

## CHAPTER 143

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## CHAPTER 143

### THE ATOMIC ENERGY ACT.

*Commencement:* 29 December, 1973.

**An Act to establish an Atomic Energy Control Board; to make provision for the control of atomic energy and radioactive materials, the protection of the public from dangers arising from the use of materials or devices capable of producing ionizing radiation and for other purposes connected therewith.**

*Interpretation.*

#### 1. Interpretation.

- (1) In this Act, unless the context otherwise requires—
  - (a) “atomic energy” or “nuclear energy” means energy released as a result of changes taking place in the nuclear structure of component atoms of any material; and the term “atomic energy” may be applied to processes in which interest lies in the possibility of the atomic energy serving as a source of power or heat and also to any process or activity in which atomic energy either directly or indirectly is an essential factor;
  - (b) “board” means the Atomic Energy Control Board established under section 2;
  - (c) “chairperson” means the chairperson of the Atomic Energy Control Board;
  - (d) “committee” means the Radioisotope Advisory Committee;
  - (e) “disease” includes injury and bodily or mental deficiency or abnormality;
  - (f) “exposure” means exposure to radiation and exposure to ionizing radiation from sources external to the human body and from sources internal to the body or incorporated within the body;
  - (g) “facility” means any assembly of devices, equipment, structures or natural features whether simple or complex which serves some specific purpose or performs some function;
  - (h) “ionizing radiation” means electromagnetic or corpuscular radiation capable of producing ions directly or indirectly in its passage through matter;
  - (i) “Minister” means the Minister to whom functions under this Act

are assigned; (j) “prescribed” means prescribed by regulations made under this

Act; (k) “radiation” means ionizing radiation of sufficient intensity as to

entail significant risk of disability or disease as a result of exposure;

(l) “radiation safety officer” means a radiation safety officer appointed under this Act and includes the chief radiation safety officer;

(m) “radioactive material” means any material emitting ionizing radiation in sufficient quantity to be a potential hazard to health;

(n) “radioisotope” means radionuclide and is applied to any radioactive matter when identifying the significant nuclear species of radioactive atoms present; (o) “secretary” means the secretary of the Atomic Energy Control

Board; (p) “workers” includes all persons potentially exposed to radiation or

radioactive substances as a result of their occupation.

(2) The board may at its discretion, by statutory order, apply this Act to sources of electromagnetic radiation other than x-rays and gamma rays.

(3) Unless otherwise provided in this Act or in the regulations made under it, a material shall not be considered radioactive if it contains radioactivity of less than 0.1 microcuries or if there is no portion of it in which the concentration exceeds 0.002 microcuries per gram of material.

*Atomic Energy Control Board.*

**2. Establishment and membership of the board.**

(1) There shall be an Atomic Energy Control Board consisting of—

(a) the atomic energy controller who shall be a public officer as chairperson;

(b) the chief radiation safety officer who shall be a public officer with professional training in radiation protection as secretary;

(c) an advocate who shall be a public officer appointed by the Minister;

(d) a medical practitioner appointed by the Minister on the nomination of the Minister responsible for health;

(e) a scientist appointed by the Minister on the nomination of the

- National Research Council;
- (f) a scientist appointed by the Minister on the nomination of the vice chancellor of Makerere University;
  - (g) an officer appointed by the Minister on the nomination of the Minister responsible for defence;
  - (h) a person appointed by the Minister on the nomination of the Minister responsible for agriculture, forestry and cooperatives;
  - (i) a person appointed by the Minister on the nomination of the Minister responsible for animal resources; (j) a person appointed by the Minister on the nomination of the Minister responsible for commerce, industry and tourism; (k) a person appointed by the Minister on the nomination of the Minister responsible for education;
  - (l) a person appointed by the Minister on the nomination of the Minister responsible for internal affairs;
  - (m) a person appointed by the Minister on the nomination of the Minister responsible for labour; (n) a person appointed by the Minister on the nomination of the Minister responsible for mineral and water resources;
  - (o) a person appointed by the Minister on the nomination of the Minister responsible for planning and economic development.

