



The Power to Surprise

November 26, 2014

VIA FEDERAL EXPRESS

Frank S. Borris II, Director
Vehicle Integrity Division
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 Analysis (EA14-002)**
Panorama Sunroof Option (MY) 2011-2014 Kia Sorento

Dear Director Borris:

This letter is submitted in response to your IR letter dated October 24, 2014 sent to Kia Motors America, Inc. (Reference NVS-212eer/EA14-002). That letter requested additional and updated information regarding the allegations of the sunroof shattering in model year (MY) 2011-2014 Kia Sorento vehicles equipped with a panorama sunroof option.

REQUEST NO. 1:

State, by model and model year, the number of subject 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 (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Date of manufacture;
- f. Date warranty coverage commenced; and
- g. 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 total number of 2011-2013 MY Sorento vehicles with panorama sunroofs for sale in the United States was previously provided in the response to PE13-035, dated January 10, 2014. The total number
Kia Motors America Inc.
111 Peters Canyon Rd, Irvine, CA 92606
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of 2014 MY Sorento vehicles manufactured with panorama sunroofs for sale in the United States is 27,997.

A listing of all 2014MY Sorento vehicles with panorama sunroofs is provided on a Data Collection Disc under the category "PRODUCTION DATA" submitted with this response.

REQUEST NO. 2:

State the number of each of the following, received by Kia, or of which Kia is otherwise aware, which relate to, or may relate to, the alleged defect in 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;
- d. Property damage claims;
- e. Third-party arbitration proceedings where Kia is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which Kia 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 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:

Below is a breakdown of the requested information:

CATEGORY	2011-2013MY	2014MY	TOTAL
Consumer Complaints	60	18	78
Field Reports	29	7	36
Technical Assistance Case Center Reports	21	6	27
Reports involving crash, injury or fatality	9	1	10
Property Damage Claims	3	0	3
Third Party Arbitrations	0	0	0
Lawsuits	0	0	0

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The summary description for "c-f" is under the Kia Assessment column in the REQUEST NUMBER TWO DATA file on the Data Collection Disc submitted with this response.

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. Kia'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 the vehicle was occupied when the incident occurred;
- j. Whether the vehicle was in motion when the incident occurred;
- k. Whether a crash is alleged;
- l. Whether property damage is alleged;
- m. Number of alleged injuries, if any; and
- n. 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:

A listing of the responsive communications identified in Request No. 2 is provided on a Data Collection disc under the category "REQUEST NUMBER TWO DATA" and submitted with this response.

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 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.

RESPONSE TO REQUEST NO. 4

Copies of the documents identified in response to Request No. 2 are submitted with this letter. See Tab A. They are organized by the following categories:

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- Consumer Affairs department files from KMA's department database (78)
- Field Reports (36)
- Technical Assistance Case Center Reports (27)

Kia's search has identified a total of 80 unique VINs related to the alleged vehicle complaints. For the 2011-2013MY Sorento, Kia conducted an incremental search from the search date identified in its response to PE13-035 dated January 10, 2014. As a result, Kia searched for all files from November 1, 2013 through September 30, 2014 which included the words "roof" and "broke" or "break"; "roof" and "shatter"; and "roof" and "explode" or "explo". Kia also searched all files through September 30, 2014 for the 2014MY Sorento using the same search term parameters. The results were then reviewed to identify those items which related, or may relate to the alleged defect as described in your letter.

REQUEST NO. 5:

State, by model and model year, a total count for each 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 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) 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. Whether the vehicle was occupied when the incident occurred;
- k. Whether the vehicle was in motion when the incident occurred;
- l. Concern stated by customer; and
- m. 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."

RESPONSE TO REQUEST NO. 5:

A total of 14 additional warranty claims have been received by KMA from November 1, 2013 through September 30, 2014 for the 2011-2013MY Sorento vehicles. A total of 48 additional goodwill claims have been approved through the Consumer Affairs department during this same time period.

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The 2014 Kia Sorento with panorama sunroof was first produced for sale in the United States beginning January 2013. A total of 10 warranty claims have been received by KMA through September 30, 2014 for the 2014 Sorento. A total of 13 goodwill claims have been approved from the start of production through September 30, 2014.

A listing of the additional responsive warranty and goodwill claims for the 2011-2013MY Sorento is provided on a Data Collection Disc under the categories "WARRANTY DATA 1 and WARRANTY DATA 2" and a listing of the responsive warranty and goodwill claims for the 2014MY Sorento is provided under the categories "WARRANTY DATA 3" and WARRANTY DATA 4".

