



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

MAY 7 2008

1200 New Jersey Avenue SE  
Washington, DC 20590

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Jan Urbahn, General Manager  
Safety Engineering and Intelligent Transportation Systems  
BMW of North America, LLC.  
1 BMW Plaza  
PO Box 1227  
Montvale, NJ 07675-1227

NVS-213swmc  
PE08-032

Dear Mr. Urbahn:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE08-032) to investigate allegations of failure of the high-pressure fuel pump in model year (MY) 2007 BMW 335i (E90, E92 and E93) vehicles manufactured by BMW of North America, LLC, and to request certain information.

This office has received three reports of stalling due to a failure of the high-pressure fuel pump in MY 2007 BMW 335i (E90, E92 and E93) vehicles. Two of these vehicles were traveling in excess of 40 mph when the stalling occurred. Additionally, ODI has received eight reports of vehicles unexpectedly going into a limp mode because of high-pressure fuel pump failures. Two of those failures occurred while driving in high speed traffic and are alleged to have almost resulted in collisions. A copy of each of the reports is enclosed for your information.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all MY 2007 BMW 335i (E90, E92 and E93) vehicles manufactured for sale or lease in the United States.
- **Subject component:** all high-pressure fuel pumps equipped on the N54 engine manufactured for use in the subject vehicles.
- **BMW:** BMW of North America, LLC, BMW AG, the BMW Group, all of their past and present officers and employees, whether assigned to their principal offices or any of their field or other locations, including all of their divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a

consultant) by or under the control of BMW (including all business units and persons previously referred to), who are or, in or after January 1, 2002, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;
  - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
  - d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- **Alleged defect:** failure of the high-pressure fuel pump resulting in engine stall or sudden reduction in engine power (i.e., limp mode).
  - **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by BMW, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by BMW or not.

If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms “claim,” “consumer complaint,” “dealer field report,” “field report,” “fire,” “fleet,” “good will,” “make,” “model,” “model year,” “notice,” “property damage,” “property damage claim,” “rollover,” “type,” “warranty,” “warranty adjustment,” and “warranty claim,” whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as BMW has previously provided a document to ODI, BMW may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After BMW’s response to each request, identify the source of the information *and indicate the last date the information was gathered.*

1. State the number of subject vehicles BMW has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by BMW, state the following:
  - a. Vehicle identification number (VIN);
  - b. Model;
  - c. Model Year;
  - d. Date of manufacture;
  - e. Date warranty coverage commenced; and
  - f. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled “PRODUCTION DATA.” See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State the number of each of the following, received by BMW, or of which BMW is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;
  - c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that

a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;

- d. Reports involving a fire, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- e. Property damage claims; and
- f. Third-party arbitration proceedings where BMW is or was a party to the arbitration; and
- g. Lawsuits, both pending and closed, in which BMW is or was a defendant or codefendant.

For subparts "a" through "d" state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "g," provide a summary description of the alleged problem and causal and contributing factors and BMW's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
  - a. BMW's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether a fire is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any; and
  - m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method BMW used for organizing the documents.

5. State a total count for all of the following categories of claims, collectively, that have been paid by BMW to date that relate to subject component: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. BMW's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Whether there was a claim for towing within three days of the repair date for the subject component;
- h. Labor operation number;
- i. Problem code;
- j. Replacement part number(s) and description(s);
- k. Concern stated by customer;
- l. Comment, if any, by dealer/technician relating to claim and/or repair;
- m. BMW's assessment of whether the repair condition involved vehicle operation in limp mode; and
- n. BMW's assessment of whether the repair condition resulted in an engine stall.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

6. Describe in detail the search criteria used by BMW to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by BMW on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that BMW offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.
7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that BMW has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that BMW is planning to issue within the next 120 days.

8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, BMW. For each such action, provide the following information:
  - a. Action title or identifier;
  - b. The actual or planned start date;
  - c. The actual or expected end date;
  - d. Brief summary of the subject and objective of the action;
  - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
  - f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

9. Provide the following information regarding service bulleting SI B 13 03 08:
  - a. A chronology of events and actions related to the issuance of the bulletin;
  - b. Copies of all documents related to the subject bulletin, including the review of field data (e.g., complaints, field reports and warranty data), the development of the new high-pressure pump, predicted failure rates, and all related meetings, briefing material and presentations;
  - c. An explanation why BMW decided to address the high-pressure fuel pump failures with the subject bulletin Service Action rather than a safety recall, and
  - d. An indication whether or not owners of the vehicles indicated in SI B 13 03 08 were informed of the Service Action, and if so, by what method(s) they were informed.
10. Provide the following information regarding the effects of engine stall on braking performance in the subject vehicles:
  - a. Describe the operation of the brake power assist system in the subject vehicles and state the effects of engine stall on system operation;
  - b. Describe how BMW measures brake system performance in the following conditions: (1) following engine stall; and (2) with complete loss of brake power assist;
  - c. Provide copies of all documents related to BMW engineering standards, specifications or design guidelines, that relate to 10.b;
  - d. Provide copies of all test reports related to 10.b for the subject vehicles;
  - e. Describe and provide copies of all documents relating to, studies, tests, analyses, technical papers or other reference material showing the maximum braking pedal force capabilities of male and female drivers (show for the low end, 5<sup>th</sup> percentile and 50<sup>th</sup> percentile for each demographic group);
  - f. Provide graphs showing (1) brake line pressure (at the left front wheel), (2) vehicle deceleration (describe the road surface used and its coefficient of friction), and (3) brake pedal travel as functions of brake pedal force for normal system operation and for the

first application after the engine has stalled and for each successive application until the source of power assist is fully depleted; and

- g. A table showing the brake pedal force and travel required to achieve decelerations of 0.1 to 0.9 g's, in increments of 0.1g, for normal system operation and for operation with no brake power assist, and describe the road surface used and its coefficient of friction.

