

## ***Strengthening Occupational Radiation Protection in Africa***

### ***The challenge...***

Nuclear applications involving radiation sources in the human health and industrial sectors require special attention, considering the high number of workers involved and the risks associated with operating facilities that involve new medical and industrial technologies.

In many African countries, national systems for the protection of health and safety of workers who are occupationally exposed to radiation need to be strengthened to ensure compliance with new requirements of the IAEA International Basic Safety Standards. A number of incidents have resulted in overexposure of workers managing radioactive sources or subject to occupational exposure, demonstrating the need to reinforce radiation safety practice in workplaces across the region. In addition, the requirement to implement Radiation Protection Programmes at end-user facilities has not been yet fully met.

### ***The project...***

A regional IAEA technical cooperation project was established to help African Member States to strengthen and sustain their occupational radiation protection programmes. Through training events, participants from over 30 countries gained knowledge in the assessment of occupational exposures, dose management, quality management and occupational radiation protection. Participants also received guidance on initiating appropriate national training programmes.

### ***The impact...***

As a result of this project, an intercomparison exercise of individual monitoring has been initiated, in cooperation with the Algerian Secondary Standards Dosimetry Laboratory. Twenty-seven African Member States participated in the exercise, a significant benchmark in strengthening a harmonized approach related to the implementation of the Thematic Safety Area 2 (TSA2), Radiological Protection in Occupational Exposure requirements.



*Participants from 27 African Member States and 3 countries outside the region took part in an intercomparison exercise of individual dosimetry monitoring system.*

Three countries outside the region also participated, by special request, with the view of strengthening networking at the international level for a harmonized approach in implementing TSA2 requirements, experience sharing and identification of best practices, as well as for efficient and effective implementation of the International Basic Safety Standards requirements.

The project has provided continuous support to promote effective radiological protection monitoring in occupational exposure, and this activity represented an opportunity for enhancing capability on individual monitoring in the region. African countries are now working on aligning national radiation protection programmes with the requirements of the IAEA International Basic Safety Standards and related safety guides.

A scientific article was also published in the IAEA/WHO Network of Secondary Standards Dosimetry Laboratories (SSDL Network) newsletter and an IAEA TECDOC is envisaged to summarize the results of the intercomparison exercise to emphasize the benefit of the harmonized approach of individual monitoring.

**Technical cooperation project RAF/9/043: Strengthening the Transfer of Experience Related to Occupational Radiation Protection of the Nuclear Industry and Other Applications Involving Ionizing Radiation**