

**CHAPTER 24:03  
RADIATION PROTECTION**

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Act 22, 2006,  
Act 10, 2007,  
Act 10, 2008.

**An Act to provide for the safe uses of atomic energy and nuclear technology and for matters incidental thereto.**

*[Date of Commencement: 1st April, 2007]*

**PART I**  
***Preliminary (ss 1-4)***

**1. Short title**

This Act may be cited as the Radiation Protection Act.

**2. Interpretation**

In this Act, unless the context otherwise requires-

**"accident"** means any unintended event, including operating errors, equipment failures or other mishaps, the consequences or potential consequences of which are not negligible from the point of view of protection or safety;

**"atomic energy"** means ionizing radiation emitted as a result of electronic or nuclear transitions in an atom;

**"Board"** means the Radiation Protection Board established under section 5;

**"Chairperson"** means the Chairperson of the Board;

**"Director"** means the Director of the Inspectorate, appointed under section 18;

**"dose limit"** means the value of the effective dose or the equivalent dose to individuals from controlled practices that may not be exceeded;

**"exposure"** means any act or condition of being subject to radiation;

**"ionizing radiation"**, for the purposes of radiation protection, means radiation capable of

producing ion pairs in a biological material;

**"licence"** means a licence granted under section 23;

**"licensee"** means the holder of a licence granted under section 23;

**"medical practitioner"** means a medical practitioner registered as a medical practitioner under the Botswana Health Professions Act.

**"member"** means a member of the Board;

**"Minister"** means the Minister of Communications, Science and Technology or any other Minister to whom the President may, from time to time, assign the administration of this Act;

**"practice"** means any human activity that introduces additional sources of exposure, or exposure pathways or extends exposure to additional people, from an existing source, so as to increase the exposure or the likelihood of exposure of people or the number of people exposed;

**"radiation equipment"** means equipment or machinery associated with the use or operation of a radiation source, and includes the radiation source itself and any structure used to support or shield the equipment, machinery or radiation source;

**"radiation generator"** means a device capable of generating radiation, such as X-rays, neutrons, electrons or other charged particles, which may be used for scientific, industrial or medical purposes;

**"Radiation Inspector"** means a person appointed as a Radiation Inspector under section 21;

**"Radiation Safety Officer"** means an officer appointed under section 29;

**"Radiation Waste Management Officer"** means an officer appointed under section 31;

**"radiation worker"** means a person potentially exposed to ionizing radiation as a result of his or her occupation;

**"radioactive material"** means any material emitting ionizing radiation above the levels provided for under section 4;

**"radioactive substance"** means a substance that contains one or more radionuclides of which the activity or the concentration cannot be disregarded as far as radiation protection is concerned;

**"radioactive waste"** means any material that contains or is contaminated with radionuclides at concentrations or radioactivity levels greater than the exempt quantities, or quantities prescribed by the Minister and for which no use is foreseen;

**"radiological work"** means work involving the use of radioactive materials or other radiation generators or sources capable of emitting ionizing radiation;

**"sealed source"** means a radiation source consisting of a radioactive substance enclosed in enclosures or arranged in such other way that there is no risk of the substance being liberated or becoming accessible to direct contact during normal use;

**"source"** means anything that may cause radiation exposure such as by emitting ionizing radiation or releasing radioactive substances or materials; and

**"transport"** means transport of any source by-

- (a) any vessel or boat within the territorial waterways of the Republic of Botswana;
- (b) any aircraft within the airspace of the Republic of Botswana; or
- (c) any means of land transport.

### **3. Application of Act**

(1) This Act shall apply to any person or body of persons whose undertaking involves or includes generally the use of atomic energy and nuclear technology and, in particular, the production, processing, handling, use, holding, possessing, storage, transport and disposal of natural and artificial radioactive materials and radiation devices in respect of any other activity which involves a risk or harm arising from radiation.

(2) This Act binds the State.

### **4. Exemptions, exclusions and clearance**

(1) This Act shall not apply to any material or use of any material which may be exempted by the Regulations.

(2) This Act shall not apply to ionizing radiation generators of a type approved by the Board or any electronic tubes such as cathode ray tubes for the display of visual images, provided that-

- (a) such generators or electronic tubes do not cause in any normal operating conditions an ambient dose equivalent rate or a directional dose equivalent rate exceeding such dose as may be prescribed by the Minister; or
- (b) the maximum radiation energy produced by such generators or electronic tubes is not greater than the minimum radiation energy prescribed by the Minister.

(3) Sources including substances, materials and articles within notified or authorized practices may be exempted from further requirements of this Act subject to complying with clearance levels approved by the Board.

