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APPLIED OF IMPRESSED CURRENT CATHODIC PROTECTION DESIGN FOR FUEL PIPELINE NETWORK AT NAVAL BASE </title>

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<description> <p>Indonesian Navy (TNI AL) is the main component for Maritime Security and Defence. Because of that, TNI AL needs Indonesian Warship (KRI) to covered Maritime area. The main requirement from KRI is fulfilled by demand.

To pock of fuel demand from KRI at Naval Base, it needs a new pipeline of fuel distribution network system. The pipeline network system used for maximum lifetime must be protected from corrosion. Basically, there are five methods of corrosion control such as change to a more suitable material, modification to the environment, use of protective coating, design modification to the system or component, and the application of cathodic or anodic protection.

Cathodic protection for pipeline available in two kinds, namely Sacrifice Anode and Impressed Current Cathodic Protection (ICCP). This paper makes analysis from design of Impressed Current Cathodic Protection and total current requirement in the method. This paper showed both experimental from specimen test and theoretical calculation.

The result showed that design of Impressed Current Cathodic Protection on fuel distribution pipeline network system requires voltage 33,759 V(DC), protection current 6,6035 A(DC) by theoretical calculation and 6,544 A(DC) from pipeline specimen test, with 0,25 mpy for corrosion rate. Transformer Rectifier design needs requirements 45 V with 10 A for current.

This research result can be made as literature and standardization for Indonesian Navy

in designing the Impressed Current Cathodic Protection for fuel distribution pipeline network system. </p> </description> <author>k. Susilo</author> <category/>

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