



August 9, 2019

DET-19-102

Bruce York and Peter Kivett
National Highway Traffic Safety Administration
1200 New Jersey Ave, SE
Washington, DC 20590

Subject: Response to Information Request Related to PE19-005

Dear Messrs. York and Kivett:

On behalf of Isuzu Motors Limited ("IML"), Isuzu Technical Center of America, Inc. ("ITCA" and, collectively with IML, "Isuzu") submits the following response to the Information Request associated with the above-referenced Preliminary Evaluation. Per agreement with the agency, Isuzu's time to respond to the Information Request was extended to August 9, 2019.

The Preliminary Evaluation covers all MY 2012-2016 Isuzu NPR trucks with automatic transmissions.¹ The Information Request includes MY 2017 Isuzu NPR trucks with automatic transmissions as peer vehicles. Per conversation with the agency, Isuzu understands and agrees that the core investigation involves NPR-gas trucks, and that NPR-diesel trucks have been included primarily for peer analysis. Accordingly, in its responses, Isuzu has distinguished between four product categories: (i) MY 2012-2016 N-gas trucks, (ii) MY 2017 N-gas trucks, (iii) MY 2012-2016 N-diesel trucks, and (iv) MY 2017 N-diesel trucks. Walk-in vans are included within the diesel truck categories.

As also discussed with the agency, the powertrain for the N-gas trucks, including both the engine and transmission, are engineered and built by General Motors. The powertrains are installed into Isuzu truck chassis by Spartan Motors and the trucks are certified by IML. The transmissions for the N-diesel trucks are sourced in Japan and the diesel engines are designed and manufactured by IML. The final N-gas and N-diesel trucks may be badged and sold as Isuzu trucks, or they may be badged and sold as Chevrolet trucks.

In responding to the Information Request, Isuzu has found it beneficial to develop one overarching Confidential Spreadsheet covering many of the Requests, rather than separate spreadsheets responsive to particular Requests. The Confidential Spreadsheet contains all of the information requested, as well as additional information reflecting Isuzu's confidential assessments and analyses.

Preliminary Objections

Prior to responding to the Information Request, Isuzu notes that it considers the definition of "document" in the Information Request to be unreasonably broad, vague, and ambiguous, and exceeds the scope of records that might reasonably be expected to bear relevant information. Isuzu further notes that it considers reference to the definitions in Part 579.4 applicable to the early warning program to be potentially overbroad as applied to determining whether or not

¹ The Opening Resume contains a typographical error in the place where the "Products" are described MY 2012-2015 NPR Trucks. As per the summary and the Information Request, Isuzu understands the subject vehicles to be MY 2012-2016 NPR Trucks.

there is an actual defect trend in a population of motor vehicles. Those definitions were designed to be overly inclusive to identify potential issues warranting further investigation. They were not designed to be applied to the determination of whether or not a safety defect trend in fact exists.

Isuzu's response to the Information Request is based on searches of locations currently in Isuzu's custody and control, where documents determined to be responsive to the Information Request would normally be found, and in consultation with current personnel knowledgeable about the information requested. As a result, the scope of this search did not include, nor could it reasonably include, "all of its/their past and present officers and employees, whether assigned to its/their principal offices or any of its/there field or other locations, including all of its/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 Isuzu (including all business units and persons previously referred to), who are, or in or after January 1, 2008, were involved in any 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."

Isuzu construes the Information Request as pertaining to vehicles manufactured for sale in the United States and its territories.

Specific Requests and Responses

Request No. 1

State, by model and model year, the number of subject and peer vehicles Isuzu has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Isuzu, state the following:

- a. *Vehicle identification number (VIN);*
- b. *Make;*
- c. *Model;*
- d. *Model Year;*
- e. *Subject component part number and design version installed as original equipment;*
- f. *Date of manufacture;*
- g. *Date warranty coverage commenced; and*
- h. *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 2010, or a compatible format, entitled "PRODUCTION DATA."

Response to Request No. 1

The production information and requested information with regard to each truck is provided.

Request No. 2

State the number for each of the following, received by Isuzu, or of which Isuzu is otherwise aware, which relate to, or may relate to, the alleged defect in the subject and peer vehicles:

- a. Consumer complaints, including those from fleet operators;*
- b. Field reports, including dealer field reports;*
- c. Reports involving a crash, injury or fatality;*
- d. Property damage claims;*
- e. Third-party arbitration proceedings where Isuzu is or was a party to the arbitration; and*
- f. Lawsuits, both pending and closed, in which Isuzu is or was a defendant or codefendant.*

For subparts "a" through "f" 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" provide a summary description of the alleged problem and causal and contributing factors and Isuzu's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e/f" and "f" 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.

