



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATION STATUS CHANGE

SUMMARY

Report:	Honeywell Geismar Chlorine and Hydrogen Fluoride Releases
Recommendation Number:	2023-02-I-LA-R1 (R1) 2023-02-I-LA-R2 (R2) 2023-02-I-LA-R3 (R3)
Date Issued:	May 23, 2025
Recipient:	Honeywell International Inc.
New Status:	R1: Open – Acceptable Response or Alternate Response R2: Open – Acceptable Response or Alternate Response R3: Open – Acceptable Response or Alternate Response
Date of Status Change:	July 25, 2025

Recommendation Text:

2023-02-I-LA-R1

Perform a comprehensive third-party audit of the Geismar facility's process safety and allied management systems as soon as practicable. The audit shall:

- A. Be performed or led by an individual, firm, or team meeting the requirements outlined in paragraphs (b), (c), and (d) of Appendix E of this report.*
- B. Evaluate compliance with applicable federal standards (40 C.F.R. § 68 and 29 C.F.R. § 1910.119). In particular, the audit shall include the required elements that contributed to these incidents, including but not limited to:*
 - 1. management of change;*
 - 2. mechanical integrity;*
 - 3. quality assurance;*
 - 4. pre-startup safety reviews;*
 - 5. operating procedures; and*
 - 6. contractor management.*
- C. Evaluate other internal management systems that contributed to these incidents. In particular, the audit shall include but not be limited to:*
 - 1. management of organizational and personnel change;*
 - 2. management of safety-related capital projects;*
 - 3. organizational resilience; and*
 - 4. safe work practices including, but not limited to:*
 - a. work permitting;*
 - b. preparation of equipment for maintenance;*
 - c. control of hazardous energy;*

- d. line break safety; and
- e. personal protective equipment.

D. *Use the Center for Chemical Process Safety's Guidelines for Auditing Process Safety Management Systems as guidance to verify both the suitability of these systems and their effective, consistent implementation and performance.*

E. *Result in the development of a comprehensive report meeting the requirements outlined in paragraphs (e) and (f) of Appendix E of this report. If any findings are rejected, the rationale for and documentation supporting the merit of the rejection shall be included. The report in its entirety shall be made available to the Honeywell workforce at the Geismar, Louisiana; Baton Rouge, Louisiana; and Metropolis, Illinois, sites.*

2023-02-I-LA-R2

Require periodic reporting updates from the Geismar site regarding the closure of the audit findings. The periodic updates shall continue until all audit findings are fully closed.

2023-02-I-LA-R3

Perform a Safer Technologies and Alternatives Analysis (STAA) for the Honeywell Geismar HFC-245fa unit. The STAA shall meet the requirements outlined in paragraphs (a) and (b) of Appendix F of this report.

Board Status Change Decision:

A. Rationale for Recommendation

Three separate chemical incidents occurred from October 2021 to June 2024, involving the release of anhydrous hydrogen fluoride (HF) from the HFC-245fa unit at the Honeywell Performance Materials and Technologies facility in Geismar, Louisiana. The first two incidents occurred during reactor startup and the third during planned maintenance work.

One worker was fatally injured as the result of the first incident, and another was seriously injured as the result of the third. The second incident resulted in substantial property damage and a release of over 800 lbs. of HF and over 1,600 lbs. of chlorine gas when a reboiler within the unit exploded.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated these incidents and found several safety issues including those associated with safe work practices, management of change, and mechanical integrity. One factor common to all these incidents was the lack of an effectively implemented safety management system. As a result of these findings, the CSB issued three recommendations to Honeywell International Inc. This status change summary addresses CSB Recommendation Nos. 2023-02-I-LA-R1, 2023-02-I-LA-R2, and 2023-02-I-LA-R3.

B. Response to the Recommendation

Honeywell has notified the CSB that they intend to implement the recommendations. They have provided a plan of action that appears when implemented will satisfy the objectives of the recommendations and they have provided a timetable for completion.

C. Board Analysis and Decision

Based upon the information above, the Board voted to change CSB Recommendation Nos. 2023-02-I-LA-R1, 2023-02-I-LA-R2, and 2023-02-I-LA-R3 to: “Open – Acceptable Response or Alternate Response.”