Enhancing Facility Siting Studies with Process Hazard Analyses

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Abstract

When evaluating facilities for safety, facility siting studies are demonstrated to be very important in the oil and gas industry. The benefits of facility sitings are realized through fewer incident reports, specifically those resulting in high consequences such as multiple fatalities. The OSHA 29 CFR 1910.119 PSM regulation requires Process Hazard Analysis (PHA) studies be performed to evaluate facility sites by producing a checklist to identify concerns. A PHA is not intended to be a substitute for a detailed facility siting study but rather a screening tool to identify critical hazards. There are a few factors that assist in determining whether a detailed facility siting study is necessary and those factors are: location of the building(s), process material flammability and/or vaporization, dispersion characteristics and release scenario. This paper attempts to incorporate these factors into a facility specific checklist for PHAs and facility siting site visits.

Keywords: Process Hazard Analysis, PHA, Facility Siting