# NATIONAL DOSE REGISTER

**ALAN MULLER, NNR**

**20August 2012**

# International Practice

- The IAEA BSS 115 require that occupational dose records be kept and made available to the competent authorities and to individuals
- This requirement has been adapted in the national legislations and regulations in many countries seeking compliance with the BSS.
- There is a clear tendency to strengthen the application of this requirement by establishing a central dose register
- The Euratom BSS states that the results of individual monitoring should be submitted to a national dose register established by each EU Member State
- Australia, Canada, Finland, Belgium and other EU Member States, established a central register

# National Arrangements

- Currently no explicit legislative requirement for NDR
- SSRP requires a authorization holders to have a dose register of exposed workers
- Dosimetry service providers in South Africa are:
  - SABS
  - Parc Scientific
  - Eskom Koeberg
  - NECSA NTP historical dose records (US service provider)
  - NORM authorisation holders

# National Regulatory Project

- Joint Cooperative Committee
- 2007 meeting with DSP's
- Establishment of centralized occupational dose record system
- Host of NDR
- Legislative aspects / regulation
- Self Assessment Implementation Action Plan

# Benefits of NDR in RSA

- Integrated system of records of occupational doses
- Confidence in record keeping process
- Evaluation of dose trends and statistics
- Reporting purposes, e.g. annual reports, UNSCEAR
- Health research and epidemiological studies
- Providing dose histories to individual workers and organizations for work planning and for compensation and litigation cases
- Compliance with related dose limits
- Cover all types of external/internal occupational exposures, employers

# IAEA Regulatory Authority Information System

- Management tool for information related to regulatory control
- Offers assistance to the regulatory authority in managing its routine regulatory activities
- Regulatory model can be used as a 'template' which can be utilized by young regulatory authorities in building their own regulatory systems
- Many tools for analyzing programme data, which facilitate extracting performance indicators and assessing the overall performance of the regulatory programme
- Guidance for developing, assessing and improving the regulatory authority's quality assurance programme

# RAIS Benefits

- Compatibility with the IAEA Safety Standards
- Extensive customizability to match national needs
- Description of regulatory activities as processes, providing a link to the management system of the regulatory body
- Provides for online submission of data by the facilities, subject to validation by the regulatory body
- Data consistency checking, protection of vital data, access control, data confidentiality, information dissemination to the public
- By the end of 2010, 67 countries were using the RAIS
- 7 countries are about to start using the RAIS in the near future.

# NDR Database & Location

- NDR capability added recently to RAIS
- Preferred location at Regulatory Body, direct counterpart with IAEA
- The IAEA support in the form of feasibility, design, implementation and training, maintenance
- Independent storage, management of data by a Regulatory Body
- Proposed NDR will not significantly affect the current DSP arrangements
- All DSPs still use own databases and export data files to NDR
- Some SADC countries have been trained and use RAIS
- The South African NDR can be expanded to a RDR that will be used to manage all SADC occupational radiation doses (through SADC NRN)

# Establishment of NDR

- Informal discussion with IAEA in 2011 and early 2012
- Meeting with DSPs on 29 February 2012
- Proposal approved 30 March 2012
- Submitted to IAEA on 2 April 2012
- Included in IAEA TC cycle 2014-15
- Counterparts and IAEA finalised programme and arrangements
- Expert mission 20 -24 August 2012
- Phase 1 - Feasibility and Design of NDR
  - Analysing different data structures used by the different DSPs
  - Agreeing on what NDR should include
  - How to correctly and uniquely identify occupationally exposed workers and workplaces among the DSP and the NDR
  - Means of data exchange

# Establishment of NDR

- Phase 2 - Customisation
  - Means of data exchange
  - Customizing of NDR in RAIS
  - Preparing the mechanisms for data import from DSPs
- Phase 3 - Testing and Verification
  - Data import from DSP and verification
  - Putting NDR in routine operation
- Phase 4 - Implementation
  - National training course
  - Procedures

# Scope of Mission

- Meet all DSPs and stakeholders
- Analyse setup, infrastructure, arrangements in RSA
  - ❑ Legal & regulatory requirements for the NDR
  - ❑ Databases
  - ❑ Compatibility and resources
  - ❑ Adequate, reliable and secure IT infrastructure
  - ❑ Access control and accessibility
  - ❑ Quality Control systems
  - ❑ Financial Implications
- Preliminary observations/impressions/recommendations