

**Presidency of the Republic**  
National Atomic Energy Commission  
Radioactive Waste Management



*Prepared by*  
**Mugib SALMAN**  
**YEMEN**

**RMCC-8 / ERDS-3 Meetings and Workshop**  
**17-19 June 2013, Amman, Jordan**



14/6/2013

1

## Yemen Republic

- Population : 25 million
- No. of Governorates : 21
- Area :535000 km square



## Introduction:

Establishment of the National Atomic Energy Commission (NATEC) 1999.

- Regulatory Authority
  - NATEC (National Atomic Energy Commission):
    - Four general directorates for radiation protection.
    - Promoter of Peaceful Applications of Nuclear Technology .
- NATEC & IAEA
- Cooperation started in 1996.
- During the last 10 years NATEC has established Radiation Protection infrastructure with assistance of IAEA experts ,facilities and training.

## National regulation

\*General national radiation protection regulation.

\*National regulation of safe transport of radioactive sources.

\*National regulation of radioactive waste management and emergency.

**.These regulations are consistent with the IAEA standards.**

## Responsibilities of NATEC:

- ✓ Setting the policy of radiation in Yemen.
- ✓ Checking the requirements for licensing of the radiation practices, applications sources.
- ✓ Ensuring the proper application of laws and regulations in inspection and licensing.
- ✓ Suggesting regulation drafts and recommendations for radiation protection.

## Yemeni Atomic Energy Commission

NATEC is the sole regulatory authority in Yemen. It is established under the presidential Decree No.126 in 1999. NATEC consists of the following directories:

1. Radiation Exposure and Laboratories General Directorate
2. Registration, Licensing and inspection General directorate
3. **Waste, Emergency and Nuclear Transport General directorate**
4. Nuclear Records and Information General Directorate.

## ***Waste, Emergency and Nuclear Transport General directorate***

- 1. Waste Department*
- 2. Nuclear Transport Department*
- 3. Emergency Department*

## Waste Department

- Responsible for developing System of dealing, handling, treatment, storage and disposal for all types of produced waste by industrial, medical , agricultural, research application,.....etc.
- **Consist of three sections:**
  - ✓ Waste Section
  - ✓ Radioactive Waste Treatment Section
  - ✓ Radioactive Waste Storage Section

## Licensed radiation sources ,facilities until 2-5-2012

| Practice                            | No. of Facilities | No. of Radiation Sources |
|-------------------------------------|-------------------|--------------------------|
| Well logging                        | 4                 | 153                      |
| Industrial Radiography              | 6                 | 13                       |
| Nuclear Level Gauges                | 2                 | 6                        |
| Neutron Analysis Gauges             | 5                 | 9                        |
| Radiotherapy (Co-60 HDR+Ir-192 HDR) | 2                 | 4                        |
| Nuclear Medicine                    | 3                 |                          |
| <b>TOTAL</b>                        | <b>22</b>         | <b>185</b>               |

## Control of radioactive discharge

- ✓ The radioactive waste in Yemen are the wastes of the radioactive sources imported for industries, oil logging, medical uses, research and education.
- ✓ All sources are imported from other countries with importing license approved by NATEC.

## National Policy and Strategy of RWM

- The current policy with respect to sealed sources is to have them returned to the supplier at the end of their recommended working life (RWL).
- Specific requirements for re-export must be fulfilled at the import stage.
- All sealed sources imported after 1999, are stored at the users' facilities until they are shipped back to their origin countries.

## NORM Problem in YEMEN

### Saffer Field - Ma'areb (Block 18)



### Saffer Field - Ma'areb (Block 18)



## Project Study and Evaluation Naturally Occurring Radioactive Materials (NORM) Produced from Oil and Gas Industry

through this national project aimed at efforts coordination between NATEC and other relevant authorities, such as Ministry of Oil (The Authority of Oil Production and Exploration and Yemen Gas Company, concerning study of Naturally Occurring Radioactive Materials (NORM) in oil and gas industry and limiting consequential biological and environmental effects.

14/6/2013

15



Thank you  
For Your Listening

14/6/2013

16