

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



Hon. Vanessa Allen Sutherland
Chairperson

Hon. Manuel Ehrlich, Jr.
Board Member

Hon. Rick Engler
Board Member

Hon. Kristen Kulinowski
Board Member

**CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD
MEMBER VOTING RECORD**

Notation No.: 2016-27

Voting Period: February 4 - February 16, 2016

Subject: Status Change – Recommendations to the American Chemistry Council (2001-01-H-R9 and 2001-01-H-R10) from the Improving Reactive Hazard Management Investigation (2001-01-H)

Whereas,

1. The Board is authorized by 42 U.S.C. § 7412(r)(6)(C)(i) to “investigate . . . and report to the public in writing the facts, conditions, and circumstances and the cause or probable cause of any accidental release resulting in a fatality, serious injury or substantial property damages;”
2. The Board is further authorized by 42 U.S.C. § 7412(r)(6)(C)(ii) to “issue periodic reports to the Congress, Federal, State and local agencies, including the Environmental Protection Agency and the Occupational Safety and Health Administration, concerned with the safety of chemical production, processing, handling and storage, and other interested persons recommending measures to reduce the likelihood or the consequences of accidental releases and proposing corrective steps to make chemical production, processing, handling and storage as safe and free from risk of injury as is possible;”
3. The Board has issued such recommendations to the American Chemistry Council based upon the findings of the Improving Reactive Hazard Management Investigation;
4. Consistent with Board Order 022 (implementing the requirements of 42 U.S.C. § 7412(r)(6)), the Board votes on changes to the status of recommendations;
5. The staff of the Office of Recommendations proposes that the status of the above named recommendations should be changed, as described in the attached internal Recommendation Response Evaluation (Attachment 1 to this item); and

[continued on next page]

Notation No.: 2016-27

Subject: Status Change – Recommendations 2001-01-H-R9 and R10

[continued from preceding page]

6. The Recommendations staff further proposes that the attached Recommendations Status Change Summary (Attachment 2 to this item) be adopted and published on the CSB web site.

Therefore, pursuant to its authority, the Board hereby votes:

- a. To designate **Recommendation 2001-01-H-R9** with the status of **Closed - Acceptable Alternate Action**; and **Recommendation 2001-01-H-R10** with the status of **Closed – Reconsidered/Superseded**; and
- b. To adopt the Recommendations Status Change Summary presented in Attachment 2 to this item, and authorize the publication of that summary on the CSB public web site.

_____ I **APPROVE** this notation item **AS PRESENTED**.

_____ I **CALENDAR** this notation item for discussion at a Board meeting.

_____ *Some of my concerns are discussed below or on the attached memorandum.*

_____ I **DISAPPROVE** this notation item.

_____ *A dissent is attached.*

_____ *I will not file a dissent.*

_____ I am **NOT PARTICIPATING**.

Date: _____

Member: _____



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

Report:	Improving Reactive Hazard Management
Recommendation Number:	2001-01-H-R9
Date Issued:	October 8, 2002
Recipient:	American Chemistry Council (ACC)
New Status:	Closed – Acceptable Alternative Action
Date of Status Change:	

Recommendation Text:

Develop and implement a program for reporting reactive incidents that include the sharing of relevant safety knowledge and lessons learned with your membership, the public, and government to improve safety system performance and prevent future incidents.

Board Status Change Decision:

A. Rationale for Recommendation

After a number of high-consequence incidents resulting from runaway chemical reactions, including the April 21, 1995, explosion and fire at the Napp Technologies specialty chemical plant in Lodi, New Jersey, which killed five workers, and the April 8, 1998, explosion and fire at the Morton International dye manufacturing plant in Paterson, New Jersey, which injured nine, the CSB undertook a comprehensive study of reactive chemical hazard management in the United States.