Response to Request No. 2:

The information responsive to this request is contained within the Confidential Spreadsheet. The process through which Isuzu identified inputs (complaints, field reports, claims, etc.) responsive to the Information Request is described with more detail in response to Request No. 4. In sum, in order to arrive at the number of responsive inputs, Isuzu first conducted a word search of the various databases in which responsive information might be found.

An engineering team reviewed all of the inputs from the word search to identify those that might relate to "unintended acceleration." A second more detailed review identified which of the remaining inputs gave rise to allegations that relate or may relate to the "alleged defect" as defined in the Information Request. Isuzu also manually reviewed all of its legal files. These inputs are each separately set forth and analyzed on the Confidential Spreadsheet.

While all inputs responsive to the Information Request are included in the Confidential Spreadsheet, Isuzu took the additional step of reviewing and specifying which of those inputs may, in Isuzu's engineering judgement, be "pertinent" to the underlying issue and which may be "not pertinent." The purpose of this exercise was to bring a more concrete focus to the issue under review and the field inputs that relate or may relate.

- Isuzu identified as "pertinent" any input for which the context mentioned or suggested unintended acceleration or vehicle movement when the accelerator was not being pressed or when the brakes were being applied. Isuzu also identified as "pertinent" any input (other than those described below) for which the context mentioned or suggested that the vehicle moved when the driver was not intending to accelerate or move the truck.

- Isuzu identified as “not pertinent” the following inputs: (i) those that do not mention expressly or by context suggest vehicle acceleration or movement when the accelerator pedal was not being pressed or when the brakes were applied; (ii) those for which the context suggests the driver was intending to accelerate or move the truck; (iii) those that were technician or customer induced (e.g., pedal misapplication); (iv) those for which the part or component replaced is one that engineering judgement would conclude would not cause unintended acceleration; and (v) those relating to the stopper bolt recalls initiated in 2016 and 2017.

The total number of the following inputs identified through the process described above, and the number of each that have been deemed to be “pertinent” to the Preliminary Evaluation, are set forth below:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Request No. 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. Isuzu'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 make, 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 property damage is alleged;*
- k. Number of alleged injuries, if any; and*
- l. Number of alleged fatalities, if any.*

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

Response to Request No. 3:

The information is provided in the Confidential Spreadsheet.

Request No. 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 Isuzu used for organizing the documents. Describe in detail the search methods and search criteria used by Isuzu to identify the items in response to Request No. 2.

Response to Request No. 4:

Responsive documents have been provided in the Access File accompanying this response. The documents are organized in sub-folders labeled by the data source and can be cross-referenced on the Confidential Spreadsheet through the Isuzu file number or associated VIN. In some cases (e.g., Customer Complaints), Isuzu has included the relevant text directly in the Confidential Spreadsheet.

Isuzu identified the inputs to include in this response through a multi-step process. First, Isuzu developed a list of keywords designed to capture any item potentially responsive to the Information Request. Isuzu searched the relevant databases (listed below) across all MY 2012-2017 N-series vehicles (both gas and diesel) using the keywords listed below. Any input in one of the listed databases containing a word beginning with one of the keywords was captured (e.g., "surg" captured entries where the text included "surge," "surging," "surged" etc.).

Keywords in Search	Accel Accident Brak Buck Coll Crash Creep Forward Jerk Jump Lung Lurch Ran Away Rev Slow Stop Sudden Surg Torque Converter Unintend Unsafe Unwant
Data Sources Searched	Warranty (Isuzu Warranty Claims) TAL (Technical Assistance Line) OR (Owner Relations) FPR (Field Performance Reports) IQC – Engine (Isuzu Quality Center – Engine Replacement/Approval) IQC – Transmission (Isuzu Quality Center – Transmission Replacement/Approval) Internal Files (Isuzu Investigation Reports)

An engineering team then manually reviewed each input to determine which of the responsive items relates or may relate to the alleged defect. Although the agency's definition of "alleged defect" references scenarios "when the accelerator pedal is not being pressed," the team was directed to include cases "when the accelerator pedal is being pressed" to enable a further review and analysis of each claim. The further review, which included engineering management from the U.S. and Japan, reviewed each remaining input. Determinations were made, erring on the side of inclusion, with regard to whether the report involved unintentional vehicle movement, as opposed to circumstances of failure remedied through an unrelated repair, or other indicia that the input did not relate to unintended acceleration as defined in the Information Request.

