LAWS OF KENYA

RADIATION PROTECTION ACT

CHAPTER 243

Revised Edition 2012 [1985]

Published by the National Council for Law Reporting
with the Authority of the Attorney-General

www.kenyalaw.org

CHAPTER 243

RADIATION PROTECTION ACT

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CHAPTER 243

RADIATION PROTECTION ACT

[*Date of assent: 29th December, 1982.*]

[*Date of commencement: 1st November, 1984.*]

An Act of Parliament to provide for the protection of the public and radiation workers from the dangers arising from the use of devices or material capable of producing ionizing radiation and for connected purposes

[L.N. 171/1984.]

PART I – PRELIMINARY

1. Short title

This Act may be cited as the Radiation Protection Act.

2. Interpretation

In this Act, unless the context otherwise requires—

"authorized person" means a medical practitioner who is a specialist in radiation medicine, a radiographer, a radio-physicist or any other person with special knowledge in safe handling of radiation sources;

"Chief Radiation Protection Officer" means the officer appointed under section 13;

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

"ionizing radiation" means gamma rays, alpha and beta particles, high speed electrons, neutrons, protons and other particles capable of producing ions directly or indirectly in their passage through matter;

"irradiating device" means an apparatus capable of producing ionizing radiation of a prescribed type;

"licence" means a licence issued under section 11;

"minimum significant quantity" means the quantity of radioactive material above which administrative control is required;

"owner" means the person having administrative control over a radiation source;

"public" means any person not designated as a radiation worker;

"radiation source" means any irradiating device or radioactive material;

"radiation worker" includes any person potentially exposed to ionizing radiation as a result of his occupation;

"radioactive material" means any material or substance emitting ionizing radiation.

3. Exemptions from safety requirements, etc.

(1) The radiation safety requirements prescribed under this Act shall not apply to patients undergoing medical treatment by exposure to ionizing radiation by or under the supervision of an authorized person.

(2) Subject to this Act, the Minister may, by notice in the *Gazette*, exempt any radioactive material with minimum significant quantities from the provisions of this Act.

(3) Subject to such exemptions as may be made in regulations made, or in a licence issued, under this Act, the standards of radiation protection to be observed for the purposes of this Act shall be those published under this Act or any guidelines established and published by the International Commission on Radiological Protection, the International Atomic Energy Agency or the World Health Organization.

PART II – ESTABLISHMENT OF THE BOARD

4. Establishment of the Board

There is hereby established a Board to be known as the Radiation Protection Board which shall perform the duties and have powers conferred on it by this Act.

5. Membership of the Board

(1) The Board shall consist of—

(a) a chairman appointed by the Minister;

(b) the Director of Medical Services;

(c) the following persons appointed by the Minister—

(i) a public officer nominated by the Minister for the time being responsible for labour;

(ii) a public officer nominated by the Minister for the time being responsible for higher education;

(iii) a public officer nominated by the Minister for the time being responsible for industry;

(iv) a public officer nominated by the Minister for the time being responsible for agriculture;

(v) a person nominated by the National Council for Science and Technology;

(vi) not more than two persons having special knowledge in safe handling of radiation sources;

(d) the Chief Radiation Protection Officer who shall act as the secretary to the Board but shall not vote on any matter brought before the Board.

(2) The members of the Board, other than *ex officio* members, shall hold office for a period of three years but shall be eligible for reappointment.

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

6. Meetings of the Board

(1) The Board shall meet at least four times in each year at such places and times as the chairman may appoint.

(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 at that particular meeting.

(3) The chairman or the person presiding at any meeting of the Board shall have a deliberative vote and in the case of an equality of votes shall also have a casting vote.

(4) The quorum necessary for the transaction of the business of the Board shall be six.

(5) Subject to the provisions of this section, the Board shall have power to regulate its own proceedings and may appoint such committees as it considers necessary for the transactions of its business.

7. Functions of the Board

Subject to the provisions of this Act, the Board shall have the following powers—

(a) to advise the Minister on matters relating to radiation protection and radioactive waste disposal;

(b) to implement the provisions of this Act and regulations made thereunder;

(c) to grant or refuse to grant or to extend licences issued under this Act and to impose any necessary conditions on a licence so granted;

(d) to keep a register of the owners of irradiating devices, radioactive materials and other sources of ionizing radiation imported into or manufactured in Kenya and of premises licensed to dispose of radioactive waste.

PART III – CONTROL AND USE OF RADIATION SOURCES

8. Control and use of radiation sources

(1) Subject to such exemptions as may be prescribed under regulations made under this Act, no person shall—

(a) manufacture or otherwise produce;

(b) possess or use;

(c) sell, dispose of or lease, loan or deal with;

(d) import or cause to be imported; or

(e) export or cause to be exported,

any irradiating device or radioactive material except under and in accordance with a licence issued under this Act.

(2) No person shall sell an irradiating device or radioactive material unless at the time of sale the purchaser produces to the vendor a valid licence authorizing him to use that type of irradiating device or radioactive material.

(3) For the purposes of subsection (1), an irradiating device or radioactive material shall be deemed to have been exported when it is placed on a ship, aircraft, train or any other vehicle within Kenya for the purposes of export.

9. Application of ionizing radiation to persons, etc.

(1) No person shall cause ionizing radiation to be applied to any other person for the purpose of diagnosing or treating a disease unless the application is prescribed by a medical or dental practitioner registered under the Medical Practitioners and Dentists Act (Cap. 253).

(2) No person shall administer ionizing radiation to another person unless he is in possession of a valid licence issued under this Act.

