

The Laws of Zambia

REPUBLIC OF ZAMBIA

**THE IONISING RADIATION ACT**

**CHAPTER 311 OF THE LAWS OF ZAMBIA**

**CHAPTER 311 THE IONISING RADIATION ACT**

THE IONISING RADIATION ACT

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**CHAPTER 311**

IONISING RADIATION

19 of 1972  
13 of 1994

**An Act to establish the law relating to the protection of the public and workers from dangers arising from the use of devices or materials capable of producing ionising radiation; and to provide for all matters incidental to or connected with the foregoing.**

[1st May, 1975]

PART I

PRELIMINARY

1. This Act may be cited as the Ionising Radiation Act. Short title
2. In this Act, unless the context otherwise requires- Interpretation

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

"Committee" means the Radioisotope Advisory Committee;

"dangerous ionising radiation" means ionising radiation of sufficient intensity as to entail significant risk of disability or disease as a result of exposure;

"disease" includes injury and bodily or mental deficiency or abnormality;

"exposure" means exposure to ionising radiation from sources both external and internal to the human body or incorporated within the body;

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"facility" means any assembly of devices, equipment, structures or natural features whether simple or complex which serves some specific purpose or performs some function;

"ionising radiation" means electromagnetic or corpuscular radiation capable of producing ions directly or indirectly in its passage through matter;

"Radiation Protection Officer" means a radiation protection officer appointed under this Act and includes the Chief Radiation Protection Officer;

"radioactive material" means any material emitting ionising radiation of sufficient intensity as to entail significant risk of disability or disease as a result of exposure;

"radioisotope" means radionuclide and is applied to any radioactive matter when identifying the significant nuclear species of radioactive atoms present;

"workers" include all persons potentially exposed to dangerous ionising radiation or radioactive material as a result of their occupation.

**3.** (1) The Board may, by statutory order, apply the provisions of this Act to sources of electromagnetic radiation other than X-rays and gamma rays. Application

(2) Unless otherwise provided in this Act or in regulations made thereunder, 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 concentration exceeds 0.002 microcuries per gram of material.

**4.** 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 radioactive matter of less than specified limits from the provisions of this Act. Exemption

PART II

RADIATION PROTECTION BOARD

**5.** There is hereby established a Board to be known as the Radiation Protection Board. Establishment of Board

**6.** (1) The Board shall consist of the following members: Composition of Board

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- (a) a person appointed by the Minister as the chairman of the Board;
  - (b) the Chief Radiation Protection Officer appointed by the Minister as the secretary of the Board;
  - (c) an advocate appointed by the Minister responsible for legal affairs;
  - (d) a medical practitioner appointed by the Minister;
  - (e) a public officer appointed by the Minister on nomination by the National Council for Scientific Research;
  - (f) a scientist appointed by the Minister on nomination by the Vice-Chancellor of the University of Zambia;
  - (g) a public officer appointed by the Minister on a nomination by the Minister responsible for mines and mining development;
  - (h) a public officer appointed by the Minister on nomination by the Minister responsible for rural development;
  - (i) a public officer appointed by the Minister on nomination by the Minister responsible for defence;
  - (j) a public officer appointed by the Minister on nomination by the Minister responsible for home affairs;
  - (k) a public officer appointed by the Minister on nomination by the Minister responsible for lands and natural resources;
  - (l) a public officer appointed by the Minister on nomination by the Minister responsible for labour and social services;
  - (m) a public officer appointed by the Minister on nomination by the Minister responsible for education;
  - (n) a public officer appointed by the Minister on nomination by the Minister responsible for power, transport or works.
- (2) No person shall be appointed as a member of the Board-
- (a) while he is an undischarged bankrupt; or

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- (b) while he is serving a sentence of imprisonment upon conviction for an offence.

7. (1) A member of the Board shall hold office for a period of five years from the date of his appointment or reappointment, as the case may be.

Tenure of office of members of Board

(2) A retiring member shall be eligible for reappointment.

(3) On the expiration of the period for which a member is appointed or reappointed, he shall continue to hold office until his successor has been appointed, but in no case shall such further period exceed three months.

(4) The office of a member shall be vacated if he-

- (a) dies;
- (b) is adjudged bankrupt or makes a composition with his creditors;
- (c) is absent from three consecutive meetings of the Board without special leave of the chairman;
- (d) resigns his office;
- (e) is disabled from performing his functions on the Board on account of physical or mental illness or any other cause;
- (f) is unable to perform his functions as a member of the Board on account of his absence from the Republic or any other cause;
- (g) is convicted of an offence under any written law and sentenced therefor to imprisonment without the option of a fine.

(5) The Board may exercise its powers and perform its duties notwithstanding any vacancy in its membership.

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

Meetings of Board

(2) The chairman shall preside at all meetings of the Board and in his 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 chairman shall, in addition to his deliberative vote as a member of the Board, have a casting vote.

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

(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 representative to attend that meeting, who shall participate in the meeting in all respects as if he were a member of the Board.

**10.** 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 chairman and when so confirmed shall be *prima facie* evidence in any court as an accurate record of the proceedings. Minutes of Board meetings to be kept

**11.** The chairman may, in consultation with the advocate referred to in section six (1) (c) and the Chief Radiation Protection 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. Chairman may act for Board in certain cases

**12.** Subject to the provisions of this Act, the Board shall make recommendations to the Minister on all matters concerning- Recommendations to be made by Board to Minister

- (a) the assurance that all activities involving the use of devices or materials capable of producing dangerous amounts of ionising radiation are carried out in such a manner as to avoid danger to the public or to workers concerned or limit risks to those acceptable as a matter of public policy;
- (b) the allocation of priorities and co-ordination of activities in connection with maintenance of safety in the use of devices or materials producing ionising radiation and associated matters to make the best use of available resources, taking into account the needs of the country and alternative methods of achieving equivalent results;
- (c) any amendments to be made to this Act or regulations to be made thereunder.

PART III

RADIOISOTOPE ADVISORY COMMITTEE

**13.** There is hereby established a Committee to be known as the Radioisotope Advisory Committee. Establishment of Radioisotope Advisory Committee

**14.** (1) The Committee shall consist of the following members: Composition of Committee

- (a) a scientist appointed by the Board on nomination by the National Council for Scientific Research;
- (b) scientists, not exceeding four in number, appointed by the Board on nomination by the Vice-Chancellor of the University of Zambia;
- (c) a radiologist appointed by the Board on nomination by the Medical Council of Zambia;
- (d) an engineer or other specialist concerned with safety in mines appointed by the Board on nomination by the Minister responsible for mines and mining development;
- (e) an engineer or other specialist concerned with safety in factories appointed by the Board on nomination by the Minister responsible for labour and social services;
- (f) an engineer or other specialist concerned with the safety of transport appointed by the Board on nomination by the Minister responsible for power, transport and Works;
- (g) scientists, engineers or other specialists from bodies or institutions concerned with the use or handling of devices or material producing ionising radiation, not exceeding six in number, appointed by the Board on nomination received from such bodies or institutions at the invitation of the Board;
- (h) a scientist concerned with environmental protection appointed by the Board;
- (i) the Chief Radiation Protection Officer who shall be the secretary of the Committee.



