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February 12, 2009

OFFICE OF  
DEFECTS INVESTIGATION

Mr. Thomas Z. Cooper  
Chief, Vehicle Integrity Division  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, SE  
Washington, D.C. 20590

RE: NVS-212lhs, PE08-071

Dear Mr. Cooper:

This letter provides a response to your above referenced request for information, dated December 17, 2008.

Prior to responding to the request, Hyundai objects to NHTSA's boilerplate definition of "Document" as vague, incomprehensible, overly broad and unduly burdensome. Hyundai has made a good faith, reasonable attempt to search for materials responsive to each request in the time frame provided.

Request 1.

State, by model and any appropriate sub-group, the number of subject vehicles manufactured by Hyundai for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Hyundai, 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 detailed information in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA."

**Hyundai-Kia America Technical Center Inc.**  
6800 Geddes Road, Superior Township, MI 48198  
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[www.hatci.com](http://www.hatci.com)

HATCI is an authorized representative of both Hyundai Motor Company and Kia Motors Corporation; which are separate and distinct automotive manufacturers.

**Hyundai-Kia America Technical Center, Inc**

Response to Request 1.

<b>Model</b>	<b>Model Year</b>	<b>Production Quantity</b>
Sonata	2002	78,394
Sonata	2003	76,007
Sonata	2004	101,797
Sonata	2005	79,780

See Attachment "PRODUCTION DATA.mbd" for additional requested information.

Source: Hyundai Motor America  
Information as of January 8, 2009

Request 2.

State the number of each of the following, received by Hyundai, or of which Hyundai is otherwise aware, which relate to, or may relate to, the alleged defect in the 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, 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, alleged to have resulted from alleged defect;
- e. Third-party arbitration proceedings where Hyundai is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which Hyundai is or was a defendant or codefendant.

For subparts "a" through "c" 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 listing of the alleged problem and causal and contributing factors and Hyundai'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 to initiate the action.

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Response to Request 2.

- a. Consumer complaints, including those from fleet operators;

<b>Model / Model Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Sonata	96	114	16	6

- b. Field reports, including dealer field reports;

<b>Model / Model Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Sonata	52	14	1	0

- 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;

<b>Model / Model Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Sonata	70 (65 of these were also referenced in a consumer complaint and 5 were also referenced in a field report)	73 (70 of these were also referenced in a consumer complaint and 3 were also referenced in a field report)	11 (All 11 were also referenced in a consumer complaint)	5 (All 5 were also referenced in a consumer complaint)

- d. Property damage claims, alleged to have resulted from alleged defect;

<b>Model / Model Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Sonata	None	None	None	None



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- e. Third-party arbitration proceedings where Hyundai is or was a party to the arbitration; and

<b>Model / Model Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Elantra	None	None	None	None

- f. Lawsuits, both pending and closed, in which Hyundai is or was a defendant or codefendant.

<b>Model / Model Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Elantra	None	None	None	None

Source: Hyundai Motor America

Information as of January 9, 2009 for 2a and 2b and as of January 7, 2009 for 2c, 2d, 2e, and 2f.

See Attachment A for requested summary information.

Request 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. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
- b. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- c. Vehicle's VIN;
- d. Vehicle's make, model and model year;
- e. Vehicle's mileage at time of incident;
- f. Incident date;
- g. Report or claim date;
- h. Whether a loss of vehicle control or crash is alleged;
- i. Whether property damage is alleged;
- j. Number, type and severity of alleged injuries, if any; and
- k. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

Response to Request 3.

See Attachment "REQUEST NUMBER TWO DATA.mdb" for requested information.

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Source: Hyundai Motor America  
Information as of January 9, 2009 for Consumer Complaints and as of January 7, 2009 for other materials.

Request 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 Hyundai used for organizing the documents.

Response to Request 4.

See Attachment B for requested consumer complaint information organized by file number.  
See Attachment C for consumer complaint attachments identified by VIN.  
See Attachment D for requested field report information. Field reports are identified by VIN.

Source: Hyundai Motor America  
Information as of January 9, 2009 for Attachment B and Attachment C and as of January 7, 2009  
for Attachment D.

Request 5.