10. Notification of sale, etc.

(1) A person who sells an irradiating device or radioactive material shall submit to the Board a notice of every sale in the prescribed manner.

(2) An owner or user of an irradiating device or radioactive material shall notify the Board in writing his intention to acquire, store, install or use the device or material specifying the purpose for which it is required and the type of building or facility where the device or material is to be stored, installed or used.

(3) A notification under subsection (2) may be made by a person in charge of the supervision of radiation safety.

(4) An owner or user of a radiation facility shall notify the Board, within a period of one month, of any change in the facility which renders the information supplied by him under subsection (2) inaccurate.

PART IV – LICENSING PROVISIONS

11. Application for, and issue of, a licence

(1) A person who owns, purchases, acquires, imports, manufactures, sells or deals in, stores, uses, disposes of or exports any kind of irradiating device or radioactive material or any other source of ionizing radiation shall apply, in the prescribed form, to the Board for an appropriate licence or for a renewal of the licence.

(2) On receiving an application for a licence or for a renewal of a licence the Board may, on payment of the prescribed fee, issue to the applicant the appropriate licence or renew the licence.

(3) A licence issued under this section shall—

(a) be in the prescribed form;

(b) authorize the licensee to own, purchase acquire, import, export, possess, sell or deal in, store, install, use or dispose of, as the case may require, irradiating devices, radioactive materials or other sources of ionizing radiation;

(c) be specific with regard to the process, operation or facility;

(d) be valid for such period as the Board may determine at the time of granting or renewal;

(e) contain such other conditions as the Board deems necessary to impose for the safe disposal of all radioactive material resulting from the proposed operation, process or facility.

(4) A licence issued under this section may—

(a) be amended at any time on written notice to the holder by the Board, if in its opinion, the amendment is necessary for the purposes of public safety;

(b) be suspended or revoked by the Board if the holder fails to comply with the conditions contained in the licence or laid down in this Act or in any regulations made thereunder; and where a licence is suspended or revoked the holder shall take such steps as may be recommended by the Board to ensure that no radiation hazards occur.

12. Duties of licensees, etc.

(1) The holder of a licence shall be responsible for ensuring that exposure to ionizing radiation resulting directly or indirectly from its operation, conditions of storage, transport or disposal shall be kept as low as reasonably practicable below the prescribed limits.

(2) The owner of a facility shall appoint a person experienced in radiation health and safety measures as a radiation safety officer within the facility who shall ensure that—

(a) all persons using or working in the facility are supplied with at least one monitoring device and any other protective accessories necessary to carry out radiation procedures with the lowest reasonably achievable risk;

(b) all radiation workers employed within the facility are given proper instructions on radiation safety measures and receive a medical check-up after every six months;

(c) proper care is taken of radioactive wastes if they appear in the course of the use of radiation sources as described in the code of practice for protection of persons exposed to ionizing radiation and that the wastes are only disposed of in accordance with the licence granted for that purpose;

(d) exposure records are kept as prescribed in the code of practice for users of ionizing radiation;

(e) any other instructions that may be issued from time to time by the Board are implemented.

PART V – MISCELLANEOUS PROVISIONS

13. The Chief Radiation Protection Officer

There shall be a Chief Radiation Protection Officer who shall exercise such powers and functions as are provided for in this Act and in regulations made there under.

14. Powers of radiation protection officers

(1) The Chief Radiation Protection Officer or any person appointed as a radiation protection officer may—

(a) enter, inspect and examine any premises or any part thereof, booth, motor vehicle, vessel, aircraft or any other vehicle in or upon which he has reasonable cause to believe that an irradiating device, radioactive material or any other source of ionizing radiation is stored, used, transported or disposed of;

(b) require the production of a licence authorizing the use of any irradiating device, radioactive material or any other source of ionizing radiation, or a register or document kept under this Act, and inspect, examine or take copies thereof;

(c) make such examinations and enquiries as may be necessary to ascertain whether the provisions of this Act are being complied with;

(d) exercise such other powers as may be necessary for carrying out the provisions of this Act or regulations made thereunder.

(2) Every radiation protection officer shall be furnished with a certificate of his appointment signed by the Minister and when visiting a place to which the provisions of this Act apply, shall, if so required, produce that certificate to the occupier or person holding a responsible position of management or control of the facility at the premises in which an irradiating device, radioactive material or other source of ionizing radiation are believed to be present or to exist.

15. Appeals

(1) An applicant or licensee may appeal to the Minister against the cancellation, suspension or refusal to grant or renew a licence within one month of a notice given to him to that effect.

(2) The Minister may, on consideration of an appeal made under subsection (1), make such order as he deems proper and the order shall be final.

16. Offences and penalties

(1) A person who—

(a) wilfully obstructs the Chief Radiation Protection Officer or any other radiation protection officer in the exercise of his duties under this Act; or

(b) without reasonable excuse, fails to produce a register, licence, notice or document which he is required by or in pursuance of the provisions of this Act to produce; or

(c) wilfully withholds any information as to who is the owner or responsible for the management of a radiation source; or

(d) wilfully prevents or attempts to prevent any person from appearing before or being examined by a radiation protection officer,

shall be guilty of an offence and be liable to a fine not exceeding twenty thousand shillings or imprisonment for a term not exceeding one year or both.

(2) Notwithstanding subsection (1), a person who contravenes any of the provision of this Act relating to or in connection with the importation, possession,

transportation, use or disposal of irradiating devices, radioactive materials or any other sources of ionizing radiation without being in possession of a valid licence shall be guilty of an offence and shall be liable to imprisonment for a term not exceeding two years.

