



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

<b>Report:</b>	DuPont Corporation Toxic Chemical Releases
<b>Recommendation Number(s):</b>	2010-6-I-WV-R7
<b>Date Issued:</b>	October 17, 2011
<b>Recipient:</b>	E. I. du Pont de Nemours and Company (DuPont)
<b>New Status:</b>	R7: Closed – Acceptable Action
<b>Date of Status Change:</b>	March 31, 2015

### Recommendation Text(s):

*Review all DuPont units that produce and handle phosgene that, at a minimum, observe and document site-specific practices for engineering controls, construction materials, PPE, procedures, maintenance, emergency response, and release detection and alarms, and use information from external sources to develop and implement consistent company-wide policies for the safe production and handling of phosgene.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

On January 22 and 23, 2010, three accidents occurred over a 33-hour period at the DuPont Corporation's Belle, West Virginia, chemical manufacturing plant. The series of accidents began when an alarm sounded, leading operators to discover that 2,000 pounds of methyl chloride, a toxic and extremely flammable gas, had been leaking unnoticed into the atmosphere for five days. The next morning, workers discovered a leak in a pipe carrying oleum, which produced a fuming cloud of sulfur trioxide, another toxic gas. A release of highly toxic phosgene occurred later that day, exposing a worker who died the following evening in a hospital.

While investigating these three incidents, the CSB also reviewed E. I. du Pont de Nemours and Company (DuPont) corporate policies pertaining to phosgene handling and found inconsistent application of internal guidelines regarding phosgene handling and noncompliance with consensus standards for handling highly toxic materials. A recommendation was issued to the corporation to address these issues at all DuPont units that produce or handle phosgene.

#### B. Response to the Recommendation

In March of 2012, DuPont audited its remaining two U.S. facilities that handle phosgene. Both sites were audited by teams comprised of non-site DuPont personnel and third-party consultants who had experience with both phosgene and process safety

management using the revised *DuPont Phosgene Safety Guardian Manual*<sup>1</sup> as a basis. Documentation was provided showing that all findings and recommendations from these audits were successfully implemented by October of 2014.

### C. Board Analysis and Decision

As all the elements of this recommendation appear to have been met, the Board voted to change the status of this recommendation to: “**Closed-Acceptable Action.**” It should be noted that this recommendation and the others issued as part of the Dupont Belle investigation were issued in response to the root causes determined to contribute to the Dupont Belle incident specifically. CSB is currently investigating the November 15, 2014, incident at the Dupont LaPorte, TX, facility, which did not handle phosgene. That investigation will evaluate Dupont’s corporate highly toxic materials program in relation to the LaPorte incident specifically, and determine whether any deficiencies in the program may have contributed in part to that incident.

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<sup>1</sup> The updating of this Manual was addressed in CSB Recommendation No. 2010-6-I-WV-R6 which the Board previously voted to close as "Acceptable Action" on April 10, 2013