

## Radiation Safety X-Ray Machine Survey Checklist

RUA # \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_ Surveyed By: \_\_\_\_\_

RUA Holder: \_\_\_\_\_ Lab Contact: \_\_\_\_\_

Department: \_\_\_\_\_ Location(s): \_\_\_\_\_

Contacted during survey:  RUA Holder  Lab Contact  User: \_\_\_\_\_

Machine Type:  Diffraction  Diagnostic  Electron Microscope  Other

**X-Ray System Information:**

<b>Manufacturer:</b>	<b>Machine ID:</b>
<b>Model:</b>	
<b>Normal Operating Parameters:</b>	_____ mA _____ kVp
<b>Maximum Operating Parameters:</b>	_____ mA _____ kVp

	<u>Y</u>	<u>N</u>	<u>NA</u>	<u>NR</u>	<u>Comments / Actions</u>
<b>Posting, Labeling, Security, and Training</b>					
1. Are all entrances posted with a Caution Door Sign?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
a. Is the contact information up to date/legible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. Is the RUA current and posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. Is the Radiation Producing Machine Emergency Guideline posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4. Is the Notice to Employees Poster posted in the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. Is there a Caution X-Rays label on the Machine?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6. Is the machine secured from unauthorized use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
7. Have personnel met all machine specific training requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>RUA Records</b>					
8. RUA Change(s) requested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
9. Are the LC and RH receiving survey reports and all RUA related communications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
10. Are users aware of where the RSM can be found?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
11. Is non-user training being administered/documentated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
12. Is the Machine SOP available, current, and signed off?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
13. Are self-surveys performed at the required frequency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
14. Is the machine use log available, up to date, recorded legibly with full names and in ink?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>Instruments and Dosimetry</b>					
15. Are assigned survey meters available, in calibration, functional, and in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
16. Dosimetry:					_____
a. Are dosimeters being properly worn as prescribed by the RUA?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
b. Are dosimeters stored away from radiation fields when not being worn?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

RUA # \_\_\_\_\_ Date: \_\_\_\_\_

**EH&S Surveys and Machine Conditions**

**Y N NA NR**

**Comments / Actions**

- |  |  |  |
|--|--|--|
| <p>17. Dose rate survey performed; all readings were found to be &lt; 2.0 mR/hour at contact.<br/>Meter Used: _____<br/>SN: _____ Bkg: _____</p> | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p> <p>_____</p> |
| <p>18. Is the beam adequately enclosed?</p>  | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>19. Are beam stops in place?</p>  | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>20. Is there a beam port shutter lamp in place?</p>   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>21. Is there a "X-Ray on" indicator on the console?</p>   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>22. Is there a "X-Ray on" indicator on the tube?</p>  | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>23. Are the mA and kVp indicators functioning?</p>  | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>24. Did the housing/cabinet enclosure interlocks function properly when tested?</p>   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p>                           |
| <p>25. Did the beam port shutter interlocks function properly when tested?</p>   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p> <p>_____</p> |

**Non-Beam Hazards**

- |  |   |  |
|--|---|--|
| <p>26. PPE:</p> <p>a. Is lab appropriate clothing worn?</p> <p>b. Are required PPE available and worn by users handling radioactive materials?</p> | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p> <p>_____</p> |
| <p>27. Are all users following the Campus "Food in Labs" policy?</p>   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>  | <p>_____</p>                           |
| <p>28. If non-beam hazards such as compressed gases, lasers, seismic, etc. are present, are they adequately addressed?</p>                         | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>  | <p>_____</p> <p>_____</p> <p>_____</p> |

**Radiation Safety X-Ray Machine Renewal Survey Checklist**

**Y N NA NR**

**Comments / Actions**

- |  |  |  |
|--|--|--|
| <p>1. Is the SOP(s) on file current?</p>                               | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p>              |
| <p>2. Are Users familiar with radiological emergency procedures?</p>   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p>              |
| <p>3. Are all users current with their training?</p>                   | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p>              |
| <p>4. Did you get an updated Recharge Authorization form (RD-114)?</p> | <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> | <p>_____</p> <p>_____</p> <p>_____</p> |

Based on my review of the RUA performance for the renewal period, I recommend renewal of the RUA for an additional year:  
 \_\_\_ Yes \_\_\_ Yes, conditionally (explain in report) \_\_\_ No (explain in report)

Other: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Y = Yes, N= No, NA = Not Applicable, and NR = Not Reviewed**