(3) Any act or omission which is an offence under this Act or any regulations made thereunder shall, if done by a body corporate, be deemed to be an offence committed by every director, secretary or manager of the body corporate 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 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 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 the circumstances of the case.

17. Institution of proceedings

The Chief Radiation Protection Officer or any radiation protection officer authorized by him in that behalf may institute proceedings in respect of an offence under this Act or any regulations made thereunder and may appear and prosecute in those proceedings.

18. Regulations

The Minister may, in consultation with the Board, make regulations for the better carrying out of the purposes and provisions of this Act and for prescribing—

(a) the precautions to be taken to prevent injury being caused by ionizing radiation to the health of persons employed in places where irradiating devices or radioactive materials are manufactured, produced, treated, stored, or used, or of other persons likely to be exposed to harmful radiation;

(b) methods of disposing of radioactive waste products from any source;

(c) the structural requirements of buildings, including dark-rooms used in connection with x-ray photography, where any radiation device, material or substance is manufactured, produced, treated, used or stored;

(d) the precautions to be taken to prevent injury being caused by the transportation of irradiating devices or radioactive materials to the health of persons engaged therein and other persons;

(e) the method of packing irradiating devices, radioactive materials or any other sources of ionizing radiation;

(f) marks to be placed on vessels, vehicles, packages or containers containing any irradiating devices, radioactive materials or any other sources of ionizing radiation;

(g) the method of treatment or disposal of any vessel, vehicle, package or container that has been used to convey, hold or store any irradiating device or radioactive material;

(h) the manner in which and the conditions subject to which irradiating devices or radioactive materials may be stored or used;

(i) the purpose for which any irradiating device or radioactive material may be exempted from the licensing requirements of this Act;

(j) the use of any specified irradiating device or radioactive material exempted from the licensing requirements of this Act;

(k) the maximum working hours of persons employed in the manufacture, production, treatment, storage or use of irradiating devices or radioactive materials, regulating the employment of those persons, the maximum holidays to be taken by such persons and the medical examination of those persons;

(l) the issue by medical and dental practitioners of prescriptions involving radiation sources;

(m) the dispensing and compounding of any prescription containing any radioactive material or substance;

(n) the making of returns by owners and persons in possession of irradiating devices, radioactive materials or other sources of ionizing radiation giving such details as may be required;

(o) the keeping by purchasers of irradiating devices, radioactive materials or any other sources of ionizing radiation of records specifying the purpose to which those substances are put, and the inspection of the records, and for the making of returns of entries in those records;

(p) the keeping of records of all applications of x-rays or radioactive materials for any specified purpose;

(q) the fees payable in respect of any licence;

(r) the classification of licences;

(s) the inspection, at such intervals as may be deemed to be necessary, of irradiating devices or radioactive materials and the fees to be paid in respect of such inspections;

(t) anything required or permitted to be prescribed under this Act.

19 Repeal

The Radiation Act (Cap. 243) is repealed.

CHAPTER 243

RADIATION PROTECTION ACT

SUBSIDIARY LEGISLATION

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RADIATION PROTECTION (STANDARDS) REGULATIONS, 1986

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9. Dose equivalent limits for individual members of the public.
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[Subsidiary]

RADIATION PROTECTION (STANDARDS) REGULATIONS, 1986

[L.N. No. 54/1986.]

1. Citation

These Regulations may be cited as the Radiation Protection (Standards) Regulations, 1986.

2. Interpretation

In these Regulations, unless the context otherwise requires—

"personnel monitoring" means measurement of a dose with a device such as a film badge, pocket ionization chambers, or thermoluminescent dosemeters, worn on an individual;

"dose equivalent" means the product of absorbed dose and the weighting factors;

"sieved" means an international standard unit of measurement equal to the absorbed dose multiplied by a weighting factor, a distribution factor or any other modifying factors;

"absorbed dose" means the amount of energy deposited by ionizing radiation per mass of the material;

"radionuclide" means a radioactive substance characterized by its atomic nucleus;

"threshold dose" means the minimal absorbed dose that will produce a detectable degree of any given effect;

"reproductive capacity" means the period in women commencing with the onset of menarche and ending with menopose.

3. Dose equivalent limits

(1) The dose equivalent limits specified in these Regulations 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 women of reproductive capacity in which the time-distribution of dose equivalent shall be taken into account.

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

(3) Dose equivalent limits shall not include contributions from natural background radiation or from medical exposure of patients to ionizing radiation.

(4) The stochastic and non-stochastic effects shall be considered in setting dose equivalent limits.

(5) For the purposes of these Regulations **"stochastic effects"** means the manifestations 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, whose effects shall be regarded as having no threshold while heredity effect and some somatic effects such as carcinogenesis shall be regarded as stochastic and the severity of stochastic effect, if it occurs, shall be independent of the size of the dose responsible for its induction; and

"non-stochastic effects" means the manifestations whose severity of effect varies with dose, and for which a threshold dose may therefore occur but below which the effects are not detectable at all such as cataract induction, non-malignant damage to skin, hematologic deficiencies and impairement of fertility.

4. Dose equivalent limits for radiation workers

(1) Dose equivalent limits for radiation 'workers are specified in these Regulations with the aim of preventing occurrence of nonstochastic effects in any individual tissue and for limiting the occurrence of stochastic effects and; they the upper limits which should not be exceeded under normal conditions of exposure.

(2) To prevent non-stochastic effects, the dose equivalent limit for radiation workers shall be 0.5 Sv per year in any tissue except the lens of the eye, and 0.15 Sv per year in the lens of the eye.