(2) The term of office of the appointed members of the board shall be five years, but an appointed member shall be eligible for reappointment on renomination by the respective body or Ministry.

(3) An appointed member may resign his or her office by writing under his or her hand addressed to the Minister or may be removed from office by the Minister.

### **3. Meetings of the board.**

(1) The board shall meet at least once in each year at such times and places as it deems expedient for the transaction of its business.

(2) The chairperson shall preside at all meetings of the board, and in his or her absence such member of the board as the members present may appoint shall preside.

(3) At every meeting of the board five members shall constitute a quorum.

(4) The chairperson shall, in addition to his or her deliberative vote as a member of the board, have a casting vote.

#### **4. Agenda.**

(1) The secretary shall, in consultation with the chairperson, prepare an agenda which shall be distributed to all members of the board at least five days prior to each ordinary meeting.

(2) Where any item of the agenda is deemed to be of significance to any Ministry not represented on the board, the secretary shall notify and invite the Permanent Secretary of that Ministry or his or her representative to attend that meeting, who shall participate in the meeting in all respects, as if he or she were a member of the board.

#### **5. Minutes of the board meetings to be kept.**

The secretary shall cause details of all business transacted at any meeting of the board to be entered regularly in a minute book kept for that purpose; and the minutes of the proceedings of each meeting shall be submitted to the board for confirmation at a subsequent meeting of the board and, if passed as correct, shall be confirmed by the signature of the chairperson and when so confirmed shall be prima facie evidence in all courts as an accurate record of the proceedings as recorded.

#### **6. Chairperson may act for the board in certain cases.**

The chairperson may, in consultation with the advocate and the chief radiation safety officer, act for and in lieu of the board in any matter of urgency, but any such action shall be referred to the board at its next meeting for its information and approval.

#### **7. Recommendations to be made by the board to the Minister.**

Subject to this Act, the board shall make recommendations to the Minister on all matters concerning—

- (a) encouragement and promotion of the use of atomic energy, including radioactive materials, devices using atomic energy and devices using ionizing radiation, in such a manner as best to further the overall interests and policies of the Government;

- (b) allocation of priorities and coordination of activities in connection with the use of atomic energy and associated matters, to make best use of available resources taking into account the needs of the country and alternative methods of achieving equivalent results;
- (c) the ensurement that all activities involving the use of atomic energy, radioactive material or devices capable of producing dangerous amounts of ionizing radiation are carried out in such a manner as to avoid danger to the public or workers concerned or to limit risks to those acceptable as a matter of public policy;
- (d) amendments to be made to this Act as may from time to time be found desirable for the effective implementation of this Act.

*Establishment and functions of Radioisotope Advisory Committee.*

#### **8. Radioisotope Advisory Committee.**

- (1) There shall be established a committee to be known as the Radioisotope Advisory Committee consisting of—
  - (a) a scientist appointed by the board on the nomination of the National Research Council who shall be chairperson;
  - (b) not more than three scientists appointed by the board on the nomination of the vice chancellor of Makerere University;
  - (c) a radiologist appointed by the board on the nomination of the Uganda Medical Council;
  - (d) an engineer concerned with the industrial use of radioisotopes appointed by the board on the recommendation of the Permanent Secretary of the Ministry responsible for commerce and industry;
  - (e) not more than six scientists, engineers or other specialists appointed by the board from nominations made by representative bodies or institutions using radioisotopes on invitation of the board;
  - (f) the chief radiation safety officer who shall be the secretary.
- (2) An appointed member of the committee—
  - (a) shall hold office for three years but shall be eligible for reappointment;
  - (b) may resign his or her office by writing under his or her hand addressed to the chairperson of the board;
  - (c) may be removed from office by the board.

## **9. Meetings of the committee.**

(1) The committee shall meet at such times and places as it deems expedient for the transaction of its business.

(2) Special meetings of the committee may be called—

(a) on the request of the board;

(b) on any matter of urgency on the request of any four members of the committee.

