



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH  
WILLIAM R. SNODGRASS TENNESSEE TOWER  
312 ROSA L. PARKS AVENUE, 15TH FLOOR  
NASHVILLE, TN 37243

**FOR MEDICAL FACILITIES ONLY**

**INSTRUCTIONS FOR PREPARING AN APPLICATION FOR CERTIFIED REGISTRATION**  
**(RHS 8-8)**

An Application for Certified Registration to use an accelerator must complete Form RHS 8-8 and must attach to the completed form the additional information indicated. Two (2) copies of the entire application should be sent to the Department of Environment and Conservation, Division of Radiological Health, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243.

1. (a) Identify the legal entity in whose name the Certified Registration should be issued and who is to be legally responsible for the use of the accelerator.  
  
(b) Check appropriate block indicating organizational structure of applicant.
2. List previous Certified Registrations, by number. If the application is for renewal or amendment of an existing Certified Registration, the number should be included and the word "renewal" or "amendment" inserted.
3. List all locations at which the accelerator will be used. The name and location at which the accelerator will be used on a permanent basis should be identified by the street address, city, and state.
4. List the information called for at the head column for the accelerator to be used. Follow the alphabetical keying system provided on any supplemental sheets which are attached to the application.
5. Unless otherwise specified, information which has been previously submitted to the State may be referred to by the date on the document transmitting that information. Attached is a document title "Certificate of Compliance". It may be used in order to certify that your facility will comply with "State Regulations for Protection Against Radiation" (SRPAR). If you identify any specific sections of SRPAR that you plan to request an exemption or variance to, please do so specifically and provide a justification for each exemption / variance request.

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**SHIELDING NOTES**

1. In order for the Division of Radiological Health (DRH) to decrease the amount of time necessary for the review of the shielding material that is provided concerning an application for a Certified Registration, please provide answers to each of the following questions for each individual point of measurement:
  - Installed or proposed barrier thicknesses
  - Specify if the point being analyzed is a primary or secondary point
  - Specify the distance between the point of measurement and the target.  
(Unless otherwise specified, DRH will assume the distance between the isocenter and the point of measurement to be 1 meter less than the distance between the point of measurement and the target.)
  - Specify the location of the measuring point on a floor plan.  
If this is a ceiling or floor point, please note this on the floor plan.)
  - Specify the percentage of time (use factor) that the beam will be in each direction.

*The above data, except for the floor plan, should be presented in the form of a chart identifying each measuring point and its specific data.*

II. Please specify the following data for each accelerator on this application:

- Total weekly workload.
- Does the accelerator have a beam stop? If so, provide the beam stop transmission ratio.
- MeV of the accelerator
- Specify the percent tubehead leakage. (If this is not specified, DRH will assume .1 giving a transmission ratio of .001.)
- Specify the percent neutron leakage. (This only applies to accelerators that operate at greater than 10 MeV.)

III. Please provide a copy of your calculations for all of the above measuring points. This should enable DRH to locate any discrepancies between your calculations and ours.



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**CERTIFICATE OF COMPLIANCE**  
**FOR MEDICAL ACCELERATORS ONLY**

This Certificate of Compliance is to be used as an aid in applying for a Certified Registration authorizing the use of an accelerator for the purposes of Medical Treatment of Humans. This page will be used in place of your specific answers to Item 5a. through 5h., and confirms compliance with "State Regulations for Protection Against Radiation" (SRPAR), 0400-20-.09.

- 5a. (i) The applicant identified in Item 1 will have facilities which are in accordance with each item identified in "SRPAR", 0400-20-09-.17(4).
- (ii) The applicant identified in Item 1 will ensure that the facility will be sufficient to meet the requirements of "SRPAR" 0400-20-05-.50 and 0400-20-05-.60, as applicable. In order to confirm this, please provide your physicist's calculations or a shielding summary.

- 5b. Identify your Facility's Radiation Safety Survey Instruments:

Manufacturer's Name	Model	Radiation(s) measured	Range
_____	_____	_____	_____

- 5c. The applicant identified in Item 1 will have its Radiation Safety Survey Instruments calibrated by:

Name	City, State	License Number	Telephone
_____	_____	_____	_____

- 5d. Provide the name, address and telephone number of your Personnel Dosimetry provider:

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_

- 5e. The applicant identified in Item 1 will have Operating and Emergency Procedures in accordance with "SRPAR" 0400-20-09-.19.

- 5f. The applicant identified in Item 1 will not let any person operate the accelerator for the purpose of Treatment of Humans unless they meet or exceed the LIMITATIONS prescribed in "SRPAR" 0400-20-09-.18.

- 5g. The applicant identified in Item 1 will conduct management review to ensure that the operation of the accelerator is within the limitations prescribed in "SRPAR" 0400-20-09-.20 (Tests & Surveys) and "SRPAR" 0400-20-09-.21 (Therapeutic Accelerator Installations).

- 5h. Attached is a chart showing the overall organizational structure for the applicant identified in Item 1. This must include specific delegations of authority and responsibility for operation of the program.

We will possess and use the accelerator in accordance with the above Items and all the applicable provisions of 0400-20-04, 0400-20-05, 0400-20-09, and 0400-20-10 of the "State Regulations for Protection Against Radiation".

_____	_____	_____
Date	Signature	Printed Name and Title