



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

Report:	Improving Reactive Hazard Management
Recommendation Number:	2001-01-H-R8
Date Issued:	October 8, 2002
Recipient:	American Chemistry Council (ACC)
New Status:	Closed – Acceptable Alternative Action
Date of Status Change:	February 16, 2016

Recommendation Text:

Expand the Responsible Care Process Safety Code to emphasize the need for managing reactive hazards. Ensure that:

- Member companies are required to have programs to manage reactive hazards that address, at a minimum, hazard identification, hazard evaluation, management of change, inherently safer design, and adequate procedures and training.*
- There is a program to communicate to your membership the availability of existing tools, guidance, and initiatives to aid in identifying and evaluating reactive hazards.*

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.

As part of its investigation, the CSB reviewed voluntary industry initiatives, including the American Chemistry Council's *Responsible Care* Program and the National Association of Chemical Distributors' Responsible Distribution Process, and issued recommendations to these groups to provide increased guidance on reactive hazards. This status change summary only addresses CSB Recommendation No. 2001-01-H-R8.

In 1989, the ACC developed the *Responsible Care Process Safety Code* (PSC) to prevent fires, explosions and toxic chemical releases. The code and its accompanying resource guidelines include a series of recommended safety management practices. ACC bylaws obligate member companies to participate in Responsible Care, which includes good faith efforts to implement the program elements. Companies are required to undergo a self-evaluation process and third party management system verification audits.

B. Response to the Recommendation

In April of 2014, the ACC advised the CSB that a new PSC was issued in November 2012. This new PSC takes an “all hazards” approach as the ACC believed it was essential to address all hazards indiscriminately and comprehensively rather than to differentiate or isolate reactive hazards as a separate class. The new PSC clearly applies to reactive hazards and addresses all the requirements listed in the CSB recommendation. For example, hazard identification and evaluation are addressed in item 4 of the PSC; management of change and inherently safer design are addressed in item 5; and adequate procedures and training are addressed in items 3, 5 and 6. Further guidance on how the PSC is intended to be applied to reactive hazards is contained in the ACC’s *Implementation Guide: Responsible Care Process Safety Code of Management Practices*, Version 1, dated January 2013.

In addition, ACC has maintained regular communications with its member companies through weekly newsletters, safety briefs, Member Exchange postings, annual conferences, monthly teleconferences and quarterly face-to-face meetings to communicate new tools and guidance in identifying reactive chemistry hazards. ACC also contributed \$25,000 to the 2002-2003 CCPS publication "Essential Practices for Managing Reactive Chemistry Hazards," which was available free worldwide for a period of three years since its publication in 2003.

C. Board Analysis and Decision

The latest revision of ACC’s *Responsible Care Process Safety Code* takes an “all hazards” approach that includes reactive hazards. This, in conjunction with other actions taken by the ACC, meets the intent of this recommendation. Therefore, the Board changed the status of CSB Recommendation No. 2001-01-H-R8 to: “**Closed – Acceptable Alternative Action.**”