

# **UPDATING RADIATION PROTECTION REGULATIONS IN EGYPT**

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## **INTRODUCTION**

The Aim of this treatise is to present the rational steps taken in the process of updating the Radiation Protection Regulations in Egypt. The contents of the review will include a historical synopsis, and the current state of art regarding competent authorities. Furthermore, the various committees formed with responsibilities for specific issues are indicated, including the role of the Ministry of Health (MOH), and that of the Atomic Energy Authority (AEA). Finally, the efforts made towards updating the radiation Protection Regulations in Egypt are highlighted.

## **HISTORICAL**

The Radiation Protection Activities in Egypt were and still remain among the duties and responsibilities of the Atomic Energy Authority according to Act 288, (1). The regulations controlling the use of Ionizing Radiation and Protection Against their Hazards were specified in Governmental Decree No. 59, (2); which mandated that both Ministry of Health (MOH), and the Atomic Energy Authority (AEA) were the competent authorities, with specific jurisdiction for each. All Radiation Protection matters related to Sealed Sources, X-Ray Machines, and Accelerators, are the responsibility of the ministry of Public Health; and matters related to Open Sources, and Nuclear and Radiological Accidents, are the responsibility of the Atomic Energy Authority.

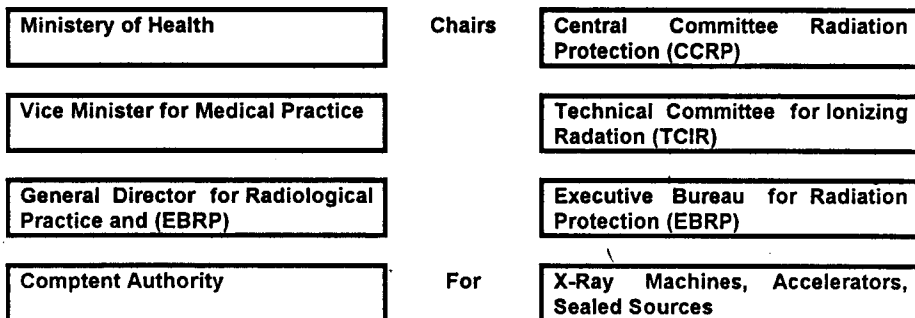
During the mid seventies, and the early eighties, the need for updating the Radiation Protection Regulations in Egypt appeared an urgent issue to both competent authorities. The reasons behind this urgency were the expanding application of radiation sources in medicine, industry, and other fields; the increase in number of occupational radiation workers; and the drafting of a new Act in 1983 pertaining to the Nuclear Control and Safety of Nuclear Installations (3).

The period following that witnessed increased activity and efforts on the part of scientists from the Atomic Energy Authority, and responsible persons from the Ministry of Public Health. These efforts were mainly directed towards the formulation of a scientific and administrative structural hierarchy to promote Radiation Protection Activities in Egypt.

A concise presentation to this effect was reviewed at the IRPA-7 meeting (4). In 1988, both competent authorities the MOH and AEA sanctioned the recognition and adoption of IAEA, S.S, 90, 1989 "Basic Safety Standards" as the fundamental conceptual criteria for Radiation Protection Regulation in Egypt. This document was also used to help in the redrafting and updating of the Egyptian Radiation Protection Regulation.

## THE MINISTRY OF HEALTH [MOH]

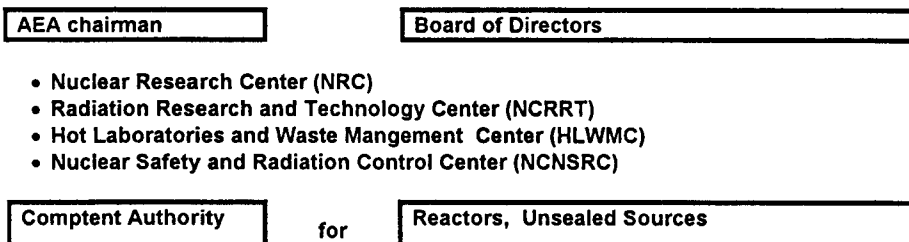
The general layout of the current organizational structure of the Radiation Protection Activities of MOH is shown in the following block diagram.



The MOH issued the Ministerial order No.265 (5) which stipulated the "Radiation Protection Procedures for Industrial Radiography". This was published in the Egyptian Gazette in 1991. This ordinance was essentially based on ICRP publication 26, 1977(6), and IAEA, SS,9,1982(7); applying the System of Dose Limitation.

## THE ATOMIC ENERGY AUTHORITY [AEA]

The new hierarchical organization of the AEA in Egypt was instituted (8) according to the following



Several Committees were formed at the AEA in order to formulate and stipulate Radiological Protection and Nuclear safety regulation, and authorize their implementation. The following are the name of these Committees:

- The Nuclear Regulatory and Safety Central Committee as the competent Authority for Nuclear Installations . (1995)
- The Committee for studying the Safety Analysis Report for the Second Egyptian Research Reactor .
- The Consultative Committee for detection of Radioactivity in Foodstuff.
- The Licensing Committee for Unsealed Sources.
- The Committee for Transport of Radioactive Materials.
- The Committee for Medical Response in Nuclear and Radiological Accident, 1993.
- The Radioactive Waste Disposal Regulations - Adopted by the Board of Directors of AEA, (9).

## ACTIVITIES OF RADIATION PROTECTION GROUP.

The Radiation Protection Group of the [Egyptian Society of Nuclear Sciences and Applications (ESNSA), is the Affiliate society of IRPA in Egypt. This group although small in number of its members, is very active in promoting Radiation Protection concepts in most places where scientific activities exist. This activity comes under Radiation Protection Culture. Besides that, satellite meetings and discussions are always held with other concerned groups from the Ministry of Health, the Nuclear Materials Authority, the Nuclear power plants Authority, and other scientists from Universities; to consider issues related to updating Radiation Protection Regulations in Egypt. Other activities of this group include the participation in lecturing at training programmes in Radiation Protection. Also authorship of a Radiation Protection Manuscript for teaching purposes.

This Radiation Protection Group is intimately related with the National Network of Radiation Physics, and the activities of both are either incorporate or run in parallel. The most recent of such corporate performance was the two day seminar (11-12 Nov. 1995) organized under the title "Radiation Protection Regulations in Egypt - the need for updating"(10). This seminar was attended by about hundred scientists involved in Radiation Protection and Nuclear Safety, and also experts on the Law, legislative, and judicial matters.

Several important recommendations and issues related to updating of Radiation Protection Regulations in Egypt; were considered. The adoption of ICRP New Recommendations, publication - 60, (1991); and the IAEA S.S. 115-1 International Basic Safety standards for Protection Against Ionizing Radiation, and the Safety of Radiation sources, 1994 (11); as the basis for Radiation Protection Practices in Egypt, and for the reformulation and updating Radiation Protection Regulations.

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11. ICRP- 60 (1991).
12. IAEA, SS-11 51 (1994).