



## APPLICATION TO ADD MEDICAL LINEAR ACCELERATORS TO AN EXISTING CNSC LICENCE TO OPERATE A MEDICAL ACCELERATOR FACILITY

### Section A – Applicant

#### Language of licence

English     French     Both

### A2 Applicant information

**Applicant:** \_\_\_\_\_

**Current operating licence #:** \_\_\_\_\_

**Canadian head office address:**

Street: \_\_\_\_\_

City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal code: \_\_\_\_\_

**Mailing address** (if different from above):

Street: \_\_\_\_\_

City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal code: \_\_\_\_\_

### Section B – Prescribed equipment and locations

#### Principal location of use and/or storage

Building: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal code: \_\_\_\_\_

### B2 Class II prescribed equipment

Medical Accelerators which do not currently appear on a licence

Room #	Manufacturer	Model name and number	Serial number	Types of beam and output energies of the accelerator

*continued on next page*



Room #	Manufacturer	Model name and number	Serial number	Types of beam and output energies of the accelerator

## Section C – Facility safety systems

### C1 Safety systems locations

For each medical accelerator identified in Subsection B2, append a schematic or scale drawing of the accelerator bunker, and its control area, showing:

- a) the room number
- b) the position of the linear accelerator and its isocentre
- c) the location of the Last Person Out button
- d) the location of all Emergency Stop buttons
- e) the location of all irradiation status indicators (i.e. “beam on” lights)
- f) for doorless bunkers, the location of all active infrared sensors (i.e. “light curtains”)
- g) for doorless bunkers, the location and coverage of all motion sensors which are part of the entrance interlock
- h) the location of all viewing systems
- i) the location of posted radiation warning signage
- j) the location of posted emergency contact information

Appended as: \_\_\_\_\_

### C2 Safety systems functionality

If the above safety systems are different in function or design (i.e. LPO time-out, etc.) from those used in linear accelerator bunkers that are currently licensed by the CNSC, append a functional description of the safety systems demonstrating an equivalent or better level of safety. If the function and design of all safety systems is the same as currently licensed bunkers, provide a statement to that effect.

Appended as: \_\_\_\_\_

## Section D – Facility design and dose estimation

### D1 Adjacent areas

For each medical accelerator identified in Subsection B2, append a schematic or scale drawing of the accelerator bunker providing information on those areas which are adjacent to the bunker. For each area, provide:

- a) the purpose of the area (i.e. waiting room, corridor, etc.)
- b) whether the area is accessible to and nominally occupied by the public (controlled access area vs, public area)
- c) occupancy factors

Appended as: \_\_\_\_\_

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**D2 Radiation survey**

For each medical accelerator identified in Subsection B2, append the results of a recent radiation survey of areas adjacent to the bunker, performed under worst-case conditions. Provide information on the measurement condition (set up) as well as the measurements recorded.

Appended as: \_\_\_\_\_

**D3 Workload**

For each medical accelerator identified in Subsection B2, provide the annual photon workload for which the facility was designed. Include both the dose delivered in the primary beam and the number of Monitor Units (MUs) delivered.

Appended as: \_\_\_\_\_

**D4 Dose estimate**

For each medical accelerator identified in Subsection B2, use the information provided in Sections D1, D2 and D3 to estimate the annual whole body dose and the maximum instantaneous dose (in micro Sieverts per hour) received by persons in each of the areas adjacent to the bunker. In occupied areas where the dose rate is > 25 micro Sieverts per hour, explain what mitigating features (signage, access control, safety devices etc.) are in place.

Appended as: \_\_\_\_\_

**Section E – Radiation protection program****E1 Radiation protection program**

Append a description of any differences between the radiation protection program that oversees the safety of linear accelerators which are currently licensed by the CNSC, and the program for those that are not. If there is no difference in radiation protection programs, provide a statement to that effect.

Appended as: \_\_\_\_\_

**Section F – Legal signing authority****F1 Signing authority**

I accept the designation of Signing Authority and certify that all information submitted is true and correct to the best of my knowledge. I understand that all statements and representations made in this application and on supplementary documentation are binding on the applicant.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
YYYY MM DD

**F2 Applicant authority**

I certify that all statements and representations made in this application and on supplementary pages are binding on the applicant.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
YYYY MM DD

**Mail the completed application form, together with all relevant documentation to:**

Canadian Nuclear Safety Commission  
 Directorate of Nuclear Substance Regulation  
 P.O. Box 1046, Station B  
 280 Slater Street  
 Ottawa ON, K1P 5S9  
**Fax:** 613-995-5086

**The application form, together with all relevant documentation may also be submitted electronically.**

**Email:** forms-formulaires@cnscccsn.gc.ca