

Status of National Arrangements on Dose Registry

“Regulatory provisions on NDR & its’ implementation”

Abdulah Alsasal
Radiation Protection Department
Ministry of Health
Kuwait

Legal Basis- Regulatory provisions

- Requirements and provisions for the NDR:
- Amiri Law 131/1977 is the main radiation protection law. All other regulations based on this law.
- Decree 552/2005 is Kuwait's equivalent of the BSS (Basic Safety Standards) and is based on it.
- A new decree is under review to update to GSR-3
- Under Kuwaiti regulations, the Radiation Protection Committee and hence the Radiation Protection Department is the regulatory and governing body for everything related to authorization and usage of ionizing and non-ionizing radiation.
- Every radiation worker is required by law to be monitored for exposure through the RPD monitoring service.
 - This is a condition to be able to obtain a personal license to work with ionizing radiation.
- Criteria and/or reference standards for authorization and/or approval of dosimetry services:
 - Measurement period is monthly.
 - Monitoring service employs the use of TLDs.
 - Kuwait Only monitors gamma radiation at the moment using TLDs, no neutron monitoring.
 - TLDs are procured from a local dealer for thermos scientific. The reader platforms are Harshaw 6600.

Operational Technical Service Providers (TSPs) in the country

- Regulatory body's dosimetry and calibration division is the only provider in the country for TLD distribution and measurements.
- The division is responsible for calibration, measurement, and dose record keeping of all radiation workers in the country.
- Estimated number of monitored radiation workers is close to 4000.

Dosimetry service characteristics

- TLDs are distributed and measured on a monthly basis.
- We employ the use of water phantom and Cs-137 calibration source to calibrate the TLDS.
- Extremity dosimeters are distributed to some practices such as nuclear medicine and fluoroscopy.
- No internal dosimetry services provided at the moment.

Dosimetry service characteristics

- With regards to internal dosimetry, there is currently no services provided.
- During emergencies, a digital dosimeter is distributed to all participating workers and the dose record is collected after emergency.

Provision for Quality Management System for TSPs

- Provide info on
 - What system?
 - Certification:
 - Accreditation and scope:
 - Qualified staff:
 - Training requirements:

General characteristics of the NDR

- Establishment date:
- RPD – Dosimetry and Calibration Division is the responsible body for calibration, distribution, and measurement of dosimeters.
- Dose records are kept with RPD for many years.
- Registry stores exposure records for industrial, medical, research, and education sectors.
- Dosimetry division measures directly the dosimeters, RPD does not collect records from licensees. (Except for 2 or 3 licensees who already have monitoring services from other countries and share them with RPD).

General characteristics of the NDR

- Worker records include name – workplace name - general info such as sex, dob, civil id or passport number, etc.
- Dose measurements that are recorded are $H_p(10)$ and $H_p(0.07)$.
- In case of overexposure, an investigation is initiated to find the cause of overexposure.
- In emergency situations, there is no limit, but dose is monitored closely so as to distribute the workload on as many workers as possible to minimize an individual person's exposure.
- Dose records are kept for a minimum of 30 years.
- Almost 4000 workers are currently being monitored in Kuwait.

General characteristics of the NDR

- Dose records are kept in Excel files. A single file is for all workers for a whole year, with a new file created for each year.
- However, depending on excel means that some challenges arise when we want to query the data for specific information.
- Every month, exposure printout is distributed to the licensees for all their works along with a list of the newly distributed TLD numbers.

Thank You for attention

- Any questions?