A View of What We Do—Making Process Safety Second Nature

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ABSTRACT

In the last decade many world-class chemical plants have focused on a mission of not getting anyone hurt, of protecting the environment, and of being a low cost producer. In the early 1990’s, numerous organizations struggled to incorporate all the requirements of the U.S. Occupational Safety and Health (OSHA) Process Safety Management (PSM) Standard. While increased protection of the worker was the focus of the PSM standard, enhanced preservation of the environment was a bonus and for the far-sighted companies that effectively complied, the bottom line is now better supported.

The rewards are now in sight for those corporations that accepted the challenge by using these performance-based standards to judiciously provide expensive resources to correct past oversights and provide a system to keep information current. Good access to key information is paramount in any well-run organization. Many locations developed or improved extensive electronic databases. The OSHA-required updated P&ID’s, the comprehensive Process Hazard Analysis effort, and the well-documented Operating Procedures can succeed to provide needed information in a chemical plant’s decision process. The substantial efforts to provide a stronger Mechanical Integrity program reduces the risks of incidents, and a rigorous Management of Change system helps keep information current.

This paper will review public perceptions of safety in the chemical plant workplace and statistically will compare it to some better understood occupations such as fishers, timber cutters, truck drivers, construction laborers, and others trying to make a living. Next, in the heart of this presentation, we will review many of the layers of process safety protection that world-class chemical plants utilize to be pro-active in protecting people, property, and profit. Most of the images will be of plant equipment and plant workers on the job within a chemical plant landscape.

Concluding sentences will suggest that an operation supported by multiple layers of effective protection can also increase security for the workers and the public as well as increase profits. And finally, there will be a few words to persuade key members of the audience to develop a program similar to the “heart” of this presentation to help convince each company’s employees and their citizen neighbors that Chemical Process Safety is Second Nature. Certain industrial facilities will need vivid word and supporting action visuals of their operations to overcome the expected public relations challenge when the EPA-required “Worst-Case Scenarios” are released to the public.