(3) To prevent the occurrence of stochastic effects the dose equivalent limits for radiation workers in uniform exposure to ionizing radiation shall be 50 mSv per year.

(4) Effective dose equivalent is computed by summing up the product on individual tissue doses and multiplying it with the weighting factors set for the different tissues in the First Schedule.

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

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

(7) The feet, ankles, the skin and the lens of the eye shall not be included in the computation of effective dose equivalent but the relevant dose equivalent limits given in regulation 4(2) shall apply to these tissues.

(8) The effective dose equivalent for radiation workers shall not exceed 50 mSv per year.

(9) The dose equavalent limit for radiation workers shall be the non-stochastic limit given in regulation 4(2) or the stochastic limit given in regulation 4 (8) whichever is the lower.

5. Occupational exposure of women of reproductive capacity

(1) In women of reproductive capacity, pregnancy and the possibility of early unrecognized pregnancy should be taken into account before exposure to ionizing radiation.

(2) For women of reproductive capacity the embryo should not receive more than 5 mSv during the first two months of pregnancy.

(3) In women of reproductive capacity, regard shall be paid to the time-distribution of doses received and the doses should as far as possible be distributed evenly throughout the year.

(4) When pregnancy is diagnosed, the dose received by the foetus throughout the pregnancy shall not exceed 10 mSv.

6. Annual limit of intake of radionuclides

(1) The contribution of internal exposure to the dose equivalent, of annual limits intake or dadionuclides by the workers shall not exceed the annual dose limits set out in regulation 4(3) to 4(7), provided there is no contribution from external exposure.

(2) The value of annual limits of intake for single radionuclides and the corresponding derived air concentration are set in the Third Schedule.

(3) When there is an intake of more than one radionuclide during a working year, the sum of the weighted contributions of the various radionuclides to the dose equivalent shall not exceed the limits set out in regulation 4(3) to 4(7).

(4) When a worker who is exposed through intake or to radionuclides is also exposed externally, the provisions of regulation 4(3) shall be observed.

7. Planned special exposures

(1) The planned special exposure, hereafter referred to as emergency operations for radiation workers, referred to in recommendations of the International Commission of Radiological Protection shall not be permitted under these Regulations.

(2) Workers involved in emergency operations shall be informed by the owner of the involved radiation facility about the nature of the risks and must consent to such exposures before undertaking the special operations.

(3) Following the exposure, every effort shall be made to estimate the dose equivalent received by the workers involved and expert medical advice shall be sought.

8. Personal monitoring

(1) Dose equivalent received by radiation workers shall be assessed through personal monitoring.

(2) Personal monitoring for radiation workers shall be carried out over regular intervals of at least once every month.

9. Dose equivalent limits for individual members of the public

(1) Dose equivalent limits to members of the public shall be used in the planning of radiation facilities.

(2) Dose equivalent limits for individual members of the public shall in all cases be one-tenth of those for radiation workers set under regulation 4.

(3) Doses received by members of the public need not be regulated through personal monitoring.

10. Dose equivalent limits for student in educational institutions

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

11. Dose equivalent limits for teaching staff and technicians in the education institutions

Dose equivalent limits for teaching staff, instructors technicians and laboratory assistants at all educational institutions shall in all cases be the same as those for radiation workers.

12. Medical exposure

(1) Medical exposure is the intentional exposure of patients for diagnostic and therapeutic purposes under the supervision of authorized medical personnel, and the exposure resulting from the artificial replacement of body organs or functions.

(2) No dose equivalent limits are set for medical exposure, but medical personnel should adhere to the basic principles in radiation protection of the patient, that is—

(a) unnecessary exposures should be avoided;

(b) necessary exposures should be justifiable in terms of benefits that would not otherwise have been received;

(c) the dose actually administered should be limited to the minimum amount consistent with the medical benefit to the individual patient.

13. Schedules

The Schedules to these Regulations shall be the **"Schedules to the Radiation Protection (Standards) Regulations"** published by the Government Printer which shall be construed as one with these Regulations.

RADIATION PROTECTION (SAFETY) REGULATIONS, 2010

ARRANGEMENT OF REGULATIONS

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2. Application.
3. Interpretation.
4. Use of radiation sources, etc.
5. Classification of radiation areas.
6. Approval of plans.
7. Radiation facilities.
8. Interim certificate.
9. Warning signs.
10. L.N. 55/1986.

FIRST SCHEDULE – RADIATION SIGNS
SECOND SCHEDULE APPLICATION FORMS
THIRD SCHEDULE RADIATION FACILITIES FEES

[Subsidiary]

RADIATION PROTECTION (SAFETY) REGULATIONS, 2010

[L.N. 160/2010.]

1. Citation

These Regulations may be cited as the Radiation Protection (Safety) Regulations, 2010.

2. Application

These Regulations shall apply to the safety of radiation sources and workers.

3. Interpretation

In these Regulations, unless the context otherwise requires—

"controlled radiation area" means a place where the use of irradiating devices or radioactive materials is restricted to the dose equivalent rates of 0.25 mSv/hr and below;

"restricted radiation area" means a place where procedures with irradiating devices or radioactive materials are restricted to the average dose equivalent rates exceeding 0.25 mSv/hr;

"uncontrolled radiation area" means a place within the confines of a radiation facility where the external radiation or radioactive communication are not detectable;

"warning sign" means any of the radiation signs set out in the First Schedule.

4. Use of radiation sources, etc.

(1) No person shall put to use any radiation source in connection with the installation or use of irradiating devices or the use or storage of radioactive materials without a certificate or a licence in the form set out in the Second Schedule.

