

ABSTRACT

Desima Ayuningtyas, 2018, NIT: 51145144. N, “*Effort to Prevent High Pressure Tank LPG/C Vessel at Loading in Gas Nuri Arizona*”, Nautical Department Mini-thesis, Program Diploma IV, Politeknik Ilmu Pelayaran Semarang, Advisor I: Dr. Capt. M. SUWIYADI, M.Pd., M.Mar. Advisor II: AGUS HENDRO WASKITO, MM., M.Mar.E.

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LPG transport at fully pressurized LPG vessel needs a special handling in the loading progress when ship-to-ship berthing. In the operation of the load, the most necessary things are the temperature and the pressure since high temperature cause the pressure increase and therefore, the load will not mediate at the exact time. It is necessary to know how temperature and pressure handling toward cargo at loading, also the obstacles that affect and the effort to prevent those obstacles. The purpose of this study is, to know the factor of high-pressure when loading ship-to-ship progress, know the way to handle high pressure effect and to know the effort to prevent the come of the high pressure.

Based on the literature review, it is said that LPG cargo at outern air pressure will evaporate at very low temperature, which is -42.3 C to propana and -0.5 C to butana. Therefore, temperature and pressure to the cargo tank should be in a stable condition on keeping the cargo at liquid shape.

This study combine between descriptive qualitative and data analysis technic with using Fish bone Analysis also Fault Tree Analysis which explain fish-bone shaped and tree-shaped way of thinking to solve the probles until the problems can't be solved anymore. The data obtained by interview to several respondent, observation to the research object and also documentation method.

Based from the study, it is known that the obstacles in handling the high pressure at STS transfer berthing are the unsuitable pressure of the tank before loading compared with loading agreement, hot temperature at the progress of the loading, hot cargo from the mother ship and lack of ccrew's knowledge about the gas cargo at that time. Therefore, the effort to prevent are turning on cargo liquid spray to lessen the temperature inside the tank and water spray line to refrigerate the temperature also using cargo compressor to circulate mothership stakeholder with the crew, stay up to date toward temperature estimation on the area around, give special training to gas vessel crew that are going to on board also giving requirement to AB to have *basic liquified for gas tanker* certificate and do maintenance toward loading unloading equipment based on plan maintenance system.

In the end, result of the study about the effort to prevent high pressure of LPG cargo in LPG/C Gas Nuri Arizona at the progress of loading is necessary to do on board to create a purpose (to create continuity at LPG fully pressurized loading) and can be responsible also taken summary or even evaluation to refer

