Republic of the Philippines Department of Science and Technology

# PHILIPPINE NUCLEAR RESEARCH INSTITUTE

Commonwealth Avenue, Diliman, Quezon City

# APPLICATION FOR A RADIOACTIVE MATERIAL LICENSE (BRACHYTHERAPY)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INSTRUCTIONS:** To complete this application, refer to Part 14 of the Code of PNRI Regulations and the corresponding Regulatory Guide for the Preparation of Application for the Medical Use of Radioactive Material in Brachytherapy. Submit an original and one copy of the completed application, with the specified license fee and all required attachments, to the Nuclear Regulations, Licensing, and Safeguards Division of the Philippine Nuclear Research Institute, Commonwealth Avenue, Diliman, Quezon City.    This is an application for: (Check appropriate box)   |  |  |  | | --- | --- | --- | |  | 1. NEW LICENSE |  | |  | 1. AMENDMENT TO LICENSE NUMBER | **Enter text.** | |  | 1. RENEWAL OF LICENSE NUMBER | **Enter text.** | |

1. **NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE**

(Attach copy of SEC registration and business permit issued by the responsible government agency.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Hospital/Institution: | | | | Enter text. | | |
| Address: | Enter text. | | | | | |
| Head of the Company: | | | | | Enter text. | |
| Telephone/Mobile Phone Number: | | | | | | Enter text. |
| Fax Number: | | Enter text. | | | | |
| E-Mail Address: | | | Enter text. | | | |

# PERSON TO BE CONTACTED ABOUT THIS APPLICATION

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Full Name: | Enter text. | | | | |
| Position/Title: | | | Enter text. | | |
| Address: | Enter text. | | | | |
| Telephone: | Enter text. | | | | |
| Mobile Phone Number: | | | | | Enter text. |
| Fax Number: | | Enter text. | | | |
| E-Mail Address: | | | | Enter text. | |

1. **RADIOACTIVE MATERIAL AND PURPOSE OF USE**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Isotope (Element/ Mass Number)** | **Manufacturer** | **Date of Manufacture** | **Date of Purchase** | **Source Model/ Serial Number** | **No. of Sealed Sources** | **Maximum Activity in each Sealed Source** | **Purpose of Use** |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

1. **LOCATION(S) OF USE** (Attach location map or building plan.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Address: | Enter text. | | | |
| Room No.: | Enter text. | | | |
| Telephone/Mobile Phone Number: | | | | Enter text. |
| Fax Number: | | Enter text. | | |
| E-Mail Address: | | | Enter text. | |

1. **PROPOSED WORKERS** (Accomplish Attachments A, B, C and D for the training and experience of each person named below and submit certificates of relevant trainings).

|  |  |  |  |
| --- | --- | --- | --- |
| **Worker** | **Name** | **Position/Title** | **Other Affiliated Institutions** |
| Authorized Users (Physicians) | Enter text | Enter text | Enter text |
| Enter text | Enter text | Enter text |
| Enter text | Enter text | Enter text |
| Medical Physicist | Enter text | Enter text | Enter text |
| Radiation Protection Officer (RPO) | Enter text | Enter text | Enter text |
| Assistant RPO | Enter text | Enter text | Enter text |
| Radiotherapy Technologists | Enter text | Enter text | Enter text |
| Enter text | Enter text | Enter text |
| Enter text | Enter text | Enter text |

1. **REPRESENTATION IN THE RADIATION SAFETY COMMITTEE.** List the names of the members that compose the committee and their position or designation in the Institution, educational degree, address (department, building, room number) in the hospital, and telephone number. Use separate sheet.
2. **FACILITIES** (Use separate sheets if necessary).

**Description of the Facility.** Describe the facilities and submit annotated plans and drawings or sketches of rooms where radioactive material will be used and stored, indicating wall thickness, materials of construction, shielding, conduits or ventilation ducts. Describe the viewing systems, warning systems and safety interlock systems and adjacent areas.

**Description of Isolation Room for Radioactive Patients**. Describe the isolation room and provide a sketch of the room showing bed location, toilet and bathroom, dimensions, materials of construction, wall thickness, provisions for ventilation and description and level of occupancy of the adjacent areas. Provide dose rate and shielding calculations.

