



August 10, 2023

Peter Kivett, Chief
Vehicle Defects Division C
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

RE: PE23-011 – Response to Agency Information Request

Dear Mr. Kivett:

Enclosed is Hyundai Motor America (“HMA” or “Hyundai”)’s response to the Office of Defects Investigation (“ODI”) June 23, 2023 Information Request with regard to PE23-011 to investigate allegations of reduced or complete loss of motive power and failure of the Integrated Charging Control Unit (ICCU) in certain model year (“MY”) 2022 and 2023 Hyundai Ioniq 5 electric vehicles manufactured by Hyundai.

I. Freedom of Information Act Protections

Please note that this response contains confidential business information for which HMA requests confidential treatment. HMA has provided all non-confidential attachments and a redacted version of all documents that contain confidential information along with this response and is submitting a request for confidential treatment pursuant to 49 C.F.R. Part 512 in conjunction with this response.

II. General Objections

The General Objections set forth below are incorporated by reference into HMA’s responses to the Information Request. These General Objections are deemed continuing as to each subpart of the Information Request, and are not waived, nor in any way limited, by the specific responses to a subpart, nor should the failure to specifically incorporate the General Objections be construed as a waiver. Moreover, any applicable, good faith objection not raised in this section shall not be interpreted as a waiver.

The information provided in this response reflects HMA’s best understanding of the data as of this date. HMA has made a good faith effort to collect the information necessary to respond to the Information Request and reserves the right to amend and/or supplement this response, as appropriate. HMA reserves the right to recapture privileged or otherwise protected or exempted documents that may have been inadvertently produced in response to this Information Request. Any inadvertent production of privileged material is not, and should not be interpreted as, a waiver of any applicable privilege.

In accordance with this request, HMA has conducted reasonable, good faith searches of corporate records available from those departments knowledgeable about the subject matter of this inquiry. However, the definition of “document(s)” in the Information Request is unreasonably broad and ambiguous in the context of the information sought by this Information Request.

HMA’s response to this Information Request was based on good faith searches of locations where documents determined to be responsive to the Information Request would normally be found and in consultation with current personnel knowledgeable about the information requested.

III. Specific Responses

1. State, by model and model year, the number of subject vehicles Hyundai has manufactured 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 (17-character VIN);**
- b. Make;**
- c. Model;**
- d. Model Year;**
- e. Subject component part number and design version installed as original equipment;**
- f. Date of manufacture (MM/DD/YYYY);**
- g. Date warranty coverage commenced (MM/DD/YYYY); and**
- h. The State in the United States where the vehicle was originally sold or leased, or delivered for sale or lease (postal abbreviation).**

Provide the table in Microsoft Access 2010, or a compatible format, entitled “PRODUCTION DATA.” A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

Response to Request 1

The number of subject vehicles manufactured for sale in the United States is as follows:

MAKE	MODEL	MODEL YEAR	VEHICLE COUNT
HYUNDAI	IONIQ 5	2022	18,866
HYUNDAI	IONIQ 5	2023	29,599
		Total	48,465

The additional information responsive to Request 1 is provided in *Attachment PE23-011 – Req. 1 – 001, Production Data.*

The information provided in this response was obtained from HMA's Sales and Distribution and Warranty databases. Information responsive to this Request was last gathered in June 2023.

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;**
 - d. **Reports involving a fire;**
 - e. **Property damage claims;**
 - f. **Third-party arbitration proceedings, both pending and closed, where Hyundai is or was a party to the arbitration; and**
 - g. **Lawsuits, both pending and closed, in which Hyundai is or was a defendant or codefendant.**

For subparts "a" through "g", 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 Hyundai'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.

Response to Request 2

The information responsive to Request 2 is provided in *Attachment PE23-011 – Req. 2 – 001, Request 2 Incidents*.

The information provided in this response was obtained from HMA's Consumer Affairs, Legal, and Service Quality Information databases. Information responsive to this Request was last gathered in June 2023.

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. Hyundai'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), email address and telephone number (please use distinct fields for each data type);
- d. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- e. Vehicle's 17-character VIN;
- f. Vehicle's make, model and model year (please use distinct fields for each data type);
- g. Vehicle's mileage at time of incident (numeric data type);
- h. Incident date (MM/DD/YYYY);
- i. Report or claim date (MM/DD/YYYY);
- j. Whether a crash is alleged;
- k. Whether a fire 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." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

Response to Request 3

The information responsive to Request 3 is provided in *Attachment PE23-011 – Req. 3 – 001, Request Number Two Data.*

The information provided in this response was obtained from HMA's Consumer Affairs, Legal, and Service Quality Information databases. Information responsive to this Request was last gathered in June 2023.