(4) Any exposure whose magnitude or likelihood is essentially unamenable to control through the requirements of this Act is deemed to be excluded from the application of this Act.

(5) Upon the recommendation of the Board or for any reason that he or she may consider to be necessary, the Minister may, by order published in the *Gazette*, exempt from the operation

of any of the provisions of this Act any person using any material which contains radioactive substances of more than the prescribed limits.

**PART II**  
***Radiation Protection Board (ss 5-7)***

**5. Establishment of Board**

(1) There is hereby established a Board, to be known as the Radiation Protection Board, which shall perform such functions as may be conferred on it by this Act or any other enactment.

(2) The Board shall consist of a minimum of five and a maximum of seven members appointed by the Minister.

**6. Disqualification, removal and resignation**

(1) No person shall be appointed as a member, nor shall any person be qualified to hold office as a member, who-

- (a) has, in terms of any law in force in any country-
  - (i) been adjudged or otherwise declared insolvent or bankrupt, and has not been rehabilitated or discharged, or
  - (ii) made an assignment, arrangement or composition with his or her creditors, which has not been rescinded or set aside;
- (b) has, within a period of 10 years immediately preceding the date of his or her proposed appointment, been convicted-
  - (i) in Botswana, of a criminal offence, or
  - (ii) outside Botswana, of an offence which, if committed in Botswana, would have been a criminal offence,

and sentenced by a court of competent jurisdiction to imprisonment for six months or more without the option of a fine, whether that sentence has been suspended or not, and for which he or she has not received a free pardon;

- (c) is of unsound mind;
- (d) is a member of Parliament or a Councillor;
- (e) being a holder of a professional qualification, has been suspended or barred from practising the profession within or outside Botswana; or
- (f) is a licensee.

(2) The Minister may, by notice in writing, remove a member from office where a member-

- (a) is absent, without reasonable cause, from three consecutive meetings of the Board of which he or she has had notice;
- (b) is inefficient;
- (c) has been found to be physically or mentally incapable of performing his or her duties efficiently, and a medical practitioner has issued a certificate to that effect;
- (d) contravenes the provisions of this Act or otherwise misconducts himself or herself to the detriment of the objectives of the Board; or
- (e) has failed to comply with the provisions of section 13.

(3) A member may resign from office by giving 30 days notice in writing to the Minister.

(4) The office of a member shall become vacant after-

- (a) a period of 30 days from the date a ruling against the member is made on all appeals made in respect of a conviction against him or her under subsection (1) (b);
- (b) a period of 30 days has elapsed from the date the member gives notice in writing to the Minister under subsection (3), of his or her intention to resign; or
- (c) a period of 30 days has elapsed from the date the member is given notice in writing by the Minister to vacate office.

(5) For the purposes of subsection (2) (a), "misconduct" includes any act done without reasonable excuse by a member which-

- (a) amounts to failure to perform, in a proper manner, any duty imposed on him or her as a member;
- (b) is prejudicial to the efficient conduct of the Board; or
- (c) tends to bring the Board into disrepute.

## **7. Appointment, etc. to be notified in the *Gazette***

The Minister shall, by notice in the *Gazette*, notify the appointment, resignation or revocation of the appointment, of any member.

## **8. Tenure of office of member**

(1) A member shall hold office for such period, not exceeding five years, as may be specified in the instrument appointing him or her.

(2) A member whose office expires shall be eligible for reappointment as a member.

## **9. Filling of vacancies**

The Minister shall, on the death of, or vacation of office by a member, appoint another

person to take the place of the member who died or vacated his or her office until the expiry of the period during which such member would have otherwise continued in office.

#### **10. Secretariat to Board**

(1) The Inspectorate shall be the secretariat to the Board.

(2) The Director, or any member of staff designated by the Director shall attend the meetings of the Board, but shall have no right to vote.

#### **11. Functions and powers of Board**

(1) The functions of the Board shall be to-

- (a) advise the Minister with regard to all matters concerning atomic energy, nuclear science and related technologies;
- (b) authorize the peaceful use of atomic energy and nuclear technology and in particular the production, processing, handling, import, export, possession, storage, use, transport and disposal of radioactive materials and related substances;
- (c) oversee the supervision of the carrying out of all requirements designed to ensure the safety and health of radiation workers, patients, the public and the environment;
- (d) maintain relations with the International Atomic Energy Agency and other similar international and national organizations, and to collaborate and liaise with these organizations on matters relating to the development of safe and secure application of atomic energy; and
- (e) promote collaboration between universities and research institutions in Botswana for the purposes of carrying out research into the peaceful use of nuclear energy and technology.

