

Accident History Database: An Opportunity

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ABSTRACT

The Clean Air Act Amendments of 1990 mandated the development of regulations for the protection of workers, the public, and the environment from catastrophic releases and chemical plant accidents. As a result, the US Environmental Protection Agency (EPA) promulgated the Risk Management Program rule in June 1996. Approximately 66,000 regulated facilities are required to comply with all the requirements by June 1999 and submit a risk management program to the EPA. Each risk management plan will contain amongst other things, a 5-year accident history for the facility. The 5-year accident history database scheduled to become available to the public sometime in 1999 is potentially a very large and useful database. This presents an opportunity for determining macroscopic as well as microscopic causal factors for chemical plant accidents and then implementing these determinations for solving the underlying problems. However, there are various issues and potential pitfalls that must be kept in mind. For example, data integrity, taxonomy of the database, and the wide differences in the 66,000 facilities are issues that represent challenges that require some novel approaches. The authors present their experience in analyzing EPA's accidental release information program database. The experience will guide the analysis of the 5-year accident history database, attempting to identify the situations that commonly result in accidental chemical releases.