



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

# RECOMMENDATION STATUS CHANGE SUMMARY

<b>Report:</b>	Fatal Liquid Nitrogen Release at Foundation Food Group
<b>Recommendation Number:</b>	2021-03-I-GA-R1
<b>Date Issued:</b>	December 11, 2023
<b>Recipient:</b>	Gold Creek Foods
<b>New Status:</b>	Open – Awaiting Response or Evaluation/Approval of Response
<b>Date of Status Change:</b>	Not Applicable – Initial Status

### Recommendation Text:

*Include in the emergency action program provisions for proactively interacting with and informing local emergency response resources of all emergencies at the former FFG Plant 4 facility to which Gold Creek expects them to respond. At a minimum, Gold Creek should:*

- a) inform local emergency responders of the existence, nature, and location of hazardous substances at its facilities, including liquid nitrogen;*
- b) inform local emergency responders of the location of emergency-critical equipment such as bulk storage tanks, points of use, isolation valves, E-stop switches, and any other emergency equipment or systems with which emergency responders may need to interact; and,*
- c) provide local emergency responders with information, such as facility plot plans, engineering drawings, or other information needed to mount an effective emergency response.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

On January 28, 2021, liquid nitrogen overflowed from an immersion freezer located inside Plant 4 at the Foundation Food Group (FFG) facility in Gainesville, GA. The release occurred while two maintenance employees were troubleshooting the equipment. Once the liquid nitrogen was released, it quickly vaporized and accumulated inside the room in which the equipment was located, creating an oxygen deficient atmosphere.

The two maintenance employees were asphyxiated. Upon discovering the two maintenance employees, an emergency response was initiated which included attempts by other employees to rescue the two maintenance employees and to isolate the freezer from its liquid nitrogen source. During these activities, four additional employees of FFG were asphyxiated. Additionally, three more FFG employees and one firefighter were seriously injured, presenting with symptoms of asphyxia. The incident resulted in an estimated \$1.95 million in damage.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including faulty equipment design, inadequate precautions for using liquid nitrogen, the lack of atmospheric monitoring and alarms, inadequate emergency preparedness, a lack of a safety management system, and a lack of regulatory coverage for cryogenic asphyxiants. As a result of these findings, the CSB issued one recommendation to Gold Creek Foods. This status change summary addresses **CSB Recommendation No. 2021-03-I-GA-R1**.