(2) In the performance of its functions under subsection (1), the Board shall-

- (a) draft guidelines upon which its regulatory actions are based;
- (b) review and assess submissions on safety from the operators both prior to authorization and periodically during operation; and
- (c) issue, amend, suspend or revoke licences, subject to any necessary conditions, which may specify,
  - (i) the facilities, activities or inventories of sources covered by the authorization,
  - (ii) the requirements for notifying the Board of any modifications to safety related aspects,
  - (iii) the obligations of the operator in respect of its facility, equipment, radiation source and personnel,

- (iv) any limits on operation and use, such as dose or discharge limits, action levels or limits on the duration of the authorization,
- (v) conditioning criteria for radioactive waste processing for existing or foreseen waste management facilities,
- (vi) any additional separate authorizations that the operator is required to obtain from the Board,
- (vii) the requirements for reporting accidents,
- (viii) the procedure for reporting to the Board by the operator,
- (ix) the records that the operator is required to retain and the periods for which they must be retained, and
- (x) the emergency preparedness arrangements.

## **12. Meetings and proceedings of Board**

(1) The Board shall meet quarterly or as often as it is expedient for the proper discharge of its functions.

(2) The Minister shall appoint from amongst the members, a Chairperson who shall call and preside over all meetings of the Board, and, if the Chairperson is absent from a meeting, the members present at that meeting shall elect one member from amongst themselves to act as Chairperson for that meeting.

(3) The Chairperson may convene a special meeting of the Board when he or she considers it desirable to do so.

(4) Any four members shall constitute a quorum at any meeting of the Board.

(5) Subject to the provisions of this Act, the Board shall regulate its own procedure.

(6) The decisions of the Board shall be by a simple majority of votes of the members present and voting at a meeting for the Board, and, in the event of an equality of votes, the chairperson shall have a casting vote in addition to his or her deliberative vote.

(7) An act, decision or proceeding of the Board shall not be rendered invalid on account of the appointment of any member being defective or by reason of a vacancy in the membership of the Board, if the act was done, or the decision was made, or the proceedings took place, in accordance with a majority vote of the persons who were at the time entitled to act as members.

(8) Minutes of each meeting of the Board shall be recorded and kept by the secretariat and confirmed by the Board at a subsequent meeting of the Board.

## **13. Disclosure of interest**



(1) Where a member is present at a meeting of the Board at which any matter, which is the subject of consideration and in which matter the member is directly or indirectly interested in a private capacity, is to be discussed, he or she shall immediately upon the commencement of the meeting or becoming aware of the interest, disclose such interest and shall not, unless the Board otherwise directs, take part in any consideration or discussion of, or vote on, any question concerning that matter.

(2) A disclosure under subsection (1) shall be recorded in the minutes of the meeting at which it was made.

(3) A person who contravenes the provisions of subsection (1) shall be guilty of an offence and liable to a fine not exceeding P10,000, or to imprisonment for a term not exceeding three months, or to both.

#### **14. Co-option of advisory personnel to Board**

The Board may co-opt any person to attend any meeting of the Board on any matter for the purpose of assisting or advising the Board, but such person shall have no right to vote.

#### **15. Remuneration of members**

A member shall be paid such remuneration, and such travelling expenses incurred in connection with his or her service on the Board as the Board may from time to time determine with the approval of the Minister.

#### **16. Confidentiality**

(1) A member of the Board or a member of a committee and any expert assisting the Board or a committee shall observe and preserve the confidentiality of all matters coming before the Board or the committee, and such confidentiality shall subsist even after the termination of their terms of office or their expert mandates.

(2) Any person to whom confidential information is revealed through working with the Board or a committee, shall not disclose that information to any other person unless he or she is required to do so in terms of any written law.

(3) Any person who contravenes the provisions of this section shall be guilty of an offence and liable to a fine not exceeding P10,000, or to imprisonment for a term not exceeding three months, or to both, and for a second or subsequent offence to a fine not exceeding P25,000, or to imprisonment for a term not exceeding six months, or to both.

#### **17. Appointment of committees**

(1) The Board may appoint such committees as it considers appropriate to assist the Board in the execution of its duties under this Act.

(2) The Board may appoint persons who are or are not members of the Board to any committee, but the Chairperson of a committee shall be a member of the Board.

(3) A simple majority of the members of a committee shall form a quorum at any meeting of a committee.