(3) The secretary of the committee shall, in consultation with the chairperson of the committee, prepare an agenda which shall be distributed to all members of the committee at least four days prior to each meeting.

(4) The chairperson of the committee may invite some expert, not a member of the committee, to attend and participate in the discussion at any meeting of the committee if in his or her opinion that expert could contribute useful advice on any matter to be considered by the committee.

## **10. Functions of the committee.**

(1) The committee shall advise the board—

(a) on matters referred to it by the board;

(b) on requirements for the promotion of the use of radioisotopes in the best interest of the country and the most effective allocation of Government resources for this purpose; the chairperson of the committee shall be responsible for ensuring that relevant views of the National Research Council are taken into consideration when appropriate;

(c) on requirements to ensure an adequate degree of public safety in the use of radioisotopes and devices capable of producing ionizing radiation in dangerous amounts, including the safety of the user and other workers;

(d) on such other matters as may fall within the sphere of technical competence of the committee.

(2) The committee may itself initiate studies or inquiries concerned with the use of radioisotopes or ionizing radiation and may recommend measures, including expenditure of funds in support of such work, to the board.



*Officers of the board.*

**11. Appointment of officers of the board.**

(1) The Minister shall, by notice published in the Gazette, appoint, from among persons in the public service, an atomic energy controller and a chief radiation safety officer.

(2) Subject to any written law relating to the appointment of persons to the public service, there shall be appointed such other officers as may be necessary for carrying into effect the provisions of this Act.

(3) The atomic energy controller shall be directly responsible to the Minister for—

- (a) implementing the provisions of this Act;
- (b) conveying to the Minister the recommendations of the board.

(4) The atomic energy controller may delegate or assign to any officer appointed under this section any or all of his or her powers, duties and jurisdiction, but, in so doing, he or she shall not thereby divest himself or herself of the right to exercise concurrently all or any of the powers, duties and jurisdiction delegated by him or her.

(5) The chief radiation safety officer shall be the secretary of the board and the committee and—

- (a) shall perform the duties conferred on him or her by this Act or any other written law and such other duties as may be assigned to him or her by the atomic energy controller;
- (b) shall be responsible for taking all measures necessary to ensure that the board is, at all times, adequately informed as to the existing state of radiation safety and as to any developments in connection with radiation safety.

**12. Powers of chief radiation safety officer, etc.**

(1) The chief radiation safety officer or any radiation safety officer shall, for the purposes of the execution of this Act, have the power to do all or any of the following—

- (a) to enter, inspect and examine any premises or any part of any premises, any vehicle, vessel, boat, aircraft or any other carriage of any description in or upon which he or she has reasonable

cause to believe that radioactive material or any source of dangerous ionizing radiation is stored, used, disposed of or transported;

- (b) to require the production of any licence authorising the use of radioactive material and any register, certificate, notice or document kept in pursuance of this Act and to inspect, examine or take a copy of it;
- (c) to make such examinations and inquiries as may be necessary to ascertain whether the provisions of this Act are complied with;
- (d) to examine either alone or in the presence of any other person, as he or she thinks fit, any person with respect to matters under this Act or to require that person to be so examined; except that no person shall be compelled to answer any question that would tend to criminate him or her;
- (e) in the case of a radiation safety officer who is a medical practitioner, to carry out such medical examinations as may be necessary in the discharge of the duties imposed on him or her by this Act;
- (f) to exercise such other powers as may be necessary for carrying the provisions of this Act into effect.

(2) The owner of any radioactive material or any source of dangerous ionizing radiation, his or her agent, employee or servant shall furnish the means required by a radiation safety officer as may be necessary for entry, inspection, examination, inquiry, the taking of samples or otherwise for the exercise of his or her powers under this Act.

- (3) Any person who—
  - (a) wilfully delays a radiation safety officer in the exercise of his or her powers under this section;
  - (b) without reasonable excuse, fails to comply with the requisition of a radiation safety officer made in pursuance of the provisions of this section;
  - (c) without reasonable excuse, fails to produce any register, certificate, notice or document which he or she is required by or in pursuance of the provisions of this Act to produce;
  - (d) wilfully withholds any information as to who is the owner or responsible manager of any radiation source; or
  - (e) wilfully conceals, prevents or attempts to conceal or prevent a person from appearing before or being examined by a radiation safety officer,

shall be deemed to obstruct a radiation safety officer in the execution of his or her duties under this Act.

