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Radiation Protection in the Brazilian Oil & Gas industry 25 Years Later

Since 1997, a cooperation project has started to identify the presence of naturally occurring radioactive material in some oil exploration and production facilities in a region of Brazil. The results of this work were presented at the International Conference on Occupational Radiation Protection: Protecting workers against exposure to ionizing radiation, held in Geneva from 26-30 August 2002 - Evaluation of Occupational Radiological Safety on Offshore and Onshore Oil Field Installations (IAEA-CN -91/153)
This project was continued and expanded until 2011 and an overview of the project's development situation was shown at the International Conference on Occupational Radiation Protection: Enhancing the Protection of Workers - Gaps, Challenges and Developments 1–5 December 2014, Vienna, Austria, 2014 at presentation by researcher Lucia Neder, (L. Neder, Brazil Practical experience and implementing occupational radiation protection and training in the oil & gas industry)
During this period, procedures were introduced for work in areas and equipment where there could be the possibility of exposure to naturally occurring radioactive material. A process of regulation and licensing of temporary tailings deposits containing lees and incrustations was also initiated.
In a given period there were about 40,000 tubes where NORM could or may not exist, as there was no segregation or sorting when the tubes were replaced.
An extensive mapping of sites and operating units in the country was also carried out to identify possible locations where there were radiation levels that would require further evaluation. During this phase, large volume detectors and backpacks-mounted monitoring systems were used. The data was worked in an Excel macro and later assembled in Google Earth.
An operating authorization process was carried out, given by the regulatory authority, for a company to clean these tubes. The cleaning of these tubes generated about 750 inlay drums containing NORM.
From the cleaning of equipment and vessels we now have about 15,000 drums stored in temporary warehouses within the facility itself.
At the beginning of the project, there was only one radiation protection officer accredited by the regulatory authority in 2014, there were about 22 and today there are 25, 3 of which in the area of waste management and initial deposit.
Now it is intended to present the current situation of occupational radiological protection and the developments that have occurred with regard to the regulation of these facilities in the country.

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