[REDACTED]

[REDACTED]

[REDACTED]

Request No. 5:

State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Isuzu to date that relate to, or may relate to, the alleged defect in the subject and peer vehicles: 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. Isuzu'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. Labor operation number;*
- h. Problem code;*
- i. Replacement part number(s) and description(s);*
- j. Concern stated by customer; and*
- k. Comment, 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."

[REDACTED]

Response to Request No. 5:

The requested information is provided in the Confidential Spreadsheet.

Request No. 6:

Describe in detail the search methods and search criteria used by Isuzu to identify the claims 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 Isuzu 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 Isuzu 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.

Response to Request No. 6:

Isuzu utilized the same methodology to identify warranty claims as it did to identify the other inputs. That methodology is described in response to Request No. 4. The information requested with regard to each warranty claim is provided on the Confidential Spreadsheet.

A list of all labor operations codes and labor operation descriptions is provided. This information, along with applicable problem codes and problem code descriptions, are also identified in the Confidential Spreadsheet.

Further information with regard to new vehicle and extended warranty coverages is provided in the Access File. Isuzu offered various packages of extended warranty coverages for the subject vehicles. In the Access File accompanying this response, Isuzu has provided a spreadsheet titled "Warranty Coverage Table" which sets forth further detail on these packages and the number of vehicles that are covered under each such extended warranty (broken down by option, model, and model year). Information regarding N-gas and N-diesel vehicles is broken down in the first two tabs. The "Codes" listed on the tables in the first two tabs correspond to specific labor operations and components encompassed by that particular extended warranty package. The third tab lists the specific labor operations and components covered by a particular Code. The fourth tab lists the years of vehicles which are covered by each extended warranty.

Request No. 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 Isuzu 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 Isuzu is planning to issue within the next 120 days.

Response to Request No. 7:

In response to Request No. 7, Isuzu is providing Technical Service Bulletins that could relate to the alleged defect. As the agency is aware, Isuzu conducted Recall Nos. 16V-797 and 17V-324 to address the risk that the throttle pedal, once fully depressed (full throttle), might get caught

under the steel stopper bolt. In addition, Isuzu is providing TSBs relating to the components implicated in its analysis of the field inputs, as well as certain training material.

- SB10-K-001G: This bulletin provides updated on-vehicle repair procedures for certain MY 2007-2018 N-diesel vehicles with the AISIN A465 6-speed transmission.
- CB11-J-002: This bulletin relates to recall 11V-415, in which certain MY 2012 N-gas trucks had a calibration error whereby the ECM software did not detect a brake pedal switch failure.
- SB12-K-003B: This bulletin involves certain MY 2007-2015 N-diesel trucks and recalibration of the TCM to reduce occurrences of check transmission lamp displays when there is no fault in the transmission.
- IB12-J-003D: This bulletin encompasses certain MY 2005-current N-diesel trucks, and instructs dealers on proper installation of the fuel injector pipes into a long block assembly.
- IB13-K-001: This bulletin relates to certain MY 2012-2013 N-gas trucks, instructing dealers to contact Isuzu for repair instructions in response to certain complaints about transmission performance, if a crack or split in the transmission fluid filter housing is found.
- IB14-J-002: This bulletin involves certain MY 2011-2015 N-diesel trucks and provides inspection instructions to identify and resolve potential oil seepage into turbochargers and intake systems.
- IB15-K-002A: This bulletin encompasses certain MY 2007-2017 N-diesel trucks equipped with AISIN automatic transmissions and instructs dealers to check the F-18 fuse, then check, and if necessary, adjust the shift cable before diagnosing DTC P0707 and replacing the inhibitor switch.
- CB16-J-003: This bulletin provides the remedy instructions for recall 16V-797 involving the steel stopper bolt in certain MY 2014-2016 N-gas trucks.
- IB16-J-002A: This bulletin relates to possible causes for engine oil diluted with diesel fuel in certain MY 2005-current N-diesel trucks. Isuzu determined that engine oil diluted with diesel fuel was a cause of some engine failures. Dealers were advised of possible reasons that engine oil may be overfull or diluted with diesel fuel.
- CB17-J-001: This bulletin provides the remedy instructions for recall 17V-324 involving the steel stopper bolt in certain MY 2008-2009 and 2012-2013 N-gas trucks.
- CB18-K-001: This bulletin encompasses certain MY 2013-2017 N-diesel trucks, instructing dealers to replace the ATF hoses and clamps to reduce the potential for transmission fluid to leak.

