



**Sri Lanka Atomic Energy Act No. 40 of 2014**  
**SRI LANKA ATOMIC ENERGY REGULATORY COUNCIL**



**APPLICATION FOR OBTAINING APPROVAL FOR SELF SHIELDED IRRADIATOR FACILITY ROOM PLAN**

1. Name of the Applicant	-----
2. Name of the Institute	-----
3. Address where the irradiator room is located	----- ----- -----
4. Mailing address (if not same as above)	----- ----- -----
5. Contact details	Telephone :-----
	Fax :-----
	E-mail :-----
6. Details of the radioactive source/irradiator	i) Model, Type Identification No.: -----
	ii) Name & Address of the Manufacturer : ----- -----
	iii) Radionuclide :-----
	iv) Activity with the date:-----
	v) Maximum radiation level at 1m away from the surface of the irradiator after the source is installed: ----- -----
7. Purpose of use	-----
8. Requirements	Appendix-1 & Appendix-2 must be enclosed with this application If separate plans are submitted, they should be attached with Appendix-1

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**Signature of the applicant & seal**

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**Date**

***Application should be submitted to the following address enclosing the relevant Appendices.***

*Director General, Sri Lanka Atomic Energy Regulatory Council, 3<sup>rd</sup> Floor, NCNDT Building, No. 977/18, Kandy Road, Bulugaha Junction, Kelaniya.*

This form should be duly filled and attached with the application.

### SPECIFICATIONS OF THE IRRADIATOR ROOM

#### 1) Irradiator Room

Size of the room	Length : _____ m
	Width : _____ m
	Height : _____ m
Wall material (please select)	Clay bricks / Concrete / Other (Specify) _____
Wall thickness	_____ (cm)
Slab thickness	_____ (cm)

#### Note:

a) For self-shielded irradiator with category 1 or 2 sources, the following requirements should be fulfilled for security of the sources in addition to the provision of adequate thickness of walls for radiation protection.

- Roof should have concrete slab
- Surrounding walls should be either hard bricks or concrete
- The door should be a steel door with high security locks

b) Wall thickness & slab thickness should be sufficient to reduce radiation levels outside the walls to general public. (< 1 mSv/year)

#### 2) Doors - Lead shielded doors should be indicated in the plan

Thickness of the lead shielding of doors and door frames (mm) to reduce radiation levels to less than 1mSv/year	
Lead equivalency (mm) of the viewing glasses fixed to the doors (if any)	
Size of the lead equivalent viewing glasses fixed to the doors (if relevant)	Length : _____ cm Width : _____ cm

#### 3) Control room/cubicles (if relevant)

Wall material (please select)	Lead / Clay bricks / Concrete / Other (Specify) _____
Wall thickness	_____ (cm)
Location	<i>Draw in the plan with dimensions where it is going to be built/installed</i>
Available monitoring facilities for the operator (please select)	Lead equivalent viewing glasses / CCTV Other (specify) _____
Lead equivalency (mm) of the viewing glass fixed to the control room/ cubicle	_____
Size of the lead equivalent viewing glass	Length : _____ cm Width : _____ cm

4) Describe physical security arrangements to be provided to the irradiator room to prevent unauthorized removal of the radioactive source as per recommendations of IAEA Nuclear Security Series 11-Security of Radioactive Sources, Pgs 16 & 28

5) Details of any other rooms or areas to be used in connection with the irradiator facility such as administrative rooms etc. Please indicate in the plan if available

