



مكتب الأمان والسلامة النووية

Meeting on Research Reactors Decommissioning (R2D2P)

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BACKGROUND



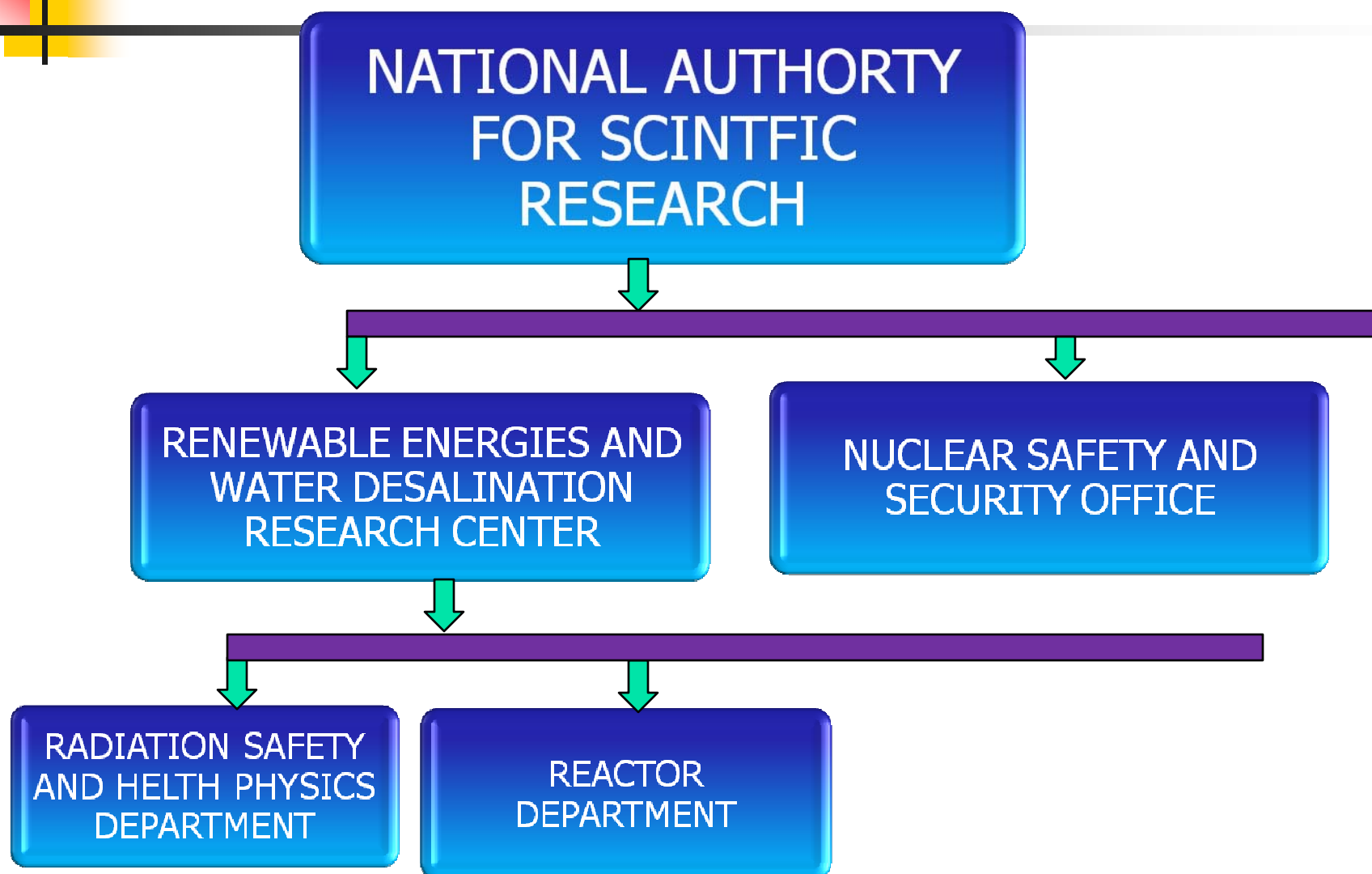
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- ❖ **NUCLEAR SAFETY AND SECURITY OFFICE (NSSO)** had been established in the year 2000
- ❖ Reorganized In 2005 as a division of the National Authority of Scientific Research (**NASR**) and then as an office again in 2008.
- ❖ Only six full time persons working in the office



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STRUCTURE



FACILITIES AND MATERIALS



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1- Renewable Energy and Water Desalination Research Center (REWDRC); Tajoura.

