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**Regulations on Ionizing Radiation Protection Of The  
Atomic Energy Safety Regulations No. 1 of 1999**

**Atomic Energy Authority Act No.19 of 1969**

**Relevant sections for Personal Monitoring service are given below for your information**

**PART III. DUTIES AND RESPONSIBILITIES**

**22.Compliance with Regulations**

Registrants and licensees shall :

- (a) establish and implement the technical and organisational measures that are needed for ensuring protection and safety of radiation source(s) which they are authorized to possess and use and for the compliance with all applicable requirements of these Regulations. The registrants and licensees may appoint any other authorized persons to carry out actions and functions and duties related to these responsibilities, provided that the qualifications are met, but shall retain the responsibility for the functions and tasks himself.
- (b) ensure, for all workers engaged in any work that involve or could involve occupational exposure, that such exposure be limited to dose limits specified in the Annex III and that occupational protection and safety are optimised;
- (c) obtain, as a precondition for engagement of workers who are not their employees, or workers who received occupational exposure from prior employment, the previous occupational exposure history of such workers and other information including health records as may be necessary to provide protection and safety in compliance with these Regulations.

**23.Authorization for Modification**

Registrants and licensees shall apply for authorization to the "Authority" when intending to introduce modifications to any practice relating to any radiation source, installations, and work carried out by workers for which they are authorized, and shall not carry out any such modification unless specifically reviewed and authorized by the "Authority".

**24.Intervention in Emergencies**

(1)Every registrant or licensee, whenever an emergency exposure situation has developed or is developing, shall:

- (a) communicate promptly and immediately to the "Authority", reporting the causes, circumstances and consequences, and on the corrective or preventive actions taken or to be taken,
- (b) take appropriate protective actions to remedy the circumstances and to prevent a recurrence of similar situations as well as on whatever other actions are necessary or required by these Regulations.
- (c) take protective actions as may be required for protection of occupationally exposed workers undertaking intervention and for protection of public from exposure as set forth in the licence application and emergency plans approved by the "Authority".

(2)Failure to take corrective or preventive actions within a reasonable time in accordance with these regulations shall be grounds for modifying, suspending or withdrawing any authorization that has been granted by the "Authority".

## 25 Informing the "Authority"

Registrants and licensees shall promptly inform the "Authority" on any of the following events:

- (a) suspension or stoppage of operation of the radiation sources.
- (b) loss or theft of radiation sources .
- (c) any accident, disorder, fault or changes connected with radiation sources which may increase the probability of potential risks of exposure to radiation for individuals .
- (d) Incidents resulting in exposure to radiation as well as dubious exposure of individuals to radiation,  
or
- (e) any other events with potentials for unnecessary human exposure.

## 26. Personnel Monitors and Protective Equipment

Registrants and licensees shall:

- (a) ensure that radiation workers are provided with suitable and adequate personnel monitors and protective equipment, including as appropriate:
  - (i) personnel dosimeters suitable for the type of radiation to be measured;
  - (ii) protective clothing;
  - (iii) protective respiratory equipment for which the protection characteristics are made known to the users; and
  - (iv) protective aprons and gloves and organ shields;
- (b) minimise the need for relying on personnel protective equipment for protection and safety during normal operations by providing appropriate well engineered controls and satisfactory working conditions.

## 27. Responsibility of Radiation Protection Officer

The functions and duties of a Radiation Protection Officer to fulfil all radiation protection requirements of these Regulations for the premises under his control, to ensure safety and protection of radiation workers, other persons, and the environment, shall be:

- (a) to supervise the implementation of radiation protection procedures in order to ensure radiation safety and to minimise radiation exposure in the premises under his control.
- (b) to provide technical advice, prepare local radiation safety working rules and provide training and instructions to workers;
- (c) to monitor, survey and inspect regularly the equipment, work areas and work carried out in the premises and prepare reports together with any necessary recommendations thereto, relating to improvement of radiation safety;
- (d) to ensure that:
  - (i) all monitoring instruments are properly maintained and calibrated;
  - (ii) personnel monitoring devices are issued to and worn by all radiation workers under his supervision and are returned to the "Authority" for processing and dose assessment;
  - (iii) the devices provided on the premises to ensure the radiation safety of persons are properly maintained.
  - (iv) all licences and certificates of registration are renewed before the expiry of the validity of such licence or certificate of registration;
  - (v) all records required to be maintained under these regulations are properly maintained.
- (e) to record and report to the registrants and licensees, and the "Authority" of any unsafe practices and accidents;