(4) Where a radiation safety officer is obstructed in the execution of his or her duties under this Act, the person obstructing him or her commits an offence and is liable to a fine not exceeding six hundred shillings or to imprisonment for a term not exceeding three months.

(5) Every radiation safety officer shall be furnished with a certificate of his or her appointment signed by or under the authority of the Minister and when visiting a place to which this Act applies, shall, if so required, produce the certificate to the occupier or a person holding a responsible position of management or control of the facility at such premises in which the radiation source is believed to be.

(6) A radiation safety officer shall treat as confidential the source of any complaint bringing to his or her notice any contravention of any of the provisions of this Act and shall give no intimation to the owner or his or her representative that a visit of inspection was made in consequence of the complaint.

(7) Every person employed in the administration of this Act shall treat as secret and confidential any information of a type normally considered subject to professional, trade or industry secrecy, the revelation of which is not necessary for the implementation of this Act; and any person who discloses the information to any other person in contravention of any provision of this section, whether that person is or has ceased to be employed in the administration of this Act or not, commits an offence and is liable to a fine not exceeding one thousand shillings or to imprisonment for a term not exceeding six months or to both.

*Licences to use radioactive material, etc.*

### **13. Licence to use radioactive material, etc.**

(1) Any person wishing to use radioactive material or other sources of dangerous ionizing radiation shall apply to the board for an appropriate licence.

(2) An application for a licence to use radioactive material or any other source of dangerous ionizing radiation shall be in the prescribed form

and shall be submitted to the chief radiation safety officer who shall prepare the appropriate licence.

(3) The chief radiation safety officer shall forward an application for a licence and the appropriate draft licence made under subsection (2) to the committee for information and any technical evaluation the committee may consider necessary; the committee shall forward the appropriate draft licence with any recommended amendments to it to the board for approval and issue; except that in the case of urgency, a licence may be issued under the hand of the atomic energy controller and the chief radiation safety officer if they are of the opinion that no special problems of policy or safety are involved, but the usual procedure of presentation laid down in subsections (2) and (3) shall be complied with at the next meetings of the committee and the board, respectively.

- (4) A licence issued under this section—
- (a) shall be in the prescribed form;
  - (b) shall be assigned by the board to a person as owner or as the appropriate responsible officer of an institution, partnership, corporation or government body;
  - (c) may contain such conditions, including such special conditions, as the chief radiation safety officer may deem necessary to impose for the safe conduct of the proposed operation, process or facility and for the safe disposal of all radioactive wastes and radioactive material resulting from the proposed operation, process or facility; such conditions may be either specific or take the form of a general requirement to meet the prescribed standards or codes of practice published supplemental to this Act or standards or codes of practice published by internationally recognised bodies including the International Commission on Radiological Protection and the International Atomic Energy Agency, or any combination of such conditions;
  - (d) shall be specific with regard to an operation, process or facility in respect of which it is issued;
  - (e) shall authorise the purchase or acquisition by other means, the importation, production, possession, transport, storage, use and disposal, as required, of specified quantities and kinds of radioactive material required for the operation, process or facility specified;
  - (f) may cover the separate acquisition or importation of diverse or repeated lots of radioactive material, provided they are all listed

on the licence and to be used solely in the licensed process, operation or facility.

(5) Licences shall also be issued for operations, processes or facilities making use of other types of source of dangerous ionizing radiation.

(6) Notwithstanding this section, in the case of x-ray machines to be used solely for medical or dental purposes, the possession of an appropriate licence issued by the Ministry responsible for health shall be considered an acceptable alternative to meet the requirements of this section, provided that a copy of the licence is filed with the chief radiation safety officer.