- 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. Describe in detail the search methods and search criteria used by Hyundai to identify the items in response to Request No. 2.**

Response to Request 4

The information responsive to Request 4 is provided in *Attachment PE23-011 – Req. 4a – 001 through Attachment PE23-011 – Req. 4c – 312.* The documents are organized into three categories: consumer complaints; field reports; and legal cases. Within those categories, the

documents are organized by incident. In addition, certain documents responsive to this Request are considered by Hyundai to be privileged. A privilege log is provided in *Attachment PE23-011 – Req. 4 – 001, Privilege Log*.

The information provided in this response was obtained from HMA’s Consumer Affairs, Legal, and Service Quality Information databases. These databases were searched using the keywords listed below. Only information pertaining to the subject vehicles was obtained.

- Stall
- Cut off
- Turn off
- Loss of power
- Lose speed
- Slowed
- Die
- Stopped
- Lose power
- Motive
- Lack
- Power
- Accel
- Decel
- Reduce
- ICCU

Additionally, Techline cases were filtered by the symptom(s) listed below:

- (Select All)
- BATTERY - CURRENT DRAW
- BATTERY - LOW VOLTAGE
- BATTERY - UNDERCHARGING
- S/R - NO START, NO CRANK
- S/R - STALLS
- WARNING LIGHT - BATT/CHARGE
- WARNING LIGHT - EV
- WARNING LIGHT - HEV SERVICE
- WARNING LIGHT - MIL/CHECK ENG
- WARNING LIGHT - OTHER

Only information pertaining to the subject vehicles was obtained. All obtained records were then manually reviewed for responsiveness.

Additionally, members of the Legal Department searched the Legal database for responsive records by manual review of all matters received regarding model year 2022-2023 Hyundai IONIQ 5 vehicles in the U.S. No defect codes were used in the Legal Department’s search criteria.

Information responsive to this Request was last gathered in June 2023.

5. **State, by model and model year, 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), email address and telephone number (please use distinct fields for each data type);**
- c. **Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);**
- d. **17-character VIN;**
- e. **Repair date (MM/DD/YYYY);**
- f. **Vehicle mileage at time of repair (numeric data type);**
- g. **Repairing dealer's or facility's name, telephone number, city and state or ZIP code (please use distinct fields for each data type);**
- h. **Labor operation number(s);**
- i. **Problem code(s);**
- j. **Diagnostic trouble code(s);**
- k. **Replacement part number(s) and description(s);**
- l. **Concern stated by customer;**
- m. **Cause as stated on the repair order;**
- n. **Correction as stated on the repair order; and**
- o. **Additional comments, 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." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

Response to Request 5

The information responsive to Request 5 is provided in *Attachment PE23-011 – Req. 5 – 001, Warranty Data.*

The information provided in this response was obtained from HMA's Warranty database for general warranty. Additionally, Hyundai Capital America ("HCA") conducted a search for

extended warranty information; however, no extended warranty claims were found. Information responsive to this Request was last gathered in June 2023.

- 6. Describe in detail the search methods and search criteria used by Hyundai to identify the claims in response to Request No. 5, including the labor operations, problem codes, diagnostic trouble codes, part numbers and any other pertinent parameters used.**

Response to Request 6

HMA searched for warranty claims responsive to Request 5 by searching for all warranty claims referencing the subject component’s associated part number and labor operation code (indicated in the response to Request 7 below) for all subject vehicles.

The part number used in the search is as follows:

Part No.	Part Description
36400-1XAA0	ICCU ASSEMBLY

The search results were then individually reviewed to confirm alignment with the alleged defect as defined in the agency’s information request letter. Hyundai also conducted a search of extended warranty claims using the same methods and criteria employed for identifying general warranty claims.

Information responsive to this Request was last gathered in June 2023.

- 7. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.**

Response to Request 7

The operation codes applicable to the alleged defect in the subject vehicles are:

Code	Type	Code Description
36401R00	Operation	ICCU ASSY
D22	Problem	Charging problem Charging system
D21	Problem	Charging problem Battery

These are preset codes that are manually selected by the claims administrator. The diagnostic trouble code associated with an ICCU fault is DTC P1A9096 (DC/DC converter input voltage sensor fault).