(2) The fees prescribed in the Third Schedule shall be payable in relation to the matters specified therein.

5. Classification of radiation areas

(1) The areas where radiation sources are to be used or installed shall be clearly shown and classified as—

(a) restricted radiation area; or

(b) controlled radiation area; or

(c) uncontrolled radiation area.

(2) The boundaries of restricted and controlled areas shall be designated by walls or doors or demarcated with warning signs of the appropriate area.

(3) Access to the restricted areas shall be under strict control of the radiation safety officer.

(4) Access to the controlled areas shall be limited to personnel who are directly engaged in radiation work and entry to the area by other personnel shall be under the consent of the person responsible for the radiation safety and plans may be required to include access restrictions.

6. Approval of Plans

(1) The design plans of all buildings to be used for radiation sources installation shall require approval by the Board as being safe for the radiation protection of workers and the members of the public.

(2) The applicant for the approval of building plans shall submit to the Boardan architectural drawing for the building, specifying the type of irradiating devices or radiation sources to be installed, used or stored in the facility.

(3) Plans for modification of licensed buildings shall be submitted to the Board for approval as new applications.

(4) All plans for buildings used with radiation sources installation shall be designed to ensure that persons in adjoining facilities or persons within the vicinity are appropriately protected from radiation exposure in accordance with the dose equivalent limits set out in the Schedules to the Radiation Protection (Standards) Regulations, 1986, (L.N. 54/1986, Sub. Leg.).

(5) All plans for buildings to be used for radiation sources installation shall indicate suitable radiation shielding materials for restricted, controlled and uncontrolled areas and copies of the plans including specification relevant to radiation protection shall be readily available at the building site.

7. Radiation facilities

(1) Buildings where radiation sources are used, stored or disposed, shall be inspected before being put to use in order to establish that the approved plans have been followed and that the shielding is such as to provide adequate protection to the workers and the general public in accordance with dose equivalent limits set out in the Schedules the Radiation Protection (Standards) Regulations, 1986 (L.N. 54/1986, Sub. Leg.).

(2) The radiation sources installed in any buildings shall be inspected before being put to use to ensure that the mode of operation or use of the installations provide adequate protection from external or internal radiation exposure to workers and the public as is required in the dose equivalent limits set out in the Schedules to the Radiation Protection (Standards) Regulations, 1986 (L.N. 54/1986, Sub. Leg.).

(3) The approved radiation facilities shall be inspected by or on behalf of the Board in order to ensure that proper radiation protection procedures are followed when using the facilities together with use of appropriate warning signs.

8. Interim certificate

An interim certificate for the use of a radiation facility shall be submitted to the Board when applying for a licence under section 11 of the Act, and shall be in the prescribed form.

9. Warning signs

(1) The basic warning sign of the presence of ionizing radiation shall be in the form prescribed in the First Schedule.

(2) The warning signed shall be supplemented with the words “Radioactive material” or **“Radiation area”**.

(3) The warning sign when referring to radioactive material present in a building shall give the category of the material in accordance with the International Atomic Energy Agency’s transport index categories, and shall give the principal radioactive substances and the radioactivity.

(4) The warning sign when referring to the presence of an irradiating device shall be supplemented with red lights placed at noticeable controlled areas of access when the device is on and exposing radiation.

(5) The warnings sign shall be in black and shall be placed on yellow or white background.

10. L.N. 55/1986

The Radiation Protection (Structural Requirements and Inspection of Buildings) Regulations, 1986, are revoked.

FIRST SCHEDULE

[Regulation 2 and 9.]

RADIATION SIGNS

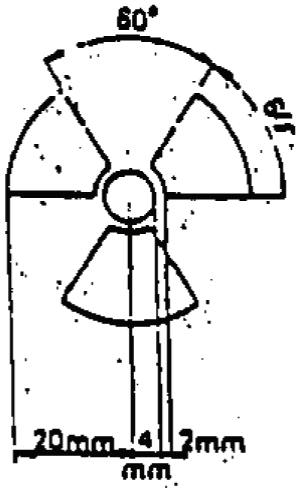

Fig. 1 Basic trefoil symbol with proportions based on a central circle of radius 4 mm.

Fig. 2 Category I—WHITE label

FIRST SCHEDULE—*continued*

The area in the lower half of the label may be utilized for inspection of the UN class 7 code number for radioactive materials, or other hazard identification codes, letters, etc., as may be required from time to time by the Radiation Protection Board. Dimensions given here are the actual ones to be used.

Fig. 3 Category II—YELLOW label

The area in the lower half of the label (beneath the transport index block) may be utilized for the insertion of the UN class 7 Code under for radioactive materials, or other hazard identification codes, letters, etc., as may be required by the Radiation Protection Board. Dimension given here are the actual ones to be used.

Fig. 4 Category III—YELLOW label

The area in the lower half of the label (beneath the transport index block) may be utilized for the insertion of the UN class 7 Code number for radioactive materials, or other hazard identification codes, letters, etc., as may be required by the Radiation Protection Board. Dimensions given here are the actual ones to be used.

