Risk Based Inspection Study on Relief Valves at Offshore and Onshore Plant

by

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Dissertation submitted in partial fulfillment of the requirements for the Bachelor of Engineering (Hons) (Mechanical Engineering)

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CERTIFICATION OF APPROVAL

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Approved by,	
(Assoc. Prof. Dr. Patthi Bin Hussain)	

UNIVERSITI TEKNOLOGI PETRONAS
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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

(MUHAMMAD NAJIB BIN MAT SAAD)

ABSTRACT

The objective of this project is to improve the Relief Valves equipment inspection maintenance activities in order to optimize the cost by obtain inspection work plan & frequency for the RV at plant based on their criticality ranking results. It focuses on inspection program at higher risk equipment and reducing overall plant risk. Risk Based Inspection program is a defined process for establishing and managing an inspection program based on the failure probability and consequences for each equipment item. The criticality analysis or risk evaluation is a dynamic calculation, with the ability to take into account changes in the process or results from an inspection. From there the inspection planning strategies will be developed, for future maintenance planning that concerning how, when and where to be inspected.

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