

## ABSTRACT

**Dimas Erik Pratama**, 2018, NIT: 50134870.N, *“Pelaksanaan tank cleaning dengan butterworth portable di atas MT.AU Gemini untuk mencegah terjadinya penundaan muatan”* Nautical Study Program, Diploma IV Program, Merchant Marine Polytechnic of Semarang, 1<sup>st</sup> Advisor: Capt. Eko Murdiyanto, M.Pd., M.Mar. and 2<sup>nd</sup> Advisor: H. Sumarno, P.S., MM., M.Mar.E.

*The operation of ship tankers is very complex, where officers and crew (ABK) are required to be able to properly complete the loading and unloading and loading of cargo tanks according to tank cleaning instructions (tank cleaning guide) to facilitate ship operations. In carrying out the activities of tank cleaning on board the ship cannot be separated from the support of tools, ship crew, as well as the condition of the vessel being operated. The success and failure of tank cleaning can determine the progress of a shipping company in operating a tanker fleet. The method used in this study is a qualitative method through the fishbone diagram data analysis method and the fault tree analysis method. Analysis of the factors causing the problem shows 3 main factors causing the problem. The source of this research data comes from observing the implementation of tank cleaning on board during the period January 2016 to February 2017.*

*The results showed that the factors which caused the tank to be less than optimal were the implementation of cleaning tanks that were not in accordance with the procedures, lack of understanding of tank cleaning, faulty maintenance of equipment and butterworth spray which was not optimal. The efforts made to overcome the tanks that were not sprayed with butterworth were to always carry out the officer checking when the tank cleaning took place, holding a tank cleaning exercise with different types of load, always taking care of the equipment used for tank cleaning.*

*From some of the conclusions above, there are still some shortcomings in the process of carrying out the tank cleaning correctly, so the authors provide advice always carry out safety work meetings before carrying out the tank cleaning process and perform job evaluations after carrying out tank cleaning. If the tank cleaning process is underway and equipment damage is unavoidable, the crew must dare to enter the cargo tank and spray the tank walls.*

**Key words** :Implementation, Tank cleaning, Butterworth portable, Fishbone Analysis, Fault Tree Analysis.