

## ABSTRACT

**Muhammad Syahyuti**, 2018, 50134883.N, “*Pengoperasian inert gas system guna keselamatan kerja pada kapal tanker di MT. sungai gerong*”, skripsi program studi Nautika, Program Diploma IV, Nautika, Politeknik Ilmu Pelayaran Semarang, Pembimbing I : Capt. Hadi Supriyono, MM, M.Mar. Pembimbing II : Yustina Sapan, S.ST, MM.

The main purpose of a cruise is to ensure the safety of the vessel and its passengers as well as the cargo to the specified destination, especially in tanker. In order to carry out the safety of the ship is not as easy as avoiding the explosion, fire, or safety on board. There are some factors that can trigger explosions, fire, life safety and pollution.

On tankers, specifically for those measuring 20,000 DWT and above must be equipped with an Inert gas system. The writer provide the formulation of the problem on how to prevent accidents at the time of operation of Inert Gas System and how to be able to eliminate HC (Hydrocarbon) or toxic gases in the tank when the ship crew will do the cleaning tank with the operation of inert gas system. The purpose of this research is to find out how to prevent accidents at the time of operation of inert gas system and how to remove HC (Hydrocarbon) or toxic gases inside tank as the ship crew do the cleaning with operation of inert gas system so that ship crew could clean the tank well and make no casualties after the cleaning.

Basic theories used as guideline in writing this final project are literatures that has close relationship about the understanding of the operation of inert gas system, the prevention act of accident and work safety as well as the introduction and the depiction of inert gas system equipment in tankers. In this final project, the writer present this study by using qualitative methodology as a research procedure that produces descriptive data in the form of written or people's interview and the behaviour that can be observed. The writer used interview, observation documentation and library research as a technique of data collection

Based on the discussion of the problem and the formulation of the problem, so the writer can conclude that on the operation of inert gas system for the prevention of occupational injuries such as errors in operating, damage to components of inert gas components, lack of inert gas tank inflow so that there may be delays in loading and unloading loading and tank cleaning and can even lead to explosions, fire and life safety.

**keywords :** *operation of inert gas system, work safety, tanker.*