(2) The members present at the first meeting of the Committee shall elect a chairman from among themselves and the secretary shall call such meeting and shall preside over the meeting for that purpose.

(3) No person shall be appointed as a member of the Committee-

- (a) while he is an undischarged bankrupt; or
- (b) while he is serving a sentence of imprisonment upon conviction for an offence.

**15.** (1) A member of the Committee shall hold office for a period of three years from the date of his appointment or reappointment, as the case may be.

Tenure of office of  
members of  
Committee

(2) A retiring member shall be eligible for reappointment.

(3) On the expiration of the period for which a member is appointed or reappointed, he shall continue to hold office until his successor has been appointed, but in no case shall such further period exceed three months.

(4) The office of a member shall be vacated if he-

- (a) dies;
- (b) is adjudged bankrupt or makes a composition with his creditors;
- (c) is absent from three consecutive meetings of the Committee without special leave of the chairman;
- (d) resigns his office;
- (e) is disabled from performing his functions on the Committee on account of physical or mental illness or any other cause;
- (f) is unable to perform his functions as a member of the Committee on account of his absence from the Republic or any other cause;
- (g) is convicted of an offence under any written law and sentenced therefor to imprisonment without the option of a fine.

(5) The Committee may exercise its powers and perform its duties notwithstanding any vacancy in its membership.

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

(2) Special meetings of the Committee may be called-

(a) on the request of the Board;

(b) on the request of four members of the Committee if any urgent matter arises for consideration by the Committee.

(3) The secretary of the Committee shall, in consultation with the chairman, prepare an agenda which shall be distributed to all members of the Committee not less than four days before each meeting.

(4) The chairman of the Committee may invite an expert, other than a member of the Committee, to attend and participate in the discussion on any matter in which in the opinion of the chairman such expert may make a useful contribution, having regard to his expertise in that matter.

**17.** The secretary shall cause details of all business transacted at any meeting of the Committee 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 Committee and, if passed as correct, shall be confirmed by the signature of the chairman and when so confirmed shall be *prima facie* evidence in any court as an accurate record of the proceedings. Minutes of Committee meetings to be kept

**18.** (1) The Committee shall advise the Board-

Functions of Committee

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

(b) on measures necessary for ensuring public safety in the use of radioisotopes or devices capable of producing ionising radiation in dangerous amounts, including the safety of the user and other workers;

(c) on all other matters of a technical nature on which the Committee is competent to advise.

(2) The Committee may itself initiate studies or inquiries concerning the safe use of radioisotopes or devices producing ionising radiation and may recommend measures, including the expenditure of funds in support of such work, to the Board.

#### PART IV

##### OFFICERS OF THE BOARD

**19.** (1) The chairman of the Board shall be appointed by the Minister.

Appointment of  
officers of Board

(2) The Chief Radiation Protection Officer, the Legal Adviser to the Board and such other officers as may be necessary for carrying into effect the provisions of this Act shall be appointed by the Public Service Commission as public officers.

(3) The chairman of the Radiation Protection Board 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 chairman of the Radiation Protection Board may delegate or assign to any officer appointed under this section any or all of his powers and duties conferred or imposed upon him under this Act, but, in so doing, he shall not thereby divest himself of the right to exercise concurrently all or any of such powers and duties.

(5) The Chief Radiation Protection Officer shall be secretary of the Board and of the Committee and-

- (a) shall perform the duties conferred upon him by this Act or any other written law and such other duties as may be assigned to him by the chairman of the Board;
- (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.

**20.** (1) The Chief Radiation Protection Officer or any Radiation Protection Officer shall, for the purpose of the execution of the provisions of this Act, have the power to do all or any of the following, that is to say:

Powers of Radiation  
Protection Officers

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- (a) to enter, inspect and examine any premises or any part thereof, vehicle, vessel, boat, aircraft or any carriage of any description in or upon which he has reasonable cause to believe that radioactive material or any source of dangerous ionising radiation is stored, used, transported or disposed of;
- (b) to require the production of any licence authorising the use of radioactive material or sources of dangerous ionising radiation and any register, certificate, notice or document kept in pursuance of this Act, and to inspect, examine or take a copy thereof;
- (c) to make such examinations and inquiries as may be necessary to ascertain whether the provisions of this Act are being complied with;
- (d) to examine, either alone or in the presence of any other person as he thinks fit, any person with respect to matters under this Act or to require such person to be so examined: Provided that no person shall be compelled to answer any questions or give any evidence tending to incriminate himself;
- (e) in the case of a Radiation Protection Officer who is a medical practitioner, to carry out such medical examinations as may be necessary in the discharge of the duties imposed upon him 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 ionising radiation, his agent, employee or servant shall furnish the means required by a Radiation Protection Officer as may be necessary for entry, inspection, examination, inquiry, the taking of samples or otherwise for the exercise of his powers under this Act.

(3) Any person who-

- (a) wilfully delays a Radiation Protection Officer in the exercise of his powers under this section;
- (b) without reasonable excuse, fails to comply with the requirements of a Radiation Protection 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 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 for the management 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 Protection Officer;

shall be deemed to have obstructed a Radiation Protection Officer in the execution of his duties under this Act.

(4) Where a Radiation Protection Officer is obstructed in the execution of his duties under this Act, the person obstructing him shall be liable to be arrested without warrant, shall be guilty of an offence and shall upon conviction be liable to a fine not exceeding twenty thousand penalty units or to imprisonment for a term not exceeding five years, or to both

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

(6) A Radiation Protection Officer shall treat as confidential the source of any complaint bringing to his notice any contravention of any of the provisions of this Act and shall give no intimation to the owner or his representative that a visit of inspection was made in consequence of such 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, commercial, trade or industrial secrecy, the revelation of which is not necessary for the implementation of this Act, and any person who discloses such information to any other person in contravention of any provision of this section, whether such a person is or has ceased to be employed in the administration of this Act or not, shall be guilty of an offence and shall upon conviction be liable to a fine not exceeding twenty thousand penalty units or to imprisonment for a term not exceeding five years, or to both.

*(As amended by Act No. 13 of 1994)*

## PART V

### LICENCES TO USE SOURCES OF RADIATION

**21.** (1) Any person who intends to use radioactive material or other sources of dangerous ionising radiation shall apply to the Board for an appropriate licence.

Licence to use  
radioactive material

(2) An application for a licence to use radioactive material or other source of dangerous ionising radiation shall be in the prescribed form and shall be submitted to the Chief Radiation Protection Officer who shall prepare the appropriate licence.