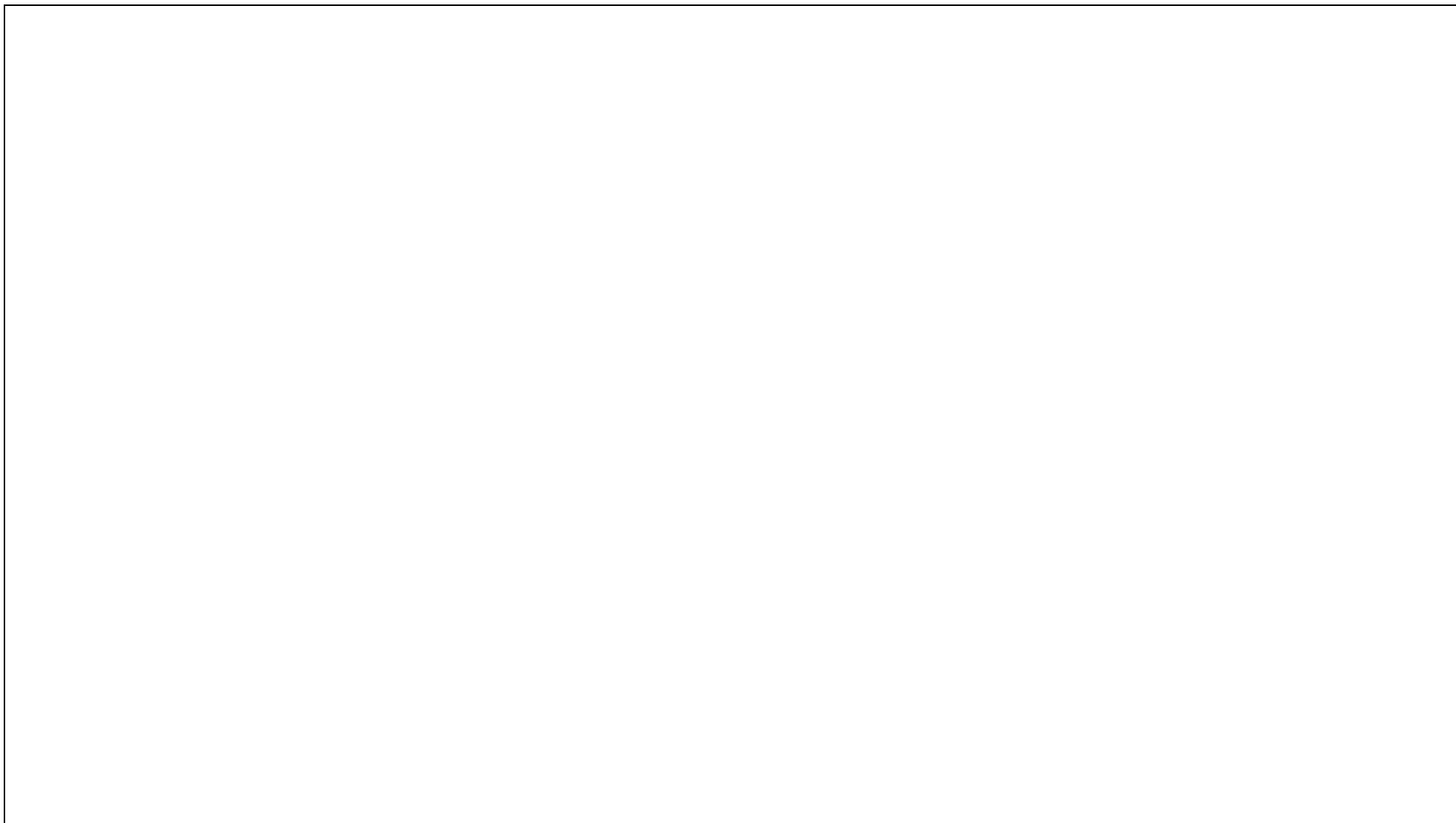
\_\_\_\_\_  
Signature of the applicant & seal

\_\_\_\_\_  
Date

**Instructions:**

- a. Draw the layout of irradiator room in the space provided below. If the space is insufficient attach the drawing/s separately to the Appendix-1.
- b. Details of adjacent rooms to the proposed irradiator room should be indicated in the drawing.
- c. Plan should be drawn to the scale and attach with the application.
- d. Indicate the position where the irradiator is to be installed in the plan.

**Appendix - 1**



**Declaration of the applicant:**

I hereby declare that the irradiator will be installed in the above room after requirements of Sri Lanka Atomic Energy Regulatory Council (SLAERC) are fulfilled.

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Signature of the applicant & seal

**Approval of SLAERC:**

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Director General/SLAERC