



July 29, 2020

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Janet L. Conigliaro
Regulatory Legal Counsel
ZF Group
12001 Tech Center Drive
Livonia, MI 48150

NEF-106RN
PE20-006

Dear Ms. Conigliaro:

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 (PE20-006) to investigate allegations of loss of power steering assist in vehicles equipped with a ZF/TRW THP60 steering gear in certain model year Freightliner Cascadia, Volvo VN, and Paccar 337, 365, 389, 567, 579 vehicles. As the steering gear supplier for the subject vehicles we are requesting certain information from ZF Group/TRW.

This office has received fifteen (15) Vehicle Owner Questionnaires (VOQ) and one hundred six (106) Field Reports (FR) alleging intermittent loss of power steering assist from the ZF/TRW THP60 steering gear in certain Freightliner Cascadia, Volvo VN, and Paccar 337, 365, 389, 567, 579 vehicles. Both field reports and interviews with fleet drivers allege that the power steering fluid can reach high fluid temperatures causing internal seal and bearing failures. These failures can lead to pressure fluctuation affecting primary left, but also right-hand turn assist. A copy of each report will be provided for your review.

In addition to our concerns related to the loss of power steering assist on certain vehicles, this office is also concerned about the lack of ZF Group/TRW communication submissions as required by 49 C.F.R. 579.5. Our office has not received submissions from TRW for the period from March 1, 2009 to March 6, 2019 when we received one document from ZF Group. We are aware of a document (TRW900 A/B) that appears to meet the requirements of 49 C.F.R. 579.5 that was not received by this office. Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all make and models of final stage vehicles from MY 2012 - 2020 equipped with a new or re-manufactured TRW THP60 steering gear manufactured for sale or lease in the United States, including, but not limited to, the District of Columbia, and current U.S. territories and possessions.

- **Subject component:** all new and re-manufactured ZF Group/TRW steering gear THP60 identical or substantially similar to those installed on the subject vehicles.
- **Alleged defect:** Loss of power steering assist.
- **ZF Group/TRW:** ZF TRW Automotive Holdings Corp, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its 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 ZF Group/TRW (including all business units and persons previously referred to), who are or, in or after 2013, 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.
- **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 ZF Group/TRW, 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 ZF Group/TRW 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 ZF Group/TRW has previously provided a document to ODI, ZF Group/TRW 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 ZF Group/TRW's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and production year, the number of subject components ZF Group/TRW has manufactured for OEM use and aftermarket sales in the United States. Separately, for each subject component manufactured to date by ZF Group/TRW, state the following:
 - a. Serial number;
 - b. Make;
 - c. Model;
 - d. Facility steering gear was manufactured

- e. Subject component part number and design version;
- f. Final stage manufacturer the component was sold to;
- g. Date of subject component manufacture; and
- h. Date warranty coverage commenced;

Provide the table in Microsoft Access 2010, or a compatible format, entitled “PRODUCTION DATA.” A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

2. State the number of each of the following, received by ZF Group/TRW, or of which ZF Group/TRW is otherwise aware, which relate to, or may relate to, the alleged defect in the subject component:
 - a. Consumer complaints, including those from fleet operators;
 - b. Field reports, including dealer field reports;
 - c. Reports involving a crash, injury or fatality;
 - d. Reports involving a fire;
 - e. Property damage claims; and
 - f. Third-party arbitration proceedings where ZF Group/TRW is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which ZF Group/TRW is or was a defendant or codefendant.

For subparts “a” through “f / g” 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 “f, / g,” provide a summary description of the alleged problem and causal and contributing factors and ZF Group/TRW’s assessment of the problem, with a summary of the significant underlying facts and evidence. For items “e/f” and “f, / 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. ZF Group/TRW’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), street address, email address and telephone number;
 - d. OEM or aftermarket sales location which initially received the steering gear from ZF Group/TRW;

- e. Subject component's serial number;
- f. Subject component's make, model and production date;
- g. Subject component's mileage at time of incident if known;
- h. Subject component's time in service at time of incident;
- i. Incident date;
- j. Report or claim date;
- k. Whether a crash is alleged;
- l. Whether a fire is alleged;
- m. Whether property damage is alleged;
- n. Number of alleged injuries, if any; and
- o. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

- 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 ZF Group/TRW used for organizing the documents. Describe in detail the search methods and search criteria used by ZF Group/TRW to identify the items in response to Request No. 2.
- 5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by ZF Group/TRW to date that relate to, or may relate to, the alleged defect in the subject components: 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. ZF Group/TRW's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), street address, email address and telephone number;
- c. Serial number;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Vehicle's Time in Service at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- h. Labor operation number(s);
- i. Problem code(s);
- j. Diagnostic Trouble Code (s);
- k. Replacement part number(s) and description(s);
- l. Concern stated by customer;

- m. Cause as stated on the repair order;
- n. Correction as stated on the repair order; and
- o. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

6. Describe in detail the search methods and search criteria used by ZF Group/TRW to identify the claims in response to Request No. 5, including the labor operations, problem codes, diagnostic trouble 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, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

State, by make, model, and production year, the terms of the new vehicle warranty coverage offered by ZF Group/TRW on the subject components (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 ZF Group/TRW offered for the subject components and state by option, make, model, and production year, the number of subject components 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 components, that ZF Group/TRW 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 ZF Group/TRW 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 component that have been conducted, are being conducted, are planned, or are being planned by, or for, ZF Group/TRW. 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. Describe all modifications or changes made by, or on behalf of, ZF Group/TRW 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 the subject component 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 ZF Group/TRW is aware of which may be incorporated into subject component production within the next 120 days.