(3) The Chief Radiation Protection Officer shall submit the application for a licence and the appropriate licence prepared by him under subsection (2) to the Committee for its scrutiny, and the Committee shall then transmit the licence to the Board together with the proposed amendments (if any) and the Board shall finally determine the form and contents of the licence:

Provided that, in any case where the chairman of the Radiation Protection Board and the Chief Radiation Protection Officer are satisfied that, having regard to the urgency of the matter and other circumstances of the case, a provisional licence should be issued, such licence may be issued, valid only until the meetings of the Committee and Board next following the date of issue of the provisional licence.

(4) A licence issued under this section-

- (a) shall be in the prescribed form;
- (b) shall be issued 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 as the Chief Radiation Protection 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 general requirements to meet 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:

Provided that any person using radioactive material or some other source of dangerous ionising radiation prior to the commencement of this Act may, if he submits his application in the prescribed form within three months from the commencement of this Act, continue to use the same unless his application is refused and the refusal is communicated to him;

- (d) shall be specific with regard to the process, operation or facility;
- (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 or other source of dangerous ionising radiation required for the operation, process or facility specified;
- (f) may cover the separate acquisition or importation of diverse or repeated lots of radioactive material if they are all listed on the licence and are to be used solely in the licensed process, operation or facility.

(5) A licence issued under this section-

- (a) may be amended at any time on written notice by the Chief Radiation Protection Officer if, in his opinion, such amendment is necessary for the purposes of safety;
- (b) may be suspended or revoked by the chairman of the Radiation Protection Board if the holder thereof fails to comply with the conditions contained in the licence or laid down in this Act or in any regulations made thereunder.

(6) Where a licence is suspended, the holder thereof shall take such steps as may be recommended by the Chief Radiation Protection Officer to ensure that no radiation hazards occur during the period of suspension.

**22.** (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 to ionising radiation in such an amount as likely to cause harmful effects to the public, to his employees, other workers or other users or to property owned either by the Government or private persons.

Responsibility of  
licence holder

(2) Any owner or user of radioactive material or source of dangerous ionising radiation for which he holds no valid licence shall be answerable for any harmful effects arising from the possession, storage, transport, use or disposal of such radioactive material or source of dangerous ionising radiation, and such answerability shall continue with regard to any such material after it has been seized, impounded, stored or disposed of by the Chief Radiation Protection Officer or a person authorised by him 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 source of dangerous ionising 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 issued under this Act, 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) Whenever a physical or mental disability appears-

- (a) in a person which medical opinion competent in the field of radiation disease ascribes to radiation exposure, it shall be presumed that the disability arose due to radiation exposure from a source of sufficient strength to give rise to such disability;

- (b) that could have arisen either from radiation or from other causes, the following criteria shall be applied to discern the cause of such disability, namely:
- (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 assumed that the disability arose from one or more of such exposures if no record of personal exposure has been maintained to a standard approved by the Chief Radiation Protection Officer;
  - (ii) 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 for whom a personal radiation exposure record exists, indicating that exposures in excess of recommended permissible limits have occurred, it shall be presumed that such disability occurred as a result of such radiation exposure;
  - (iii) 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 for whom a personal radiation exposure record has been maintained to a standard approved by the Chief Radiation Protection Officer, it shall be presumed that the disability did not arise from radiation exposure if such exposure records show radiation exposures have been within permissible limits on all possible occasions of radiation exposure.

## PART VI

### RADIATION PROTECTION SERVICE

- 23.** (1) There is hereby established a Radiation Protection Service which shall- Radiation Protection Service
- (a) determine the extent of exposure to ionising radiation of the public and of workers and, subject to the provisions of this Act, determine the degree of risk of disability attached to such exposure;
  - (b) be responsible for examining, as may be deemed necessary by the Chief Radiation Protection Officer, all premises in respect of which a licence to use radiation is in force and all places of disposal for radioactive material and wastes;
  - (c) advise the Board of the extent of radiation exposure to persons in Zambia; and
  - (d) advise and recommend to licence holders steps desirable to reduce exposure to acceptable limits.



(2) The Radiation Protection Service shall maintain a personal radiation dosimetry service-

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

(3) The personal radiation dosimetry service may, at the discretion of the Chief Radiation Protection 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 particular licence.

(4) The Radiation Protection Service shall be directed by the Chief Radiation Protection Officer who shall be its senior officer and who shall recommend to the Board the provision of staff suitable for the carrying out of its functions.

## PART VII

### MISCELLANEOUS PROVISIONS

**24.** (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 or other source of dangerous ionising radiation, without being in possession of a valid licence, shall be guilty of an offence and shall be liable upon conviction to a fine not exceeding four thousand penalty units or to imprisonment for a term not exceeding six months, or to both such fine and imprisonment; and every officer responsible for a facility in which any such material or other source is used shall be guilty of an offence and upon conviction shall be liable to a fine not exceeding two thousand penalty units or to imprisonment for a term not exceeding three months, or to both.

Offences and penalties

(2) Where a person in possession of a valid licence fails to comply with any provision of this Act or with the terms or conditions of his licence, the Chief Radiation Protection Officer-

- (a) shall issue a warning indicating a time limit for complying with the terms or conditions of the licence;

- (b) if he considers it necessary for the safety of the public or workers, may suspend the licence and require suspension of work with the radioactive material or other source of dangerous ionising radiation and its storage in a safe place or under conditions preventing exposure of the public or workers to potentially dangerous radiation; and/or
- (c) shall require the owner or responsible licensee to take such measures as are needed to abate the adverse effects (if any) of his failure to meet the conditions of his licence;

and if the owner or responsible licensee fails to comply with the terms or conditions specified in the warning or other requirement, or continues to permit use of radioactive material or other source of dangerous ionising radiation while his licence is under suspension, he shall be guilty of an offence and shall upon conviction be liable to a fine not exceeding two thousand penalty units or to a term of imprisonment not exceeding three months, or to both.

(3) Any act or omission, which if done by an individual shall be an offence under this Act or any regulations made thereunder, shall, if done by a body corporate, be deemed an offence committed by every director, secretary or manager, unless he proves that the offence was committed without his consent or connivance and that he exercised all such diligence to prevent the commission of the offence as he ought to have exercised, having regard to the nature of his functions and all the circumstances of the case.

(4) If an offence under this Act or any regulations made thereunder 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 proves that the offence was committed without his consent or connivance and that he exercised all such diligence to prevent the commission of the offence as he ought to have exercised, having regard to the nature of his functions and all the circumstances of the case.

(5) In addition to the penalties provided in subsection (1), the radioactive material or other source of dangerous ionising radiation shall be liable to seizure, impoundment, sealing, being rendered inoperative, destruction or disposal in such manner as the Chief Radiation Protection 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 a licence properly issued by the Board.