(4) No person shall be appointed as a member of a committee, nor shall any person be qualified to hold office as such a member, who-

- (a) has, in terms of any law in force in any country-
  - (i) been adjudged or otherwise declared insolvent or bankrupt, and has not been rehabilitated or discharged, or
  - (ii) made an assignment, arrangement or composition with his or her creditors, which has not been rescinded or set aside;
- (b) has, within a period of 10 years immediately preceding the date of his or her proposed appointment, been convicted-
  - (i) in Botswana, of a criminal offence, or
  - (ii) outside Botswana, of an offence which, if committed in Botswana, would have been a criminal offence,  
  
and sentenced by a court of competent jurisdiction to imprisonment for six months or more without the option of a fine, whether that sentence has been suspended or not, and for which he or she has not received a free pardon;
- (c) is of unsound mind;
- (d) is a member of Parliament or a Councillor;
- (e) being a holder of a professional qualification, has been suspended or barred from practising the profession within or outside Botswana; or
- (f) is a licensee.

(5) The Board may, by notice in writing, remove a member of a committee from office where such member-

- (a) is absent, without reasonable cause, from three consecutive meetings of the committee of which he or she has had notice;
- (b) is inefficient;
- (c) has been found to be physically or mentally incapable of performing his or her duties efficiently, a medical practitioner has issued a certificate to that effect;
- (d) contravenes the provisions of this Act or otherwise misconducts himself or herself to the detriment of the objectives of the committee or the Board; or
- (e) has failed to comply with the provisions of section 13.

(6) A member of a committee may resign from office by giving 30 days notice in writing to the Board.

(7) The office of a member of a committee shall become vacant after-

- (a) a period of 30 days from the date a ruling against the member is made on all appeals made in respect of a conviction against him or her under subsection (4)(b);
- (b) a period of 30 days has elapsed from the date the member gives notice in writing to the Minister under subsection (6), of his or her intention to resign; or
- (c) a period of 30 days has elapsed from the date the member is given notice in writing by the Minister to vacate office.

(8) For the purposes of subsection (5)(a), "misconduct" includes any act done without reasonable excuse by a member of a committee which-

- (a) amounts to failure to perform, in a proper manner, any duty imposed on him or her as a member of a committee;
- (b) is prejudicial to the efficient conduct of the committee; or
- (c) tends to bring the committee into disrepute.

(9) Sections 8, 12 (2) and (5) to (8), 13 and 15 shall, with the necessary modifications, apply to committees.

### **PART III** ***Inspectorate (ss 18-22)***

#### **18. Establishment of Inspectorate**

(1) There is hereby established a Radiation Protection Inspectorate (in this Act referred to as "the Inspectorate") which shall consist of a Director, a Deputy Director and such other officers of the Inspectorate, as may be necessary for the proper performance of its functions.

(2) The Inspectorate shall be a public office and accordingly, the provisions of the Public Service Act shall apply to the Director, Deputy Director and the officers thereof.

#### **19. Functions of Inspectorate**

The function of the Inspectorate shall be to implement the decisions of the Board, and, without prejudice to the generality of the foregoing, the Inspectorate shall-

- (a) carry out regulatory inspections;
- (b) develop safety principles and criteria for approval by the Board;
- (c) require any operator to conduct a safety assessment;
- (d) require any operator to provide it with any necessary information, including information

from its suppliers, even if the information is confidential;

- (e) recommend to the Board the issue, amendment, suspension or revocation of licences and the setting of conditions to such licences;
- (f) require an operator to perform a systematic safety reassessment or a periodic safety review over the lifetime of its facilities;
- (g) enter a site or facility at any time to carry out an inspection;
- (h) enforce regulatory requirements;
- (i) obtain such documents and opinions from private or public organizations or persons as may be necessary and appropriate;
- (j) communicate its regulatory requirements, decisions and opinions and their basis to the public;
- (k) make available, to other governmental bodies, national and international organizations, and to the public, information on incidents and abnormal occurrences, and their effects to the public; and
- (l) liaise and coordinate with other governmental or non-governmental organizations having competence in such areas as health and safety, environmental protection, security, and transport of dangerous goods.

## **20. Functions of Director**

(1) The Director shall be responsible for the execution of the policies and decisions of the Board and for the control and management of the Inspectorate.

(2) In the exercise of his or her functions, the Director shall act in accordance with such directives as he or she may receive from the Board.

(3) The Director shall-

- (a) maintain-
  - (i) a national inventory list of all sources and radiation generators, and
  - (ii) a register of all licensees and radiation workers;
- (b) submit reports, work plans, work programmes, budgets and internal rules of the Board to the Board for approval;
- (c) notify the Board of all cases of radiation accidents and emergencies as soon as practicable; and
- (d) perform such other duties as the Board may determine or as may be conferred or imposed on him or her under this Act or any other enactment.

(4) The register referred to under subsection (3)(a)(ii) shall be open for inspection by members of the public.