# EQUIPMENT/INSTRUMENTS/DEVICES

* 1. **Equipment**

# For Remote After-Loading Brachytherapy Unit.

|  |  |
| --- | --- |
| Type of radioactive source: | Enter text |
| Manufacturer of the equipment: | Enter text |
| Date of manufacture: | Enter text |
| Model number of the equipment: | Enter text |
| Serial number of the equipment: | Enter text |
| Date of purchase: | Enter text |
| Name & Address of institution who will  provide repair and maintenance service on the equipment: | Enter text |
| Power output of the machine: | Enter text |
| Equipment features such as alarms,  electrical interlocks, and automatic source withdrawal interlock: | Enter text |
| International standards to which the  equipment and sources conform (e.g., IEC, ISO): | Enter text |

# For Manual After-Loading Device

|  |  |
| --- | --- |
| Source storage and transport container: | Enter text |
| Source handling devices and accessories  (such as tongs, lead containers, etc.): | Enter text |
| Radiation protection barrier during manual  source loading in patient: | Enter text |

# Radiation Detection/Measurement Survey Instruments

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Instrument** | **Model No./ Serial No.** | **Manufacturer** | **Radiation Detected**  (,,, etc.) | **Sensitivity Range**  (mSv/h) | **Window Thickness**  (mm) | **Intended Use** | **Date of Initial Use** |
| Enter text | Enter text | Enter text | Enter text | Enter text | Enter text | Enter text | Enter text |
| Enter text | Enter text | Enter text | Enter text | Enter text | Enter text | Enter text | Enter text |

* 1. **Personnel Monitoring Devices**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Film Badge | No. of Units | Enter text |
|  | TLD | No. of Units | Enter text |
|  | Pen Dosimeter | No. of Units | Enter text |
|  | Others | No. of Units | Enter text |

1. **RADIATION SAFETY PROGRAM. (**Check appropriate space and attach the required information. Additional specific procedures may be required as may be deemed necessary.)

|  |  |  |
| --- | --- | --- |
| **Description** | **Attached** | **Remarks** |
| 9.1 ALARA Program |  | Enter text. |
| 9.2 RSC Duties & Responsibilities |  | Enter text. |
| 9.3 RPO Authorities, Duties and Responsibilities |  | Enter text. |
| 9.4 Training Program |  | Enter text. |
| 9.5 Personnel Monitoring Program |  | Enter text. |
| 9.6 Calibration of Survey Instruments |  | Enter text. |
| 9.7 Leak Test Program |  | Enter text. |
| 9.8 Radiation Survey Program |  | Enter text. |
| 9.9 Operating Procedures |  | Enter text. |
| 9.10 Radiation Control Procedures |  | Enter text. |
| Procedure for Release of Patients with Permanent Implants |  | Enter text. |
| Procedure for Release of Patients with Temporary Implants |  | Enter text. |
| Procedure for Control of Public Exposure |  | Enter text. |
| Procedure for Visitor Control |  | Enter text. |
| 9.11 Emergency Procedures |  | Enter text. |
| 9.12 Decommissioning Plan |  | Enter text. |

1. **SECURITY OF SEALED SOURCES.** For Category 2 sources, submit a Security Plan in accordance with CPR Part 26; for Category 4 & 5 sources, e.g., Cs-137 and I-125, submit security measures.
2. **MANAGEMENT OF DISUSED SEALED SOURCES.** Submit a detailed description of methods of disposal of disused sealed sources. If disused sealed sources are to be returned to original supplier or manufacturer, submit a copy of agreement with the original supplier or manufacturer.)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **APPLICATION FEE:** | | Enter text. | Official Receipt No.: | | | Enter text. | |
|  | |  | Date: | Enter text. | | | |
| **LICENSE FEE:** | Enter text. | | Official Receipt No.: | | | Enter text. | |
|  | |  | Date: | | Enter text. | |

# CERTIFICATION.

The applicant understands that all statements and representations made in this application are binding upon the applicant. The applicant or any official executing this certification on behalf of the applicant certifies that this application is prepared in conformity with the applicable requirements in the Code of PNRI Regulations and that all information contained herein are true and correct to the best of his knowledge and belief.

|  |
| --- |
|  |
|  |
| Signature of Certifying Official Over Printed Name |
|  |
| Enter text. |
| Title/Position of Certifying Official |
|  |
| Enter text. |
| Date |

# ACKNOWLEDGEMENT.

{Republic of the Philippines}

{ }

Before me, a Notary Public for and in the above jurisdiction, personally appeared the following persons:

CTC No. Date/Place Issued

CTC No. Date/Place Issued

both known to me to be the same persons who executed the foregoing application and all attachments, and acknowledged to me the same to be their free and voluntary act and deed.

