

## ABSTRACT

**Bowo Azis Nugroho**, 49124595.T, 2017, “*Analysis of the living room with a method FO purifier fault tree analysis in chemical MT. Soechi VII*”, Diploma IV, Teknik, Semarang Merchant Marine Polytechnic, Supervisor: (I) F. Pambudi Widiatmaka, S.T., M.T. (II) Febria Surjaman, M.T.

Catch on fire is an exothermic oxidation reaction that occurs rapidly from a fuel along with the emergence of fire or ignition. Fire risk can occur at any time, because there are actually many things that could trigger fires. The main cause of catch on fire is due to human error, in which it is because of the disobedience towards established work procedures and the late prevention of catch on fire by the workers. The accident is affected by the fire triangle consisting of air, heat and fuel. When these things meet at the right quantity and time, fire catches on.

The method used by the researcher in this research is descriptive *fault tree analysis* which aims to illustrate and describe the object analyzed. Based on how they are obtained, the data of this research are divided into two which are primary data and secondary data whose function is to support construction of the present research.

Based on the research problem, the conclusion can be inferred from what happens in MT. Soechi Chemical VII while the research was conducted on the emergence of a fire in the room FO purifier on December 30, 2014 23.30 hours central Indonesia time Banyuwangi to the island of Bali. The factors that cause the fire are as follows: The fault of the workers (human error) due to a lack of discipline (no safety) and lack of knowledge, Over heating on a heater due to the lack of circulating medium to be heated and the magnetic contactor which does not work properly, the FO transfer pump does not work normally due to the filter is dirty and lack of grease on its gears. Therefore, the researcher suggests that it is important to conduct guidelines to the board crew, repair the heater and the transfer pump, and do maintenance on the pump as well in order to minimize the possibility of accidents on board and enable the support on the smooth operation of the ship maximally and properly.

**Key word** : analysis, catch on fire, over heating, heater, FO transfer pump.