

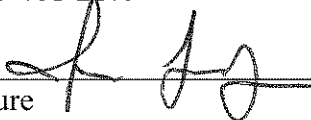
American Red Cross Blood Services  
32 North Prospect Street  
Burlington, Vermont 05405

Application For Materials License (NUREG – 1556, vol 5 Appendix C)  
U.S. Nuclear Regulatory Commission Radiation Control Program

To whom it may concern,

Please see attached appendix C from NUREG – 1556, vol 5. The information supplied in the attached appendix is complete and accurate. The appendix was documented and approved by John Lauzon (RSO) on 04/24/2013.

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Signature  / Date 04/24/13

## Suggested Format for Providing Information Requested in Items 5 Through 11 or NRC Form 313

**Table C.1 Items 5 & 6: Materials to Be Possessed and Proposed Uses**

| Yes | No | Radioisotope | Manufacturer or Distributor Model No.  | Quantity  | Use As Listed on SSD Registration Certificate | Specify Other Uses Not Listed on SSD Registration Certificate   |
|-----|----|--------------|--|---|---|---|
|     |    | Cesium-137   | Each of the following requested sealed sources, devices, and source/device combinations is the subject of an approved Sealed Source and Device Registration Certificate:<br>Sealed source manufacturer's (or distributor's) name and model number:<br><br>Device manufacturer's (or distributor's) and model number: | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes <input checked="" type="checkbox"/>       | <input type="checkbox"/> Not applicable<br><br><input type="checkbox"/> Uses are:<br><br>(Submit safety analysis supporting safe use) |

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| Yes | No | Radioisotope | Manufacturer or Distributor Model No.  | Quantity  | Use As Listed on SSD Registration Certificate | Specify Other Uses Not Listed on SSD Registration Certificate   |
|-----|----|--------------|--|---|---|---|
|     |    | Cobalt-60    | Each of the following requested sealed sources, devices, and source/device combinations is the subject of an approved Sealed Source and Device Registration Certificate:<br>Sealed source manufacturer's (or distributor's) name and model number:<br><br>Device manufacturer's (or distributor's) and model number: | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]                                       | <input checked="" type="checkbox"/> Not applicable<br>[ ] Uses are:<br><br>(Submit safety analysis supporting safe use) |
|     |    | Strontium-90 | Each of the following requested sealed sources, devices, and source/device combinations is the subject of an approved Sealed Source and Device Registration Certificate:<br>Sealed source manufacturer's (or distributor's) name and model number:<br><br>Device manufacturer's (or distributor's) and model number: | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]                                       | <input checked="" type="checkbox"/> Not applicable<br>[ ] Uses are:<br><br>(Submit safety analysis supporting safe use) |

| Yes  | No | Radioisotope    | Manufacturer or Distributor Model No.   | Quantity  | Use As Listed on SSD Registration Certificate | Specify Other Uses Not Listed on SSD Registration Certificate   |
|--|----|-----------------|---|---|---|---|
|  |    | Other (specify) | Sealed source manufacturer or distributor and model number:<br><br>Device manufacturer or distributor and model number: | Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate | Yes [ ]                                       | <input checked="" type="checkbox"/> Not applicable<br>[ ] Uses are:<br><br>(Submit safety analysis supporting safe use) |
| <i>Financial Assurance Required and Evidence of Financial Assurance Provided</i> |    |                 |   |   |   |   |

**Table C.2 Items 7 Through 11: Training and Experience, Facilities and Equipment, Radiation Safety Program, and Waste Disposal**

| Item No. and Title  | Suggested Response   | Yes                                 | Alternative Procedures Attached |
|---|--|-------------------------------------|---------------------------------|
| 7. Individual(s) Responsible For Radiation Safety Program And Their Training And Experience | Before obtaining licensed materials, the proposed RSO will have successfully completed the training described in Appendix G in NUREG - 1556, Vol. 5, dated October 1998<br><br>AND   | <input checked="" type="checkbox"/> | [ ]                             |
| 7.1 Radiation Safety Officer (RSO)<br>Name: <u>John L. Lutz</u>                             | Before being named as the RSO, future RSOs will have successfully completed the training described in Appendix G in NUREG - 1556, Vol. 5 dated October, 1998. Within 30 days of naming a new RSO, we will submit the RSO's name to NRC for inclusion in our license. |                                     |                                 |
| 7. Individual(s) Responsible For Radiation Safety Program And Their Training And Experience |  |                                     |                                 |
| 7.2 Authorized Users  | Before using licensed materials, authorized users will receive the training described in Appendix G in NUREG - 1556, Vol. 5, dated October 1998  | <input checked="" type="checkbox"/> | [ ]                             |