- (f) to investigate any potentially hazardous situations and ensure that the necessary remedial actions are being taken;
- (g) to arrange for the safe storage of radioactive materials and the safe disposal of radioactive wastes as approved by the "Authority";
- (h) to arrange to deal with the consequences of any radiation or contamination accident, incident and return conditions to normal and inform the radiation workers as to what steps should be taken in the event of an accident.
  - (i) to maintain records relating to,
    - (1) all radioactive materials (type, activity, physical and chemical form) and all irradiating apparatus under his control and the record shall include details of their physical location and, in the case of radioactive materials, of the conditions of their storage;
    - (2) all work carried out by each radiation worker and the record shall contain details of the type, activities and physical and chemical forms of radioactive materials and details of irradiating apparatus used by the worker and the circumstances of their use;
    - (3) all radioactive materials disposed of as waste in solid, liquid and gaseous forms;
    - (4) health records for all radiation workers;
    - (5) occupational exposure of radiation workers and other persons to external and internal radiation;
    - (6) results of monitoring, surveying and inspection of areas, apparatus and operations by the radiation protection officer;
    - (7) calibration of monitoring instruments;
- (j) to train and issue instructions to radiation workers; and
- (k) to attend to any other matters which the "Authority" may consider necessary.

#### 28. Responsibilities of Radiation Workers.

Each radiation worker shall ensure that he:

- (a) works strictly in accordance with the local radiation safety working rules given by the Radiation Protection Officer.
- (b) uses personnel monitoring devices issued to him in the manner in which it is required to be used and return them to the Radiation Protection Officer when called for;
- (c) immediately informs the Radiation Protection Officer of any suspected unsafe practice, hazardous situation, accident or incident; and the "Authority" on major incidents.
  - (d) is aware of all precautions to be taken in the event of a hazardous situation, accident or incident.

### **PART VI. INDIVIDUAL MONITORING AND HEALTH SURVEILLANCE**

#### 39. External Monitoring

- (a) The "Authority" shall maintain an individual monitoring service for the purpose of monitoring of those persons exposed to ionising radiation, both for external and internal dose assessment.
- (b) Registrants and licensees shall ensure that every radiation worker is issued with an appropriate individual monitoring device approved by the "Authority" to measure his radiation dose such as a film badge, or a thermoluminescent dosimeter, or a dosimeter as approved by the "Authority".
- (c) The device shall be worn and used, in accordance with instructions given by the "Authority", at all times during work.
- (d) The "Authority" shall maintain records of all occupational ionising radiation doses recorded by the devices.

These records shall include the dose received during each issue period and the cumulative lifetime dose for each such person.

- (e) The "Authority" shall provide the Radiation Protection Officer with information on the ionising radiation dose recorded by each device.
- (f) Every radiation worker to whom a device has been issued shall be entitled to be informed about the exposure he has received.
- (g) The "Authority" shall inform the Radiation Protection Officer of any overexposure, recorded on a device, immediately after the device is process. The Radiation Protection Officer shall immediately investigate the cause of the overexposure and inform the "Authority" of the result of their investigation. The "Authority" may where it considers it necessary depending on the circumstances carry out a further investigation.
- (h) Where a Radiation Protection Officer is of the opinion that an abnormal exposure condition has arisen and is likely for a radiation worker to receive an overexposure, he shall immediately investigate the incident and inform the "Authority" of the result of his investigation.

#### 40. Internal Monitoring

- (a) The "Authority" may where it considered appropriate to do so shall carry out internal monitoring services of radiation workers, or other persons to ascertain the internal radiation doses.
- (b) The "Authority" shall maintain records of results of such internal monitoring.
- (c) Every person subjected to such monitoring shall be entitled to be informed about the results of the monitoring.

#### 41. Records of Worker Exposure

- (a) Registrants and licensees shall maintain records of exposure for each worker for whom assessment of occupational exposure is required. Such worker exposure records shall include information on doses, exposures and intakes at or above the relevant recording level and the data upon which the dose assessments are based.
- (b) Registrants and licensees shall provide for access, by workers, to information in their own exposure records.
- (c)
  - (i) Registrants and licensees shall periodically during employment and at the end of any period of employment send exposure records to the "Authority";
  - (ii) Exposure records of each radiation worker shall be preserved by the "Authority" during the worker's working life and afterwards at least until the worker attains or would have attained the age of 75 years, and for not less than 30 years after the termination of the work involving occupational exposure.

#### 42. Health Surveillance

Registrants and licensees shall make arrangements:

- (a) for appropriate health surveillance, based on the general principles of occupational health and designed to assess the initial and continuing of fitness of workers for their intended tasks.
- (b) The cost of such health surveillance shall be borne by the employer.
- (c) The "Authority" shall specify the type of medical examination depending intended tasks and shall name the registered medical practitioners who shall conduct such examination.
- (d) The registered medical practitioners performing such examination shall prepare a medical report in the manner approved by the "Authority" and shall forward it forthwith to the "Authority".