## **21. Appointment of Radiation Inspectors**

(1) The Minister may, by notice in the *Gazette*, appoint such number of employees of the Inspectorate as may be necessary, to be Radiation Inspectors for the purposes of this Act.

(2) A person appointed as a Radiation Inspector under subsection (1) shall be furnished with, and shall produce on request, an identity card stating that such person is duly appointed and authorised by the Minister to act as a Radiation Inspector for the purposes of this Act.

## **22. Powers of entry and inspection**

(1) A Radiation Inspector may, at any time-

- (a) enter, inspect and examine or search any premises, vehicle, vessel, aircraft or any carriage where he or she has reasonable grounds to believe that radioactive material or any source of ionizing radiation is stored, used, transported or disposed of, in such premises, or vehicle, vessel, aircraft or carriage;
- (b) require the production of any licence or permit authorizing the use or import, as the case may be, of any radioactive material, radioactive substance or sources of ionizing radiation;
- (c) seize any substance or equipment or any book, record, or document found in respect of which any provisions of this Act appears to have been contravened;
- (d) by written notice to the person in control thereof prohibit the use, sale or removal of, or any other dealing whatsoever in connection with, any materials in respect of which any provision of this Act appears to have been contravened;
- (e) take as many samples as may be necessary of any substance as may be considered necessary for the purpose of testing, examination or analysis in terms of this Act; or
- (f) conduct or cause to be conducted any investigations, tests or examinations on any incident or situation considered to be appropriate in terms of the Act.

(2) A person who is in possession of any radioactive material or any source of ionizing radiation shall-

- (a) furnish a Radiation Inspector with any information or document, or give to such inspector evidence required for regulatory purposes; or
- (b) allow a Radiation Inspector to enter such person's premises, vehicle, vessel, aircraft or any carriage to inspect, examine, and take samples or do any other act in the discharge of the Radiation Inspector's duties under this Act.

## **PART IV**

## ***Licences (ss 23-32)***

### **23. Application for licence**

(1) No person shall-

- (a) acquire, own, possess, transfer, distribute, sell, use, manufacture, transport, import or export any radioactive material, radioactive substance or source;
- (b) administer any radioactive substance to any person for purposes of diagnosis, treatment or research;
- (c) add radioactive substances in the production and manufacture of foodstuffs, medicinal products, cosmetics and products for household use;
- (d) physically or chemically alter or modify part or all of any radioactive material, substance or source; or
- (e) manage or dispose of any radioactive waste,

unless such person has been granted a licence by the Board to do so.

(2) A person who wishes to apply for a licence to do anything referred to in subsection (1) shall make a written application to the Board in such form as may be prescribed by the Minister.

(3) An application under subsection (2) shall be accompanied by such fee as may be prescribed by the Minister.

(4) A person who contravenes subsection (1) shall be guilty of an offence and liable to a fine not exceeding P500,000, or to imprisonment for a term not exceeding 10 years, or to both.

(5) A person who applies for a licence shall-

- (a) prior to submitting the application, make an assessment of the likelihood, nature and magnitude of the exposure attributed to the sources and all necessary steps to be taken for the protection and safety of radiation workers and the public;
- (b) have a safety and environment assessment made and submitted to the Board as part of the application, where the potential for exposure is greater than any level specified by the Board;
- (c) establish and submit to the Board an incident response plan; and
- (d) furnish any additional information that the Board may consider necessary.

(6) On receipt of an application under subsection (2), the Board-

- (a) may in order to ascertain whether the applicant is a proper person to be granted a licence make such inquiry and consult such persons or authorities as it may consider appropriate;

- (b) shall cause a notice of any application for a licence to be published in the *Gazette* not less than seven days before the meeting of the Board at which the application is to be heard; and
- (c) consider any written notice of objection or other representation made in accordance with such procedure as may be prescribed.

(7) The Board shall, where it is satisfied that an application meets the requirements under subsection (5), issue a licence to the applicant.

(8) A licence issued under this Act shall expire at the end of a period of 24 months of the date of issue.

#### **24. Conditions of licence**

(1) Any licence granted under this Act shall be subject to such terms and conditions as the Board may consider necessary, which conditions may be endorsed in such licence.

(2) The Board may, on written application by a licensee, waive or vary any condition endorsed on the licence.

#### **25. Renewal of licence**

(1) A person who wishes to renew a licence shall make a written application to the Board in such form and within such period, as may be prescribed by the Minister.

(2) Upon receipt of an application under subsection (1), the Board may require the applicant to comply with the requirements of section 23 (5).

(3) Where the Board renews a licence, it may do so by imposing any term or condition that it thinks necessary.

(4) No licence shall be renewed under this section unless the applicant pays such fee as may be prescribed by the Board.