CSB noted in its study that the “ACC Process Safety Code Management system (PSCMS), established in 1996, contains data on the type of incident (i.e. fire, explosion, toxic gas), number of injuries, etc, for 1,500 facilities – but no data on causes of accidents or lessons learned. PCMS is primarily designed as a metric for tracking industry performance on process safety incidents; it is not intended to be a lessons learned database. However, if expanded to include causes and lessons learned and more widely distributed, the data could be used in preventing similar incidents”¹.

The CSB issued a recommendation to ACC to develop and implement a program for reporting and sharing of reactive incidents.

B. Response to the Recommendation

In April 2014, ACC informed the CSB that it had implemented an internal system to annually collect a summary of process safety incident data from their members. The data

¹ *Improving Reactive Hazard Management*, pg. 89

include substantive events that may involve reactive chemicals with an explicit flag in the system to note any reportable incidents that involve a reactive chemical. Due to concerns about potential liability, the database is available only to ACC members.

C. Board Analysis and Decision

As ACC has implemented an internal program for reporting reactive incidents, the Board voted to change the status of CSB Recommendation No. 2001-01-H-R9 to: “**Closed – Acceptable Alternative Action.**”



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

Report:	Improving Reactive Hazard Management
Recommendation Number:	2001-01-H-R10
Date Issued:	October 8, 2002
Recipient:	American Chemistry Council (ACC)
New Status:	Closed – Reconsidered/Superseded
Date of Status Change:	

Recommendation Text:

Work with NIST in developing and implementing a publicly available database for reactive hazard test information. Promote submissions of data by your membership.

Board Status Change Decision:

A. Rationale for Recommendation

After a number of high-consequence incidents resulting from runaway chemical reactions, including the April 21, 1995, explosion and fire at the Napp Technologies specialty chemical plant in Lodi, New Jersey, which killed five workers, and the April 8, 1998, explosion and fire at the Morton International dye manufacturing plant in Paterson, New Jersey, which injured nine, the CSB undertook a comprehensive study of reactive chemical hazard management in the United States.

In total, the CSB identified 167 serious accidents in the United States between 1980 and 2001; 48 of these accidents resulted in 108 fatalities. In addition, more than half of these incidents involved chemicals not covered by existing Occupational Safety and Health Administration (OSHA) or Environmental Protection Agency (EPA) standards. While the bulk of incidents were in the chemical manufacturing industry, thirty percent occurred at industrial facilities that use or consume chemicals in bulk quantities.

The report concluded that, “There is no publicly available database for sharing lessons learned from reactive incidents...[or] to share reactive chemical test information.”¹ Therefore, the CSB issued a recommendation (2001-01-H-R5) to the National Institute of Standards and Technology (NIST) to develop a publicly available database for reactive hazard test information. The CSB also issued a recommendation (2001-01-H-R10) to the ACC to work with NIST in developing a database for reactive hazard test information. This status change summary only addresses the recommendation that the CSB made to the ACC.

¹ *Improving Reactive Hazard Management*, pp. 99-100

B. Response to the Recommendation

In April 2014, the ACC requested that the CSB reconsider the issuance of this recommendation due to “numerous unresolved questions regarding legal protections that would necessarily need to be overcome for any companies volunteering thermodynamic data for such a database” and because the accompanying Recommendation No. 2001-01-H-R5 to NIST was designated with the status, “Closed – Reconsidered,” in March 2008.

The ACC also noted that, since this recommendation was issued in 2001, other organizations, such as the National Oceanographic and Atmospheric Administration, the Center for Chemical Process Safety, and the Organisation for Economic Co-operation and Development, have developed publicly available reactive chemical resources, software and databases. These resources partially address the CSB recommendation.

C. Board Analysis and Decision

Since the related CSB recommendation to NIST has been designated with the status, “Closed - Reconsidered,” there is no process for developing a NIST reactive hazard database to which the ACC can contribute. In addition, the other resources described by ACC partially address the recommendation. Therefore, the Board voted to change the status of CSB Recommendation No. 2001-01-H-R10 to: “**Closed – Reconsidered/Superseded.**”