*(As amended by Act No. 13 of 1994)*

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

Evidence

(2) Records of exposure measurements maintained in accordance with the provisions of this Act shall, unless the contrary is proved, be accepted as evidence by every court concerned with establishing causes of a disability.

**26.** The Minister may, on the advice of the Board, by statutory instrument, make Regulations  
regulations-

- (a) prescribing application and licence forms to be used under this Act;
- (b) limiting the use of radioactive material or equipment producing dangerous ionising radiation for any specified purpose, including use for medical or dental purposes;
- (c) prescribing fees for services rendered by the Radiation Protection Service;  
and
- (d) prescribing anything required to be prescribed under this Act.

### **SUBSIDIARY LEGISLATION**

#### **SECTION 26-THE IONIZING RADIATION (FEES) REGULATIONS**

*Regulations by the Minister*

*Statutory Instrument  
no. 86 of 1992  
46 of 1996*

- 1.** These Regulations may be cited as the Ionizing Radiation (Fees) Regulations. Title
- 2.** There shall be paid as set out in the Schedule, the fees and charges for the use of the services of the National Radiation Protection Service by members of the public and institutions. Fees and charges

*(As amended by Act No. 13 of 1994)*

### **SCHEDULE**

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Fee units:

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6.	Calibration of Monitoring Equipment per item	556

(As amended by SI No. 46 of 1996)

THE IONIZING RADIATION ACT

SECTION 26-THE IONIZING RADIATION PROTECTION REGULATIONS

*Statutory Instrument*  
171 of 1992

*Regulations by the Minister*

PART I

PRELIMINARY

1. These Regulations may be cited as the Ionizing Radiation Protection Regulations. Title

2. (1) In these Regulations, unless the context otherwise requires:

Interpretation

- "absorbed dose" means the amount of energy deposited by ionizing radiation per mass of the material;
- "Board" means the Radiation Protection Board;
- "dose equivalent" means product E of absorbed dose and the weighting factors;
- "non-stochastic" means manifestation whose severity of effect varies with dose and for which a threshold dose does occur but below which the effects are not detectable at all;
- "personal monitoring" means measurement of a dose with a film with a device such as a film badge, pocket ionizing chamber, or thermoluminescent dosimeters worn by an individual;
- "radionuclide" means a radioactive substance characterized by its atomic nucleus;
- "reproductive capacity" means the period in a woman commencing with the onset of menarche and ending with menopause;
- "stochastic effects" means-
- (a) the manifestation whose probability of occurrence in a population exposed to ionizing radiation rather than severity in an affected individual, may be a direct function of dose;
  - (b) the heredity effect and some somatic effects such as carcinogenesis and the severity of stochastic effects if it occurs, shall be independent of the dose responsible for its induction;
- "Sievert" means an international standard unit of measurement equal to the absorbed dose multiplied by a weighting factor, a distribution factor or any other modifying factor;
- "threshold dose" means the minimum absorbed dose that will produce a detectable degree of any given effect;
- "warning signs" means any of the radiation signs given in the Fifth Schedule; and
- "workers" mean all persons potentially exposed to dangerous ionizing radiation or radioactive material as a result of their occupation.

(2) The dose equivalent limits specified in these Regulations:

- (a) are based on the exposure received over a period of one year, without regard to the rate of dose accumulation, except in the case of production capacity in which the time distribution of the dose equivalent shall be taken into account;
- (b) shall not include contribution from natural background radiation or from medical exposure of patients to ionizing radiation; and
- (c) shall include the consideration of the stochastic and non-stochastic effects.

(3) The annual dose equivalent limits shall comprise the sum of the annual dose equivalent arising from external exposure due to external sources, ionizing radiation or internal exposure due to intake of radionuclides.

3. For the purpose of these Regulations, the competent authority shall be the Radiation Protection Board. Competent Authority

## PART II

### LIMITS OF EXPOSURE TO RADIATION

4. (1) The annual dose equivalent limits for workers shall be 0.5 Sv per year in any tissue except the lens of the eye whose limit shall be 0.15 Sv per year. Dose equivalent limits for workers

(2) The dose equivalent limits for workers in uniform exposed to ionizing radiation shall be 50 Sv per year.

(3) The effective dose equivalent for different tissues shall be computed by summing up the product on individual tissue doses and multiplying it with weighting factors set out in the First Schedule.

(4) The feet, ankles, skin and lens of the eye shall not be included in the computation of effective dose equivalent but shall be included in the relevant dose equivalent limits given in sub-regulation (1).

(5) The equivalent stochastic risk shall be estimated from the effective dose of the tissues of the body irradiated non-uniformly.

(6) The weighting factors for computation of the effective dose equivalent shall be as specified in the First Schedule.

5. (1) No person shall expose a woman of reproductive capacity to ionizing radiation without considering the pregnancy and the possibility of early unrecognised pregnancy. Dose limits of women of reproductive capacity

(2) No person shall for a woman of reproductive capacity cause the embryo to receive more than 5 mSv of radiation during the first two months of pregnancy.

(3) No person shall expose a foetus in a pregnant woman to a dose exceeding 10 mSv.

The Laws of Zambia

**6.** (1) The contribution of internal exposure, without external exposure, to dose equivalent of annual limits of intake to radionuclides by workers shall not exceed the annual dose limit fixed in sub-regulation (2) and (3) of Regulation 3. Limits of radionuclides

(2) The value of the annual limits of the intake for a single radionuclide and corresponding derived air concentrations shall be as set out in the Third Schedule.

(3) The sum of the weighted contribution of the various radionuclides to dose equivalent shall not exceed the limits set out in sub-regulation (2) and (3) of Regulation 4 where the intake exceeds one radionuclide during a working year.

(4) The provisions of sub-regulation (2) of Regulation 3 shall be observed where a worker is externally exposed to radionuclides.

**7.** (1) The planned special exposure for workers recommended by the International Commission on Radiological Protection shall apply to these regulations. Planned special exposures

(2) Workers involved in planned special exposure shall be informed by the owner of the involved radiation facility about the nature of the risks and must consent to such exposure before under-taking the special operations.

(3) The dose equivalent received by planned special workers exposed under sub-regulation (2) of Regulation 3, shall be estimated and expert medical advice sought.

**8.** (1) The dose equivalent shall be assessed through personnel monitoring. Personnel Monitoring

(2) The personnel monitoring under sub-regulation (1) shall be carried out at least once every two months.

**9.** (1) The dose equivalent limits for members of the public shall be one-tenth of that permitted for workers under Regulation 3. Dose equivalent limits for individual members of the public

(2) The dose equivalent limits for members of the public shall be taken into account when planning radiation facility.

**10.** The authorized dose equivalent limits for students in educational institutions shall be as set out in the Second Schedule. Dose equivalent limits for students

The Laws of Zambia

**11.** The dose equivalent limit for teaching staff, instructors, technicians and laboratory assistants at all educational institutions shall be the same as the workers. Dose equivalent limits for teachers, instructors, etc.