11. Provide the following information regarding the effects of engine stall on steering performance in the subject vehicles:

- a. Describe the operation of the steering power assist system in the subject vehicles and state the effects of engine stall on system operation;
- b. Describe how BMW measures steering system performance in the following conditions: (1) following engine stall; and (2) with complete loss of steering power assist;
- c. Provide copies of all documents related to BMW engineering standards, specifications or design guidelines, that relate to 13.b;
- d. Provide copies of all test reports related to 13.b for the subject vehicles;
- e. Describe and provide copies of all documents relating to, all studies, tests, analyses technical papers or other reference material showing the maximum steering effort capabilities of male and female drivers (show for the low end, 5<sup>th</sup> percentile and 50<sup>th</sup> percentile for each demographic group);
- f. State by model, model year, and any other distinguishing factor the diameter of the steering wheel;
- g. Describe and provide test data showing the effects of engine stall on steering wheel force as a function of lateral acceleration for normal system operation and after loss of assist; and
- h. Describe, and provide copies of all related documents, all testing or analyses conducted by BMW to assess assisted and unassisted steering efforts with and without assist in low speed (less than 10 mph) and stationary turning maneuvers, such as turns at high steering angular inputs (e.g., full lock turns from a stop).

12. Describe all modifications or changes made by, or on behalf of, BMW in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or change;
- d. The part number(s) (service and engineering) of the original component;
- e. The part number(s) (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and
- h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that BMW is aware of which may be incorporated into vehicle production within the next 120 days.

13. Produce one field return sample of the subject component and an exemplar sample of the latest redesign version of the subject component.
14. State the number of subject components that BMW has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (*including the cut-off date for sales, if applicable*).

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which BMW is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

15. Furnish BMW's assessment of the alleged defect in the subject vehicle, including:
  - a. The causal or contributory factor(s) in the failure or malfunction of the subject component and the factors contributing to whether such failures or malfunctions result in: (1) limp mode operation; or (2) engine stall;
  - b. The failure mechanism(s);
  - c. The failure mode(s);
  - d. Using statistical modeling of warranty data or other analytical methods give BMW's assessment of the rates of subject component failure/malfunction at 1, 3, and 5 years in service – include a detailed description of the statistical method used and a copy of the input data and the results (e.g., if Weibull analysis is used, give the output shape and scale parameters);
  - e. Give BMW's assessment of the percentages of the subject component failure rates given in response to 15.d that would result in (1) limp mode; and (2) engine stall;
  - f. For subject component failures resulting in engine stall, state BMW's assessment of the range of driving speeds where such incidents could occur and the ability of the operator to restart the engine;
  - g. The risk to motor vehicle safety that it poses;
  - h. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and
  - i. The reports included with this inquiry.

This letter is being sent to BMW pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information. BMW's failure to respond promptly and fully to this letter could subject BMW to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Please note that maximum civil penalties under 49 U.S.C. § 30165 have increased as a result of the recent enactment of the



Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law No. 106-414 (signed November 1, 2000). Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$6,000 per day, with a maximum of \$16,375,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 71 Fed. Reg. 28279 (May 16, 2006)). This includes failing to respond to ODI information requests.

If BMW cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, BMW does not submit one or more requested documents or items of information in response to this information request, BMW must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

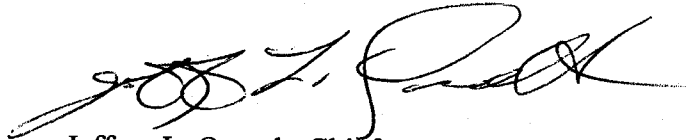
BMW's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by June 30, 2008. **All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition, do not submit any business confidential information in the body of the letter submitted to this office. Please refer to PE08-032 in BMW's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel. If BMW finds that it is unable to provide all of the information requested within the time allotted, BMW must request an extension from me at (202) 366-5207 no later than five business days before the response due date. If BMW is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information BMW then has available, even if an extension has been granted.

If BMW claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, BMW must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. BMW is required to **submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the word "CONFIDENTIAL BUSINESS INFORMATION" must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 5 U.S.C. § 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats (49 CFR 512.6(c)). *See* Federal Register, volume 72, page 59434 (October 19, 2007).

Please send email notification to Stephen McHenry (stephen.mchenry@dot.gov) and to ODI\_IRresponse@dot.gov when BMW sends its response to this office and indicate whether there is confidential information as part of BMW response.

If you have any technical questions concerning this matter, please call Stephen McHenry of my staff at (202) 366-4883.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey L. Quandt". The signature is fluid and cursive, with a large initial "J" and "Q".

Jeffrey L. Quandt, Chief  
Vehicle Control Division  
Office of Defects Investigation

Enclosure 1, one CD ROM titled Data Collection Disc containing four files  
VOQs: 10220774, 10220709, 10197735, 10220716, 10217997, 10214002, 10203575, 10199596,  
10197540, 10197151, 10196331.