



Kia America, Inc.
Corporate Headquarters
111 Peters Canyon Road, Irvine, CA 92606-1790 USA

VIA ELECTRONIC SUBMISSION

June 6, 2022

Stephen A. Ridella, Ph. D, Office Director
Office of Defects Investigation
U.S. Department of Transportation
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington D.C. 20590

Re: **Engineering Evaluation (EA21-003);
Non-Crash Fires (MY) 2012-2015 Kia Rio and 2011 Kia Sorento**

Dear Dr. Ridella:

This letter is submitted in response to your letter received by to Kia America, Inc. (“Kia”) on April 25, 2019 (Reference NEF-103nd/EA21-003). That letter requested information regarding allegations of non-crash fires involving model year (MY) 2012-2015 Rio and 2011 Sorento vehicles as well as certain previously recalled vehicles.

REQUEST NO. 1:

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

- a. Vehicle identification number (17-character VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Engine (by type, displacement and company engine code);
- f. Whether the recall vehicle is covered by Recall(s) 15V-568, 17V-226, 20V-746, and/or 21V-727 and/or the Knock Sensor Detection System (KSDS) campaign(s) (e.g., Campaign # PI1802), and if so, specifically identify the recall(s) and/or campaign;
- g. Remedy/repair date(s) of vehicle for each the above-mentioned recall(s)
- h. Remedy/repair date(s) of vehicle for KSDS campaign;
- i. Date of manufacture (MM/DD/YYYY);
- j. Date warranty coverage commenced (MM/DD/YYYY); and

- k. The State in the United States where the vehicle was originally sold or leased, or delivered for sale or lease (postal abbreviation).

For each vehicle model, provide a separate table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA [Scope or Recall Vehicles]." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

RESPONSE TO REQUEST NO. 1:

A chart summarizing the total number of Subject Vehicles broken down by model and model year is being provided. **TAB 1.** A list of these vehicles is provided in Microsoft Access and titled "PRODUCTION DATA_SCOPE VEHICLES" and "PRODUCTION DATA_RECALLED VEHICLES" and is submitted contemporaneously with this response.

The source of the information submitted in response to this request is both Kia America, Inc. and Kia Corporation.

REQUEST NO. 2:

State, by model, model year, the number of each of the following, received by Kia, or of which Kia is otherwise aware, which relate to, or may relate to, any of the alleged defects in the subject scope vehicles:

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

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 Kia's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" 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:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 3:

State, by model, model year, the number of each of the following, received by Kia, or of which Kia is otherwise aware, which relate to, or may relate to, any of the alleged defects in the subject recall vehicles:

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

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 Kia’s assessment of the problem, with a summary of the significant underlying facts and evidence. For items “e” 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. 3:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 4:

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2 or No. 3, state the following information:

- a. Kia’s file number or other identifier used;
- b. The category of the item, as identified in Request No. 2 or 3 (i.e., consumer complaint, field report, etc.);

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- c. Vehicle owner or fleet name (and fleet contact person), email address and telephone number (please use distinct fields for each data type);
- d. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- e. Vehicle's 17-character VIN;
- f. Vehicle's make, model and model year (please use distinct fields for each data type);
- g. Vehicle's mileage at time of incident;
- h. Incident date (MM/DD/YYYY);
- i. Report or claim date (MM/DD/YYYY);
- j. Whether a crash is alleged;
- k. Whether a fire is alleged;
- l. Whether property damage is alleged;
- m. Number of alleged injuries, if any; and
- n. Number of alleged fatalities, if any.

For this request, provide the information separately for subject scope vehicles and subject recall vehicles 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.

RESPONSE TO REQUEST NO. 4:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 5:

Produce copies of all documents related to each item within the scope of Request No. 2 and No. 3. Organize the documents, using Kia's file number in Request No. 4, separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Kia used for organizing the documents. Describe in detail the search methods and search criteria used by Kia to identify the items in response to Request No. 2 and No. 3.

For this request, provide the information separately for subject scope vehicles and subject recall vehicles.

RESPONSE TO REQUEST NO. 5:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 6:

State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Kia to date that relate to, or may relate to, the alleged defect

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in the subject 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. Kia's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), email address and telephone number (please use distinct fields for each data type);
- c. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- d. 17-character VIN;
- e. Repair date (MM/DD/YYYY);
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code (please use distinct fields for each data type);
- 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_Scope Vehicles." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

RESPONSE TO REQUEST NO. 6:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 7:

State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Kia to date that relate to, or may relate to, the alleged defect in the subject recall 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. Kia's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), email address and telephone number (please use distinct fields for each data type);
- c. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- d. 17-character VIN;
- e. Repair date (MM/DD/YYYY);
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code (please use distinct fields for each data type);
- 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_Recall Vehicles." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

RESPONSE TO REQUEST NO. 7:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 8:

Describe in detail the search methods and search criteria used by Kia to identify the claims in response to Request No. 6 and 7, including the labor operations, problem codes, part numbers and any other pertinent parameters used.

