Management of Highly Toxic Materials

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ABSTRACT

In December 1984, the Bophol tragedy sent shock waves through the chemical and related industries that handled highly toxic materials. In DuPont, this was especially true because of the large volume of methylisocyanate (MIC) that was in storage in Houston on the day of the incident. While DuPont was already implementing many of the elements of Process Safety Management (PSM) at that time, senior leadership asked if we needed to do more to reduce the risks from these materials. If so, what needed to be done?

As a result, there were three main ideas that were put forth to manage risks from these materials:

- Ensure that the risk management program was in place and well implemented (this later became the PSM program);
- Reduce inventories of these materials as much as possible (later becoming ISP);
- Assure that best practices were developed and implemented at all locations for highly hazardous materials. (This best practice approach addressed technology issues in design, maintenance and operations, and included processes to develop, retain, and disseminate critical information).

This paper will address the development and implementation of a Highly Toxic Materials program that supplements a PSM program (with a specification-based program) and ensures that best practices are in place at all company locations.