

ABSTRACT

Ahmad Bulan Ramadhan, 2018, NIT : 50134928.T, “Analysis of the effect of crust on Evaporator on the operation Fresh Water Generator in MV. Kartini Samudra”, Program Diploma IV, Technical, Merchant Marine Polytechnic of Semarang, Supervising I: Drs. Edy Warsopurnomo, M.M., M..Mar.E and Supervising II: R.A.J Susilo Hadi Wibowo, S.IP., M.M.

Fresh Water Generator is a system that functions to process sea water into fresh water through evaporation and condensation stages. The availability of fresh water is an absolute necessity for the smooth operation of the vessel, for example, for cooling of main engine, cooling of auxiliary machine, water filling of boiler, etc. One important part of fresh water generator is evaporator which serves to evaporate seawater by using heating media from cooling jacket fresh water of main engine, which certainly should not arise crust on the part because it will disturb the operation of the fresh water generator.

Research method that writer use in preparation of this thesis is qualitative descriptive method. In this case the author uses the SWOT method as a data analysis technique to analyze the factors systematically against the strengths, weaknesses, opportunities, and threats from the environment to formulate the strategy to be taken. Technique of collecting data is done through observation, documentation and literature study directly to the subject related with fresh water generator.

From the results of research and discussion of the problem found that the decrease of fresh water production in fresh water generator due to the emergence of crust on the evaporator. While the cause of the occurrence of crust on the evaporator is caused by not the implementation of chemical dosing and evaporator temperature is too high or low. The impact that will occur is the reduction of fresh water production on board, and the efforts made to overcome these problems can be done by giving chemical dosing ameroyal c.f when fresh water generator work and adjust the inlet valve cooling jacket of main engine into the evaporator.

Keywords: *Fresh Water Generator, Evaporator Crust, SWOT*