The Root Cause Analysis and its Problems–Solution related to the Recent Accidents of Chemical Plants in Petrochemical Complexes of Korea –Based on Human Errors from the Management on Process Safety and Design in Process System of Chemical Engineering–

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The purpose of this research is to prevent any incidents and its recurrences occurring in the chemical plants through the root cause analysis of the incidents, and also to minimize losses of lives and national properties against those accidents. Recently, several accidents have been occurred by showing leakage and fatally poisonous gas dispersion in some chemical plants.

So, in case any accidents occur due to any human errors from the management of such process safety and design, those accidents become not only to call great losses, but also bring on an unexpected consequence to their community and society. In general, worse than all, their chemical plants have been running average over 35 years under the severe conditions of gradually aging old (deteriorating) of facilities.

Accordingly, through the root cause analysis on those occurred accidents, this paper shows what and how to newly apply for management on Process Safety and Design.