

Using IDEF Methodology Establish Refinery Industry Safety and Health Management System : Illustrate by Construction Safety management of Contractor

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Abstract

Many petrochemical accidents took place here in Taiwan recently. These events not only cost lives and properties, but also invited unceasing blames. According to the conclusion by literature survey, there were 88% of the accidents caused by unsafe actions, 10% of the accidents caused by the unsafe states, and only 2% of the accidents caused unavoidably. when we further analyze the factors, these accidents cause by human can be prevented through appropriate management. It motivates me to establish a safety and health management system for petrochemical industry so that occupation accident can be prevented or reduced.

The system is constructed based on the feature of refinery industry from for different views such as laws and regulations, policy of business and practicality. We first analyze data of the industry with Business System Planning (BSP) method. After finishing the analysis, we utilize Integrated Computer Aided Manufacturing ( ICAM ) Definition( IDEF) methodology to establish the framework of modulation management system to construction contactors safety management of system. Finally, we follow the framework and make an implementation of a special case on “contractor safety management” through intranet technology. The result shows that the system affect business supporting processes, such as operation convenience, improving process, condensing labor, condensing work time and beneficial result.

Keyword : IDEF Methodology, Business System Planning, Occupational Health and Safety Management System, Contractor Management