**12.** (1) Any medical personnel shall in relation to a patient in their care ensure that: Dose equivalent limits for medical personnel

- (a) unnecessary exposure is avoided;
- (b) exposure is justifiable in terms of benefits that would not otherwise be available; and
- (c) the dose actually administered is limited to the minimum benefit of the patient.

PART III

STRUCTURAL REQUIREMENTS AND INSPECTIONS OF BUILDINGS:

**13.** No person shall use a building to install or use irradiating devices or use or store any radioactive materials without a certificate of compliance issued under these regulations. Use of building for radiation purposes

**14.** Any area where radioactive materials or irradiating devices are used or installed shall be clearly marked and classified as- Classification of areas

- (a) Restricted Radiation Area-where procedures with radiation devices or radioactive materials are restricted to the average dose equivalent rates exceeding 0.25 mSv/hr;
- (b) Controlled Radiation Area-where procedures with radiation devices or radioactive materials are restricted to dose equivalent rates of 2.5 mSv/hr or less; or
- (c) Uncontrolled Radiation Area-place within confines of a radiation facility where the external radiation or radioactive communication are not detectable.

**15.** (1) The boundaries walls and doors of restricted and controlled areas referred to in Regulation 13 shall have warning signs.

(2) Access to restricted areas shall be under strict control of the Radiation Safety Officer. Warning signs for restricted and controlled areas

PART IV

LICENSING



The Laws of Zambia

**16.** (1) Any person who intends to use radioactive materials or devices shall apply to the Board for a licence. Application for licence

(2) An application for a licence shall be in the form prescribed in the Fifth Schedule.

**17.** The types of licences to be issued under these regulations are set out in the Fourth Schedule. Type of licence

**18.** The maximum permissible levels of radionuclides shall be as set out in the Third Schedule. Permissible levels of radionuclides

PART V

TRANSPORT AND STORAGE OF RADIOACTIVE MATERIALS

**19.** A person delivering radioactive materials to a transport carrier, or any person transporting radioactive materials within, through or into the country shall comply with the International Atomic Energy Agency's "Regulations for the Transport of Radioactive Materials; Safety Series No. 6, 1985, (hereinafter referred to as "IAEA Transport Regulations")." IAEA Transport Regulations

**20.** The package and design for the transportation of radioactive materials, through or into the country shall be in accordance with the requirements of the IAEA Transport Regulations. Approval of transport

**21.** Any radioactive materials stored in transit shall be stored in accordance with the IAEA Transport Regulations and handled in transit in accordance with instructions issued by the Board. Storage in transit

**22.** Any transfer of radioactive materials shall, prior to the transfer, be reported to the Board in the prescribed form. Transfer of sources

**23.** The person who sends the radioactive material shall ensure that an acknowledgement receipt of the dispatched radioactive material is received within thirty days. Acknowledgement receipt of dispatch of radioactive material

**24.** (1) The person who sends the radioactive material shall investigate any shipment or part of a shipment, where acknowledgement is received within the period specified in Regulation 23 and shall immediately report to the Board. Investigation of shipment of radioactive material

The Laws of Zambia

(2) The shipment shall be monitored by the person who sends the radioactive material under sub-regulation (1) and shall prepare a report which shall be submitted to the Board within one week of completing the investigations.

PART VI  
RADIATION SAFETY OFFICER

**25.** The management shall appoint a radiation safety officer at each ionizing radiation facility. Radiation safety officer

**26.** The radiation safety officer shall, in addition to other duties assigned to him, have the following functions: Duties of radiation safety officer

- (a) monitor the purchase and stock levels, the safe use, handling, transport, and storage of radioactive materials;
- (b) inspect and monitor the facility for radiation safety, assist in the training of all relevant aspects of radiation protection;
- (c) ensure that all workers are monitored regularly with personal dosimetry badges and a record system kept of the doses received; and
- (d) ensure that all reports are made available to the Board.

PART VII  
RADIOACTIVE RELEASES TO THE ENVIRONMENT

**27.** (1) The release of radioactive materials to the environment shall be reported to the Board prior to the release. Authority

(2) The levels released shall be below the exemption limits set by the Board.

**28.** The user shall comply with the authorised release limit, by setting up an adequate programme for environmental monitoring and accounting of the radioactive substances released. Monitoring

PART VIII  
EXPOSURE FROM CONSUMER PRODUCTS

The Laws of Zambia

**29.** No processing, manufacturing, commercialisation, export, import, and disposal of consumer products containing radioactive materials shall be done without authority from the Minister of Health. Consumer products

PART IX

CESSATION AND SUSPENSION OF OPERATION, DECOMMISSIONING AND  
ABANDONMENT OF INSTALLATION

- 30.** A person who holds a licence shall not- Authority from Board
- (a) cease or suspend a licensed activity or the operation of licensed installation; or
  - (b) abandon or decommission an installation or waste management system without prior written approval or instruction of the Board.
- 31.** Any approval or instruction issued under Regulation 29 shall prevail over a licence. Approval to prevail
- 32.** The Board may exempt any person from the provisions of any of these Regulations on the recommendations of the Radioisotope advisory Committee. Exemption
- 33.** No person shall disclose any information unless authorised to do so under these Regulations. Secrecy
- 34.** Any person who contravenes any provision of these regulations shall be guilty of an offence and shall, on conviction, be liable to the penalties provided under the Act. Offences and penalty

FIRST SCHEDULE

*(Regulation 4)*

EFFECTIVE DOSE EQUIVALENT LIMITS

## The Laws of Zambia

### 1. Occupational Exposure Limits

-whole body (prospective)	50 mSv per year
-whole body (retrospective)	100-150 mSv per year
-whole body [accumulation to (age N-years)]	(N-18) 3 50 mSv
-Skin	150 mSv per year
-Hands	750 mSv per year
-Forearm	300 mSv per year
-Other organs, tissue & organ system	150 mSv per year
-Fertile woman (with respect to foetus)	5 mSv in gestation period

### 2. Dose Limits for the Public or Exposed Individuals

-individual or occasional	5 mSv per year
-population dose limit	
Genetic	1.7 mSv average per year
Somatic	1.7 mSv average per year

### 3. Emergency Dose Limits-Life Saving

-individual (older than 45 years if possible)	1 Sv
-hands and forearms	2 Sv additional

### 4. Emergency Dose Limits-Less Urgent

-individual	250 mSv
-hands and forearms	1 Sv total
-family of radioactive patients	
Individual (under 45 years)	5 mSv per year
Individual (over 45 years)	50 mSv per year

## SECOND SCHEDULE

*(Regulation 10)*

### DOSE EQUIVALENT FOR STUDENTS

1. Effective dose equivalent	0.5 mSv per year
2. Dose equivalent to single organ or tissue such as an eye or skin	5 mSv per year

