

EVALUATION OF WORKPLACE EXPOSURE TO NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM) IN AN OIL & GAS INDUSTRY, STATE OF KUWAIT

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Kuwait Oil Company (KOC) is one of the major oil and gas exploration industry in the State of Kuwait and its operational facilities spread all over the Country and the area for its operation is about 1,000 sq.km. KOC consists of major oil and gas drilling and processing facilities spread all over West, South East and North Kuwait fields. Various Occupational Health (OH) hazards are present in the regular operations of the company and Naturally Occurring Radioactive Materials (NORM) is considered as one among the OH hazards. NORM exposure may lead into occupational illnesses to the workers. Qualitative risk assessment was carried out and the risk assessment identified NORM as one of the OH risky factors in the activities related to drilling and other operations in the company. The risk assessment recommended an exposure evaluation for NORM in most of operational and drilling facilities in the company. As recommended, an exposure evaluation was carried out in the area and personnel level in the selected operational and drilling facilities for assessing the current NORM exposure among the workforce in the company. This paper outlines the methods and results of

the exposure evaluation and quantification of occupational exposures to NORM among the workforce in the company and such estimated exposures is used as a baseline for assessing the future impacts. Exposure evaluation is expected to aid for developing OH database on NORM for use in local regulations and resource allocations for the intervention in the oil and gas sectors in Kuwait.

Biography

Yousef Al-Yousifi is currently working as Chief Industrial Hygienist (CIH) for Health & Environment Team in Corporate HSE Group at Kuwait Oil Company. He has graduated in Genetics from Aberdeen University, UK. His areas of expertise are Industrial Hygiene and Environmental Management. He has more than 12 years of experience in Industrial Hygiene, Exposure Assessment and Environmental Studies and Management. He has involved with many occupational health and environmental initiatives e.g., implementation of contractor's pre and periodical medical examinations, hazardous job evaluation, exposure evaluation of OH hazards, NORM management program and other projects in KOC, Kuwait.

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