



U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATION STATUS CHANGE SUMMARY

Report:	Enterprise Pascagoula Gas Plant Explosion and Fire
Recommendation Number:	2016-02-I-MS-R4
Date Issued:	February 13, 2019
Recipient:	GPA Midstream Association
New Status:	Closed – No Longer Applicable
Date of Status Change:	April 26, 2022

Recommendation Text:

Using available operational process data of BAHXs in midstream gas plant operation collected in fulfillment of 2016-02-I-MS-R3, continue data analysis efforts to determine what, if any, correlation exists between operational process data and the frequency or timing of thermal fatigue-generated cracking to more accurately predict the service life of a BAHX.

Should predictors be identified, develop and offer to your members industry tools, techniques, or criteria for estimating when thermal fatigue warrants preemptive replacement of a BAHX (e.g., risk assessment tools or damage rate calculations).

Board Status Change Decision:

A. Rationale for Recommendation

On June 27, 2016, a major loss of containment (LOC) resulted in the release of methane, ethane, propane, and several other hydrocarbons at the Enterprise Products Pascagoula Gas Plant (PGP) in Pascagoula, Mississippi. The hydrocarbons ignited, initiating a series of fires and explosions, which ultimately shut down the site for almost six months. Two workers were on the night shift when the incident occurred and were uninjured.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) determined that the probable cause of this incident was the failure of a brazed aluminum heat exchanger (BAHX) due to thermal fatigue. The absence of a reliable process to ensure the mechanical integrity of the heat exchanger contributed to the catastrophic failure of the equipment. Given this information, the CSB made three recommendations to GPA Midstream Association, a natural gas energy trade association that conducts research and develops technical reports and publications. This status change summary addresses CSB Recommendation No. 2016-02-I-MS-R4 (R4).

B. Response to the Recommendation

The GPA Midstream Association stated in a response to the CSB that the implementation of R4 is directly dependent upon the successful implementation of CSB Recommendation No. 2016-02-I-MS-R3 (R3). The GPA Midstream Association declined to implement R3 and provided a rationale to which the Board concurred.

C. Board Analysis and Decision

This recommendation starts with the phrase, “using available operational process data of BAHXs in midstream gas plant operation collected in fulfillment of 2016-02-I-MS-R3...” The GPA Midstream Association disagreed with implementing R3 and the Board concurred with their rationale as to why and subsequently voted to change the status of that recommendation to “Closed – Reconsidered/Superseded.” As a result of that event, the GPA Midstream Association can no longer implement R4 and, therefore, in accordance with CSB policy, the recommendation is deemed ‘no longer applicable.’

Based upon the information above, the Board voted to change CSB Recommendation No. 2016-02-I-MS-R4 to: **“Closed – No Longer Applicable.”**