ISSUE 42 | 15 Feb 2016

شركة تنمية نفط عمان
Petroleum Development Oman

HSE NEWS

WORKING FOR YOU TO KEEP YOU SAFE

Latest HSE Statistics YTD 15 Feb	2015	2016
Workplace fatalities	0	1
Non-work related fatalities	0	0
Non-accidental deaths (NADs)	2	2
Lost Time Injuries (LTIs)	6	3
All injuries (excluding first aid cases)	22	29
Motor Vehicle Incidents (MVIs)	13	5
Roll over - MVIs	5	2
Serious MVIs	5	2
Lost Time Injury Frequency (LTIF)	0	0

Life Saving Rules Violations YTD 15 Feb	
Journey management	2
Speeding/GSM	2
Seatbelts	1
Overriding safety device	0
Working at heights	0
Permit	1
Confined space	0
Lock out tag out	0
Drugs and alcohol	0
Gas testing	0
Smoking	0
Suspended Load	0

Vehicle Class A/B Defect YTD 15 Feb	
Class A	0
Class B	277

HSE TIP

The consequences of failing to comply with safe NORM procedures may place you or others at risk. For any further support, contact the MCOH t

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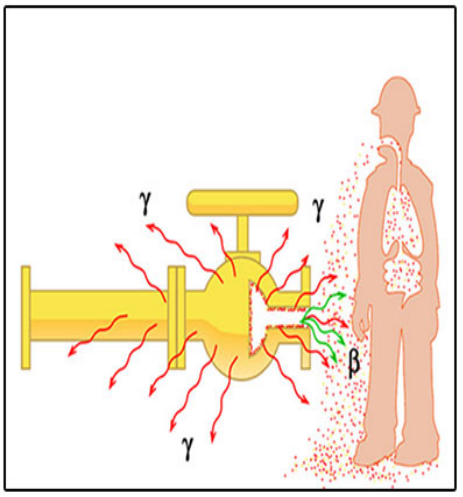
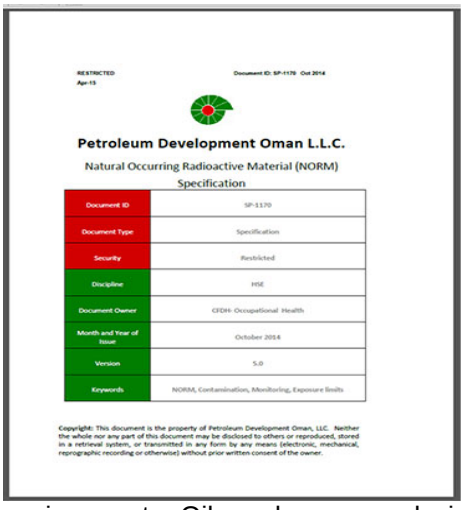
Important News




Petroleum Development Oman L.L.C.
Natural Occurring Radioactive Material (NORM) Specification

NORM stands for Naturally **O**ccurring **R**adioactive **M**aterials. NORM is all around us as background radiation, all of the time. It is part of the earth's crust and found in very low concentrations in rocks, soil and water. Background radiation emitted from NORM is small and mainly harmless; however, processes such as oil and gas production can cause NORM or TENORM (Technologically Enhanced Naturally Occurring Radioactive Materials) to build up to levels, that may be harmful to workers' health or the environment. Oil and gas producing companies are unwillingly co-producing NORM with their day-to-day activities giving rise to NORM-contaminated waste. These materials decay, emitting gamma photons and alpha and beta radiation particles which are potentially harmful to health if inhaled or ingested. NORM not only present a potential health risk to staff maintaining and servicing production equipment or handling waste streams, but may also result in environmental issues.

What You Need to Know

NORM Risk Exposure:

The major health risk is from the inhalation or ingestion of scales or debris contaminated with NORM, particularly during pipe cutting, removing solids from oil tanks and pits and refurbishing gas processing equipment. The risk is almost negligible when NORM scales are inside the tubular and the tubular remain down hole.

Monitoring:

Always use calibrated NORM detectors. Any measurement in which the dose rate exceeds 0.5 µSv/hr is considered NORM-contaminated.

Disposal of Equipments:

All NORM-contaminated equipment shall be transported to the Bahja NORM yard for proper management and decontamination.

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HSE Advice Note

NORM flows with oil, gas and water mixture and accumulates as scale, sludge and scrapings on the interior surfaces of processing equipments and vessels. To determine whether or not a facility has NORM contamination, a NORM survey and sampling need to be conducted and the database should be updated. Before starting work, supervisors must look at previous NORM survey results, refer to NORM maps or look for labels on contaminated equipments. As a rule in PDO, any equipment which has been conveying or storing production fluids shall be treated as NORM-contaminated until proven otherwise. The specification SP 1170 describes PDO's minimum requirements for managing NORM. Additional guidelines for specific maintenance and service activities such as tank cleaning, sampling, and well workovers etc are also available and linked to the specification. Health effects due to exposure to NORM above exposure limits following inadequate safety precautions are dose related and typically delayed and may take many years before the development of certain forms of cancer. It is also difficult to find medical tests that detect meaningful abnormal changes in a timely fashion. Therefore it must be emphasised that source control, exposure monitoring, worker education, safe work practices such as permit to work, refraining from eating, drinking and smoking in workplaces and wearing the correct PPE are the most important strategies for preventing exposures. NORM training is available for all personnel handling or supervising NORM activities. NORM-contaminated equipments must be handled, maintained, transported, stored, and disposed in a controlled manner to protect the worker and the environment. All contaminated equipment shall be sent for decontamination prior to any maintenance or repair and all NORM-contaminated waste generated during maintenance shall be drummed or put into labelled containers. Representative samples shall be collected from the waste and analysed for radioactivity. Obsolete NORM-contaminated pipes and equipments shall be clearly labelled as “NORM Contaminated Materials” and removed to a designated area, restricted for the general public. The NORM yard in Bahja is PDO’s licensed NORM waste facility. All contaminated equipments and sludge exceeding the PDO limit must be properly sealed, labelled and transported to the NORM waste yard in exclusive use vehicles and stored for decontamination or long- term disposal.