#### **26. Re-application for licence**

A new application for a licence shall be required in the case of-

- (a) the proposed use of different or significantly modified premises or sources;
- (b) a proposed use of different radioactive substances, radioactive materials or larger quantities of such substances or materials;
- (c) a change taking place at the site of the premises or their surroundings which is likely to affect radiation protection requirements; or
- (d) the death of a licensee.

#### **27. Variation, suspension or revocation of licence**

(1) A licensee may make a written application to the Board to vary the terms and conditions of his or her license and the Board may accede to the request subject to such terms and conditions as it thinks necessary.

(2) Subject to subsections (4), (5) and (6), the Board may suspend or revoke a licence where it is satisfied that-

- (a) the licensee has contravened this Act or a term or condition of such licence;
- (b) the licensee has ceased to operate under the licence;
- (c) the licensee gave information to the Board which is false or misleading in a material particular, at the time of applying for a licence; or
- (d) it is in the public interest to do so.

(3) Subject to subsections (4), (6) and (7), the Board may vary the terms and conditions of a licence for reasons specified under subsection (2) (a), (c) and (d).

(4) Where the Board proposes to suspend, revoke or vary the terms of a licence pursuant to subsections (2) and (3), it shall give written notice of its intention to do so to the licensee, together with the reasons therefor.

(5) The Board shall, in a notice under subsection (4), require the licensee to show cause in writing, within such time as may be specified in the notice, as to why the licence should not be suspended revoked or varied.

(6) The Board shall, after considering the explanations of the licensee, make a decision and inform him or her in writing of such decision and the reasons therefor.

(7) Where the urgency of the matter so requires the Board may immediately suspend a licence on any ground specified in subsection (2).

(8) Where a licence is suspended or revoked-

- (a) the licensee shall take such steps as may be directed by the Board; and
- (b) the Director may cause seals to be affixed, at the licensee's premises or site, to any plant, installations or apparatus using ionizing radiation or radioactive material for which the licence was issued, in such a way that the plant, installations or apparatus are incapable of being used without seals affixed to them being broken.

## **28. Appeals**

(1) A person who is aggrieved by a decision of the Board under section 23, 24, 25 or 27 may appeal to the Minister by lodging, with the Director, a written notice of appeal together with grounds of appeal, within 14 days of the date of the decision.

(2) The Minister may, on receipt of a notice under subsection (1), appoint an Appeal



Committee to advise him or her on the subject matter of the appeal.

(3) An Appeal Committee shall consist of-

- (a) a person, who shall be an attorney with at least five years experience as an attorney; and
- (b) two other persons with at least five years experience in the field of radiation protection.

(4) No person shall be appointed as a member of the Appeal Committee, nor shall any person be qualified to hold office as such a member, who-

- (a) has, in terms of any law in force in any country-
  - (i) been adjudged or otherwise declared insolvent or bankrupt, and has not been rehabilitated or discharged, or
  - (ii) made an assignment, arrangement or composition with his or her creditors, which has not been rescinded or set aside;
- (b) has, within a period of 10 years immediately preceding the date of his or her proposed appointment, been convicted-
  - (i) in Botswana, of a criminal offence, or
  - (ii) outside Botswana, of an offence which, if committed in Botswana, would have been a criminal offence,

and sentenced by a court of competent jurisdiction to imprisonment for six months or more without the option of a fine, whether that sentence has been suspended or not, and for which he or she has not received a free pardon;

- (c) is of unsound mind;
- (d) is a member of Parliament or a Councillor;
- (e) being a holder of a professional qualification, has been suspended or barred from practising the profession within or outside Botswana; or
- (f) is a licensee.

(5) The Minister may, by notice in writing, remove a member of the Appeal Committee from office where such a member-

- (a) is absent, without reasonable cause, from three consecutive meetings of the Appeal Committee of which he or she has had notice;
- (b) is inefficient;
- (c) has been found to be physically or mentally incapable of performing his or her duties

efficiently, and his or her medical doctor has issued a certificate to that effect;

(d) contravenes the provisions of this Act or otherwise misconducts himself or herself to the detriment of the objectives of the Appeals Committee; or

(e) has failed to comply with the provisions of section 13.

(6) A member of the Appeal Committee may resign from office by giving 30 days notice in writing to the Minister.

(7) The office of a member of the Appeal Committee shall become vacant after-

(a) a period of 30 days from the date a ruling against such a member is made on all appeals made in respect of a conviction against him or her under subsection (4)(b);

(b) a period of 30 days has elapsed from the date the such a member gives notice in writing to the Minister under subsection (6), of his or her intention to resign; or

(c) a period of 30 days has elapsed from the date such a member is given notice in writing by the Minister to vacate office.