State, by model and any appropriate sub-group, a total count for all of the following categories of claims, collectively, that have been paid by Hyundai 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. Hyundai'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;
- k. Comment, if any, by dealer/technician relating to claim and/or repair; and

Provide the detailed information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA."



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Response to Request 5.

<b>Model</b>	<b>Model Year</b>	<b>Claim Quantity</b>
Sonata	2002	8,566
Sonata	2003	14,897
Sonata	2004	3,572
Sonata	2005	1,422

See Attachment "WARRANTY DATA.mdb" for additional requested information.

Source: Hyundai Motor America  
Information as of January 16, 2009

Request 6.

Describe in detail the search criteria used by Hyundai to identify the claims identified 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 Hyundai 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 Hyundai 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 6.

The Claims were identified by searching for warranty claims containing the causal part numbers for the inside door handles and that had the problem cause code C04 indicating "Peeling, Come-Off" and/or the problem nature code N54 indicating "Poor Painting, Plating". Additionally, warranty claims were identified that contained a technician comment referring to peeling or other terms indicating a separation of the chrome plating from the inside door handles, regardless of the nature or cause codes assigned to those claims.

Please see Attachment E for a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles.

The Hyundai New Vehicle Limited Warranty period is limited to 60 months from the date of original retail delivery or date of first use, or 60,000 miles, whichever occurs first. Inside door handles are covered by the Hyundai New Vehicle Limited Warranty.

Hyundai extended warranty options do not provide coverage for door handles.

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Source: Hyundai Motor America  
Information as of January 16, 2009

### Request 7.

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

### Response to Request 7.

There are no such documents.

Source: Hyundai Motor America  
Information as of January 9, 2009

### Request 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, Hyundai. 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 8.

See Attachment F containing two Quality Information Reports (QA EFB -B- 030201.pdf and QA EFB -B- 040302.pdf) for requested information.

Source: Hyundai Motor Company



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Information as of January 30, 2009

Request 9.

Provide a complete engineering description and appropriate engineering specifications of the subject component installed in the subject vehicles, specifically including the materials and processes relating to the coating applied to the door handles. Identify by MY, make, and model, all other vehicles equipped with identical subject components, manufactured for sale or lease by Hyundai in the United States. For each other MY, make and model of vehicles equipped with identical subject components, provide separate counts of the numbers of consumer complaints, field reports, and warranty claims received by Hyundai to date.

Response to Request 9.

See Attachment G for the Inside Door Handle engineering drawing 82610-3D000. Attachment G has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

See Attachment H for the Chromium Plating for Decoration Material Specification, MS191-53. Attachment H has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

Source: Hyundai Motor Company  
Information as of January 30, 2009

Model Year 2004 and 2005 Hyundai Sonata vehicles were also equipped with the same part number inside door handle components. Please see the response to Request 2 and Request 5 for requested information.

Source: Hyundai Motor Company  
Information as of January 9, 2009

Request 10.

Provide two samples of the subject component; one sample of a new door handle and one sample of a door handle exhibiting separation or peeling of the exterior coating.

Response to Request 10.

Exemplar samples have been shipped separately as Attachment I.

Source: Hyundai Motor America  
Information as of February 9, 2009



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Request 11.

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

Response to Request 11.

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;

March 22, 2003

- b. A detailed description of the modification or change;

Please see Attachments J and K for requested information.

- c. The reason(s) for the modification or change;

The production tooling was enhanced to eliminate the mold parting line gap and potential burr from the molded door handle to improve the chrome plating adhesion onto a smooth, uninterrupted plating surface.

- d. The part number(s) (service and engineering) of the original component;

Inside Door Handle, LH Part Number 82610-3D010  
Inside Door Handle, RH Part Number 82620-3D010

- e. The part number(s) (service and engineering) of the modified component;

There have been no part number changes.

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- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;

Components reflecting the production tooling enhancement were incorporated into production a short time after March 22, 2003.

- g. When the modified component was made available as a service component; and

Components reflecting the production tooling enhancement were incorporated into service component stock a short time after March 22, 2003.

- h. Whether the modified component can be interchanged with earlier production components.

The components are interchangeable.