10 MW, pool type reactor, used for basic research, and a critical facility, which is a mockup of the reactor, used mainly for training purposes and teaching.

The reactor started operation in Aug. 1981, with HEU fuel, and was converted to LEU fuel in Oct. 2006.

2- Radiation Sources, used in industry (oil & gas), and medicine.

FUNCTIONS AND DUTIES



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Summery of the NSSO main functions

- ❖ Define policies, and develop principles and criteria for nuclear safety and security.
- ❖ Establish, promote and adopt regulations and guides, for regulatory actions.
- ❖ Review and asses submissions on nuclear safety and security.
- ❖ Issue, amend, suspend, or revoke authorizations, and set the necessary conditions.
- ❖ Carry out inspections, and enforce regulatory requirements.



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- ❖ Licensing installations, activities and personal working in the nuclear and radiation fields
- ❖ Authorize transportation of nuclear materials
- ❖ Propose amendments to acts related to its activities
- ❖ Propose new acts and regulations related to nuclear safety and security

Main Requirements for Reactor Licensing



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- ⑩ Engineering systems evaluation program
- ⑩ Safety Analysis Report (SAR)
- ⑩ Decommissioning Plan
- ⑩ Radiation monitoring Programme

NATIONAL LEGAL FRAMEWORK



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Existing Acts

Act #2 “Regulating the use of ionizing radiation and the protection from its hazards” issued in 1982

- ❖ Sets the requirements for radioactive sources
- ❖ Did not include nuclear security, radioactive waste, and transport security



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Act #4 “transportation of dangerous materials on the national rods” issued in 2002

- ❖ Sets the general requirements for transporting on national *rods*
- ❖ Classifies materials into 8 classes

Class 1 Explosives	Class 5 Oxidizing Substances and Organic Peroxides
Class 2 Gases	Class 6 Toxic and Infectious substance
Class 3 Flammable Liquids	Class 7 Radioactive Material
Class 4 Flammable Solids	Class 8 Corrosive Material



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Act #15 “Protection and Improvement of the Environment” issued in 2004

- ❖ Sets the general requirements for environmental protection against contaminating materials , among which is the radioactive materials

RULE OF NSSO



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- ❖ review of these acts
- ❖ working on a proposal of a new law which calls for the establishment of an independent regulatory body to achieve effective regulatory control of nuclear facilities and activities.
- ❖ The new law will include decommissioning, waste management, transport security.

NSSO ACTIVITIES



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General Activities

- ❖ Review of existing National Acts
- ❖ Propose of a new Act
- ❖ Prepare necessary regulatory rules and guidelines

Activities related to the reactor

- ❖ Review of SAR
- ❖ Licensing the critical facility and the reactor after conversion from HEU to LEU
- ❖ Licensing the personal working in the reactor



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- ❖ Legal and regulatory framework to cover all aspects related to decommissioning

Activities related to transport security

- ❖ Receiving the new LEU fuel in late 2005.
- ❖ Shipment of critical Facility HEU fuel back to the Russian federation, July 2006.
- ❖ Reactor spent fuel is programmed to be shipped to the Russian federation by the end of 2009.

CONCLUSIONS



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- ❖ An independent RB need to be established
- ❖ National legislations and regulations need to be issued
- ❖ Staff recruiting and training is urgently needed.

Main areas of training

- ❖ Legislations related to Regulatory Authority including
- ❖ Licensing and authorizations aspects.



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- ❖ Inspections and monitoring.
- ❖ Nuclear Safety and Physical protection.
- ❖ Waste Management and Transportation of radioactive materials.



المكتب الوطني للبحث والتطوير

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شكرا لكم على حسن استماعكم

THANKYOU

FOR YOUR ATTENTION