RESPONSE TO REQUEST NO. 8:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 9:

Provide a list of all labor operations, labor operation descriptions, problem codes and problem code descriptions applicable to the alleged defects in the subject vehicles.

RESPONSE TO REQUEST NO. 9:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 10:

State, by model and model year, the terms of the new vehicle warranty coverage offered by Kia 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 Kia 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. 10:

The following new vehicle warranty coverages offered by Kia apply to each of the subject vehicles and details of these coverages are outlined in the Warranty and Consumer Information Manual provided with each new Kia vehicle:

Basic Limited Warranty Coverage

Applies to all components for 60 months or 60,000 miles from the Date of First Service (the first date a vehicle is placed into service), whichever comes first, excluding wear and maintenance items or items specifically excluded as exceptions, and is fully transferrable to subsequent owners. Exceptions include:

- Damage due to factors beyond Kia's control such as misuse, accidents, modification, environmental damage or damage caused by the installation of improperly sized components;
- Damage due to lack of maintenance or the use of the wrong fuel, oil or lubricants;
- Service Adjustments which are covered for the first 12 months or 12,000 miles from the Date of First Service and are defined as minor repairs not usually associated with the replacement of parts;
- Air Conditioner Refrigerant Charge which is covered for the first 12 months from the Date of First Service regardless of mileage;
- Audio, Entertainment or Navigation system which is covered for the first 36 months or 36,000 miles, whichever occurs first, from the Date of First Service;
- Original Equipment Battery which is covered by a limited warranty period of 24 months from the Date of First Service, regardless of mileage;
- Brake and clutch linings if they fail to function properly during normal use are covered for the first 12 months or 12,000 miles from the Date of First Service; and
- Paint repairs due to non-impact discoloration, fading, cracking, chipping, or flaking are covered for the first 36 months or 36,000 miles, whichever occurs first, from the Date of First Service

Powertrain Coverage

Applies to Original Owners (first retail purchaser or lessee), is not transferable to subsequent owners and does not apply to vehicles placed into commercial service. Powertrain coverage begins upon expiration of the 60 month/60,000 mile Basic Limited Warranty Coverage. It covers the following components for up to 120 months or 100,000 miles from the Date of First Service, and does not cover normal wear and tear, maintenance, or items defined as exceptions which are stated above in reference to the Basic Limited Warranty Coverage:

- In the Engine: cylinder block, cylinder head and all internal parts, timing gear, seals and gaskets, valve cover, flywheel, oil pump, water pump and turbo charger
 - In the Transaxle: transmission case and all internal parts, torque converter, drive shafts, universal joints, front hubs, bearings, seals, and gaskets
 - In the Axles: axle shafts and C-V joints (couplings), seals, hubs, and wheel bearings
 - In the Transmission: transmission case, transfer case, torque converter and all internal parts, seals, and gaskets
 - In the Differentials: front and rear differential assemblies, cases, all internal parts, seals, and gaskets
 - In the Propeller Shafts: Drive shafts, universal joints

Anti-Perforation Coverage

Covers perforation for 60 months or 100,000 miles from the Date of First Service (the first date a vehicle is placed into service), whichever comes first, excluding items specifically excluded as exceptions, and is fully transferrable to subsequent owners. Exceptions include:

- Perforation due to corrosion caused by industrial fallout, accident, damage, abuse, vehicle modifications or damaging or corrosive cargo; Surface corrosion not resulting in perforation;
- Perforation due to corrosion in a component that is not a body sheet metal component, specifically excluding exhaust components; and
- Damage from the installation of parts not approved by Kia.

Federal or California Emission Control Warranty

Warrants that the vehicle conforms to the applicable regulations of the U.S. Environmental Protection Agency (EPA) for either the period of 24 months or 24,000 miles whichever occurs first or 96 months or 80,000 miles whichever occurs first, depending upon the part, from the Date of First Service. It specifically excludes repairs necessary due to accidents, misuse, lack of proper maintenance, or improper repairs. Pursuant to the Clean Air Act, coverage also provides a remedy if the vehicle fails to pass an EPA-approved emission short test in the first 24 months or 24,000 miles from the Date of First Service or 96 months or 80,000 miles, whichever occurs first, if the failure is due to a part listed with coverage for that time period.

