The Role of Chemical Reactivity Data in Process Safety Management

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Abstract

Chemical reactivity is addressed throughout the requirements of OSHA’s PSM Standard. It is specifically called out for in the process safety information element. It is necessary input to process hazard analyses, operating procedure development and emergency relief system design in mechanical integrity. As the understanding of the impact of chemical reactivity hazards on the operation of a chemical process continues to develop, it is important to have a method for developing this data. Equally important is a method for extracting meaningful reactivity information from the data and incorporating it into process safety.

This presentation will present a process for evaluating chemical reactivity hazards using an Accelerating Rate Calorimeter (ARCTM). It will then explain how to extract information from this data to help define process safety elements such as safe upper and lower limits, emergency relief system design, etc.