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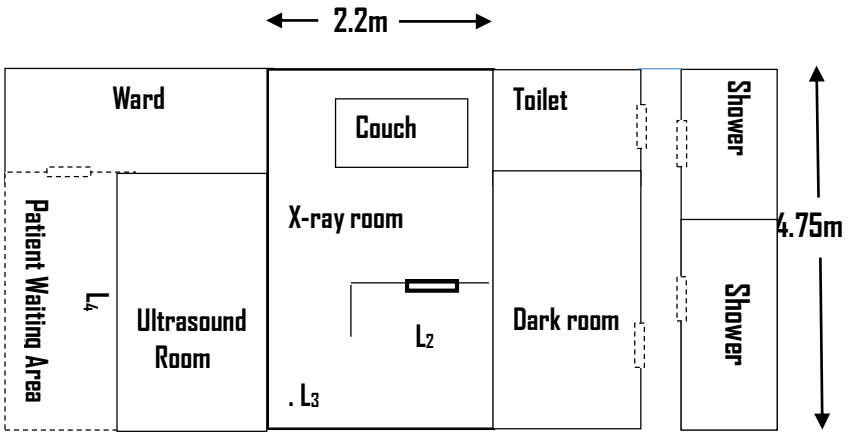
ATOMIC ENERGY COUNCIL
PLOT 29/33, AMBER HOUSE,
P. O. BOX 7044,
KAMPALA.

GUDELINES FOR OPERATORS ON HOW TO FILL APPLICATION FOR AUTHORISATION TO POSSESS AND USE A SOURCE(S) FOR MEDICAL APPLICATION

S/N	STATEMENT	GUIDE
	TYPE OF AUTHORIZATION	Tick the relevant section if application is to obtain: ✓ a new licence, ✓ renewal of an existing authorization For renewals, indicate the current licence number eg AEC/PU/1160.
GENERAL INFORMATION		
1.	Name & Address of applicant	Name of the facility e.g. Bambi Medical Centre Address of the facility e.g. Plot No: 13/14 Gayaza Road P.O Box 7613, Kampala Telephone No.+256 712 942 817 Email Address: bambimedicalcentre@gmail.com
2.	Name and information about qualified experts.	• Names of radiation workers/operator/user of the radiation generating equipment or radioactive source e.g. Nabadda Alice. • Qualifications related to the practice of each radiation worker e.g. Diploma in Medical Radiography. • The Radiation Safety Officer (RSO) must have sufficient knowledge, experience and resources to effectively manage the radiation protection program. • The names, Qualifications, experience and contacts of the qualified experts are required. **(Attach copies of academic documents of qualified expert, RSO and all radiation workers)**
3.	The representative of the applicant:	Applicant is the name of the facility/institution. Representative of the applicant is the Legal Person and the

		Head or senior representative of that institution such as the Director, Manager, CEO Etc. State name of the legal person, title, telephone and Email e.g Name: Mr. Mukasa Peter Title: Medical Director Telephone: 0702562060 Email: mukasapet@gmail.com
4.	Proposed date of installation (or date installed) and /or/ commissioning of facility and equipment.	State date when the machine was installed or you when intend to install it e.g. 3/10/2015.
PART 1-MEDICAL DIAGNOSTIC X-RAY EQUIPMENT		
5.	Details of X-ray generator	✓ State the name of the Manufacturer, model ,serial number of the **X-ray Tube** ,Maximum Voltage (kV) and the Maximum Current (mA) or mAs e.g. Manufacturer: Toshiba Model:E7272 Serial No: 453747 Maximum kV:125 Maximum mA:100 ✓ Provide address of manufacturer, exposure time per week and weekly load (average no. of exposures per week). Exposure time per week is total time the worker is exposed to radiation in a week and average no. of exposures per week is the common no. of exposures done in week. e.g. Address: Main Street, plot 20A, Tokyo Japan. Exposure time per week: 100s Average no. of exposure per week: 50 **NB:** If the machines are more than 2 attach a list of machine specifications.
6.	Device Standards	a) Tick Yes or No if the radiation devices are manufactured, prototype tested and subject to quality control provisions of standards recognized by international standard organizations e.g. IEC,ISO. b) If Yes list and identify the standards and applicable classification numbers. eg IEC, E12063
7.	Is the type of installation of the X-ray machine fixed or mobile?	State whether the X-ray machine is Fixed, mobile or portable. E.g. mobile X-ray machine.
a)	Identify who is (or will be) authorized to perform the service and maintenance of the	State the name, address and contact of the company/person to do maintenance and repair of the machine. e.g. Name: Sino Africa Medicine & Health Or Mr. Komach John.

