

HYUNDAI AMERICA TECHNICAL CENTER, INC.

A Subsidiary of
Hyundai Motor Company (Korea)

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February 12, 2004

Mr. Thomas Z. Cooper
Vehicle Integrity Division
Office of Defects Investigation
National Highway Traffic Safety Administration
U.S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

Re: 2001 Kia Rio Engine Compartment Fire Investigation
NVS-212kmb
EA03-015

RECEIVED
NVS-210
2004 FEB 13 P 1:33
OFFICE OF DEFECTS
INVESTIGATION

Dear Mr. Cooper:

This letter provides further information developed by Kia Motors America, Inc. and Kia Motors Corp. ("Kia") in response to your letter notifying Kia that the Office of Defects Investigation ("ODI") has opened an Engineering Analysis (EA03-015) to investigate the adequacy of the scope of a prior safety recall of 2001 Kia Rio vehicles due to allegations of engine compartment fire due to an alleged fuel system leak. NHTSA's identifier for the previous recall is Campaign No. 03V-352. Specifically, this letter responds to Questions 10 through 12 set forth in your letter.

Kia also provides new information responsive to Questions 2, 7 and 8, developed since its last response on January 13, 2004.

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 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. Reports involving a fire, based on claims against the manufacturer involving a fire, notices received by the manufacturer alleging or proving that a fire was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
 - e. Property damage claims;
 - f. Third-party arbitration proceedings where Kia is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which Kia is or was a defendant or codefendant.

For subparts "a" through "e" 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 "g," 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 "f" and "g," 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.

Kia's table of known incidents which relate to, or may relate to, the described defect in subject vehicles has been updated to include information on a fire incident involving a 2001 Kia Rio that occurred on December 25, 2003. The revised table is provided as Appendix 2 to this response. Kia is also providing the Office of Defects Investigation with copies of the Kia Consumer Affairs database information and warranty repair history for the vehicle involved in that incident, and also an inspection report with photographs. See Appendix 3.

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.

On January 14, 2004, KMA delivered two letters to its dealership body confirming that Kia is developing a repair remedy for the pending recall of 2001 Kia Rio vehicles. These letters advised dealers that until the recall is initiated they should inspect the fuel distributor and fuel connector assembly if requested by any 2001 Rio owner, and replace any defective part. The letter also notified

the dealers that Kia would reimburse them for these inspections and/or repairs. Copies of these letters are provided to the Office of Defects Investigation as Appendix 1 to this letter.

8. Describe all assessments, analysis, 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.

Kia is currently working to develop a new design for the fuel distributor assembly. The new part, which is depicted in Appendix 4, will utilize a steel intake nipple. Kia believes that this will strengthen the intake nipple, protecting it from the possibility of fracture or cracking during the vehicle assembly process or post-sale engine compartment repairs.

Kia is developing the tooling dies needed to fabricate prototype parts for testing, which it currently plans to complete by the end of March 2003. If testing of the new part demonstrates its effectiveness, it will then be incorporated into mass production.

10. In its August 13, 2003, letter to ODI regarding the MY 2001 Rio, Kia provided information in response to a question by ODI requesting material related to warranty claims. Attachment 1 lists warranty claims paid pertaining to the flexible high-pressure fuel supply line and the fuel injector rail. Certain part numbers listed in the column labeled "REPLY PART NO" are succeeded by an asterisk that notes "**Part not replaced as part of repair." However, according to Kia's Labor Time Standard manual, the labor operation code listed for the claim states the operation (e.g., 31347R00) was for a part replacement. Please clarify the apparent discrepancy between the labor operation code and the asterisk on replacement of the part(s).

Section 100 of the Kia LTS (information section) explains that the utilization of "R" in the labor operation means "replace" but the Kia warranty system allows labor only claims (no replacement parts) with a "LO" (labor operations code) that has an "R" in the code. "R" can mean either "remove and replace" or "remove and reinstall." In responding to ODI's request for warranty claims information

Kia queried its warranty database for all relevant warranty claims regardless of whether or not a replacement part was indicated.

11. In its September 22, 2003, letter to ODI regarding the subject recall, Kia provided a defect information report. Kia made a determination that fuel leaks may develop because of quality deviations in the fuel injector rail service port valve or the flexible high-pressure fuel supply line. Pursuant to 49 C.F.R. § 573.6(c)(5), please describe in detail the exact nature of the quality deviations – e.g. material composition, dimensional tolerances, etc. – and furnish Kia's assessment of the defect in the subject recall, 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.

The quality deviations reported to ODI involved two issues. One involved potentially defective plastic welds at the service port and/or fuel intake nipple that could crack or fracture, allowing fuel leakage. The second issue involved insertion of the brass service port valve, which if not correctly seated in the valve receptacle could allow leakage. The number of fuel distributor assemblies affected by these concerns is unknown but believed to be minimal. Depending upon the severity of leakage, the consumer might notice a gasoline smell. In some instances, the check engine light might illuminate.

12. In its August 13, 2003, letter to ODI regarding the subject recall, Kia reports that "neither [the Fuel Distributor Assembly or the Main Fuel Tube Assembly] has been substantially modified since their introduction in the 2001 model year." Explain in detail how Kia determined that the defect is limited to only the MY 2001 Kia Rio and why the scope of Kia's recall does not extend to subsequent model year vehicles such as new Rio and Rio Cinco Vehicles that use the same or similar fuel system components as the MY 2001 Rio.

As previously stated, the supplier of the fuel distributor assembly reported quality deviation issues to Kia which could lead to fuel leakage at affected plastic welds at the service port and/or fuel intake nipple, or around an improperly fitted brass service port valve. Kia's vendor identified both issues during 2001 model year production, and in response adopted changes in its fabrication procedures and also instituted a 100 percent inspection procedure. This information, in conjunction with analysis of warranty claim and consumer complaint data, led Kia to notify NHTSA in September 2003 that it was recalling 2001 Kia Rio vehicles. Kia did not include later model years in the recall because the warranty claims rate for 2001 model year Rio's was almost twice that for other model years. Similarly, reported fire incidents potentially related to the alleged defect in 2001 model year vehicles are almost three times the number of reported incidents involving 2002, 2003 and 2004 Rio's combined. Based on this information Kia prepared and delivered a 573 notice to NHTSA for the 2001 model year. Thereafter, Kia developed information suggesting that the intake nipple to the fuel distributor assembly

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may be subject to damage during removal of the quick connect coupling attaching the main fuel tube assembly, or when force is accidentally applied to it during the assembly process or during engine compartment repairs. In response to this information Kia published instructions to its dealership body emphasizing the proper method for connecting and disconnecting quick connect couplings. Kia also made available to its dealers a new quick connect fuel line tool to aid in the removal of quick connect couplings. Kia is presently evaluating the effectiveness of these efforts as part of an ongoing effort to determine whether recall should be extended. Kia currently plans to complete this evaluation and reach a decision by the end of March.

Sincerely yours,



Alfred Gloddeck
Sr. Manager - Corporate Affairs