Chayooth Markwattansuk 2006: The Application of Semi-quantitative Risk Assessment

to Identify Critical Task and Set Up Measures for Proactive of Safety in Hydro Power

Construction Department, EGAT. Master of Engineering (Safety Engineering), Major

Field: Safety Engineering, Interdisciplinary Graduate Program. Thesis Advisor:

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The objective of this study is to utilize the Semi Quantitative Risk Assessment

methodology by considering the 3 primary factors which are the severity, probability and

frequency for evaluated the risk level. This study use for indicated the critical or high risk work of

the hydro power construction section, EGAT. In addition it can be used for safety measure and

critical inventory for controlling the severe damage.

The result from this root cause analysis of the accident in the hydro power construction

section was conducted by using selected workers who have more than 15 years experienced. The

results shown that from 23 occupations, they have 118 critical works out of 244 works. These

118 critical works were identified to have urgent protective measures to protect and control the

severe damage. Therefore, urgent 445 measures were established. In comparing with the Semi

Quantitative Risk Assessment result, it has shown that the same critical works resulted from

insufficient safety measures. This study can be applied as a tool for safety measure and can be

used for several organization occupations and works to identify the critical work and establish the

effectively protective measures.

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Thesis Advisor's signature

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