

ABSTRACT

Hanung Fadlillah, NIT: 51145248.N, 2018, "*Operation Procedure Ballast Water Exchange On MV. Navios Coral On Entering Baltimore Harbor,U.S.A* ", Minithesis Nautica Departement, Diploma Program IV, Merchan Marine Polytechnic of Semarang, Supervisor I: Capt. Samsul Huda, M.M, M.Mar, Supervisor II: H. Suharso, S.H, S.Pd, SE, M.M.

In order to maintain its stability, commercial ships use ballast water as a medium to maintain the stability of the vessel. Water ballast exchange is required as a preventive measure to avoid damage to ecosystem in a region, especially in writing this mini thesis that port of Baltimore, USA. The purpose of this mini thesis is to know about how the operation of water ballast exchange, the impact of water ballast disposal, and eliminating the constraints in the implementation of water ballast exchange. In writing this essay, the authors describe the theory of water ballast exchange as a foundation for solving existing problems.

The method used in this research is descriptive (when viewed from the aspect of presentation level) and also qualitative (when viewed from the way of data processing), then analyzed with fishbone analysis method to determine the problem of each factor and technique of data analysis ultrasound (Urgency, Seriousness , Growth) to determine which issues are the top priority. In this case the technique of collecting data in the form of approach to the object through observation, interview directly to the subject and using documents and data related to the process of water ballast exchange.

From the results of the research, there were found problems in the preparation of the implementation and the equipment which includes the activities of the cause not implemented, the obstacles not implemented, and the effect on the stability of the ship. Chief officer as an officer responsible for this activity should be more assertive, especially in training and supervision. Equipment maintenance is not routine, and the implementation of water ballast exchange is not in accordance with the procedure resulted in water ballast exchange process is not running effectively and efficiently. As for the suggestion of the author of the company also play a role by conducting guidance or training to crew that will go aboard and also at the time aboard by chief officer, applying technology of AOT (Advance Oxidation Technology) that can kill dangerous microorganisms and standard operational procedure (SOP) that is clear on board. So it can be done well according to the rules set by the water ballast management convention.

Keywords: *ballast exchange, water ballast, SOP, harmful aquatic species*