

عنوان مقاله:

Evaluation of the Possible Hazards of an Ethanol Storage Tank

محل انتشار:

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خلاصه مقاله:

The presence of chemicals in process industries such as the food industry has always been subject to risks like fire, explosion and release of toxic substances. The occurrence of such incidents have serious impact on the funds and life resources. In this article, we have tried to identify hazards of Ethanol storage tank with PHAST modeling to provide solutions to reduce and manage risks in Behnoush Iran Company. The most dangerous scenarios were selected according to the available conditions ۱۰۰ mm diameter tank leakage, ۳ Inches diameter short pipe leakage and Tank rupture in the summer and winter cases. According to the results, a leak with diameter of ۱۰۰ mm with radiation of ۳۷.۵ KW/m^۲ and catastrophic rupture are also very dangerous due to the suddenness of the accident and has the ability to damage the tanks. Therefore, by modeling and evaluating the consequences of such accidents, it was proposed to reduce the hazards and prevent the occurrence of more serious accidents by using more advanced fire detection and firefighting equipment, the use of fireproof structures, continuous training of people, and the promotion of safety culture and fire team deployment.

کلمات کلیدی:

Consequence Modeling, Ethanol Storage Tank, explosion, Fire, PHAST, Toxic Substance

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