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Ms. Kathleen C. DeMeter, Director
Office of Defects Investigation, Enforcement
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

July 13, 2006
Ref. No.: GA06-017

With Confidential Business Information Deleted

RE: EA06-001PIR, NVS-212-pco

This is in response to your letter of May 16, 2006 concerning the shattering of the sunroof glass panel in certain 2004-2006 Cadillac SRX vehicles and your request for "peer" information on 2004-2006 Subaru Forester and Legacy vehicles. Two copies of this response are provided per your request.

For responses 5 k,o and a portion of 7, we have requested that the information regarding sunroof supplier details and sunroof design details be withheld from public disclosure as confidential business information. A confidentiality request along with the confidential material has been sent to the Chief Counsel.

In accordance with your request, we have repeated each question verbatim before the response.

- 1. State, by model, model year and each sunroof configuration, the number of subject peer vehicles Subaru has manufactured for sale or lease in the United States. Provide the table in Microsoft Excel 2000, or a compatible format, entitled "PRODUCTION DATA."**

Certain models of the 2004-2006 MY Subaru Forester and Legacy have the sunroof system which you are requesting information on. The following is a breakdown of the model, year and volume of the requested vehicles.

PRODUCTION DATA

MODEL	SUNROOF	NO SUNROOF
2004 MODEL YEAR		
Forester	18049	44656
Legacy	28787	32308
2005 MODEL YEAR		
Forester	13988	36942
Legacy	47631	64931
2006 MODEL YEAR		
Forester	26826	27550
Legacy	42058	36932

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2. State the number of each of the following (in a table format) by each model, model year, sunroof configuration and the specific sunroof section or panel, received by Subaru, or of which Subaru is otherwise aware, which relate to, or may relate to, the subject condition in the subject 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, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims (including own vehicle); and
- e. Third-party arbitration proceedings where Subaru is or was a party to tire arbitration; and
- f. Lawsuits, both pending and closed, in which Subaru is or was a defendant or codefendant.

For subparts "a" through "d," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a consumer complaint, field report (duplicate) and a crash report (duplicate)), but the duplicated reports shall be identified. Provide the table in Microsoft Access 2000, or a compatible format. Entitled "MANUFACTURER REPORT COUNT."

- a. 5 (2004 Legacy)
- b. 2 (1 2004 Legacy, 1 2005 Legacy)
- c. 0
- d. 0
- e. 0
- f. 0

3. State, by each model, model year, sunroof configuration and the specific sunroof section or panel, the total count for all of the following categories of claims, collectively, that have been paid by Subaru to date that relate to, or may relate to, the subject condition in the subject 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. Do not count the claim if it is a duplicate of a subpart report in question 2. Provide this information in a table format in Microsoft Excel or Access 2000, or a compatible format, entitled "WARRANTY DATA."

Model	Model Year	# of Cases	Sunroof Configuration	Specific Sunroof section/panel
Forester	2004	0	n/a	
Forester	2005	0	n/a	
Forester	2006	0	n/a	
Legacy	2004	1	Dual	Front
Legacy	2005	1	Single	
Legacy	2006	0	n/a	

4. Describe in detail the search criteria used by Subaru to identify the claims identified in response to Request No. 3, 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 subject condition in the subject peer vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Subaru on the overall subject vehicle, on glass breakage in the side windows and glass breakage in the sunroof system (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 Subaru offered for the subject peer vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

Subaru selected the following fail codes to search for claims and field reports applicable to this issue:

<u>Fail Code</u>	<u>Fail Code Description</u>
XDM01	Sunroof -Broken
XDM02	Sunroof -Cracked

