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By Recall Management Division at 3:55 pm, Jul 24, 2012



July 24, 2012

Ms. Nancy Lewis  
Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, SE  
Washington, D.C. 20590

RE: Defect Information Report

Dear Ms. Lewis:

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Hyundai America Technical Center is submitting information concerning a recall that is being voluntarily initiated. Specific information as required by Section 573.6 is as follows:

573.6(c)(1)

Manufacturer - Hyundai Motor Company and Hyundai Motor Manufacturing Alabama  
Distributor - Hyundai Motor America  
Distributor - Hyundai de Puerto Rico

573.6(c)(2)

Certain 2012 and 2013 model year Hyundai Sonata vehicles produced beginning on January 24, 2012 through June 21, 2012 are affected.

573.6(c)(3)

Approximately 22,512 model year 2012 and 2013 Hyundai Sonata vehicles are affected in the United States. Approximately 58 vehicles are affected in Puerto Rico.

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

### 573.6(c)(4)

All of the vehicles identified above in 573.6(c)(2) are potentially affected.

### 573.6(c)(5)

The curtain air bag assemblies for the Hyundai Sonata's supplemental restraint system (SRS) utilize a stored gas type inflator module. This inflator module includes a closure cap that is welded to one end of the module and retains helium gas in the inflator module. The inflator module manufacturing process includes the welding of a "closure cap" to seal one end of the inflator. The manufacturer of the inflator module has identified a deficiency in their manufacturing process that can allow a portion of the closure cap weld to fracture, allowing the helium gas to flow into and inflate the curtain air bag.

The above condition may increase the risk of injury to a vehicle occupant if a curtain air bag inflates without a deployment command from the Supplemental Restraint System Control Module.

### 573.6(c)(6)

#### April 2012

In April, 2012 Hyundai received a field technical report indicating a driver's side curtain air bag had inflated while the vehicle was unoccupied. Hyundai began an investigation that included an inspection of the vehicle's supplemental restraint system (SRS) components and analysis of the SRS control module data. The control module did not indicate a collision was detected, and all SRS parameters were within specification. The driver's side curtain air bag was removed from the vehicle and shipped to Hyundai Motor Manufacturing Alabama for further analysis. Hyundai then received a report indicating a passenger's side curtain air bag had inflated while the vehicle was unoccupied. The side curtain air bag from this vehicle was removed from the vehicle and sent to the curtain air bag supplier for analysis.

#### May 2012 – June 2012

Hyundai continued to receive reports indicating a side curtain air bag had inflated while the vehicle was unoccupied. Incident parts were collected and delivered to the curtain air bag inflator supplier for analysis. The vendor began the process of analyzing each incident field part to determine the root cause.

#### July 2012

Hyundai was notified by its supplier that it had concluded its investigation and the closure cap weld fractures were the result of a process error where a small residual amount of moisture remained in the inflator module after an assembly process. The residual moisture in the inflator's gas vessel can cause a fracture of the closure cap weld as a result of hydrogen embrittlement.

As of July 20, 2012 Hyundai had notification of 16 reports for this condition. Hyundai is not aware of any accidents as a result of the curtain air bag inflator leak condition.

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

Hyundai has decided to conduct a voluntary safety recall to replace the side curtain air bag modules on the affected vehicles.

573.6(c)(8)

Hyundai Motor America will notify all owners of the Hyundai vehicles described in 573.6(c)(2) above to return their vehicles to their Hyundai dealers, who will replace the affected side curtain airbag(s).

Hyundai anticipates that owners will begin to be notified by mail during August 2012 after NHTSA has approved the owner notification letter.

Replacing the side curtain air bags for the vehicles affected by this recall would have been covered for 5 years or 60,000 miles under Hyundai's new vehicle limited warranty. As owners of these vehicles would not have incurred expenses for the warranted repair as a result of this condition, Hyundai believes that it is not necessary, and should not be required, to provide notification regarding reimbursement under section 577.11.

573.6(c)(10)

A draft of the Technical Service Bulletin is attached.

A draft copy of the dealer communication is attached.

573.6(c)(11)

A draft of the owner notification letter is attached.

573.6(c)(12)

Hyundai has assigned "Campaign 106" as the designation for the campaign.

Sincerely,



Robert Babcock  
Director, HATCI Certification and Compliance Affairs

Attachments: Draft Technical Service Bulletin  
Draft Dealer Communication  
Draft Owner Notification Letter