

CHAPTER 5

Interrelation matrix of process knowledge management element with other risk based process safety elements

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ABSTRACT

Risk Based Process Safety (RBPS) guideline has been established with four pillars that consist of 20 elements to help organisations design and implement effective Process Safety Management (PSM) systems. RBPS have 20 elements built and expanded upon the original 12 elements from OSHA PSM standard. Process Knowledge Management (PKM) is one of the elements in RBPS. PKM element focuses on documentation of process chemical, technology and equipment information that support another 19 RBPS elements. There is various study highlighting the interrelationship between PSM elements, meanwhile the interrelationship between RBPS elements was not extensively studied. This study identifies the interrelation of Process Knowledge Management (PKM) element with other 19 RBPS elements. Further analysis was conducted on possible work activities for each element that is related with process chemical information, process technology information and process equipment information. The interrelationship of PKM with other 19 RBPS elements was presented in matrix table. From the analysis, PKM element significantly has interrelation with other 19 RBPS. The matrix table can be a guidance for industries to understand the linkage of process knowledge with another RBPS programs, so that information is properly communicated and managed along the process plant production.

KEYWORDS

Process Knowledge Management; PKM; Risk Based Process Safety; RBPS; Process Safety Management; PSM

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