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| Item No. and Title   | Suggested Response   | Yes                                    | Alternative Procedures Attached |
|--|--|--|---------------------------------|
| 8. Training for Individuals Working in or Frequenting Restricted Areas | The applicant's training program will be examined during inspection, but should not be submitted in the license application.   | Need Not Be Submitted with Application |                                 |
| 9. Facilities and Equipment  | We will ensure that each area where a self-shielded irradiator is located corresponds to the "Conditions of Normal Use" and "Limitations and/or Other Considerations of Use" on the applicable irradiator's Sealed Source and Device Registration Certificate; the floor beneath a self-shielded irradiator is adequate to support the weight of the irradiator; each self-shielded irradiator is secured to prevent unauthorized access or removal; <i>and</i> each area where a self-shielded irradiator is located is equipped with an automatically operated fire detection and control system (sprinkler, chemical, or gas) or the location of the area and other controls ensure a low-level radiation risk attributable to fires.   | X []                                   |                                 |
| 10. Radiation Safety Program<br>10.1 Audit Program                     | The applicant's program for reviewing the content and implementation of its radiation protection program will be examined during inspections, but should <i>not</i> be submitted in the license application.   | Need Not Be Submitted with Application |                                 |
| 10. Radiation Safety Program<br>10.2 Radiation Monitoring Instruments  | We will use instruments that meet the radiation monitoring instrument specifications published in Appendix K to NUREG - 1556, Vol. 5, dated October, 1998. Additionally, each survey meter will have been calibrated by the manufacturer or other person authorized by the NRC or an Agreement State to perform survey meter calibrations no more than 12 months before the date the meter is used.<br><br>OR<br><br>We will use instruments that meet the radiation monitoring instrument specifications published in Appendix K to NUREG - 1556, Vol. 5, dated October, 1998. Additionally, we will implement the model survey meter calibration program published in Appendix K to NUREG - 1556, Vol. 5, dated October, 1998, and we will ensure that each survey meter will have been calibrated no more than 12 months before the date the meter is used. | X []                                   |                                 |

| Item No. and Title   | Suggested Response  | Yes                                    | Alternative Procedures Attached |
|--|---|--|---------------------------------|
| 10. Radiation Safety Program<br>10.3 Material Receipt and Accountability | Physical inventories will be conducted at intervals not to exceed 6 months to account for all sealed sources and devices received and possessed under the license.  | X                                      | [ ]                             |
| 10. Radiation Safety Program<br>10.4 Occupational Dose                   | Either we will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the Criteria in the section entitled "Radiation Safety Program - Occupational Dose" in NUREG - 1556, Vol. 5, dated October, 1998.  | X                                      | [ ]                             |
| 10. Radiation Safety Program<br>10.5 Public Dose                         | No response is required from the applicant in a license application, but documentation demonstrating compliance will be examined during inspection.   | Need Not Be Submitted with Application |                                 |
| 10. Radiation Safety Program<br>10.6 Operating & Emergency Procedures    | If we change our operating and emergency procedures without amending our license, we will ensure that: the changes are reviewed and approved by licensee management and the RSO; affected licensee staff are trained in the procedures before they are implemented; the changes are consistent with applicable license conditions and the procedures or commitments submitted in the license application; and the changes do not degrade the safety of the program. | X                                      |                                 |
|  | <p style="text-align: center;">AND</p> <p>Operating and emergency procedures will be developed, implemented, maintained, and distributed and will meet the Criteria in the section entitled, "Radiation Safety program - Operating and Emergency Procedures" in NUREG - 1556, Vol. 5, dated October, 1998.</p>  | X                                      | [ ]                             |

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| Item No. and Title  | Suggested Response  | Yes   | Alternative Procedures Attached  |
|---|---|---|--|
| <p>10. Radiation Safety Program</p> <p>10.7 Leak Test</p>   | <p>Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the Sealed Source and Device Registration Certificate. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the manufacturer's (or distributor's) and kit supplier's instructions.</p> <p style="text-align: center;"><b>OR</b></p> <p>Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the Sealed Source and Device Registration Certificate. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the manufacturer's (or distributor's) and kit supplier's instructions. As an alternative, we will implement the model leak test program published in Appendix P to NUREG - 1556, Vol. 5, dated October, 1998.</p> | <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> | <p style="text-align: center;">[ ]</p>   |
| <p>10. Radiation Safety Program</p> <p>10.8 Maintenance</p> | <p><u>ROUTINE MAINTENANCE</u></p> <p>We will implement and maintain procedures for routine maintenance of our self-shielded irradiators according to each manufacturer's (or distributor's) written recommendations and instructions.</p> <p><u>NON-ROUTINE MAINTENANCE</u></p> <p>We will have the self-shielded irradiator manufacturer (or distributor's) or other person authorized by NRC or an Agreement State perform non-routine maintenance.</p>   | <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> | <p style="text-align: center;">[ ]</p> <p>[ ] The information listed in Appendix I supporting a request to perform non-routine maintenance in-house is attached.</p> |

| Item No. and Title  | Suggested Response  | Yes                                    | Alternative Procedures Attached |
|---|---|--|---------------------------------|
| 10. Radiation Safety Program<br><br>10.9 Transportation                       | No response is needed from applicants during the licensing phase. However, before offering a Type B package for shipment, a licensee needs to have registered with NRC as a user of the package and obtained NRC's approval of its QA program. Transportation issues will be reviewed during inspection.  | Need Not Be Submitted with Application |                                 |
| 10. Radiation Safety Program<br><br>10.10 Minimization of Contamination       | The applicant does <i>not</i> need to submit a response to the minimization of contamination section if the applicant's responses meet the criteria for the following sections: "Radioactive Material - Sealed Sources and Devices," "Facilities and Equipment," "Radiation Safety Program - Operating and Emergency Procedures," "Radiation Safety Program - Leak Tests," and "Waste Management - Self-Shielded Irradiator Transfer and Disposal." | Need Not Be Submitted with Application |                                 |
| 11. Waste Management<br><br>11.1 Self-Shielded Irradiator Disposal & Transfer | The applicant does <i>not</i> need to provide a response to this item during the licensing phase. However, the licensee should develop, implement, and maintain self-shielded irradiator transfer and waste disposal procedures in its radiation safety program.  | Need Not Be Submitted with Application |                                 |