(8) For the purposes of subsection (5)(a), "misconduct" includes any act done without reasonable excuse by a member which-

(a) amounts to failure to perform, in a proper manner, any duty imposed on him or her as a member;

(b) is prejudicial to the efficient conduct of the Board; or

(c) tends to bring the Appeal Committee into disrepute.

(9) No person shall be eligible to be appointed to an Appeal Committee if he or she has a direct or indirect pecuniary or other interest in a matter being considered or about to be considered by the committee.

(10) Any member of the Appeal Committee who has a direct or indirect pecuniary interest in a matter being considered or about to be considered by the Appeal Committee shall, as soon as possible after the relevant facts have come to his or her knowledge, disclose the nature of his or her interest at a meeting of the Appeal Committee.

(11) A disclosure under subsection (10) shall be recorded in the minutes of the meeting of the Appeal Committee and the member shall not, unless the Minister otherwise determines-

(a) be present during any deliberation of the Appeal Committee with respect to that matter; or

(b) take part in any decision of the Appeal Committee with respect to that matter.

(12) A member shall be paid such remuneration, and such travelling expenses incurred in connection with his or her service on the Board as the Board may from time to time determine

with the approval of the Minister.

(13) Subject to the provisions of this Act, the Appeal Committee shall regulate its own procedure.

(14) Where a person appeals to the Minister under subsection (1), the appellant's licence shall be deemed to continue to be in force on condition that enforcement measures are not automatically suspended, or unless the Board decides otherwise on the grounds of public safety.

## **29. Duties of licensee and staff**

(1) A licensee shall appoint a person experienced in radiation health and safety measures as a Radiation Safety Officer in his or her practice.

(2) The licensee and the Radiation Safety Officer shall-

- (a) ensure that exposure to ionizing radiation resulting directly from his or her activity is kept as low as reasonably achievable;
- (b) take all reasonable steps to ensure that every person under his or her supervision or control complies with the requirements of this Act;
- (c) ensure that all employees of the practice dealing with radioactive substances or material are supplied with at least one monitoring device and any other protective accessories, necessary to carry out radiological work with the lowest reasonably achievable risk;
- (d) ensure that radiation workers employed within the facility are given proper instructions on radiation safety measures and receive medical checkups at least every year; and
- (e) ensure that any other person who is found within the facility is provided with at least one monitoring device and such other protective accessories as may be necessary.

(3) The licensee, the Radiation Safety Officer, or any other person involved in radiological work shall-

- (a) report, to the Inspectorate, any case of overexposure to ionizing radiation not later than 12 hours after such an occurrence has taken place, and fully comply with any emergency measures ordered by the Inspectorate; and
- (b) report to the Inspectorate any loss, theft, or diversion, for unauthorized purposes, of any radioactive material, radioactive substance, radioactive waste or a radiation emitting equipment not later than 12 hours after such an occurrence has come to his or her knowledge.

(4) The licensee, his or her agent or employee shall provide any assistance required by an inspector for entry, inspection, examination, enquiry, the taking of samples or otherwise for the discharge of the Radiation Inspector's functions under this Act.

(5) Notwithstanding the provisions of this section, the licensee shall be responsible for ensuring that the safety standards are complied with in his or her practice.

### **30. Death of licensee**

(1) Subject to subsection (2), where a licensee dies, the licence shall forthwith terminate and any practice or authorized activity governed by the authorization shall cease.

(2) Where, on notification of the death of a licensee, a person acceptable to the Board agrees to take over the licence and continue with the licence or the activity, the licence shall remain valid for a period of 90 days after the death of the licensee during which such person shall assume all the duties and objectives of a licensee under this Act.

### **31. Radioactive waste**

- (1) A person who is licensed to generate, keep or manage radioactive waste shall-
- (a) be responsible for the safe management of radioactive waste generated by the practice or source for which he or she is authorized;
  - (b) when purchasing a sealed source, make contractual arrangements for the return of the spent sealed source to the manufacturer; and
  - (c) appoint a technically competent person to be a Radiation Waste Management Officer in order to assist the licensee in the safe and efficient on-site management of radioactive waste.

(2) Subject to the approval of the Board, the Radiation Waste Management Officer and the Radiation Safety Officer may be the same person depending on the size and complexity of the waste management activities.

### **32. Radiological work**

- (1) No person shall be engaged in radiological work unless he or she-
- (a) is at least 18 years of age;
  - (b) is found, after a medical examination conducted by a medical practitioner, to be free from any disease, weakness or condition which could be considered to make him or her particularly vulnerable to the health hazards involved in the work; and
  - (c) agrees to undergo a medical examination at such time as may be required by the Board.

