrain Engineering Mazda North American Operations