

Review on Process Risk Factors in the Applied Design of Chemical Plants

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In the newly-constructed Chemical Plants, many kinds of process risk factors have been found out in the course of pre-commissioning & commissioning, initial start up, and performance guarantee test run to go towards normalization for both operation and production of their new plants.

On these undesirable process risk factors, unexpected problems, near-accidents and accidents on the chemical process have been frequently encountered with danger as well as dreadful disasters in the inside of these complex plants areas and/or neighboring areas of the complex chemical plants. In the initial stage of plants design, main core points should be observed in detail and designed in application of process safety. And they should execute to follow design for overall process safety design.

Accordingly, in order to prevent likelihood of accidents/its recurrences and minimize occurrence of any accidents by these kinds of process risk factors in the complex chemical plants, author is summarizing this paper on process risk analysis, design management and hidden process risks.