(2) When a person is engaged in radiological work, or any person who, because of such work may have otherwise been exposed to ionizing radiation, shows signs of disease or injury which may be suspected of having been caused by such radiation, the employer of such a person shall immediately make arrangements for the medical examination of the person concerned.

**PART V**  
***Miscellaneous (ss 33-37)***

**33. Powers of Minister**

The Minister may give such directions of a general character, to the Board, not inconsistent with this Act, which he or she considers to be necessary in the public interest, and the Board shall, within seven days from the date of such directions, show cause as to why the directions can not be implemented or otherwise complied with.

**34. Protection of members and officers**

No liability, civil or criminal, shall attach to any member, member of a committee or officer of the Inspectorate, in respect of any loss arising from the exercise, in good faith by a member, member of a committee or an officer of the Inspectorate of his or her function under this Act.

**35. Offences and penalties**

(1) Any person who damages or interferes, in any way, with any equipment, device, instrument, plant or installation or any part of it, which is a source of radiation, in such a manner as to cause the uncontrolled or unregulated emission of radiation which causes injury or damage to any part or parts of the body or property of any person or loss of life, shall be guilty of an offence and liable to a fine not exceeding P500,000, or to imprisonment for a term not exceeding 10 years, or to both.

(2) Any person who knowingly, wilfully and without any reasonable excuse-

- (a) fails or refuses to produce any licence, notice or other document required of him or her by a Radiation Inspector in the performance of the Radiation Inspector's functions under this Act;
- (b) in any manner obstructs any Radiation Inspector or the owner, occupier or other person responsible for the management of any source;
- (c) conceals, prevents or attempts to prevent a person from appearing before or being examined by a Radiation Inspector;
- (d) in any manner, obstructs any Radiation Inspector while such inspector is performing his or her functions under this Act; or
- (e) contravenes, fails or refuses to comply with any provision of this Act in relation to which contravention, failure or refusal, a specific penalty is not provided,

shall be guilty of an offence and liable to a fine not exceeding P100,000, or to imprisonment for a term not exceeding two years, or to both.

(3) Where any person is convicted of an offence under this Act, the court may, in addition to any penalty that is imposed, make an order for the forfeiture, impoundment, destruction, incapacitation, sealing or disposal, in any other manner, of any radioactive material, equipment

or, substance in respect of which the offence in question may have been committed.

(4) Without prejudice to any other provision of this Act, the Inspectorate shall, with the prior approval of the Board, have authority to impose summary fines on any person or body of persons where it is satisfied that the person or body of persons has contravened a provision of this Act.

(5) In any proceeding for an offence or a suit claiming damages arising under this Act, and without prejudice to any requirement to comply with any special condition included in the licence or regulations, any evidence that the holder of a licence or authorization has complied with the radiation safety standards or recommendations or radiation exposure limits published by the International Atomic Energy Agency or by the International Commission on Radiological Protection and the International Radiation Protection Association shall be prima facie evidence that the holder of such licence has complied with radiation safety standards with respect to the requirements or the Act.

### **36. Regulations**

The Minister may make regulations providing for any matter which, under this Act, is to be provided for by regulations or for the better carrying out of the purposes and provisions of this Act, and, without prejudice to the generality of the foregoing, such regulations may provide-

- (a) for the prescription of any radioactive material, radioactive substance and radiation generators for which an authorization is not required;
- (b) for the regulation of the importation, transportation, handling, storage and use of radioactive materials, radioactive substances and radiation generators;
- (c) for the prescription of the form and content of licences and the procedures for their issue, renewal, suspension and revocation;
- (d) for the regulation of radioactive waste management and for the prescription of measures for the protection of the environment from the disposal of radioactive waste;
- (e) for the levying of fees and charges;
- (f) for the safety and security measures to be taken in relation to radioactive materials and sources;
- (g) for the prescription of measures for the registration of radiation workers exposed to radiation in the normal course of their work;
- (h) for the prescription of circumstances in addition to those prescribed in section 27 (2) that would be sufficient reason for the suspension or revocation of a licence;
- (i) for the issuance of certificates and permits;
- (j) for the prescription of installation, maintenance and repair of radiation equipment;

- (k) for dose limits; and
- (l) that any person who contravenes them shall commit, an offence and shall be liable to a fine not exceeding P25,000, or to imprisonment for a term not exceeding six months, or to both.

### **37. Transitional provisions**

Any person who at the commencement of this Act, has in his or Transitional provisions her possession, custody or under his or her control any radioactive material, radioactive substance or radiation generator, shall submit to the Board an application for a licence under section 23, not later than 12 months after such commencement.