5. For each glass panel utilized (from front to rear of vehicle) in the subject vehicle, provide the following information:
- a. Formal item name;
 - b. Common item name;
 - c. Movable or Fixed glass panel system;
 - (l. Single or multiple panel design (state no. of panels);
 - e. Type of movable glass panel deployment design (i.e., Slide-in-Roof Tilted and Slide over roof; Tilted, Slide and Stacked (for sectioned design), etc.);
 - f. Interior opening beneath glass panel area (length x width across roof in centimeters);
 - g. Location of glass panel (i.e., "over 1st-row occupants", "over 2nd-row occupants", "over 1st & 2nd-row occupants," etc..);
 - h. Size of panel (length x width centimeters);
 - i. Thickness of glass (millimeters);
 - j. Weight of glass panel (kilograms);
 - k. Type of glass used (i.e. laminated, tempered, tempered-laminated, multiple glazed unit, rigid plastics, etc... as classified in ANSI/SAE Z26.1)
 - l. Certified to ANSI/SAE Z26.1, Item 3/4 Glazing Material Standard (specify all applicable Table 1 Tests);
 - m. Provide any impact test results per ANSI/SAE Z26.1 Test No. 6-14 or per other standards if available;
 - n. ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2 etc.) if any; and
 - o. 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.

Model & MY	Subaru Legacy Wagon & Outback		Subaru Forester
Inquiry #	2004MY	2005 & 2006MY	2004, 2005 & 2006MY
a	Formal item name;		
	SUNROOF ASSY Touring Wagon	SUNROOF ASSY Touring Wagon	SUNROOF ASSY
b	Common item name;		
	Tandem-Twin Sunroof	Twin-Lid Sunroof	Sunroof
c	Movable or Fixed glass panel system;		
	Movable glass panel system	Movable glass panel system	Movable glass panel system
d	Single or multiple panel design (state no. of panels);		
	Multiple panel design: 2	Multiple panel design: 2	Single panel design: 1
e	Type of movable glass panel deployment design (i.e., Slide-in-Roof; Tilted and Slide over roof; Tilted, Slide and tacked (for sectioned design), etc.);		
	Front: Tilted Roof	Front: Tilted Roof	Slide-in-Roof
	Rear: Slide-in-Roof	Rear: Slide-in-Roof	
f	Interior opening beneath glass panel area (length x width across roof in centimeters)		
	Front: 26.0 x 62.0 (cm)	72.0 x 59.8 (cm)	69.8 x 71.0 (cm)
	Rear: 42.1 x 65.7 (cm)		
g	Location of glass panel (i.e., "over 1st-row occupants", "over 2nd-row occupants", "over 1st & 2nd-row occupants", etc...);		
	"over 1st-row occupants" and "over 2nd-row occupants' legs"	"over 1st-row occupants" and "over 2nd-row occupants' legs"	"over 1st-row occupants" and "over 2nd-row occupants' legs"
h	Size of panel (length x width centimeters);		
	Front: 46.0 x 78.0 (cm)	Front: 27.0 x 76.5 (cm)	80.5x86.0 (cm)
	Rear: 46.5 x 79.0 (cm)	Rear: 55.5 x 77.0 (cm)	
	Gross area: 0.72 (m2)	Gross area: 0.63 (m2)	Gross area: 0.69 (m2)
i	Thickness of glass (millimeters);		
	Front: 4.0 (mm)	Front: 3.5 (mm)	4.5 (mm)
	Rear: 4.0 (mm)	Rear: 4.5 (mm)	
j	Weight of glass panel (kilograms);		
	Front: 5.3 (kg)	Front: 3.0 (kg)	9.8 (kg)
	Rear: 5.3 (kg)	Rear: 6.5 (kg)	
k	Type of glass used (i.e. laminated, tempered, tempered-laminated, multiple glazed unit, rigid plastic, etc... as classified in ANSI/SAE Z26.1)		
	[CBI Deleted]	[CBI Deleted]	[CBI Deleted]
	[CBI Deleted]	[CBI Deleted]	
l	Certified to ANSI/SAE Z26.1, Item 3/4 Glazing Material Standard (specify all applicable Table 1 Tests);		
	Not applicable.	Not applicable.	Not applicable.
m	Provide any impact test results per ANSI/SAE Z26.1 Test No. 6-14 or per other standards if available;		
	See Appendix 1.	See Appendix 1.	See Appendix 1.
n	ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any; and		
	Front: AS2 (*Note below)	Front: AS2 (*Note below)	AS1 & AS2 (*Note below)
	Rear: AS2 (*Note below)	Rear: AS2 (*Note below)	
o	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.		
	[CBI Deleted]		

*Note : See Appendix 2 for certification markings.

