



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATION STATUS CHANGE SUMMARY

Report:	Husky Energy Superior Refinery Explosion and Fire
Recommendation Number:	2018-02-I-WI-R16
Date Issued:	December 23, 2022
Recipient:	Honeywell UOP
New Status:	Closed – Acceptable Alternative Action
Date of Status Change:	July 25, 2025

Recommendation Text:

Participate in the API committee that develops a technical publication for the safe operation of FCC units.

Board Status Change Decision:

A. Rationale for Recommendation

On the morning of April 26, 2018, the primary and sponge absorber of the Husky Energy Superior Refinery exploded during the planned shutdown of the facility's fluidized catalytic cracking (FCC) unit. Debris from the explosion struck an asphalt storage tank approximately 200 feet away. Asphalt leaked from the damaged tank and over the containment wall spreading into the FCC and crude unit operating areas before eventually catching fire. Husky Superior Refinery reported that 39,000 pounds of a flammable hydrocarbon vapor mixture as well as approximately 17,000 barrels of asphalt were released during the incident.

36 refinery and contract workers received medical treatment as the result of the incident. Of those 36 injuries, 11 met the criteria to be considered OSHA recordable. None of the injuries suffered were deemed life-threatening. It was reported that the explosion shook buildings up to a mile away. The plume from the burning asphalt was visible from neighboring communities. An evacuation order was issued by county officials to protect the public from the smoke plume and as a precaution for fear the incident would escalate.

As a result of the incident the facility was destroyed. The incident resulted in \$550 million of onsite and \$110,000 of off-site property damage. This incident was recorded as having the 33rd largest adjusted property damage loss in the hydrocarbon extraction, transport, and processing industry since 1974¹. In September 2019 a permit was issued to rebuild the refinery and construction began soon after. Husky Energy merged with Cenovus Energy, Inc., a Canadian oil and natural gas company, on January 1, 2021. The refinery is expected to resume operations in 2023 as Cenovus Superior Refinery.

¹ Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 2022. [Online]. Available: <https://www.marsh.com/us/insights/research/100-largest-losses-hydrocarbons-industry-html>. [Accessed 5 October 2022].

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including ineffective transient operation safeguards, a lack of process knowledge, ineffective process safety management systems, a lack of available industry knowledge and guidance, and failures in emergency preparedness. As a result of these findings, the CSB issued one recommendation to Honeywell UOP (UOP). This status change summary addresses CSB Recommendation No. 2018-02-I-WI-R16.

B. Response to the Recommendation

The “technical publication for the safe operation of FCC units” referred to in the recommendation was intended to be developed by the American Petroleum Institute in response to CSB Recommendation No. 2018-02-I-WI-R13 (R13). However, on May 13, 2025, the Board voted on a status of “Closed – Acceptable Alternative Action” for this recommendation based on a series of FCC unit process safety workshops².

As indicated in their original response, Honeywell UOP was involved in the development of these workshops from their inception. Honeywell UOP’s participation in these workshops includes the development and delivery of content, being present at the workshops and engaging with participants, and by assisting in the development of relevant practice share documents. The CSB has reviewed documentation of Honeywell UOP’s participation in this effort and found it satisfactory to meet the intent of the recommendation.

C. Board Analysis and Decision

Based upon the information above, the Board voted to change CSB Recommendation No. 2018-02-I-WI-R16 to: “Closed – Acceptable Alternative Action.”

² [https://www.csb.gov/assets/recommendation/status_change_summary_api_\(husky_r13\)_c-aaa.pdf](https://www.csb.gov/assets/recommendation/status_change_summary_api_(husky_r13)_c-aaa.pdf).