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Improvement of the Hearing Conservation Program

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Abstract

High noise level caused by various sources perceived by oil and gas company workers has been identified as one of the hazard. Consequently, a Hearing Conservation Program (HCP) consist of workplace noise measurement, noise dose calculation perceived by individual worker has to be properly planned and determined, Employees awareness of Noise, Audiometri testing for early detection of Noise Induce Hearing Loss (NIHL) had been performing routinely by The Health Department of TOTAL E&P INDONESIA.

Management commitment stimulated into NDD (Note De Direction) and SOP (Standard Operating Procedure) of Hearing Conservation program and the program should be equipped with accurate and comprehensive information. This information focuses on concerning overall noise level at each working position from which the noise effects on individual worker can be analyzed to support the hearing diagnostic purposes and traced back to suggest appropriate engineering modifications.

The INASyst[®] software (the Integrated Noise Assessment System) is used to assist The Health Department for carrying out analysis of existing as well as predicted noise conditions at each working places. It also provides some essentialal noise features such as, Noise Mapping, Noise Source Analysis, Noise Dose Calculation, HPD (Hearing Protection Device) Selection and Noise Criteria Calculation. The noise propagation model applied in the software is derived from theoretical foundations whereas the accuracy of the noise mapping is examined using the ISO 9613 part 2.

The Noise Dose calculation procedure and criteria are based on both international (i.e. OSHA and NIOSH) and national (KEPMENAKER 51/1999) standards to allow comprehensive analysis.

The noise simulation program, on the other hand, is developed to allow prior analysis to the planned alteration on noise source hence noise levels at the working places. Therefore early precaution and action plan concerning the HCP can be appropriately prepared by The Health Department.

In monitoring activity, Audiometry test is performed regularly and the result is evaluated by staff together with ENT Specialist for early detection of NIHL. In general all of the Audiometri test result were entered into database, beside to improve employees awareness related with Noise, Similar Exposure Group health talk is performed using variety tools (Playing games/ animation) by ENT Specialist with the topic Noise effect, Noise control and how to use ear protector. The program evaluation was performed by elements program inspection and also presented to the management for continues improvement.