FIRST SCHEDULE—*continued*

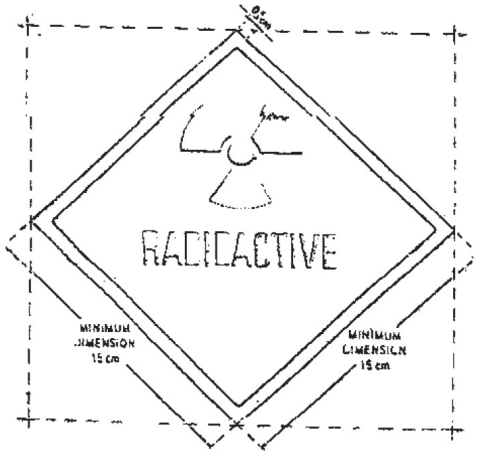

Fig. 5. Placard for vehicles

The overall shape of the placard may be diamond, rectangular or square as indicated by the dashed line. Minimum dimensions are given; when larger dimensions are used the relative proportions must be maintained. A contrasting colour other than white may be used for the background. The lower half of the placard may be utilized for other hazard identification codes, letters, etc., as may be required by other regulations, conventions, etc., pertaining to emergency incident information systems for all classifications of dangerous goods.

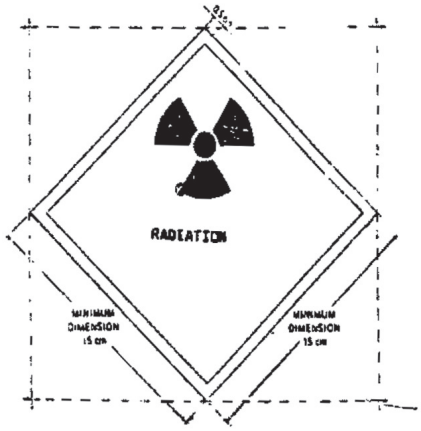

Fig. 6. Placard for radiation devices or radiation areas.

For dimensions see figure 5 above

SECOND SCHEDULE

FORM GKLRP 1 **(r. 4)**

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RADIATION PROTECTION BOARD

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Fax: +254-20-2714383
Email: rpbkenya@nbnet.co.ke

APPLICATION FOR REGISTRATION AND LICENCE TO DEAL/IMPORT/EXPORT/TRANSPORT IRRADIATING DEVICE OR RADIOACTIVE MATERIAL*

1. Name of applicant .....
   Postal Address .....
   Physical Address .....
   Tel. .....
   Fax .....
   E-mail .....
2. Business Registration No* .....
3. Is this a New/Renewal application? .....
   If Renewal, provide Radiation Protection Board Registration No. .....
4. Description of irradiating devices or radioactive materials—
   (i) Brief description of irradiating device(s) or radioactive material(s)*
   .....
   .....
   (ii) Cost of the device or material KSh* .....
   (In words .....
5. Do you have manufacturer's certification? Yes* ..... No .....
6. Origin/destination of the irradiating device or radioactive material—
   (i) Point of origin and address .....
   (ii) Destination and address .....
   (iii) No. of packages .....
   (iv) Source strength ratings (KV/mA/MeV/Bq/Ci, e.t.c.) .....
   (v) Mode of transportation and storage conditions .....
   .....
   (vi) Precautionary measures during transportation .....
   .....
7. Describe the purpose for which the irradiating device(s) or radioactive material(s) will be used (e.g. medical, scientific, industrial, etc.) .....
   .....
8. Radiation Safety Officer in case of radioactive material or installation engineer incharge in case of irradiating device.
   Name .....
   Radiation Protection Board Registration No. .....
   Radiation Protection Board Licence No. .....
   Designation .....
   Alternative contact address .....

SECOND SCHEDULE, FORM GKLRP 1—*continued*

9. List of other Radiation Safety Officers/Engineers (use separate sheet if necessary)

Name	*Registration No.*	*Licence No.*
.....	.....	.....
.....	.....	.....

10. Declaration by Applicant:

I ..... hereby declare and certify that the information given in this application including attachments thereto is true and correct to the best of my knowledge and belief.

Date: ..... Signature: .....

Designation: .....

Official Stamp:

Notes:

1. X-Ray generators up-to 50mA shall not be used for general medical diagnosis.
2. The dealer shall notify the Radiation Protection Board of every sale of irradiating device(s) or radioactive material(s).
3. No sale of irradiating device or radioactive material is permitted unless the purchaser is duly registered by the Radiation Protection Board.
4. Disposal of irradiating device or radioactive material must be certified by the Radiation Protection Board.

* Attach certificate from the manufacturer, technical specifications of irradiating device(s) or radioactive material(s) proof of cost, architectural drawings of the storage facility, Business Registration Certificate or delete as necessary.

FORM GKLRP 2

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RADIATION PROTECTION BOARD

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Email: rpbkenya@nbnet.co.ke

APPLICATION FOR REGISTRATION AND/OR LICENCE TO POSSESS OR USE IRRADIATING DEVICE/RADIOACTIVE MATERIAL

1. Name of applicant .....
   Postal Address .....
   Physical Address .....
   Tel. .....
   Fax .....
   E-mail .....
2. Business Registration No* .....
3. Type of Radiation facility under application .....
   (See Third Schedule under Radiation Protection regulations)
4. Is this a New/Renewal application? .....
   If Renewal, provide Radiation Protection Board Registration No. .....

SECOND SCHEDULE, FORM GKLRP 2—*continued*

5. Describe the purpose for which the irradiating device or radioactive material will be used (e.g. medical, scientific, industrial, e.t.c) .....
6. Description of the irradiating device or radioactive material—
   (i) Brief description of the irradiating device or radioactive material* .....
   .....
   (ii) Name and contact of supplier .....
   (iii) Cost of the irradiating device or radioactive material KSh* .....
   (In words .....)
   (iv) Name and contact of service engineer .....
   .....
7. Brief description of the irradiation premises (e.g. open, enclosed, building material used, location of irradiating device or radioactive material in the building, etc.)* .....
   .....
   .....
8. Radiation Safety Officer:
   Name .....
   Radiation Protection Board Registration No. .....
   Radiation Protection Board Licence No. .....
   Designation .....
   Alternative contact address .....
9. Names of operators/users (use separate sheet if necessary)

Name	*Registration No.*	*Licence No.*
.....	.....	.....
.....	.....	.....