(7) A licence issued under this section—

- (a) may be amended at any time on written notice by the chief radiation safety officer if, in his or her opinion, the amendment is desirable for the requirements of safety;
- (b) may be suspended or revoked by the atomic energy controller if the holder of the licence fails to comply with the conditions laid down in the licence or set forth in this Act or in any regulations made under this Act.

(8) Where a licence is suspended, the holder of the licence shall take such steps as may be recommended by the chief radiation safety officer to ensure that no radiation hazards occur during the period of suspension.

#### **14. Responsibility of the licence holder.**

(1) The holder of a licence shall be responsible to ensure that any operation, condition of storage, transport or disposal shall not result directly or indirectly in exposure of ionizing radiation in such amounts as are likely to cause harmful effects to the public, his or her employees, other workers or other users or to property owned either privately or by the Government.

(2) Any owner or user of radioactive material or source of dangerous ionizing radiation for which he or she holds no valid licence shall be responsible for any harmful effects arising from the possession, storage, transport, use or disposal of the radioactive material or source of dangerous ionizing radiation, and that responsibility shall continue with regard to any such material after it has been seized, impounded, stored or disposed of by the chief radiation safety officer or a person authorised by him or her in writing.

(3) The radiation safety requirements prescribed under this Act do not extend to patients undergoing medical treatment by exposure to radiation by or under the supervision of a medical practitioner, but do apply to the safety of medical and technical staff working with the radioactive material or a source of ionizing radiation and to the protection of all other persons other than the patient undergoing treatment.

(4) Subject to such exceptions as may be contained in any regulations or licence made or issued under this Act, the standard of permissible radiation exposure acceptable as the standard of radiation protection to be met for the purposes of this Act shall be the maximum permissible levels of radiation established and accepted internationally and published from time to time by the International Commission on Radiological Protection.

(5) (a) Whenever a medical disability appears— in a person in a form that competent medical opinion in the field of radiation disease assigns to radiation exposure, it shall be presumed that the disability did arise from radiation exposure to some source of sufficient strength to give rise to that effect; that could have arisen either from radiation or from other causes, the following criteria shall be applied arbitrarily to assign the cause of disability—

(i) if a disability of a nature known to be caused either by radiation or that can arise from other possible causes appears in a person who could have been exposed to a source of radiation of sufficient strength to have caused the disability, it shall be presumed that the disability did arise from one or more of such exposures if no records of personal exposure have been maintained to a standard approved by the chief radiation safety officer; (ii) if a disability of a nature known to be caused either by radiation or from other possible causes appears in a person for whom a personal radiation exposure record exists indicating that exposures in excess of recommended permissible limits have occurred, it shall be presumed that the disability did occur as a result of that radiation exposure; (iii) if a disability of a nature known to be caused by radiation or by other possible causes appears in a person for whom a personal radiation exposure record has been maintained to

a standard approved by the chief radiation safety officer, it shall be presumed that the disability did not arise from radiation exposure if the records show that radiation exposures have been within permissible limits on all possible occasions of radiation exposure.

## **15. Radiation Protection Service.**

(1) There shall be established a Radiation Protection Service which shall—

- (a) determine the extent of exposure to ionizing radiation of the public and of workers and, subject to this Act, determine the degree of risk of the exposure;
- (b) be responsible for examining, as may be deemed necessary by the chief radiation safety officer, all premises in respect of which a licence to use radiation and all places of disposal for radioactive material and wastes is in force;
- (c) advise the board on the extent of exposure to persons in Uganda; and
- (d) advise and recommend to licence holders steps desirable to reduce exposure to acceptable limits.

(2) The Radiation Protection Service may establish personal radiation dosimetry service—

- (a) to provide a reporting service by which it will maintain adequate records of all such exposure measurements and shall render to the licence holders and to the board reports, at suitable intervals, of the information contained in the records;
- (b) to provide personal radiation measuring devices to be worn by any individual likely to be exposed to radiation; and
- (c) to warn individuals who are or have been subject to overexposure.

(3) The personal radiation dosimetry service may, at the discretion of the chief radiation safety officer, be provided without charge or for such fee as may be prescribed if the board so determines on request from a holder of a licence; or its use may be included as a necessary condition of a licence.