- 10. Produce one/two of each of the following:
 - a. Exemplar sample of each design version of the subject component;
 - b. Field return sample of the subject component exhibiting the subject failure mode; and
 - c. Any kits that have been released, or developed, by ZF Group/TRW for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.
- 11. State the number of each of the following that ZF Group/TRW 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*):

- a. Subject component; and
 - b. Any kits that have been released, or developed, by ZF Group/TRW for use in service repairs to the subject component/assembly.
12. 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 ZF Group/TRW is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage. Furnish ZF Group/TRW's assessment of the alleged defect in the subject component, including:
 - a. The causal or contributory factor(s);
 - b. The failure mechanism(s);
 - c. The failure mode(s);
 - d. The risk to motor vehicle safety that it poses; and
 - e. 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
13. It appears that ZF Group/TRW has not reported all communications required under 49 C.F.R. 579.5 to NHTSA. Provide a chart containing the following information for a period of five years prior to the date of this Information Request for each communication that was not provided to NHTSA in the time frame required:
 - a. The name of the communication;
 - b. The date of the communication;
 - c. The date the communication was reportable; and
 - d. The date the communication was reported to NHTSA.
14. For a period of five years prior to the date of this Information Request, provide a copy of all notices, bulletins, and other communications as specified by 49 C.F.R. 579.5 that ZF Group/TRW has not previously provided to NHTSA regardless of whether ZF Group/TRW considered the communication to be related to a defect or not. To the extent not indicated on each document, provide the date that each notice, bulletin, or other communication responsive to this request was issued.
15. To the extent you provided communications in response to the request immediately above, explain why those communications had not previously been submitted to NHTSA.
16. Describe in detail the ZF Group/TRW process for submitting communications required under 49 C.F.R. 579.5 to NHTSA. State whether ZF Group/TRW has made any changes to that process during the prior five years and, if yes, describe the changes.

17. Describe in detail any changes ZF Group/TRW anticipates making to its processes for providing communications required under 49 C.F.R. 579.5 to NHTSA. Your response must include an anticipated timeline for implementing any such changes.

Legal Authority for This Request

This letter is being sent to ZF Group/TRW 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.

Civil Penalties

ZF Group/TRW's failure to respond promptly and fully to this letter could subject ZF Group/TRW 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.) The Vehicle Safety Act, as amended, 49 U.S.C. § 30165(a)(3), provides for civil penalties of up to \$21,780 per violation per day, with a maximum of \$108,895,910 for a related series of daily violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by Fixing America's Surface Transportation Act (the "FAST Act"), Pub. L. 114-94, § 24110(a)(2), 129 Stat. 1312 (Dec. 4, 2015)). This includes failing to respond completely, accurately, and in a timely manner to ODI information requests.

If ZF Group/TRW 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, ZF Group/TRW does not submit one or more requested documents or items of information in response to this information request, ZF Group/TRW 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.

Confidential Business Information

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 PE20-006 in ZF Group/TRW's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

If ZF Group/TRW 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, ZF Group/TRW 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-100), National Highway Traffic Safety Administration, Room W41-326, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. ZF Group/TRW 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 phrase "ENTIRE PAGE CONFIDENTIAL BUSINESS INFORMATION" or "CONTAINS CONFIDENTIAL BUSINESS INFORMATION" (as appropriate) must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 49 CFR 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. See 49 CFR 512.6(c) (as amended by 72 Fed. Reg. 59434 (October 19, 2007)).

If you have any questions regarding submission of a request for confidential treatment, contact Daniel Rabinovitz, Trial Attorney, Office of Chief Counsel at daniel.rabinovitz@dot.gov or (202) 366-8534.

Due Date

ZF Group/TRW's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by **September 11, 2020**. ZF Group/TRW's response must include all non-confidential attachments and a redacted version of all documents that contain confidential information. If ZF Group/TRW finds that it is unable to provide all of the information requested within the time allotted, ZF Group/TRW must request an extension from me at (202) 366-6938 no later than five business days before the response due date. If ZF Group/TRW 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 ZF Group/TRW then has available, even if an extension has been granted.

Please send email notification to Robert Nguyen at robert.nguyen@dot.gov and to ODI_IRresponse@dot.gov when ZF Group/TRW sends its response to this office and indicate whether there is confidential information as part of ZF Group/TRW's response.

If you have any technical questions concerning this matter, please call Robert Nguyen of my staff at (202) 493-7065.

Sincerely,



Bruce B. York, Chief
Medium/Heavy Duty Vehicle Division
Office of Defects Investigation