Notary Public

Doc. No.   
Page No. Book No.

Series of

# ATTACHMENT A

**TRAINING AND EXPERIENCE OF PROPOSED AUTHORIZED USER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NAME**: | dfxfxg | | |  | Shape  Description automatically generated with low confidence |
| **NAME OF COMPANY**: | | Enter text. | |  |
| **EDUCATIONAL DEGREE:** | | | Enter text. |  |
|  | | |  |  |
|  | | |  |  |
|  | | |  |  |

1. **TRAINING RECEIVED IN BASIC RADIATION SAFETY**

(Enclose certificates of training and use additional sheets if necessary.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field of Training** | **Location of Training** | **Date of Training** | **Duration of Training** (Hours) | | |
| **Lecture** | **Laboratory** | **On -the-Job** |
| Radiation Physics & Instrumentation | Enter text. | Enter text. | Enter text. | Enter text. | mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm |
| Radiation Protection | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Mathematics & Calculations Pertaining to the Use & Measurement of Radioactivity | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Biology | Enter text. | Enter text. | Enter text. | mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm | Enter text. |
| Nuclear Regulations & Licensing | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

# WORK /CLINICAL EXPERIENCE IN THE USE OF BRACHYTHERAPY SOURCE

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Radioactive Source**  (Element & Mass No.) | **Maximum Activity** (Becquerels**)** | **Where Experience was Gained** | **Duration of Experience**  (Months) | **Type of Use** |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

1. **RELEVANT TRAININGS (**Submit certificates of relevant trainings.)

|  |  |  |
| --- | --- | --- |
| **Title of Training** | **Place of Training** | **Date of Training** |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |

1. **CERTIFICATION** (Indicate the name of the Body that certified you to practice therapeutic radiology or similar disciplines and submit a copy of the certification).

|  |  |
| --- | --- |
| **Certifying Body** | **Date of Certification** |
| Enter text. | Enter text. |
| Enter text. | Enter text. |

# I CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **Signature of Proposed Authorized User** | | | | |
|  | | | |  | | | |
| Date: | | | | | | Enter text. |
| Certified by: |  | | | |
|  | **Chairman, Radiation Safety Committee** | | | |
|  |  | | | |
| Date: | Enter text. |

# ATTACHMENT B

**TRAINING AND EXPERIENCE OF PROPOSED MEDICAL PHYSICIST**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NAME**: | Enter text. | | |  | Shape  Description automatically generated with low confidence |
| **NAME OF COMPANY**: | | Enter text. | |  |
| **EDUCATIONAL DEGREE:** | | | Enter text. |  |
|  | | |  |  |
|  | | |  |  |
|  | | |  |  |

* 1. **TRAINING RECEIVED IN BASIC RADIATION SAFETY**

(Enclose certificates of training and use additional sheets if necessary.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field of Training** | **Location of Training** | **Date of Training** | **Duration of Training**  (Hours) | | |
| **Lecture** | **Laboratory** | **On-the-Job** |
| Radiation Physics and Instrumentation | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Dosimetry | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Protection | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Biology | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Therapy | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

# EXPERIENCE WITH RADIATION AND RADIOACTIVE MATERIAL

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Radioactive Source**  (Element & Mass No.) | **Maximum Activity** (Becquerels**)** | **Where Experience was Gained** | **Duration of Experience**  (Months) | **Type of Use of Radioactive Source** |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

* 1. **EXPERIENCE WITH A BRACHYTHERAPY UNIT**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Equipment**  (Brand Name, Model/Serial Numbers) | **Radioactive Source**  (Element & Mass No.) | **Activity of the Source**  (Becquerels) | **Experience Gained** | **Place where Experience was Gained** | **Duration of Experience**  (Months) |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

* 1. **RELEVANT TRAININGS** (Submit certificates of relevant trainings.)