10. Declaration by Applicant:

I ..... hereby declare and certify that the information given in this application including attachments thereto is true and correct to the best of my knowledge and belief.

Date: ..... *Signature:* .....

Designation: .....

Official Stamp:

Notes:

1. X-Ray generators up-to 50mA shall not be used for general medical diagnosis.
2. Radiation Safety Inspections shall be carried out only by Radiation Protection Board certified service provider for purposes of licensing.
3. Disposal of irradiating device or radioactive material must be certified by the Radiation Protection Board.

* Attach technical specifications of device or material, proof of cost, architectural drawings of the irradiation premises and Business Registration Certificate, as applicable.

SECOND SCHEDULE—*continued*

FORM GKLRP 3

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APPLICATION FOR DISPOSAL OF AN
IRRADIATING DEVICE/RADIOACTIVE MATERIAL/WASTE

1. Name of applicant .....
   Postal Address .....
   Physical Address .....
   Tel. .....
   Fax .....
   E-mail .....
2. (i) Type of Radiation facility (e.g. medical, scientific, industrial, etc.) .....
   (ii) Radiation Protection Board Registration No. .....
   (iii) Radiation Protection Board License No. .....
3. Specify irradiating device, radioactive material or radioactive waste to be disposed of .....
   .....
   Also indicate;
   (i) Sealed or unsealed .....
   (ii) Source strength rating (KV/mA/MeV/Bq/Ci, etc.) ..... (as appropriate)
   (iii) Physical/chemical form .....
4. Give name(s) and contact(s) of Radiation Protection Board certified service provider(s) .....
   .....
   .....
   Preferred method of disposal*.....
   Intended start date of disposal process .....
5. (i) If item 4 above is not applicable, describe alternative method of disposing exempt level radionuclides and electrical radiation generators (e.g. through sewerage, solid waste tipping, burial, incineration, restricted storage, etc.)
   .....
   .....
   .....
   (ii) Describe measures to ensure radiation safety standards are maintained during the disposal exercise .....
   .....
   (iii) Estimate the expected radionuclide concentration levels in the environment (disposal route sediments) after disposal.
   .....
   .....
6. Declaration by Applicant:
   I ..... hereby declare and certify that the information given in this application including attachments thereto is true and correct to the best of my knowledge and belief.

Date: ..... *Signature:* .....

Official Stamp:

SECOND SCHEDULE, FORM GKLRP 3—*continued*

Notes:

1. Radioactive materials shall not be mixed for purposes of disposal as radioactive waste.

* Attach a detailed proposal for the disposal by the service provider.

FORM GKLRP 4

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APPLICATION FOR REGISTRATION AND/OR LICENSING OF RADIATION WORKERS

1. Name of applicant .....
   ID/Passport No ..... (Attach copy)
   Nationality .....
   Postal Address .....
   Physical Address .....
   Tel. .....
   Fax .....
   E-mail .....
2. Is this a New/Renewal application? .....
   If Renewal, provide Radiation Protection Board Registration No. .....
3. Type of practice (e.g. medical, industrial, engineering, scientific, etc) .....
4. Academic Qualifications* .....
   .....
5. Professional qualification in radiation safety* .....
6. Are you a Member of a recognized Professional Body/Association?
   YES* ..... NO .....
   If YES, which one(s) .....
7. *Declaration by Applicant*:
   I ..... hereby declare and certify that the information given in this application including attachments thereto is true and correct to the best of my knowledge and belief.

Date: ..... *Signature:* .....

Designation: .....

Notes:

1. A radiation worker is required by law to undergo medical examination and be monitored for radiation dose.

* Attach academic, professional and professional association membership certificates.

SECOND SCHEDULE—*continued*

FORM GKLRP 5

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RADIATION PROTECTION BOARD

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

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Email: rpbkenya@nbnet.co.ke

APPLICATION FOR REGISTRATION AND/OR CERTIFICATION OF SERVICE PROVIDER

1. Name of applicant .....
   Postal Address .....
   Physical Address .....
   Tel. .....
   Fax .....
   E-mail .....
2. Business Registration No.* .....
3. Is this a New/Renewal application? .....
   If Renewal, provide Radiation Protection Board Registration No .....
4. (i) Type of service under application .....
   (ii) Brief description of service to be provided .....
5. Radiation Safety Officer:
   Name .....
   Radiation Protection Board Registration No. .....
   Radiation Protection Board Licence No. .....
   Designation .....
   Alternative contact address .....
6. Give name(s), contact(s) and qualifications of competent personnel* .....
   .....
   .....
7. *Declaration by Applicant*:
   I ..... hereby declare and certify that the information given in this application including attachments thereto is true and correct to the best of my knowledge and belief.

Date: ..... *Signature*: .....
Designation: .....

Official Stamp:

Notes:

1. Service provider's operation shall be verified by the Radiation Protection Board for purposes of certification.
2. A separate application form shall be used for each service under consideration.

* Attach Business Registration Certificate, Company Profile including Referees and Curriculum Vitae of experts engaged by the company.

SECOND SCHEDULE—*continued*

FORM GKLRP 6

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RADIATION PROTECTION BOARD

Ref: .....
Reg. No. .....
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Receipt No .....