	device(organization and address)	Address: Plot 2, Mulwana Road, Bugolobi Tel: 0782762923.
b)	Location of the device	State the name of the premises where the radioactive source/ radiation generating equipment will be used, stored, etc. e.g. Name of the department/ Unit: Radiology Department i. Building/ Room Number: Room 4 ii. Plot No. 22 Town/Street: Wandegeya/Bombo Road iii. District: Kampala
PART II-RADIOTHERAPY & PART III NUCLEAR MEDICINE		
	Part II and Part III don't apply to X-ray machine.	
	PART IV- LAYOUT OF THE INSTALLATION	
27.	**Describe factors such as the layout of the facility and its safety systems**	Draw or attach a layout plan of the x-ray facility showing , dimension of the imaging room, the location of the control panel, shielded cubicle/mobile shield, cassette pass box, doors, windows/ventilators, dark room, passages, patient changing room, patient waiting area, occupancies around the installation and thickness of wall materials. E.g  Wall thickness of X-ray/imaging room-26cm. Size of lead viewing window- 40cmx 40cm -Also state the building and shielding materials used, available engineering controls (e.g interlock. Warning safety devices, emergency stop button, prevention of unauthorized personnel entering the controlled area etc.) (**Attach a layout drawing of the installation showing adjacent surrounding. Controlled and supervised areas should be clearly identified in the drawing.)**

28.	**Safety assessments:**	
a)	Taking into account of shielding, provide calculation of maximum dose rates in all adjacent areas outside the installation:	Attach calculations for dose rates in adjacent areas taken using survey meters done by the RSO or the qualified expert e.g. State the obtained dose rate at the centre of the control room, surface of the entrance door, through the viewing glass window etc.
b)		
c)	Provide estimates of the magnitude of the expected doses to persons during normal operations:	State the expected doses received by persons at different positions during exposure. E.g the Dose absorbed by the radiographer in the control room per exposure, that absorbed by patients at the waiting area etc.
d)	Identify the probability and magnitude of potential exposures arising from accidents or incidents:	State the expected doses received by persons during accidents including the dose absorbed by a radiographer during the accident. **(Attach a safety assessment report)**
PART V -RADIATION AND SAFETY PROGRAMME		
29.	Organisational structure	
a)	Describe your organisational and management systems, including assignment of responsibilities and clear lines of authority related to radiation safety.	
i.	Staffing levels	State the number of qualified staff in the department e.g. 1 radiologist, 1 RSO and 2 radiographers
ii.	equipment selection	State the protective gears available in the department e.g. 3 lead aprons, 2 gonadal shields, 1 pair of lead gloves etc.
iii.	Other assignments of the radiation safety officer	State other responsibilities of the RSO other than those in Regulation 30 of the AER, 2012.
iv.	Authority of the radiation safety office to stop unsafe operations.	State whether the RSO has the authority to stop unsafe operation as one of his/her roles in the facility.
v.	Personnel training	State the content of the training, when, how and the staff trained. This should include how often the trainings are conducted.
vi.	Maintenance records	Clearly state the maintenance procedure available for the equipment and how the records are kept in the department
vii.	How problems affecting safety are identified and corrected	Clearly state procedures used to identify problems affecting radiation protection and safety and how the problems are rectified.
viii.	Other useful important information	State any other information related to radiation safety programme other than in those mentioned above.
b)	Identify the authorised users, qualified experts and	E.g