6. Provide photographs showing an exterior top view looking down at the vehicle's entire roof section. If the glass panel opens; provide photographs for both the close position and the open position. In addition, show wide-angled interior views looking up at the entire roof liner, with all shades opened, with the glass roof panels in the close position and in the open position. Provide a minimum of two pictures each originating from two opposite angles for each exterior and interior screen shots. The files shall be in a "JPG" format with a minimum resolution of 2, 500 x 2,000 pixels each and 2.0 MB size.

The photos requested in 6 have been included in the attached CD Rom and in the attached appendix 3.

7. For each model, model year and glass panel design on the subject peer vehicles, identify the part number, supplier name and a complete street address, contact name, and telephone number.

	Subaru Legacy Wagon & Outback		Subaru Forester
	2004MY	2005 & 2006MY	2004, 2005 & 2006MY
Part Number	Front: 65432AE000	Front: 65432AG00A 65432AG00B	65432SA000 65432SA001 65432SA002
	Rear: 65432AE010	Rear: 65432AG01A	
Supplier Information	See (1) below.	See (2) below.	See (2) below.

(1)	Supplier name	[CBI Deleted]
	Complete street address	[CBI Deleted]
	Contact name	[CBI Deleted]
	Telephone number	[CBI Deleted]

(2)	Supplier name	[CBI Deleted]
	Complete street address	[CBI Deleted]
	Contact name	[CBI Deleted]
	Telephone number	[CBI Deleted]

If there are any questions or a need for any further information, please feel free to contact me at (856) 488-3115.

Sincerely,



Maurice Arcangeli
Safety Activities Manager
Government Relations

Test No.	Test (Cont'd)	Item 1	Item 2		Forester ('04-'06)	Forester ('06)	Legacy Wagon ('04)		Legacy Wagon ('05 & '06)	
		Laminated	Laminated	Tempered	*See Note 1 below.	**See Note 2 below.	Front Sunroof Glass	Rear Sunroof Glass	Front Sunroof Glass	Rear Sunroof Glass
24	Flammability Test	---	---	---	---	---	---	---	---	---
25	Egress Test	---	---	---	---	---	---	---	---	---
26	Penetration resistance	x	---	---	Passed	---	---	---	---	---
27	Ballistics Test	---	---	---	---	---	---	---	---	---
28	Temperature change	---	---	---	---	---	---	---	---	---
29	Impact,Ball,20ft	---	---	---	---	---	---	---	---	---
30	Light Stability	---	---	---	---	---	---	---	---	---
31	Luminous Transmittance	---	---	---	---	---	---	---	---	---
32	Deviation and distortion	---	---	---	---	---	---	---	---	---
Certification Mark					AS1	AS2	AS2	AS2	AS2	AS2


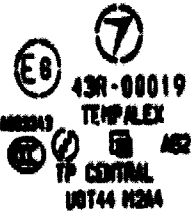
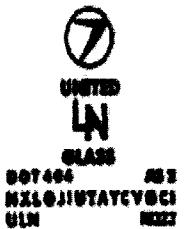
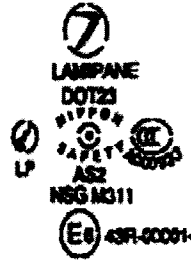
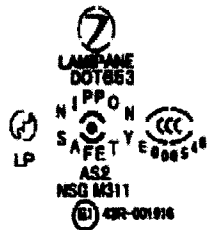