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Fax: +254-20-2714383
Email: rpbkenya@nbnet.co.ke

APPLICATION FOR REGISTRATION/LICENSING/CERTIFICATION FOR ANY OTHER PURPOSE*

1. Name of applicant .....
   ID/Passport No .....
   (Attach copy)
   Nationality .....
   Postal Address .....
   Physical Address .....
   Tel. .....
   Fax .....
   E-mail .....
2. Describe the purpose for which this application is being made .....
   .....
   .....
   .....
3. Other relevant Radiation Protection Board Registration No(s) .....
4. Other relevant Radiation Protection Board Licence No (s). .....
5. List of Radiation Workers.

Name Profession	*RPB Reg No.*	*RPB Licence No.*	*Designation*
(a)	.....	.....	.....
(b)	.....	.....	.....
(c)	.....	.....	.....

6. Declaration by Applicant:
   I ..... hereby declare and certify that the information given in this application including attachments thereto is true and correct to the best of my knowledge and belief.

Date: ..... Signature: .....
Designation: .....

Official Stamp:

Notes:

1. Radiation Protection Services shall be carried out only by Radiation Protection Board certified service provider for purposes of licensing or certification.
2. Attach all relevant material to support this application.

* This application form is for purposes other than those already indicated on GKLRP 1,2,3,4 and 5.

SECOND SCHEDULE—*continued*

FORM GKLRP 7

REPUBLIC OF KENYA

RADIATION PROTECTION BOARD LICENCE/CERTIFICATE

Serial No .....

File Ref. No ..... Licence Ref. No. .....

This Licence/Certificate is Granted to: .....

.....

Company's Reg. No. ..... Board Reg. No. .....

of P. O. Box .....

Tel. No. .....

for the purpose of .....

.....

at (physical location) .....

Validity of Licence/Certificate:

(Delete (i) or (ii) below as appropriate)

(i) Interim Licence/Certificate .....

(ii) This licence is valid from ..... to .....

(iii) Issued this ..... day of ..... Year .....

Issuing Officer:

.....

Secretary & Chief Radiation Protection Officer

Official Stamp

Conditions of Licence:

1. This Licence is issued without any alteration or erasure and may not be amended in any way.
2. It is the responsibility of the Licensee to ensure compliance with the provisions of the Act and any other conditions (documentary and otherwise) that may be imposed by the licensing authority.
3. This Licence is not transferable.
4. Only the original of this licence shall be valid.

THIRD SCHEDULE

[Regulation 4(2).]

A. POSSESSION OR USE OF RADIATION FACILITIES

		KSh.
1	Registration (once)	1,000
2	Levy for new Irradiating Device or Radioactive Material (once)	1% C.I.F (KSh.1,000 minimum)

THIRD SCHEDULE—*continued*

3 Licensing of Radiation Facility (annual)

Type of Radiation Facility	Risk Level*	
Simple Dental X-Ray; Mammography; Low energy X-Ray goods scanner; Veterinary Diagnostic X-Ray; X-Ray Fluorescence analylizer (XRF); Point/Check source; Lightning preventer; or Any other practice whose occupational exposure is unlikely to exceed the dose limit in two running years under normal licence operating conditions; or Any radioactive material that qualifies as Category 5 under current IAEA classification of sources and practice.	**Low**	2,000
Tomographic X-Ray; General Fluoroscopy; OrthoPantomoGraphy (OPG); Bone densitometer; General Medical Radiography; Low Dose Rate Brachytherapy; Moisture/Density/Level/Thickness gauge; Well logging gauge; or	**Medium**	4,000
Any other practice whose occupational exposure is unlikely to exceed the dose limit in one running year under normal licence operating conditions, or Any radioactive material that qualifies as Category 3 or 4 under current IAEA classification of sources and practice.	**Medium**	4,000
Nuclear Medicine; Interventional Radiology; Teletherapy; High/Medium Dose Rate Brachytherapy; High energy X-Ray goods scanner; Irradiator; Industrial radiography; Open radioactive source; or Any other practice whose occupational exposure is unlikely to exceed the dose limit in 6 running months under normal licence operating conditions, or Any radioactive material that qualifies as Category 1 or 2 under current IAEA classification of sources and practice.	**High**	8,000

THIRD SCHEDULE—*continued*

4. Licensing for Disposal activities		
Irradiating Device	**High**	1,000
Radioactive Material (per radionuclide)		500
Mixed Radioactive Waste* (per consignment)		1,000

* Radioactive materials shall not be mixed for purposes of disposal as radioactive waste

B. CORPORATE AND PERSONAL LICENCE/CERTIFICATE

1. Dealer	KSh.	Certification Fee Payable by Service Provider (KSh.)
Registration (once)	10,000	–
Licensing (annual)	10,000	–
2. Radiation worker		
Registration (once)	1,000	–
Licensing (annual)	1,000	–
3. Service Provider		
Registration (once)	10,000	
Certification (annual):		
- Personal Radiation Monitoring (Dosimetry)	10,000	100 per person p.m.
- Radiation safety assessment e.g.	10,000	
Irradiation Facility Quality Assurance and Control Tests,		
Assessment of irradiation premise,		
Code of Practice development etc.		
-Radioanalysis of consumer products, environmental samples, e.t.c		500 per verification
-Calibration of nuclear Instrumentation		
-Radioactive Waste Management		
-Transport of radioactive Materials		
-Others as specified under Certificate		

*Radioactive facilities will be inspected for licensing purposes as follows:

(a) Low risk – at least once in two years;

(b) Medium risk – at least once every year;

(c) High risk – at least once every six months; or as directed by the Board from time to time.