## THIRD SCHEDULE

*(Regulation 17)*

### ANNUAL LIMITS OF INTAKE (MINIMUM) VALUES FOR SOME COMMON RADIONUCLIDES

Nuclide	ALI (min)	Nuclide	ALI (min)
---------	-----------	---------	-----------

The Laws of Zambia

H-3 water	$3.10^9$	Sr-90	$8.10^9$
C-14	$3.10^8$	Sr-85	$6.10^7$
F-18	$2.10^9$	Sr-87m	$1.10^9$
Na-22	$2.10^7$	Sr-89	$5.10^9$
Na-24	$1.10^8$	Sr-90	$1.10^9$
P-12	$1.10^7$	Y-90	$2.10^7$
P-33	$1.10^8$	Tc-99m	$3.10^9$
S-35	$8.10^7$	Mo-99	$2.10^8$
Cl-36	$9.10^6$	In-113m	$2.10^9$
Cl-38	$6.10^8$	Sb-124	$1.10^8$
K-42	$2.10^8$	I-123	$1.10^8$
K-43	$2.10^8$	I-125	$1.10^6$
Ca-45	$3.10^7$	I-129	$2.10^5$
Ca-47	$3.10^7$	I-130	$1.10^7$
Cr-51	$7.10^8$	I-131	$1.10^6$
Mn-52	$3.10^7$	I-132	$1.10^8$
Mn-52m	$1.10^9$	Cd-109	$1.10^6$
Mn-54	$3.10^7$	Cd-115	$3.10^7$
Mn-58	2.108	In-111	2.108
Fe-52	$3.10^7$	Cs-129	$9.10^8$
Fe-55	$7.10^7$	Cs-130	$2.10^8$
Fe-59	$1.10^7$	Cs-131	$8.10^8$

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Co-56	$7.10^6$	Cs-134	$3.10^6$
Co-57	$2.10^7$	Cs-134m	$4.10^9$
Co-58	$3.10^7$	Cs-137	$4.10^6$
Co-60	$1.10^6$	Ba-131	$1.10^8$
Ni-63	$1.10^8$	Ba-133m	$9.10^7$
Cu-64	$4.10^8$	Ba-135m	$1.10^8$
Cu-67	$2.10^8$	La-140	$2.10^7$
Zn-62	$5.10^7$	Yb-169	$2.10^7$
Zn-65	$1.10^7$	Ir-192	$8.10^6$
Zn-69m	$2.10^8$	Au-198	$4.10^7$
Ga-67	$3.10^7$	Hg-197	$2.10^8$
Ga-68	$6.10^8$	Hg-203	$2.10^7$
As-73	$8.10^8$	Tl-201	$6.10^8$
Se-75	$6.10^7$	Pb-210	$9.10^3$
Br-76	$1.10^8$	Pb-212	$1.10^6$
Br-77	$6.10^8$	Po-210	$2.10^4$
Br-82	$1.10^8$	Ra-226	$2.10^4$
Rb-81m	$9.10^9$	Th-232	$4.10^1$
Rb-81	$1.10^9$	U-238	$2.10^3$
Rb-86	$2.10^7$	Am-241	$2.10^2$
Rb-88	$7.10^8$	Cm-244	$4.10^2$
Rb-89	$1.10^9$	Cf-252	$1.10^3$

The Laws of Zambia  
FOURTH SCHEDULE

*(Regulation 17)*

TYPES OF LICENCES

1. Licence to possess or use radioactive materials or device.
2. Licence to sell, loan or deal with radioactive material or radiation device.
3. Licence to dispose of radioactive materials.
4. Licence to import/export radioactive materials or device.
5. Licence authorizing administration of ionizing radiation to persons.
6. Certificate of Compliance/Acceptance for a building.
7. Licence authorizing an engineer, or technician to install, service or maintain irradiation device or radioactive material.
8. Radiation Premises Licence.
9. Certificate of Compliance or Acceptance of a new or modified radiation device or radiation premises.

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Form RPS/A/1

The Laws of Zambia

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

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Reg. No. ....  
Receipt No. ....

THE IONIZING RADIATION ACT, 1972  
(Cap. 311)

APPLICATION FOR A LICENCE TO POSSESS RADIOACTIVE MATERIAL OR RADIATION DEVICE

1. Name of Applicant .....Tel. No. ....  
Address .....
2. Name and address of owner where the radiation device will be used, stored or installed .....
3. Name and address of person responsible for radiation protection safety .....
- Title ..... Reg. No. ....  
Qualification .....
- Experience .....
4. List names of licensed users. Reg./Licence No. ....  
(use separate sheets where necessary)

PART "A" X-RAY EQUIPMENT

5. Identification:  
Name of manufacturer .....  
Model .....  
Equipment control panel type .....  
Serial No. ....  
Tube head type ..... Serial No. ....  
Tube insert type ..... Serial No. ....
6. Type of installation:  
(a) fixed/mobile (b) combine/radiographic/fluoroscopic/photofluoroscopic/sine  
fluoroscopic/dental/other (specify)\* .....
7. Rectification:  
Single phase: self rectified/half wave rectified/full wave rectified .....
- Three phase: six pulse/twelve pulse/contant potential, capacitor energy storage .....
8. For combined radiographic fluoroscopic:  
Indicate whether with bucky radiographic/serial radiographic/tomographic/  
fluorescent screen/image intensifier with spot camera from 70mm/100mm or optical viewer or television/cine camera for  
16mm/35mm continuous operation/pulsed operation\* (specify) maximum frame speed .....
- frames/second .....
9. Tube rating:



The Laws of Zambia

<i>Element mass Number</i>	<i>Chemical/ physical</i>	<i>No. of sources</i>	<i>Activity</i>	<i>Date measured</i>	<i>Model No. and name of manufacturer</i>
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

29. Describe the purpose of which radiation material will be used (if by-product material is the form of a sealed source, include the make and the model number of the storage container and/or device in which the source will be stored/and/or used .....

.....  
 .....

30. Radiation protection:

Describe radiation protection general measures. Also submit leak testing procedures where applicable, arrangements for performing initial radiation survey, service maintenance and repair for source equipment .....

.....  
 .....

31. Radioactive waste management:

Submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved

.....  
 .....

32. Declaration: I ..... certify that all information contained in this application including any supplements attached hereto is true and correct to the best of my knowledge and belief.

Date .....  
 .....*Signature of Applicant*

Note: A fee is payable for Registration. A fee is payable for a licence annually.

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence RPS/L/1

Licence No. ....

Registration .....  
The Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

LICENCE AUTHORISING THE BEARER TO POSSESS OR USE RADIOACTIVE  
MATERIALS OR DEVICES

Dr/Mr/Mrs/Miss/Messrs .....