* Note 1: P/No.: 5432SA001 <AS1: made in Japan>

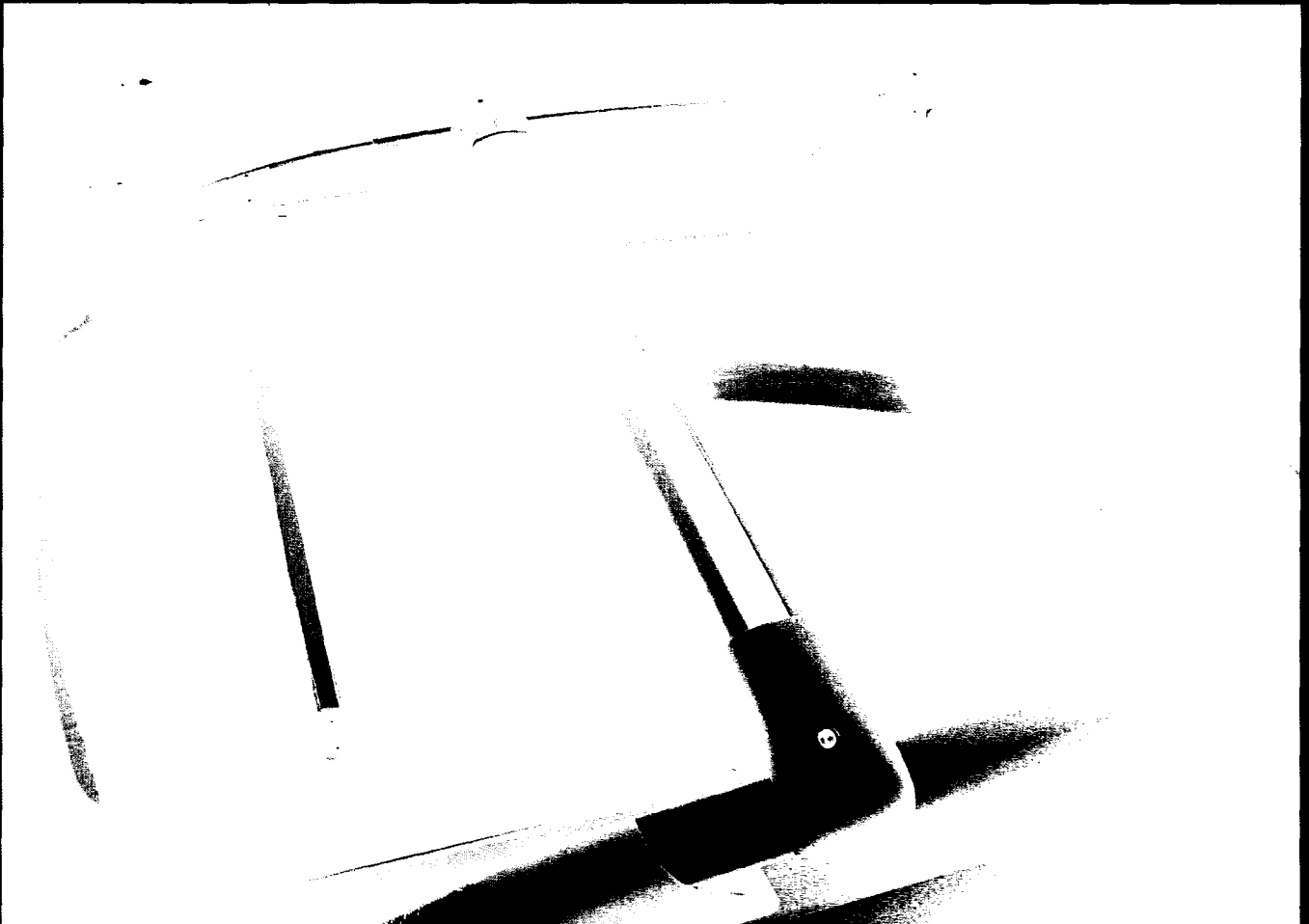
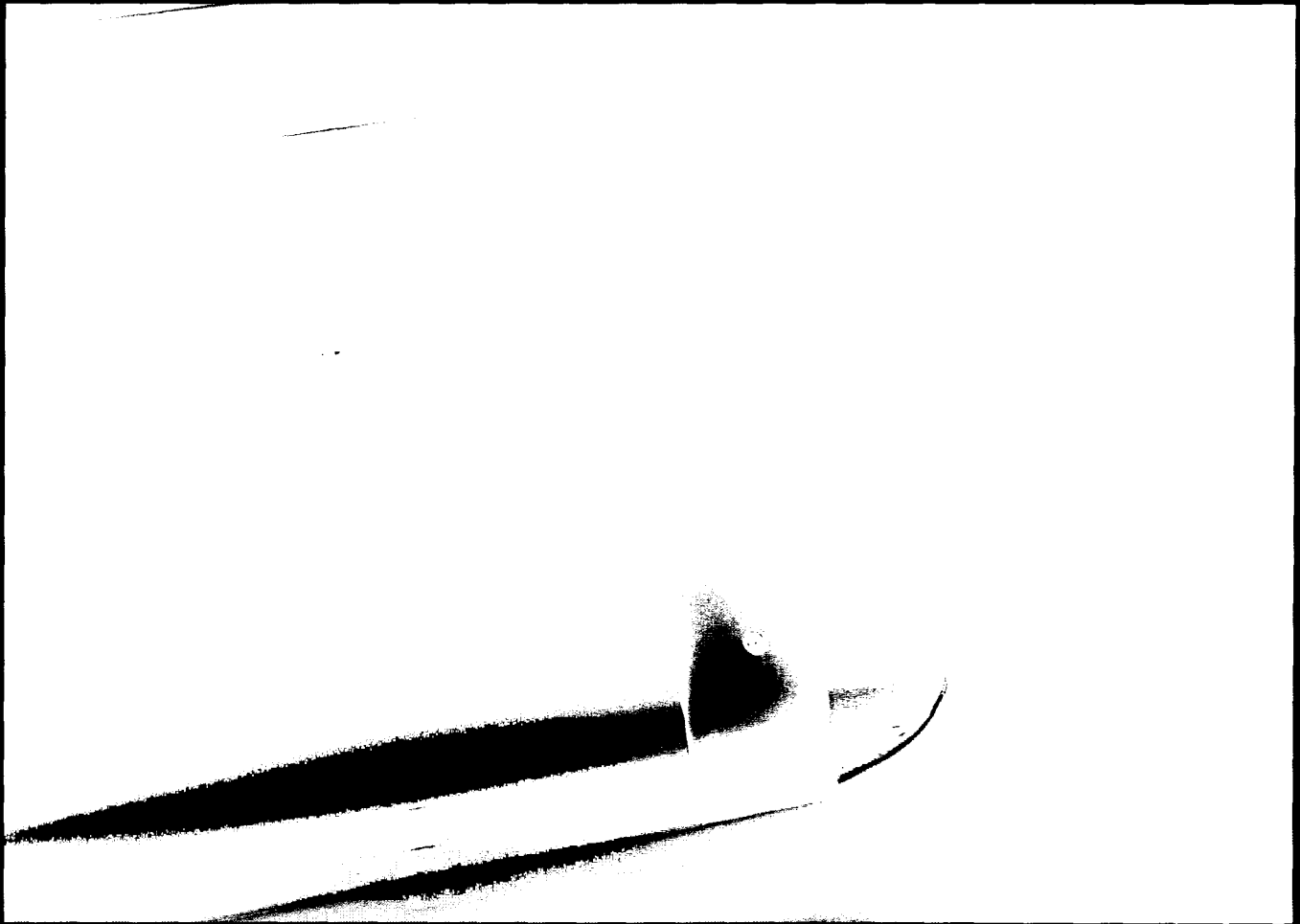
** Note 2: P/No.: 65432SA002 <AS2: made in China>

Item 1: Safety Glazing material for use anywhere in Motor vehicle

Item 2: Safety Glazing material for use anywhere in Motor vehicle Except Windshields

<Appendix Z>

Forester	Legacy Wagon & Outback			
'04 - '06MY	'04MY		'05 - '06MY	
	Front	Rear	Front	Rear
 <p>65432SA000 65432SA001</p>		 <p>(Front) 65432AE000 (Rear) 65432AE010</p>	 <p>65432AG00A</p>	 <p>65432AG01A</p>
 <p>65432SA002</p>			 <p>65432AG00B</p>	





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