Integration of a Reactive Chemicals Program into the Process Hazard Analysis Process at The Dow Chemical Company

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Dow’s Reactive Chemicals Program has been in place since 1967 and has been utilized globally by Dow to reduce the hazards associated with reactive chemical scenarios. With the evolution to a broader Process Hazard review, Dow has integrated the Reactive Chemicals program into the framework of the PHA reviews. The current Reactive Chemicals/Process Hazard Analysis (RC/PHA) program involves an interaction with several diverse technical experts to study the chemistry and processing activities, looking for any potential risk reduction opportunities. By completing this review and the associated follow up, the facility or Project helps to fulfill compliance with Dow’s Process Hazard Review requirements, as well as those of several regulatory directives such as OSHA PSM and Seveso II Directive for Process Hazard Analysis. This paper describes the basic operation of this process and includes a description of the overall Dow Reactive Chemical program and guidelines, the utilization of experimental testing facilities and subject matter experts, the creation and makeup of site and business RC Committee, structure of the RC/PHA review, global RC/PHA communications, employee training, and other aspects of the program.