



## U. S. Chemical Safety and Hazard Investigation Board

# RECOMMENDATION STATUS CHANGE SUMMARY

<b>Report:</b>	Cuisine Solutions Ammonia Release
<b>Recommendation Number:</b>	2024-03-I-VA-R1
<b>Date Issued:</b>	September 23, 2025
<b>Recipient:</b>	International Institute of All-Natural Refrigeration (IIAR)
<b>New Status:</b>	Open – Awaiting Response or Evaluation/Approval of Response
<b>Date of Status Change:</b>	Not Applicable – Initial Status

### Recommendation Text:

*Update ANSI/IIAR 2 to include guidance for preventing or mitigating liquid or two-phase atmospheric discharges from emergency pressure relief systems, such as the guidance in API Standard 521, Pressure-relieving and Depressuring Systems. At a minimum, the guidance should:*

- a. Identify at-risk scenarios such as horizontal surge vessels and other vessels containing saturated liquid with little vapor space;*
- b. Address design considerations and controls to reduce the likelihood of identified scenarios leading to overpressure or equipment failure and ensure vapor-liquid disengagement (the separation of vapor from liquid) during pressure relief for identified scenarios; and*
- c. Require mitigative safeguards in cases where vapor-liquid disengagement during pressure relief cannot be reliably ensured. This should also include alternative disposal systems where applicable.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

On July 31, 2024, anhydrous ammonia was discharged from a pressure relief device in the refrigeration system of the Cuisine Solutions, Inc. facility in Sterling, VA. During the evacuation, workers were exposed to ammonia and four were seriously injured.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including discharging liquid ammonia from pressure relief devices to atmosphere and a lack of emergency preparedness.

As a result of these findings, the CSB issued two recommendations to the International Institute of All-Natural Refrigeration (IIAR). This status change summary addresses CSB Recommendation No. 2024-03-I-VA-R1.