REQUEST NO. 6:

Describe in detail the search methods and search criteria used by Kia 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 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. 6:

For the 2011-2013 Kia Sorento, Kia conducted an incremental search from the search date identified in its response to PE13-035, dated January 10, 2014. Thus, Kia searched for all 2011-2013MY Sorento repair/replacement warranty claims from November 1, 2013 through September 30, 2014 for the front and rear glass panel assemblies and frame assemblies.

Kia searched for all 2014MY Sorento repair/replacement warranty claims through September 30, 2014 for the front, center and rear glass panel and frame assemblies. That data was then reviewed and claims that either related or could relate to the alleged defect have been provided.

Kia also searched for all goodwill claims approved through KMA's Consumer Affairs Department relating to the alleged defect.

Codes Used. In your letter you requested that Kia provide its "problem code" information. Kia refers to the "problem code" as the "cause code" which carries a letter "C" which reflects the technician's evaluation of the cause of the problem. You also requested that Kia provide information regarding the "concerns stated by the customer." Kia's code chart refers to these as "condition codes," but they are commonly referred to as "nature codes," and carry the "N" designation. These reflect the service writer's or technician's understanding of the customer's information.

A copy of KMA's coding sheet for warranty claims was previously submitted with its response to PE13-035.

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The 2014MY Sorento vehicles have a 5 year, 60,000 mile basic warranty. No extended or additional warranties were provided to Kia customers.

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 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. 7:

There are no documents responsive to this request.

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, 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. 8:

Other than the actions previously identified in its response to PE13-035 dated January 10, 2014, there are no additional actions applicable to the 2011-2013MY Sorento responsive to this request.

The actions in response to this request as it relates to the 2014MY Sorento are attached. **See Tab B.**

Pursuant to the extension granted to KMA by NHTSA on November 20, 2014 the English translations for the Korean language documents will be provided on December 18, 2014.

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REQUEST NO. 9:

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 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 Kia is aware of which may be incorporated into vehicle production within the next 120 days.

RESPONSE TO REQUEST NO. 9:

There have been no responsive modifications applicable to the 2011-2013MY Sorento. See Kia's PE13-035 response to Request No. 9, dated January 10, 2014.

The 2014MY Sorento went through a model change that year and is thus different than the 2011-2013MY Sorento in various ways. However, after production of the 2014MY Sorento, changes were made to the subject component and are reflected in the attached chart. See Tab C.

REQUEST NO. 10:

State the number of each of the following that Kia 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 Kia 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 Kia is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

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RESPONSE TO REQUEST NO. 10:

A chart identifying the updated part sales by KMA for the 2011-2013MY Sorento is attached. See Tab D. The glass and sunroof supplier information for the 2011-2013MY Sorento was previously provided in response to PE13-035, dated January 10, 2014.

A chart identifying part sales by KMA for the 2014MY Sorento is also attached. See Tab E. The front glass part number is 81610 2P500, the center glass part number is 81611 2P500 and the rear glass part number is 81612 2P500. The frame assembly part number is 81620 1U500.

The front, center and rear glass panel supplier for the 2014MY Sorento is Hankuk Sekurit, 55 Soryong-dong, Gunsan, Joellabuk-do, 573-400, Korea. The point of contact is Yeon-Hyuk Lim, Vice-President, Quality Division. Mr. Lim can be reached at 82 10 8951 0193.

The supplier of the panorama sunroof assembly for the 2014MY Sorento is Webasto Donghee, 13-28, Sujangri, Shinchangmyun, Asan City, Korea. The point of contact is Ki-Sung Kim, Director, Quality Division. Mr. Kim can be reached at 82 10 5331 4615.

No kits have been released or developed for use in the service of repairs to the subject component for the 2014MY Sorento.

The 2015MY Sorento has the same subject component as the 2014MY Sorento.

REQUEST NO. 11:

For the subject component, provide the following information:

- a. Size of panel(s) (length x width in centimeters);
- b. Thickness of glass panel(s) (millimeters);
- c. Weight of glass panel(s) (kilograms);
- d. Explain the reasons for selecting the type, thickness and other relevant aspects of the glass used in the subject component in comparison with other types, thicknesses and other relevant aspects of glass, which were considered or which could have been used; and
- e. Engineering drawings of the subject component.