<table>
<tr><td></td><td>radiation safety officer by name and include their training, education, experience and qualifications (Note, the user and/or radiation safety officer may be the same individual).</td><td><table><tr><td>Name</td><td>Qualification</td><td>Experience</td></tr><tr><td>1. Okello Sam</td><td>Bachelor of Medical Radiography (BMR)</td><td>3 years</td></tr><tr><td>2. Kirabo Lillian</td><td>Masters in medical physics</td><td>2years</td></tr></table>(Attach copies of academic documents of qualified expert, RSO and all radiation workers)</td></tr>
<tr><td>30.</td><td colspan="2">Security and safety of radiation sources. Describe measures to be undertaken to ensure the security and safety of radiation sources during;</td></tr>
<tr><td rowspan="3"></td><td>Use.</td><td>Explain the available safety and security measures in place at the department when the equipment is in use.</td></tr>
<tr><td>Transport</td><td>N/A</td></tr>
<tr><td>Storage</td><td>Explain the available safety and security measures in place at the department when the equipment is in storage.</td></tr>
<tr><td>31.</td><td>Individual monitoring</td><td></td></tr>
<tr><td>a)</td><td>Name and address of dosimetry service provide</td><td>State if individual monitoring is done, Indicate the company/institution that provides and reads the personal dosimeters like TLDs
e.g Name: Atomic Energy Council
Address: Plot 29/33, Amber House, Kampala Road</td></tr>
<tr><td></td><td>What the personal dosimeters provided to workers? Tick where appropriate
o Thermo luminescent dosimeter (TLD)
o Direct reading dosimeter (DRT)
o Optically stimulated luminescence (OSL)
o Others</td><td>Tick the personal dosimeter provided and used by the facility. Name the type of personal dosimeters used if not among the list provided.</td></tr>
<tr><td>32.</td><td>Local rules and supervision</td><td></td></tr>
<tr><td>a)</td><td>Describe your training program to ensure that all appropriate personnel are trained in the correct operating procedures and how their actions may affect safety.</td><td>Describe the content, methods used to train, and frequency of the training.
(Attach a copy of the local rules)</td></tr>
<tr><td>b)</td><td>Describe how you provide workers the information regarding health risks due to occupational exposure.</td><td>Describe briefly how information on radiation risks is dispatched to workers.</td></tr>
</table>

c)	Describe your policies regarding female workers who become pregnant (notification, adoption of working conditions to protect foetus/embryo) and the instructions you will provide to them.	Describe the procedures in place to protect female radiation workers who could become pregnant from the dangers that may arise from using ionizing radiation.
33.	Quality Assurance	
a)	Describe your quality Assurance program for your equipment in particular performance of the equipment, safety interlocks, radiation meters etc,	This should include: measurements of the physical parameters of the radiation generators and imaging devices available; verification of the appropriate physical and clinical factors used in patient diagnosis or treatment; written records of relevant procedures and results; verification of the appropriate calibration and conditions of operation of dosimetry and monitoring equipment; and as far as possible, regular and independent quality audit reviews of the available quality assurance programme. **(Attach a copy of the quality assurance programme.)**
b)		
c)	Describe your program for optimising occupational and public exposure as low as reasonably achievable	Describe all procedures and their frequency in place to minimize radiation exposure to radiation workers and the public.
d)	Emergency procedures	
	Provide your emergency procedures to address emergencies such as substantial accidental exposure of an individual. If other emergencies are envisaged.	State the procedure to be followed during an accident or incident; Refer to (Regulation 68(2) of AER, 2012.) **(Attach a copy of the emergency plan)**
35.	Radioactive Waste management. How will the generated radioactive wastes be managed?	This only applies to radioactive waste. e.g. Co-60, Cs-137, Am-241
a)	Source(s) return to the supplier o Yes o No, if yes attach a copy of the agreement if no	Tick yes if the radioactive source is to be returned to the manufacturer or supplier after use and attach agreement otherwise tick No. **(Attach a copy of the return agreement if applicable)**
b)		
c)	How will it be managed in the country?	State how you intend to discard off the source once its purpose is accomplished.

36.	Other radiation protection and safety requirements. (If applicable)	State any other radiation protection and safety measures available
a)	Occupational and public exposures control. Describe your program for monitoring your work place (eg.dose rate measurements, leak tests etc) including any dose constraints that will be applied.	Describe the available program for workplace monitoring.
b)	Medical exposure control.	
	Describe your program for ensuring the radiation protection of patients and/or comforters during treatment with reference to the patient flow in your department (e.g diagnosis, prescription, simulation, physical dosimetry and treatment planning, patient set up records keeping, patients follow up etc)	State clearly the available program for ensuring the radiation protection of patients and/or comforters during treatment.
PART VI DECLARATION		
	Declaration	i. Indicate full names of the legal person of the facility (Legal person can be the: Director, Medical director, Administrator, Medical Superintendent, etc. depending on the administrative structure of the facility. ii. Signature of the legal person and stamp where applicable iii. Date on which he/she has signed the application form