

**VIA CERTIFIED MAIL RRR AND EMAIL**

January 17, 2013

Ms. Nancy Lewis  
Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
1200 New Jersey Ave., S.E.  
Washington, DC 20590

**Re: Recall Campaign  
Drivetrain  
2011 BMW 1-Series ActiveE  
(BMW ActiveE Field Trial Program)**

Dear Ms. Lewis:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act of 1966 and 49 CFR Part 573, and pertains to BMW's ActiveE Field Trial Program.

Pursuant to Section 573.6(c), we submit the following information.

- Manufacturer:** Bayerische Motoren Werke AG (BMW AG)

**Designated Agent:** Samuel Campbell, III  
(pending) Department Head, Safety Engineering and ITS  
BMW of North America, LLC  
200 Chestnut Ridge Rd. (Bldg. 150)  
Woodcliff Lake, NJ 07677
- Make:** BMW

**Model Year / Model:** 2011 / 1-Series ActiveE  
(BMW ActiveE Field Trial Program)

**Inclusive Dates of Manufacture:** Aug. 17, 2011 – Dec. 19, 2011
- The number of vehicles affected is approximately 360.
- The percentage of vehicles estimated to actually contain the condition is 100%.
- This recall involves the drivetrain of the 1-Series ActiveE electric vehicle. The 1-Series ActiveE vehicles are used in our "BMW ActiveE Field Trial Program". This is a closed-end lease program and therefore, the vehicles are not available for retail sale at the conclusion of the program. BMW maintains continuous contact with program participants, and at the conclusion of the program, the vehicles are returned to BMW.

The drive torque of the electric motor is transferred to the transmission by a serrated gear shaft that is inserted into the hub of the electric motor. Within the hub housing, grease is used to provide lubrication. On affected vehicles,

**Company**  
BMW of North America, LLC

BMW Group Company

**Mailing address**  
PO Box 1227  
Westwood, NJ  
07675-1227

**Office address**  
300 Chestnut Ridge Road  
Woodcliff Lake, NJ  
07677-7731

**Telephone**  
(201) 307-4000

**Fax**  
(201) 571-5479

**Website**  
bmwusa.com



insufficient sealing of the housing assembly can allow a lack of grease to occur on the gear shaft causing a possible loss of lubrication. The loss of lubrication can cause wear of the serrated gear. If this continues, then the connection between the electric motor and the transmission gear shaft would degrade that could eventually result in a loss of vehicle propulsion.

6. BMW initially became aware of this matter in late February 2012 when two (2) engineering test vehicles experienced a drivetrain failure. Mileage for the two engineering test vehicles was 8,220 miles and 10,380 miles respectively. Initial examination of the vehicles showed a lack of grease on the transmission gear shaft, but no specific fault pattern was identified. At that time, no Field Trial Program vehicles had experienced this condition. However, analyses were initiated in order to determine if the cause that allowed the lack of grease to occur could be identified.

In April 2012, it was suspected that the design layout, in combination with grease that might be unsuitable for this specific application (for transmission shaft rotating speeds of up to 11,000 rpm and the temperature within the electric motor housing), could be contributing factors, and could lead to excessive wear of the transmission gearing for vehicles whose mileage exceeded approximately 9,000 miles.

In order to aid the analyses, Field Trial Program vehicles were inspected at the regular maintenance interval of 5,000 miles / 3 months for the presence of grease and the amount of wear on the transmission gear shaft, and were also to receive a cleaning and re-greasing of the gear shaft. This inspection program began in mid-June.

Between April and the first-half of July, no Field Trial Program vehicles had experienced this condition. On July 11, 2012, the first warranty claim of a Field Trial Program vehicle pertaining to drivetrain failure, that might be associated with this condition, was processed.

Further analyses of the lack of grease on the transmission gear shaft were conducted. It was suspected that the material used to seal the electric motor housing was not sufficient, and a modification to the sealing system was developed. In August, five (5) warranty claims, and in late September, one (1) warranty claim, pertaining to drivetrain failure, were processed.

On October 1, 2012, BMW received the first field report of a vehicle experiencing this condition. Two (2) more field reports and two (2) more warranty claims were received in the second-half of October. In November, four (4) field reports pertaining to this condition were received. The average mileage of vehicles experiencing this condition was approximately 9,000 miles. This was consistent with earlier analyses.

In November 2012, as part of the maintenance plan for cleaning and re-greasing of the transmission gear shaft, the updated sealing system was included.

In December 2012, BMW received four (4) additional field reports for vehicles that had experienced this condition. Given the increasing number of incidents, it was believed that a field action was necessary.

Production information and maintenance service records were examined in order to determine the number and production range of potentially affected vehicles.

On January 10, 2013, BMW decided to conduct a voluntary recall.

BMW has not received any reports of any accidents or injuries related to this issue.

7. Not applicable.
8. The drivetrain connection will be inspected, and the sealing system will be updated. If the electric motor gearing is significantly worn, then it will be replaced.

Because this is a Field Trial Program, BMW will notify drivers by telephone at the time of submission of this report.

9. Not applicable.
10. A copy of the Service Bulletin will be submitted when available. As discussed and agreed with NHTSA, BMW will contact all affected drivers by telephone and therefore, at this time, a notification letter to drivers is not necessary. If BMW finds that a notification letter is necessary, a draft copy of the letter will be submitted to NHTSA prior to the mailing.
11. Not applicable.

Sincerely,

BMW OF NORTH AMERICA, LLC



Sam Campbell  
Department Head  
Safety Engineering and Intelligent Transportation Systems