



# U. S. Chemical Safety and Hazard Investigation Board

## RECOMMENDATION STATUS CHANGE

### SUMMARY

<b>Report:</b>	BP – Husky Oregon Chemical Release and Fire
<b>Recommendation Number:</b>	2022-01-I-OH-R2
<b>Date Issued:</b>	June 24, 2024
<b>Recipient:</b>	Ohio Refining Company
<b>New Status:</b>	Open – Acceptable Response or Alternate Response
<b>Date of Status Change:</b>	December 19, 2024

#### Recommendation Text:

*Revise the Abnormal Situation Management policy to incorporate guidance provided by the ASM Consortium and the Center for Chemical Process Safety (CCPS). The revised policy should include, at a minimum:*

- a) A broader definition of abnormal situations, such as that defined by the CCPS,*
- b) Additional predictable abnormal situations and their associated corrective procedures.*

*At a minimum include the following abnormal situations:*

  - 1) unplanned crude slate changes,*
  - 2) continued operation of the Crude 1 unit with the naphtha hydrotreater unit shut down, and*
  - 3) an emergency pressure-relief valve opening.*
- c) Guidance to determine when an abnormal situation is becoming too difficult to manage and the appropriate actions to take, such as shutting down a process, putting it into a circulation mode, or implementing proper procedures for bringing it to a safe state.*

#### Board Status Change Decision:

##### A. Rationale for Recommendation

On September 20, 2022, a vapor cloud ignited at the BP-Husky Refining LLC (“BP Husky”) refinery in Oregon, Ohio. The vapor cloud formed when flammable liquid naphtha was intentionally released from a pressurized vessel to the ground in response to an abnormal situation. Two employees were fatally injured. BP Husky estimated that over 23, 000 pounds of naphtha was released during the event, and that \$597 million in damage was incurred.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including inadequate safeguarding to prevent liquid overflow, ineffective abnormal situation management, and failure to learn from previous incidents. As a result of these findings, the CSB issued four recommendations to the Ohio Refining Company LLC. This status change summary addresses CSB Recommendation No. 2022-01-I-OH-R2.

##### B. Response to the Recommendation

The Ohio Refining Company (ORC) notified the CSB that the scope of their abnormal situation management policy does not support the scope of changes sought by the recommendation. They have however, created or revised several other programs and policies to implement the recommendation. ORC has addressed all requirements of the recommendation except addressing an unplanned crude slate change as an abnormal situation. Work to update their applicable procedure is underway and expected to be completed before the end of 2024. Once ORC has updated their procedure, the CSB can evaluate this recommendation for closure.

C. Board Analysis and Decision

ORC has substantially implemented the recommendation and provided a plan for full implementation including a timeline to completion. In recognition of the actions taken by ORC and their commitment to further action, the Board voted to change the status of CSB Recommendation No. 2022-01-I-OH-R2 to: “Open – Acceptable Response or Alternate Response.”