In California or any other state that adopts California's emission warranty provision, Kia vehicles certified for sale are warranted to meet the California anti-smog standards and repairs will be covered if a Kia vehicle fails a Smog Check inspection or if any emission-related part is defective for 36 months or 50,000 miles, whichever occurs first. Certain emissions-related parts are covered for 84 months or 70,000 miles, whichever occurs first. Emissions components on Super

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Ultra Low Emission Vehicles (SULEV) or Partial Zero Emission Vehicles (PZEV) are covered for 15 years or 150,000 miles, whichever occurs first.

Replacement Parts and Accessories

Covers Kia Genuine new or remanufactured replacement parts and Kia Accessories supplied from Kia Motors America, Inc. and sold by an Authorized Kia Dealer for the greater of either the duration of the applicable warranty or the first 12 months or 12,000 miles from the date of installation. Over the counter parts or accessory purchases are covered for 12 months and unlimited miles from the date of purchase. Damage due to accidents, misuse, alterations, negligence, improper repairs, environmental issues, and normal wear and tear or deterioration is not covered.

Extended Warranty

A list of extended warranty programs applicable to the engine in the subject vehicles is attached. **TAB 2.**

The source of the information submitted in response to this request is Kia America, Inc.

REQUEST NO. 11:

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject scope vehicles, that Kia 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 Kia is planning to issue within the next 120 days.

RESPONSE TO REQUEST NO. 11:

Copies of the documents responsive to this request are provided. **TABS 3-10.**

The source of the information submitted in response to this request is Kia America, Inc.

REQUEST NO. 12:

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 defects in the subject scope vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Kia. 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. 12:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 13:

Describe all modifications or changes made by, or on behalf of, Kia in the design, material composition, manufacture, quality control, supply, or installation of the components, from the start of production to date, in the subject scope vehicles and either directly or indirectly reduce or mitigate the risk of fire or thermal events. 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 Kia is aware of which may be incorporated into vehicle production within the next 120 days.

RESPONSE TO REQUEST NO. 13:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 14:

Furnish Kia's assessment of the alleged defects in the subject scope vehicles, including:

- a. The root cause and all contributory factor(s);

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- 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; and
- f. The VOQ reports referenced in this inquiry.

RESPONSE TO REQUEST NO. 14:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 15:

Describe in detail and produce copies of any documents used to answer each item below relating to Knock Sensor Detection Software (KSDS):

- a. The validation process used to assure KSDS successfully recognizes the various field issues observed to date.
- b. How the threshold of detection for KSDS was determined to illuminate the vehicle's MIL and engage "Engine Protection Mode or Limp Home Mode".
- c. The specifics of "Engine Protection Mode" that KSDS will apply (e.g. specific torque, RPM limits, shifting characteristics)
- d. How long a typical engine can operate in "Engine Protection Mode" if warnings to the driver are ignored.

RESPONSE TO REQUEST NO. 15:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 16:

By vehicles model and model year, provide counts to answer each item below relating to Knock Sensor Detection Software (KSDS):

- a. Statistical projections of percentage of "false negatives" and "false positives" that KSDS provides.
- b. Engine failure/engine fire incidents after KSDS installation, with DTC P1326 found.
- c. Engine failure/engine fire incidents after KSDS installation, but no DTCs were triggered.

RESPONSE TO REQUEST NO. 16:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

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REQUEST NO. 17:

Describe in detail the engine replacement claim procedures, past and present, under engine related customer campaigns, recalls, settlements or class action lawsuits. If procedure is different for specific vehicles or actions stated above, please state the vehicle, and what steps in the process are different.

RESPONSE TO REQUEST NO. 17:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

REQUEST NO. 18:

Produce copies of any guidance to customers (beyond the new car owner's manual), and other documents that relate to, or may relate to, engine oil consumption and the necessity of checking/adding oil between oil changes. 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 Kia is planning to issue within the next 120 days.

RESPONSE TO REQUEST NO. 18:

Copies of the documents responsive to this request are provided. **TABS 11-14.**

The source of the information submitted in response to this request is Kia America, Inc.

REQUEST NO. 19:

Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, benchmarked oil consumption of Kia engines vs competitor engines.

RESPONSE TO REQUEST NO. 19:

Pursuant to the extension granted by Peter Kivett on May 26, 2022, the response to this Request will be provided on July 6, 2022.

If you have any questions or if you need anything further, please do not hesitate to contact me.

Sincerely,