Also included are: (i) a Parts Information Bulletin related to the high pressure fuel lines, (ii) two training presentations related to throttle body cleaning and the E-97/E-98 diagnostic procedure,



Request No. 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, Isuzu. 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.

Response to Request No. 8

After Isuzu identified the inputs in the Confidential Spreadsheet, Isuzu conducted further analysis on the causes and contributing systems and subsystems relating to each input. The analysis described below was conducted on all inputs before the determination was made regarding whether a particular input was "pertinent" or "not pertinent."

- First, Isuzu identified inputs where there was a clear alternative or known explanation separate from the alleged defect—for example, reports where the issue was customer-induced (e.g., pedal misapplication, putting gasoline in an N-diesel vehicle, running low on transmission fluid) or reports implicating the previous stopper bolt recalls.
- Second, Isuzu analyzed whether the input involved an engine surge or RPM change alone, or one potentially accompanied with vehicle movement or a lurch.
- Third, Isuzu categorized each input by the major system: (1) brake; (2) cab/chassis; (3) engine; (4) transmission; and (5) unknown.
 - Isuzu also categorized the input according to the specific sub-component or system at issue (e.g., torque converter, accelerator pedal, internal transmission).
 - Isuzu further estimated the driving situation at the time of the incident, categorized by (1) accelerating / steady speed; (2) decelerating / braking; (3) idle / park / neutral / stationary; or (4) unknown.
 - If Isuzu could determine the source and/or resolution of the issue, detail about the cause reason, countermeasure, and/or root cause was also added.

The results of this analysis are captured in the Pivot Tables under the pivot tab of the Confidential Spreadsheet. After reviewing the results of this analysis, Isuzu engineering identified the below particular issues for further review.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Request No. 9:

Describe all modifications or changes made by, or on behalf of, Isuzu 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 Isuzu is aware of which may be incorporated into vehicle production within the next 120 days.

Response to Request No. 9:

Responsive information with regard to the N-gas trucks is provided. There is no responsive information with regard to the N-diesel trucks.

Request No. 10:

State the number of each of the following that Isuzu 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 Isuzu for use in service repairs to the subject component/assembly.*

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 Isuzu is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

Response to Request No. 10:

Responsive information is provided.

Request No. 11:

Furnish Isuzu's assessment of the alleged defect in the subject vehicle, 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;*
- 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*
- f. The reports included with this inquiry.*

Response to Request No. 11:

Isuzu has collected and analyzed inputs from its various databases that relate or may relate to unintended acceleration as defined by the "alleged defect." In addition, Isuzu coordinated with GM with regard to the N-gas trucks.

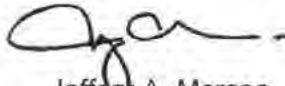
Isuzu has not found any defect trend leading to unintended vehicle movement with regard to the N-diesel trucks. Isuzu studied the field inputs carefully and identified a number of potential concerns warranting further review. These issues were evaluated and found to be (i) associated with previously resolved concerns, (ii) involving a customer's misperception of the vehicle's movement status, or (iii) circumstances not sufficient to lead to vehicle movement. The remaining inputs represent singular and random occurrences.

Isuzu conducted similar analysis with regard to the N-gas trucks. Isuzu identified issues warranting further review consistent with its approach to the N-diesel trucks. Isuzu discussed its analysis and data with GM. Isuzu understands that GM does not consider there to be a defect trend identified. Isuzu will continue to monitor the market and to communicate with GM as needed.

Isuzu has described the remaining information requested in its responses above.

If you have any questions or require additional information, please contact me at [REDACTED]
or Scott Crafard of my staff at [REDACTED]

Sincerely,



Jeffrey A. Marsee
Chief Representative
Emissions and Safety
Isuzu Technical Center of America, Inc.

Enclosures

cc: ODI_IRresponse@dot.gov