

## ABSTRACT

**Hanif Aulawi**, 2018, NIT : 51145411.T, “*Low Fresh Water Production Produced By Fresh Water Generator System in MV.DK 02*”, Program Diploma IV, Technical, Merchant Marine Polytechnic of Semarang, Supervising I: H.Sumarno PS, MM., M.Mar.E and Supervising II: Ir.Fitri Kensiwi, M.Pd.

Fresh Water Generator is a system that functions to process sea water into fresh water through the stages of evaporation and condensation. The availability of fresh water is an absolute thing for the smooth operation of the ship for example main engine coolant, auxiliary engine coolant, boiler water filler, etc. One of the important parts of the fresh water generator is the evaporator which functions to evaporate seawater using heaters which comes from the cooling water of the main engine jacket, which of course cannot crust on the part because it will interfere with the operation of the fresh water generator itself.

The research method that I use in the preparation of this thesis is a case study method, fishbone analysis and Fault Tree Analysis which produces descriptive data in the form of written words from people and observed behavior. In collecting data in the form of approaches to objects through observation, interviews directly with the subject and using documents and data relating to. Data collection techniques are carried out through observation, documentation and literature studies directly on subjects related to fresh water generators.

From the results of the research and discussion of the problem it was found that the decrease in the production of fresh water on the fresh water generator was due to the emergence of crust on the evaporator. While the cause of crust on the evaporator is caused by the non-chemical dosing and the temperature of the evaporator that is too high or low. The impact that will occur is the reduction of fresh water production on board and efforts to overcome these problems can be done by carrying out chemical dosing ameroyal c.f when the fresh water generator works and adjusts the flow valve of the engine cooling of the main engine's jacket that enters the evaporator.

**Keywords:** *Fresh Water Generator, Crust Evaporator, Pressure Ejector Pump.*