Title .....

Plot No. .... P.O. Box .....

Premises ..... Street .....

Town .....District .....

Province .....

is hereby licensed by the Radiation Protection Board to possess or use radiation devices or materials in accordance with Section 21 of the Ionizing Radiation Act and subject to the conditions imposed hereunder.

.....  
*Chairman, Radiation  
Protection Board*

.....  
*Secretary, Radiation  
Protection Board*

Condition of Licence:

1. This licence is valid from ..... to .....
2. The licensee is authorised to possess or use radioactive materials or devices listed below:

.....  
.....  
.....

Date ..... Signature of Holder .....

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence RPS/A/3

The Laws of Zambia

The Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
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Licence No. ....

Reg. No. ....

Receipt No. ....

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

APPLICATION FOR DISPOSAL OF RADIOACTIVE MATERIALS

1. Name and address of applicant .....

2. Title .....

3. Licence or Registration Certificate No. ....

4. Premises where source has been used .....

Plot No. .... Street .....

Town .... Province.....

5. Describe the method of disposal (e.g. river, sewage, solid waste, tipping, burial, incineration, or other methods).  
.....  
.....

6. What radiation protection measures have been taken to ensure that disposal method do not alter existing safety procedures and regulations? .....

7. To what extent will the disposal method affect the maximum permissible concentration of the disposal root .....

8. Identify the source to be disposed:

(a) Name of source ..... Model

(b) Control panel type ..... Serial No. ....

(c) Others (specify) .....

<i>Element and Mass No. of Rad. Material</i>	<i>Chemical/Activity Physical Form</i>	<i>Name of Model Manufacturer/ No. Suppl.</i>
.....	.....	.....
.....	.....	.....
.....	.....	.....

9. I, ..... certify that the information given above is correct and true.

Signature .....

Full name .....

Title .....

Exempted owners must possess a disposal licence

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The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence No. ....

Reg. No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

IONIZING RADIATION ACT, 1972

(Cap. 311)

A LICENCE AUTHORIZING DISPOSAL OF RADIOACTIVE

Dr/Mr/Mrs/Miss/Messrs .....

of .....

.....

Licensed or registered under .....  
is authorized to dispose radioactive substances by the Radiation Protection Board under Section 21(1) of the Act and  
subject to the conditions laid hereunder.

.....  
*Chairman, Radiation  
Protection Board*

.....  
*Secretary, Radiation  
Protection Board*

Conditions of Licence:

1. This licence is valid from ..... to .....
2. The method of disposal is through solid waste/sewage/incineration/burial or confined storage\*
3. The amount authorized for disposal is ..... Bq.
4. The maximum permissible levels of concentration shall not exceed the limits set in the Radioactive Waste Management Regulations.
5. Others .....

.....  
Date ..... Signature of Holder .....

The Laws of Zambia  
REPUBLIC OF ZAMBIA  
IONIZING RADIATION REGULATIONS, 1992  
(Cap. 311)

APPLICATION FOR RADIATION PREMISES LICENCE

1. Name of owner ..... Tel. No. ....
2. Location of facility:  
Name of Unit/Dept. ....  
Place: Plot No./Vehicle No. ....  
Area/Town ..... Street .....  
District ..... Name of Building .....  
..... Room(s) .....  
Floor .....
3. Name of person responsible for radiation safety .....
4. Is this a new/renewal application? .....
5. Type of facility: Medical/industrial/school/research/others\* specify .....
6. Classification of facility .....
7. Type of installation: Enclosed installation/open installation\*

(a) Enclosed installation: with aid diagram of plan to be attached, describe the appropriate facility or room with special reference to:

- (i) Construction Material .....
- (ii) Interlocks .....
- (iii) Warning signals installed .....
- (iv) Equipment layout .....
- (v) Radiation shields .....
- (vi) Fume holds .....
- (vii) Remote handling equipment .....
- (viii) Any other protective measures and devices .....

Note: Indicate in diagram or plan the directions in which exposure is possible.

(b) Open installation:

- (i) State why an enclosed installation is not likely to be practicable .....
- (ii) Indicate the distance from radiation source within which unauthorised persons are not allowed to enter .....
- (iii) Indicate positive measures taken to maintain this degree isolation .....
- (iv) How will you ensure that radiation workers involved will be adequately protected? .....

8. Enclose architectural drawings of the premises.

9. Declaration by owner:

I declare that the aforementioned is true and correct to the best of my knowledge and belief.

Date ..... Signature of applicant .....

Note-A fee payable annually for a licence unless the applicant is exempted by the Board.

\*Delete which ever is inapplicable.

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REPUBLIC OF ZAMBIA

Licence No. ....

Reg. No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION REGULATIONS, 1972  
(Cap. 311)

RADIATION PREMISES LICENCE

Name of Premises .....

Owner of Premises .....

Plot No. .... Street .....

Town ..... Province .....

Postal Address .....

Department .....

is licensed by the Radiation Protection Board as premises for housing, storing and installation of radioactive materials or radiation devices in accordance with Section 21(1) of the Act subject to the conditions set hereunder.

.....  
*Chairman, Radiation  
Protection Board*

.....  
*Secretary, Radiation  
Protection Board*

Condition of Licence:

1. This licence is valid from ..... to .....
2. The facility is licensed for housing, storing, and installation of (state specific type of device or material) .....
3. The owner named above shall comply with Section 22 of the Act.....

Date ..... Signature of Holder .....

REPUBLIC OF ZAMBIA

Form RPS/A/5

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Reg. No. ....

Receipt No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

APPLICATION FOR MODIFICATION OF RADIATION PREMISES, MATERIAL OR DEVICE

1. Name of Applicant .....
2. Premises address .....
3. Title of applicant .....
4. Licence No. ....
5. Describe nature and extent of modification, if it is for facility and technical drawings if for a device.....  
.....  
.....
6. What radiation protection measures have you taken to ensure that modifications do not alter existing safety procedures and regulations? .....
7. To what extent will modification affect the workload of the equipment operation within the facility? .....
8. Identify the device to be modified.
  - (a) Name of manufacturer ..... Model
  - (b) Control panel type ..... Serial No.
  - (c) Tube insert type ..... Serial No.
  - (d) Type of therapy Unit
  - (e) Others (specify)
9. I, ..... certify that the information given above is correct and true.

Signature .....

Full name .....

Title .....

Note: A fee is charged on this application to all institutions and persons.

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence No. ....

Reg, No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

LICENCE AUTHORIZING MODIFICATION OF LICENSED RADIATION PREMISES, MATERIALS  
OR DEVICE

Dr/Mr/Mrs/Miss/Messrs .....

of ..... Licence No. ....

or Registration No, .....

is licensed by the Radiation Protection Board to modify the radiation premises, material or device in accordance with Section 21 of the Act and subject to the conditions imposed hereunder.

