

## ABSTRACT

**Ragil Dama Saputra**, 2018, 50135037. T, “*Optimization of Refrigerator System Maintenance to Improve Food Cooling Process On VLGC NS Challenger*”,  
1<sup>st</sup> Supervisor : Achmad Wahyudiono, M.M., M.Mar.E. 2<sup>nd</sup> Supervisor :  
Capt. H. Agus Subardi, M.Mar.

On every ship, to support the smooth running of operational there needs to be a cooling machine. By the presence of cooling machine material food can be stored with whether a time of relative longer than usual in the absence of the persons concerned if stored cooling. With room temperature conditioning in which a controlled be able to constrained the development of the bacteria in of groceries to be causing the occurrence of decay. To support the process storage and preservation food required of machine cooling is a machine cooling must be in good condition. With provisions for storing fruits and vegetables to be fresh required room temperature between 4<sup>0</sup>C until 10<sup>0</sup>C and for a room of meat and fish should be able to provide temperature between -12<sup>0</sup>C until -18<sup>0</sup>C.

Basic cooling main engines is room temperature cooling desirable must be achieved. There are many obstacles to cause a cool room out to not cold. One of the requirements so that a machine a coolant can work well is circulation of the freon can not be impaired. If the circulation of the stopped in some areas in of the freon would cause the animal to an annual production capacity of evaporation of the ingredients of a coolant in the evaporators will also the inherited syndromes characterized cause to rooms which they rent out a coolant not capable of temperature is reached cooling of that which is desirable. There is so many things causes disruption of the circulation of the of the freon, and among the companies were:

The circulate of lubricant oil in to the freon can hamper the flow of freon in a capillary pipe. Freon leakage can decrease the amount of freon in the system. The unclean condenser can decrease the amount of the freon.

If the harassments are not immediately overtake will be very endanger. The handling in Instruction Manual Book should be done consistently and arranged daily, weekly, quarterly, and annually. In addition, engineer to quickly and respond if there is a disorder work on a cooling. One more thing that should not be forgotten is the crew must always maintaining good relations with the ship owner. The role of company here is in the delivery of spare parts and energy expert technician from shore person if necessary. In this case a request for spare parts must be structured and well-planned.

**Keywords:** Cooler, Circulation, Leakage