RESPONSE TO REQUEST NO. 11:

a-c:

		Movable Glass	Rear Glass
2011-2013MY	Size (cm)	104 x 80	97 x 85
	Thickness (mm)	4.0	4.0
	Weight (kg)	7.607	8.067

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		Front Glass	Movable Glass	Rear Glass
2014MY	Size (cm)	102 x 13	100 x 77	96 x 90
	Thickness (mm)	4.0	4.0	4.0
	Weight (kg)	1.549	10.618	8.849

- d. The panorama sunroofs in the 2011-2013MY and 2014MY Sorentos were designed with existing suppliers utilizing existing technologies and manufacturing processes that had been used in Kia vehicle sunroofs for many years before then. Kia chose tempered glass with its suppliers due to its proven strength capacity to withstand high breaking stresses. The 4mm thickness was selected since such glass had been used in Kia's standard sunroofs and maintained the necessary balance of a strong sunroof without adding weight which might compromise vehicle stability, a significant factor in light of the increased size of the sunroof glass. Kia also compared other vehicles manufactured with panorama sunroofs and concluded that other manufacturers used the same glass type and thickness with success and thus that Kia could safely proceed in a similar manner.

When KMC developed the panorama sunroof for the 2011-2013MY Sorento, the 2 panel glass system was standard. Product design in the industry then moved towards a 3 panel design for appearance reasons for the 2014 model year. Kia adopted such a 3 panel design.

- e. Copies of the engineering drawings of the subject component for the 2011-2013MY are attached. See Tab F. Copies of the engineering drawings of the subject component for the 2014MY are attached. See Tab G.

REQUEST NO. 12:

Furnish Kia'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; 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
- f. The reports included with this inquiry.

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RESPONSE TO REQUEST NO. 12:

Pursuant to the extension granted to KMA by NHTSA on November 20, 2014 the requested information will be provided on December 18, 2014.

Sincerely,



J.S. (Jurassic) Park
Executive Director, Product Liability & Regulatory
Compliance
Kia Motors America, Inc.

EA14-002

KIA

11/26/2014

TAB B

EA14-002 2014 Only Kia
Sorento Panoramic Sunroof
Response to Request No 8

EA14-002 2014 Only Kia Sorento Panoramic Sunroof—Response To Request No. 8

Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 1)	5/21/2012	5/23/2012	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 2)	6/25/2012	6/25/2012	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.
FMVSS 205 Compliance Testing (Tab 3)	6/29/2012	6/29/2012	FMVSS 205 Certification testing for Sorento panorama sunroof 4.0mm nominal thickness gray tinted tempered glass without heating wires; without antenna wires; with or without obscuration bands.	China National Safety Glass & Quartz Glass Test Center on behalf of Hankuk Sekurit, Ltd.,	Testing indicates that the glazing complies with 205 requirements including impact ball, fracture, and impact shot bag tests.
Certificate of Compliance with FMVSS 205 (Tab 4)	NA	NA	Certification confirmation	Hankuk Sekurit, Ltd.	Subject glass, "DOT-184, AS-3, M-540," as submitted, complies with FMVSS 205.

