ABSTRACT

PT. Petrokimia Gresik is a fertilizer factory who much of use raw of ammonia which stored in the factory unit II with use 2 tank is 06 TK 801 and 11 TK 801 with a capacity of each is 10,000 tons and 7,500 ton. Ammonia tank in the factory unit II has a risk of fire and explosion hazard, thus is because ammonia can explode in confined space. Therefore, hazard identification should be carried out against the fire and explosion hazard so that the loss received due to fire and explosion hazard can be prevented and minimizing.

Hazard Identification on this research of using Dow Fire & Explosion Index method because this method can assess the quantitative level of how much danger and loss that is received by the company when the fire occurred and explosion on the ammonia tank. The assessment includes the determination of the danger the unit process, the material factor, general process hazards factor, special process hazards factor, process unit hazards factor, fire & explosion index, loss control credit factor, radius of exposure, exposure of the area, the area value of exposure, damage factor, Base MPPD, actual MPPD, MPDO and business interruption.

Results obtained from the research that the hazard of the occurrence of fire and explosion the ammonia tank is located on the light level with the area of exposure of 58,09 m², Actual Maximum Probable Property Damge (actual MPPD) of Rp. 1.443.669.154,2 and business interruption received Rp. 113.639.176.997,5.

Keywords: Ammonia Tank, Hazard Identification, Dow Fire & Explosion Index