The information provided in this response was obtained from Hyundai Motor Company (“HMC”)’s Research and Development Department. Information responsive to this Request was last gathered in June 2023.

- 8. 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 8

Generally, new vehicle warranty coverage has not changed for Hyundai vehicles since before MY2020 (i.e., before the Subject Vehicles were sold). In addition to Table 1 below, the 2022 and 2023 Hyundai warranty coverage handbooks are provided as *Attachments PE23-011 – Req. 8 – 001, 2023 Hyundai Warranty Brochure* and *PE23-011 – Req. 8 – 002, 2022 Hyundai Warranty Brochure*. For all new Hyundai vehicle purchases, including all Subject Vehicles, HMA offers a comprehensive warranty package consisting of the following express warranties:

Table 1 –New Vehicle Warranty Coverage for Subject Vehicles (Hyundai/Genesis)				
Coverage	Vehicles	Components Covered*	Terms	
			Months	Mileage
Powertrain**	All	*Specific components/systems vary by model. Please see <i>Attachments PE23-011 – Req. 8 – 001</i> and <i>PE23-011 – Req. 8 – 002</i> for detailed information regarding specific components/systems warranty coverage.	120	100,000
New Vehicle Limited			60	60,000
Anti-Perforation			84	Unlimited
Replacement Parts and Accessories			12	12,000
California Emission Control Systems			60 / 84	60,000 / 70,000
Federal Emission Defect Performance			60 / 96	60,000 / 80,000

Hybrid Battery	Hybrid	Hybrid Battery	120	100,000
		Hybrid Starter/Generator	120	100,000
		Hybrid Power Control Unit		
		Automatic Transmission		

**Original owner only.

For more information, please refer to <https://www.hyundaiusa.com/assurance/america-best-warranty.aspx> for information regarding Hyundai products.

HCA offers four (4) levels of Optional Vehicle Service Contracts for any new or certified-preowned (“CPO”) Hyundai vehicle:

Table 2 – Optional Vehicle Service Contracts for Subject Vehicles			
Option	Coverage	Terms	
		Minimum	Maximum
CPO & Powertrain	Engine Transmission Drive Axles	12 Mo. / 12,000 Mi.	120 Mo. / 120,000 Mi.
Gold	All Powertrain Climate Control Shocks & Suspension Fuel Systems Electrical Systems	12 Mo. / 12,000 Mi.	120 Mo. / 120,000 Mi.
Platinum	All Gold Steering Systems CV Boots Navigation & Audio	12 Mo. / 12,000 Mi.	120 Mo. / 120,000 Mi.
Term Protection Plus (“TPP”)	Expanded coverage to include Brake Pads, Battery, Headlamps, Wipers, Alignment, Belts, Hoses, Fluids	24 Mo. / 24,000 Mi.	48 Mo. / 60,000 Mi.

Mileage expiration intervals are selected by the customer. For details, please refer to <http://www.hmfusa.com/hpp-overview>.

The number of Subject Vehicles covered by Optional Vehicle Service Contracts is provided in *Attachment PE23-011 – Req. 8 – 003, Optional Service Contracts*, which HMA is marking as confidential.

The information provided in this response was obtained from HMA’s Warranty Department for general warranty and extended warranty information, and from HCA for optional vehicle service contract information. Information responsive to this Request was last gathered in July 2023.

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

Response to Request 9

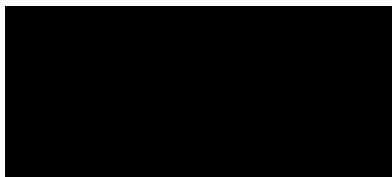
Documents responsive to Request 9 are provided in *Attachment PE23-011 – Req. 9 – 001 through 006, Request 9 Service Documents*. Documents responsive to this Request include Technical Service Bulletins, including associated Dealer Best Practice documents, and general guidance documents for diagnosis of charging concerns related to the ICCU, as well as a draft Technical Service Bulletin for certain Genesis vehicles. *Attachments PE23-011 – Req. 9 – 004 and PE23-011 – Req. 9 – 005* are two vehicle guidance documents specifically requested by ODI on July 17, 2023.

Information provided in this response was obtained from HMA’s Campaign Coordination Department. Information responsive to this Request was last gathered in July 2023.

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Please let us know if you have any questions about this submission.

Sincerely,



Cole Stutz
Executive Director
Vehicle Safety Investigations
Hyundai Motor North America