(4) The Ministry responsible for health may request coverage for users of medical and dental radiation sources and shall receive reports of exposure of such persons.

(5) The Radiation Protection Service shall be directed by the chief radiation safety officer who shall be its senior officer and who shall recommend to the board the provision of staff suitable for carrying out its functions.

*Miscellaneous provisions.*

**16. Offences and penalties.**

(1) Any person who contravenes any provision of this Act relating to or in connection with importation, possession, transportation, use or disposal of radioactive material commits an offence and is liable to a fine not exceeding two thousand shillings or to imprisonment for a term not exceeding six months or to both; and each officer responsible for a facility in which any such material is used commits an offence and is liable to a fine not exceeding six hundred shillings or to imprisonment for a term not exceeding three months or to both.

(2) Where a person fails to comply with any provision of this Act or with the terms or conditions of his or her licence, the chief radiation safety officer—

- (a) shall issue a warning indicating a time limit for complying with the terms or conditions of his or her licence; or
- (b) may, if he or she considers it necessary for the safety of the public or workers, suspend the licence and require suspension of work with the radioactive material or device producing dangerous ionizing radiation and its storage in a safe place or under conditions preventing exposure of the public or workers to potentially dangerous radiation,

and, if the owner or responsible manager of the facility fails to comply with the terms or conditions specified in the warning or continues to permit the use of radioactive material or a source of dangerous ionizing radiation while his or her licence is under suspension, he or she commits an offence and is liable to a fine not exceeding six hundred shillings or to a term of imprisonment not exceeding three months or to both.

(3) Any act or omission which if done by an individual would be an offence under this Act or any regulations made under this Act, shall, if done by a body corporate, be deemed to be an offence committed by every director, secretary or manager unless he or she proves that the offence was



committed without his or her consent or connivance and that he or she exercised all such diligence to prevent the commission of the offence as he or she ought to have exercised having regard to the nature of his or her functions and to all the circumstances of the case.

(4) If an offence under this Act or any regulations made under this Act is committed by a partner in a firm, every person who, at the time of the commission of the offence, was a partner in that firm or was purporting to act in that office shall be deemed to have committed the like offence unless he or she proves that the offence was committed without his or her consent or connivance and that he or she exercised all such diligence to prevent the commission of the offence as he or she ought to have exercised having regard to the nature of his or her functions and to all the circumstances of the case.

(5) In addition to the penalties prescribed by or under this section, the radioactive material or any unlicensed device producing dangerous ionizing radiation shall be subject to seizure, impoundment, sealing, being rendered inoperative, destruction or disposal in such manner as the chief radiation safety officer may consider necessary for the protection of the public or workers and may only be returned to the original owner if convenient and under conditions set forth in the licence properly issued by the board.

#### **17. Evidence.**

(1) Without prejudice to any requirement to meet any special condition included in the licence or in the regulations, evidence that the holder of a licence has complied with the radiation safety standards, permissible levels of safety standards for radiation protection, or recommendations for permissible radiation exposure published by the International Atomic Energy Agency or by the International Commission on Radiological Protection shall be evidence that the holder of the licence has complied with radiation safety standards with respect to the requirements of this Act.

(2) Records of radiation exposure measurements maintained in accordance with this Act shall be admissible as evidence, in any legal proceedings under this Act, of the facts stated.

#### **18. Regulations.**

The Minister may, on the advice of the board, make regulations—

- (a) prescribing application and licence forms to be used under this Act;
- (b) limiting the use of radioactive material or equipment producing dangerous ionizing radiation for medical or dental purposes;
- (c) prescribing fees for services rendered by personal radiation dosimetry service;
- (d) prescribing anything required to be prescribed under this Act.

**19. Exemption.**

The Minister may, on the recommendation and advice of the board, which may set higher limits for exemption in the case of material known to contain only the less dangerous radionuclides, by statutory order, exempt any material which contains radioactivity of less than the specified limits from the provisions of this Act.

**History:** Decree 12/1972; S.I. 39/1974.