Source: Hyundai Motor Company  
Information as of January 30, 2009

### Request 12.

Provide Hyundai's assessment of the alleged defect in the subject vehicles, 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 12.

- a. The causal or contributory factor(s);

The chrome plating may peel from the inside door handle if the inside door handle mold parting line has a gap, resulting in a burr on the top edge of the door handle. The gap and burr result in uneven chrome plating distribution, with a very thin layer at the top edge of the door handle if the mold parting line gap is present.



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- b. The failure mechanism(s);

Repeated use of the inside door handle may cause wear of the chrome plating. If the top edge of the handle has very thin chrome plating as a result of an excessive parting line gap and burrs, that portion may wear away more easily than more thickly plated areas as the door handle is used. The worn chrome plating on the upper edge of the handle may result in a crack or separation between the chrome plating on the inboard and outboard surfaces of the handle along the mold parting line.

- c. The failure mode(s);

After the chrome plating has developed a crack or separation along the parting line on the top edge of the handle, the plating may loose adhesion to that area of the handle.

- d. The risk to motor vehicle safety that it poses;

There is no unreasonable risk to motor vehicle safety and the peeling plating does not result in a crash. If the chrome plating crack or separation occurs and the chrome plating loses adhesion to the handle, an edge of thin chrome plating may be exposed along the top of the handle. This cracking and loss of adhesion is a process that progresses over time. Operators or other persons may see that the chrome plating is cracking or separating from the handle and then seek service to have the condition corrected, as indicated by the warranty claim data provided in the response to Request 5.

- 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

If the chrome plating crack or separation occurs and the chrome plating loses adhesion to the handle, an edge of thin chrome plating may be exposed along the top of the handle. This cracking and loss of adhesion is a process that progresses over time. Operators or other persons may see that the chrome plating is cracking or separating from the handle and then seek service to have the condition corrected, as indicated by the warranty claim data provided in the response to Request 5.

- f. The reports included with this inquiry.

The five reports that NHTSA included with this inquiry indicate that a handle user experienced a cut as a result of using a handle that had peeling chrome plating. Three of the reports concerned 2002 model year vehicles and the other two concerned 2003 model year vehicles, which were produced prior to the March 2003 change affecting the mold parting line.

Hyundai believes that the peeling chrome plating is not a safety-related defect, but can be a customer satisfaction issue. Hyundai covers customer complaints of chrome plating peeling from the inside door handles under the 60 month 60,000 mile new vehicle limited warranty. The vast majority of



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owners have sought to have the inside door handles replaced without experiencing a cut from the peeling plating. However, as that warranty coverage has now expired for most owners of 2002 and 2003 Sonatas that were produced before the mold parting line change, Hyundai will conduct a service campaign to notify owners that a repair procedure is available to correct the chrome plating condition that may result in an exposed edge at the top of the door handle. This will ensure that Hyundai continues to satisfy our customers' needs and prevent the potential for problems that may arise after the warranty has expired on these vehicles.

Please let me know if you have any questions about the information provided in this letter.

Sincerely,



Robert Babcock  
Senior Manager, Certification and Compliance Affairs

**Attachments:**

Two CDs, each containing:

- PRODUCTION DATA.mdb;
- REQUEST NUMBER TWO DATA.mdb;
- WARRANTY DATA.mdb;
- ATTACHMENT A Summary Information.xls;
- ATTACHMENT B Consumer Complaints.xls;
- ATTACHMENT C Consumer Complaint Attachments (containing 18 pdf files);
- ATTACHMENT D Field Reports (containing 67 Field Report pdf files);
- ATTACHMENT E Warranty Data Related Codes.doc;
- ATTACHMENT F Quality Information Reports (containing 2 pdf files);
- ATTACHMENT H Chromium Plating for Decoration Material Specification, MS191-53.pdf;  
(Attachment H has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.)
- ATTACHMENT J Inside Door Handle Mold Enhancement.ppt; and
- ATTACHMENT K Inside Door Handle Mold (for Reference).ppt

ATTACHMENT G Inside Door Handle engineering drawing 82610-3D000 (Attachment G has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.)

Note: ATTACHMENT I Parts Shipped Separately