



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

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| Report: | Williams Olefins Case Study |
| Recommendation Number: | 2013-3-I-LA-R3 |
| Date Issued: | October 19, 2016 |
| Recipient: | Williams Geismar Olefins Facility (Williams) |
| New Status: | Open – Acceptable Response or Alternative Response |
| Date of Status Change: | March 1, 2017 |

Recommendation Text:

Develop and implement a program that demands robust and comprehensive assessments of the process safety programs at the Williams Geismar facility, at a minimum including Management of Change, Pre-Startup Safety Review, Process Hazard Analyses, and Operating Procedures. Ensure that the assessments thoroughly evaluate the effectiveness of these important safety programs. To drive continual improvement of process safety programs to meet good practice guidance, ensure these assessments result in the development and implementation of robust action items that address identified weaknesses. Engage an expert independent of the Geismar site to lead these assessments at least once every three years.

Board Status Change Decision:

A. Rationale for Recommendation

On June 13, 2013, a fire and explosion occurred at the Williams Olefins, Inc. (Williams), Plant located in Geismar, Louisiana, when a reboiler which supplied heat to a propylene fractionator column ruptured due to an overpressurization event while it was isolated from its pressure relief device. Two Williams employees were killed and 167 employees were injured, consisting of three Williams employees and 164 contractor employees.

As apart of its investigation, the CSB examined the facility's process safety management program as well as the facility's process safety culture. The CSB found significant weaknesses in the Williams process safety culture that were demonstrated by a series of deficiencies in implementing the site's process safety management programs as well as weaknesses in the written programs themselves. These deficiencies included: (1) poorly conducted Management of Change and Pre-Startup Safety Reviews; (2) ineffective safeguard selections, insufficient safeguard evaluation requirements, and poor implementation of action items in Process Hazard Analyses; (3) inadequate focus on developing and maintaining operating procedures; and (4) allowing uncontrolled field equipment manipulations without first assessing the hazards and developing a procedure.

To address these areas, the CSB Board issued three recommendations aimed at improving the facility's process safety management program and process safety culture. This status change summary addresses the recommendation to have an independent third party perform process safety audits at the facility (2013-3-I-LA-R3).

B. Response to the Recommendation

In a November 2016 response, Williams advised the CSB that it:

- Contracted with a third-party consulting firm to perform a comprehensive assessment of the facility's Process Safety Management Programs in the spirit of continuous improvement. The assessment will evaluate the effectiveness of the plant's PSM programs, including Management of Change, Pre-Startup Safety Review, Process Hazard Analysis, Mechanical Integrity and Operating Procedures. The assessment will also include interviews with all levels of facility personnel; document analysis; implementation effectiveness; and benchmarking against industry best practices.
- Intends to perform these comprehensive assessments in the future as part of our triennial audits of the facility's PSM program.

C. Board Analysis and Decision

As the actions currently being undertaken by Williams appear to be consistent with the intent of the CSB Recommendation and provides some indication of the supporting documentation that will be provided for future evaluation, the Board voted to change the status of CSB Recommendation No. 2013-3-I-LA-R3 to: “**Open—Acceptable Response or Alternative Response.**”