ABSTRACT

Phosphoric acid producing process in PT. Petrokimia Gresik is done on the second floor of phosphoric acid factory, where there is a hut on that area and near from the hut there are two high noise blower with level of noise up to 96.1 dBA. Based on KEP-51/MEN/1999 article 3-1 “Noise intensity has below 85 dBA as permissible value”. Therefore, it is needed noise control so level of noise under NAB value.

In this research, noise measurement is done by using sound level meter and take 49 points. Where those points will be used for making a mapping noise using surfer program. Mapping noise is used to show noise distribution pattern in second floor of phosphoric acid factory. Then, overall blower noise is counted to know the highest Noise Reduction (NR) that will be used as standard in counting.

Noise control is done by manufacturing enclosure design in blower MC 2323 and C 2423. Design that will be manufactured for noise controlling use gypsum board with thickness 0.010 m for total wide 91.06 m² (design for blower MC 2323) can reduce noise until 31.49 dBA and for the same material with total wide 100.56 m² (design for blower C 2423) can reduce noise until 31.59 dBA.

Keyword : Noise, Enclosure, Noise Reduction