|  |  |  |
| --- | --- | --- |
| **Title of Training** | **Place of Training** | **Date of Training** |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |

# I CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | **Signature of Proposed Medical Physicist** | | | | |
|  | | | | |  | | | |
| Date: | | | | | | | Enter text. |
| Endorsed by: | |  | | | |
|  | | **Chairman, Radiation Safety Committee** | | | |
|  |  | | | | |
| Date: | Enter text. | |

# 

# ATTACHMENT C

**TRAINING AND EXPERIENCE OF PROPOSED RADIATION PROTECTION OFFICER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NAME**: | Enter text. | | |  | Shape  Description automatically generated with low confidence |
| **NAME OF COMPANY**: | | Enter text. | |  |
| **EDUCATIONAL DEGREE:** | | | Enter text. |  |
|  | | |  |  |
|  | | |  |  |
|  | | |  |  |

1. **TRAINING IN BASIC RADIOISOTOPE HANDLING TECHNIQUES**

(Enclose certificates of training and use additional sheets if necessary.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field of Training** | **Location of Training** | **Date of Training** | **Duration of Training (Hours)** | | |
| **Lecture** | **Laboratory** | **On-the-Job** |
| a. Radiation Physics and Instrumentation | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| b. Radiation Protection | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| c. Mathematics Pertaining to the Use and Measurement of Radioactivity | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| d. Radiation Biology | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| e. Nuclear Regulations  f. and Licensing | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

# EXPERIENCE WITH RADIATION AND RADIOACTIVE MATERIAL

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Isotope** | **Maximum Amount** | **Where Experience Was Gained** | **Duration of Experience** | **Type of Use** |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

1. **EXPERIENCE WITH RADIOTHERAPY EQUIPMENT, SURVEY INSTRUMENTS AND MONITORING DEVICES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Equipment** (Brand  Name, Model/Serial Numbers) | **Radioactive Source**  (Element & Mass No.) | **Activity of the Source**  (Becquerels) | **Where Experience was**  **Gained** | **Duration of Experience** |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

1. **RELEVANT TRAININGS** (Submit certificates of relevant trainings.)

|  |  |  |
| --- | --- | --- |
| **Title of Training** | **Place of Training** | **Date of Training** |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |

# I CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | **Signature of Proposed RPO/ARPO** | | | | |
|  | | | | |  | | | |
| Date: | | | | | | | Enter text. |
| Endorsed by: | |  | | | |
|  | | **Chairman, Radiation Safety Committee** | | | |
|  |  | | | | |
| Date: | Enter text. | |

# TRAINING AND EXPERIENCE OF PROPOSED RADIOTHERAPY TECHNOLOGIST

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NAME**: | Enter text. | | |  | Shape  Description automatically generated with low confidence |
| **NAME OF COMPANY**: | | Enter text. | |  |
| **EDUCATIONAL DEGREE:** | | | Enter text. |  |
|  | | |  |  |
|  | | |  |  |
|  | | |  |  |

# TRAINING RECEIVED IN BASIC RADIATION SAFETY

(Enclose certificates of training and use additional sheets if necessary.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field of Training** | **Location of Training** | **Date of Training** | **Duration of Training (**Hours) | | |
| **Lecture** | **Laboratory** | **On-the-Job** |
| Radiation Physics & Instrumentation | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Safety & Protection | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Detection & Measurement | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Radiation Biology | Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

# EXPERIENCE IN THE OPERATION OF A BRACHYTHERAPY UNIT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Equipment (**Brand Name,  Model/Serial Numbers) | **Radioactive Source**  (Element & Mass No.) | **Activity of the Source**  (Becquerels) | **Where Experience was Gained** | **Duration of Experience**  (Months) |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. | Enter text. | Enter text. |

1. **RELEVANT TRAININGS (**Submit certificates of relevant trainings.)

|  |  |  |
| --- | --- | --- |
| **Title of Training** | **Place of Training** | **Date of Training** |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |
| Enter text. | Enter text. | Enter text. |

# I CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **Signature of Proposed Radiotherapy Technologist** | | | | |
|  | | | |  | | | |
| Date: | | | | | | Enter text. |
| Endorsed by: | |  | | |
|  | | **Chairman, Radiation Safety Committee** | | |
|  |  | | | |
| Date: | Enter text. | |