.....  
*Chairman, Radiation*.....*Secretary, Radiation*  
*Protection Board*.....*Protection Board*

Conditions of Licence:

1. This licence is valid from ..... to .....
2. Specific area or part to be modified .....

For modification of the devices only registered installation service or maintenance personnel may make such modifications.

Date ..... Signature .....

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REPUBLIC OF ZAMBIA

Form RPS/A/6

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

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THE IONIZING RADIATION ACT, 1972

(Cap. 311)

APPLICATION FOR LICENCE TO SELL, LEASE, LOAN OR DEAL WITH RADIATION DEVICES OR RADIOACTIVE MATERIALS

1. Name of Applicant .....
2. Premises Address .....
3. Trade Licence No. ....
4. Type of radiation device or radioactive material you intend to sell, lease, loan, or deal with .....
5. Is the equipment new or old? .....
6. Name(s) of authorized installation, service or maintenance engineers/technologists indicating their Reg. and Licence numbers .....
7. Is the application for a corporation or limited liability company/business .....

I, certify that the information given in this application including any supplements attached thereto is true and correct to the best of my knowledge.

Date ..... Signature of applicant .....

Note: A fee is payable annually for a licence.

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Form RPS/A/8

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

For official use only.

Licence No. ....

Reg. No. ....

Receipt No. ....

THE IONIZING RADIATION ACT, 1972  
(Cap. 311)

APPLICATION FOR LICENCE TO IMPORT/EXPORT\* RADIATION DEVICES OR RADIOACTIVE MATERIALS

1. Name of Applicant .....
  2. P.O. Box No. .... Plot No. ....
  3. Street ..... Town .....
  4. District ..... Province .....
  5. Purpose for which the device or material will be used .....
  6. Valid Licence number of registration of the consignee (purchaser) .....
  7. Give a list of all the devices or radioactive materials you intend to import/export .....
  8. Give details of storage and transportation compliance with the regulations on safe handling, storage and transport of radioactive materials (enclose additional information on separate sheet if need be) .....
  9. Give the estimated sale price of the total items .....
  10. Declaration:  
I, ..... certify that I have  
read and understood the Regulations published by the Board and information given above is the truth and correct..
- Date ..... Signature of applicant .....

Note: A fee is payable annually for the licence.

\*Delete whichever is not applicable

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence No. ....

Reg. No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

A LICENCE AUTHORIZING THE BEARER TO IMPORT/EXPORT\* RADIATION DEVICES OR RADIOACTIVE MATERIALS

Dr/Mr/Mrs/Miss/Messrs .....

Box No. .... Plot No. ....

Street ..... Town .....

District ..... Province .....

is hereby licensed by the Radiation Protection Board to import/export\* radiation devices or radioactive materials in accordance with Section 4 (e) of the Act and subject to the condition imposed hereunder.

.....  
*Chairman, Radiation  
Protection Board*

.....  
*Secretary, Radiation  
Protection Board*

Conditions of Licence:

1. Licence is valid from ..... to .....

2. The licensee is authorized to import/export the following radiation source(s)  
.....

3. Others .....

Date ..... Signature of Holder .....

\*Delete whichever is not applicable

Date ..... Signature of Holder .....

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Form RPS/A/9

For official use only.

Reg. No. ....

Licence No. ....

Receipt No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

APPLICATION FOR LICENCE TO ADMINISTER IONIZING RADIATION TO PERSONS

1. Dr/Mr/Mrs/Miss/Messrs .....
2. Address .....
3. Plot and Street Nos of Residence .....
4. Place and date of birth .....
5. Nationality .....
6. Qualification and where and when obtained .....

.....  
.....  
.....

7. Testimonials covering the period of experience .....

.....  
.....  
.....  
(photocopies should be supplied)

8. Is this new/renewal \*application? .....

Date ..... Signature of applicant .....

Note: A fee is charged for the Licence.

\*Delete where not applicable

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence No. ....

Reg. No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

LICENCE TO ADMINISTER IONIZNG RADIATION TO PERSONS

Dr/Mr/Mrs/Miss .....

of

Qualification .....

is licensed by the Radiation Protection Board to

Administer

ionizing radiation to persons as indicated:

x-rays/isotopes/electron generator/neutron generator for therapeutic/diagnostic work at .....

.....

.....

(name of licensed facility) in accordance with the provisions of Section 21(1) of the Act.

Date ..... Signature of Holder .....

.....

*Chairman, Radiation  
Protection Board*

.....

*Secretary, Radiation  
Protection Board*

Conditions of Licence:

1. This licence is valid from ..... to .....

2. The licensee is authorised to administer ionizing radiation indicated above.

3. Others .....

\*Delete where not applicable



The Laws of Zambia  
REPUBLIC OF ZAMBIA

Form RPS/A/10

For official use only.

Reg. No. ....

Licence No. ....

Receipt No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972  
(Cap. 311)

APPLICATION TO INSTALL, SERVICE OR MAINTAIN RADIATION DEVICES OR RADIOACTIVE MATERIALS

1. Mr/Mrs/Miss/Messrs .....
  2. Address .....  
(include plot number, building, street, etc)
  3. Place and date of birth .....
  4. Nationality .....
  5. Academic Qualification .....
  6. Experience .....
  7. Is this new/renewal application? .....
- Date ..... Signature of applicant .....

Note: A fee is charged for the licence.

The Laws of Zambia  
REPUBLIC OF ZAMBIA

Licence No. ....

Reg. No. ....

Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972

(Cap. 311)

A LICENCE AUTHORIZING THE BEARER TO INSTALL, SERVICE OR MAINTAIN RADIATION DEVICES OR  
RADIOACTIVE MATERIALS

Name .....

of .....

Qualification .....

is licensed by the Radiation Protection Board to install, service or maintain radiation devices or radioactive materials in accordance with Section 21(1) of the Act and subject to the conditions imposed hereunder.

Conditions:

1. This licence is valid from ..... to .....

2. Others .....

.....

.....

*Chairman, Radiation  
Protection Service*

*Secretary, Radiation  
Protection Service*

Date ..... Signature of Holder .....

The Laws of Zambia  
REPUBLIC OF ZAMBIA

For official use only.

Licence No. ....

Reg. No. ....

Receipt No. ....

The Radiation Protection Board  
Ministry of Health  
P.O. Box 30205  
Lusaka

THE IONIZING RADIATION ACT, 1972  
(Cap. 311)

CERTIFICATE OF COMPLIANCE/ACCEPTANCE OF RADIATION PREMISES, DEVICE OR MATERIAL

This is to certify that the radiation premises/device/materials\* .....

of

Licence No. ....

Owned by

Has on this day ..... of .....

been inspected and found conforming with the Radiation Safety Regulations.

.....  
*Chief Radiation Protection Officer*

Date ..... Signature of Holder .....

\*Delete whichever is not applicable