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
Inspection Report for Front, Movable and Rear Glass Panels (Tab 5)	8/25/2012	8/25/2012	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 6)	9/21/2012	9/25/2012	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 7)	11/20/2012	11/20/2012	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
			print.		
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 8)	12/24/2012	12/27/2012	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 9)	3/25/2013	3/25/2013	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 10)	3/27/2013	3/29/2013	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 11)	6/25/2013	6/25/2013	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
			composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.		applicable standards.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 12)	6/25/2013	6/27/2013	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 13)	9/25/2013	9/25/2013	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 14)	9/24/2013	9/26/2013	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
			2007, and MS381-01 standards.		
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 15)	12/21/2013	12/24/2013	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 16)	12/25/2013	12/25/2013	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 17)	1/8/2014	1/10/2014	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 18)	3/25/2014	3/25/2014	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
			composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.		applicable standards.
USA- XMA FL Sunroof Glass Claim Investigation (Tab 19)	4/7/2014	4/7/2014	KMA and Webasto Donghee investigate 4/1/2014 claim of sunroof glass fractured while driving on I-10 highway in Arizona. Kelly Blue Book evaluation review. Vehicle traveling 75 mph near Phoenix.	KMA and Webasto Donghee	Examination of the vehicle body surface and the fractured glass indicated that the incident was caused by external impact.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 20)	4/23/2014	4/25/2014	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Inspection Report for Front, Movable and Rear Glass Panels (Tab 21)	6/25/2014	6/25/2014	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
			specimen, and the wear resistance of the ceramic print.		
Operation Durability Test Report for Panorama Roof Assembly, July 2014 (Tab 22)	7/3/2014	7/24/2014	Test and evaluate the operation durability of the panorama sunroof assembly, per KMC specification ES81600-04 4-3.	Webasto DONGHEE Testing Labs (WDH Co., Ltd.)	Operational durability of movable glass and roller blind complied with applicable KMC specification.
Reliability Test Report for Heat Cycle Resistance of External Components (Tab 23)	7/11/2014	7/14/2014	Evaluate any compromise to external parts after enduring heat cycles, per KMC specification MS 210-06 A2.	Webasto DONGHEE Testing Labs (WDH Co., Ltd.)	External parts of the panorama roof assembly complied with the applicable specification.
Reliability Test Report for Front, Movable and Rear Glass Panels (Tab 24)	7/14/2014	7/17/2014	Reliability test for front, movable, and rear glass for compliance with ECE R43, ANSI Z 26.1, GB9656, KS L 2007, and MS381-01 standards.	Hankuk Sekurit, Ltd.	All three glass panels complied with the applicable standards including compliance with impact test.
Strength and Reliability Test Report for Mass Production (Tab 25)	7/16/2014	7/17/2014	Test and evaluate the strength and rigidity of sections of the frame, panel and roller blind, per KMC specification	Webasto DONGHEE Testing Labs (WDH Co., Ltd.)	Results indicate that inspected parts of the panorama roof assembly complied with the applicable specification.
Reliability Test Report for Heat Cycle Resistance of Internal Components (Tab 26)	7/18/2014	7/21/2014	Evaluate any compromise to internal parts after enduring heat cycles, per KMC specification MS 210-05 C2.	Webasto DONGHEE Testing Labs (WDH Co., Ltd.)	Results indicate that inspected parts of the panorama roof assembly complied with the applicable specification.

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Action Title	Start Date	End Date	Subject/Object of Action	Group Responsible	Finding/Conclusion Summary
Inspection Report for Front, Movable and Rear Glass Panels (Tab 27)	9/30/2014	9/30/2014	Inspection pursuant to Kia MS 381-01 and Kia ES01000-00 of exterior, material composition, visibility, strength, durability, and dimensions of glass specimen, and the wear resistance of the ceramic print.	Hankuk Sekurit, Ltd.	All three glass panels for 2014 Sorento complied with the applicable standards.

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TAB D

Sorento Panoramic Sunroof
Parts Sales from 11-1-13 Thru
9-3-14 for 2011-2013MY

Sorento Panoramic Sunroof Glass - Parts Sales by Part Number and Shipment Month/Year

(Parts Sales from 11/01/2013 thru 09/30/2014, for 2011MY-2013MY Only)

Sum of Ship Qty	YEAR / MONTH											Grand Total
	2013		2014									
PART #	11	12	01	02	03	04	05	06	07	08	09	
81610 2P000	10	4	5	17	13	25	15	16	10	16	13	144
81616 2P000	1	3	1	9	2	11	5	9	4	7	11	63
81620 1U000			2	2	1	2		1		1	2	11
81620 2P000	2	2	1	3	3	3	1	7	3	1	1	27
Grand Total	13	9	9	31	19	41	21	33	17	25	27	245

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TAB E

Sorento Panoramic Sunroof
Parts Sales Thru 9-30-14 for
2014MY

Sorento Panoramic Sunroof Glass - Parts Sales by Part Number and Shipment Month/Year
(Parts Sales from JOB #1 thru 09/30/2014, for 2014MY Only)

Sum of Ship Qty	YEAR / MONTH																			Grand Total
	Column Labels																			
PART #	2013											2014								
	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	
81610 2P500	1	1	1	1	2		3	2	2	2	7	1	3	4	4	8	4	5	6	57
81611 2P500	1	2			2	1	1	3	5	1	6	2	4	3	3	6	4	3	3	50
81612 2P500		1	2	2	1		2	1	1	1		2	1	2	1	5	1	3	2	28
81620 1U500		1		1		1		1		1	1	2		1	1	1		1	2	14
Grand Total	2	5	3	4	5	2	6	7	8	5	14	7	8	10	9	20	9	12	13	149