



INSTRUCTIONS FOR USING THE RADIOLOGICAL SURVEY FORM

These instructions describe how to document a survey on the Radiological Survey Form. For specific information regarding the performance of a radiological survey see Chapter 6 of the UGA Radiation Safety Manual or contact the Radiation Safety staff.

- 1) Before you begin working with the Radiological Survey Form for the first time, download the document from the ORS website and save it to your local disk. There are two different Radiological Survey Forms. One form uses **gross cpm** to calculate $dpm/100cm^2$. This is the most commonly used form when wipe tests are done on liquid scintillation counters. The other form uses **net cpm** values, which are the number of counts above the background value. This form is typically used for wipe tests analyzed on gamma counters.
- 2) The **Building, Room Number, Authorized User and Permit (license) Number** sections are self-explanatory.
- 3) In the **Purpose** section provide sufficient information so that a person not familiar with the object or location surveyed will understand what the survey represents or why the survey was performed. For a monthly survey, complete the statement "Routine survey for the month of ____" by indicating the month the survey is being performed for. Examples of other purposes that the survey form can be used for include surveys for release of equipment to unrestricted use, spill follow-up surveys, etc.
- 4) In the **survey diagram** section, draw an overhead view diagram of the laboratory surveyed, or draw a sketch of the component or item surveyed. For a monthly routine survey of a laboratory it is recommended that the map be drawn accurately for the first survey and saved as a template for future surveys. Extensive detail is not necessary, however, the location of key components such as fume hoods, sinks, radioactive use benches, radioactive materials storage freezers, radwaste containers, and etc. should be included. With a little practice, drawings may be easily created, saved, or modified.
 - The drawing toolbar should be used to create diagrams. Select *View/Toolbars/Drawing* from the standard toolbar to display the drawing toolbar.
 - Text may be added to oval or rectangular shapes by selecting the shape, right-clicking the mouse, and choosing *Add text* from the menu. Text should be used to label the components on your laboratory diagram.
 - Text may also be added by selecting *AutoShapes* on the drawing toolbar, then choosing *Callouts*. Callouts are useful for adding comments or recording radiation dose rate readings. Another way to add text is to use the *Text Box* feature on the drawing toolbar.
 - A number inside a circle is used to designate a wipe test location. These may be created by selecting the oval shape and using the *Add text* option. Resize the shape and text as needed and use the *Copy* feature to reproduce them.
- 5) The wipe test results section is an embedded MS Excel spreadsheet. To use this feature, double click on the spreadsheet to open it. When you left click outside of the Excel spreadsheet it will close. Enter the following information in the spaces provided.



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- In the row marked with wipe number "NA", enter the background for the counting instrument used to analyze the wipe tests in the **gross cpm** or **net cpm** space.
 - The numbers provided in the **Wipe Number** column should correspond to the circled numbers used on the survey diagram to indicate the wipe locations.
 - Enter a description of the wipe test location in the column marked **Wipe Location** to clarify the information provided on the diagram. Location descriptions may be listed briefly such as "floor", "bench top", "door handle", "centrifuge", etc.
 - Enter the **gross cpm** or **net cpm** of the wipe result in the space provided on the spreadsheet.
 - The formula in the **dpm/100cm²** column will automatically subtract the background from the gross cpm value and convert the result to dpm using a correction factor of 3. Your counting instrument, typically a LSC, should have a minimum efficiency of 30% for the isotopes being analyzed. If you are not using a LSC or do not know if your efficiency is adequate, contact Radiation Safety for assistance. Wipe results that are <200 dpm/100cm² will automatically display as "<200 dpm/100cm²" on the RSF. Wipe results that exceed 200 will display as the actual value. Results that exceed 1000 dpm/100cm² will be displayed in red text, indicating that the restricted area action level has been exceeded.
 - If you are recording wipe results that have been counted with a portable instrument (P-32 only) and no contamination is detected, you should record "ND" in the **gross cpm** column. The automatic function will indicate "<1000" in the **dpm/100cm²** column.
 - The action levels for wipe tests are 200 dpm/100cm² for unrestricted areas and 1000 dpm/100cm² for restricted (radioactive materials) areas.
 - If contamination above action levels is indicated, take appropriate actions as described in the manual, then conduct additional wipe testing and record the results on the RSF. If necessary, generate another RSF to record post-decontamination results.
- 6) List the **Instruments** used in the section provided. You must provide the survey meter and wipe counter information if you record data for radiation levels and wipe test results.
- 7) Enter your name in the **Survey By** section.
- 8) Sign your name in the **Signature** section.
- 9) Record the **Date/Time** the survey was performed in the space provided.
- 10) The **Radiation Dose Rates** section has been added to clarify radiation dose rate information. You should "X" one of the two boxes as described below.
- An "X" in the first box indicates that you have taken measurements with your portable radiation survey instrument of the dose rates at 30 cm (approx. 1 foot) from all potential radiation sources in the area described and the results are <0.05 mR/hr unless otherwise noted. If you select this option and any dose rates in the survey area exceed 0.05 mR/hr, you must record the actual radiation dose rates on the survey diagram and indicate the approximate location. This may be done by using text boxes or callouts (see item 4, above). **Remember that dose rates in unrestricted areas must be ≤ 0.02 mR/hr.**



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- An "X" in the second box is used to indicate that no radiation dose rate survey is required. A radiation dose rate survey is not required if the only isotopes used or present in the lab are low energy beta emitters (beta energy <250 keV). This includes the isotopes H-3, P-33, S-35, and C-14.
- 11) The **Sewer Disposal** section is provided to record the status of any liquid radioactive waste disposals by designated laboratory drains (excluding releases of liquids below ALARA action levels). Specific authorization is required for sewer disposal. This authorization will be documented in your Radioactive Materials Permit, in the initial document that authorizes radioactive materials use, or in the form of a permit amendment. Select one the three choices by marking an "X" in the appropriate box.
 - 12) Record any additional information in the **Comments** section.
 - 13) The RSO or designee will complete the **Reviewed By** and **Date** section.
 - 14) All sections of the RSF may be computer-generated with the exception of the space for signature which must be completed by hand, or by electronic signature for submitting electronically.
 - 15) Never use correction fluid (white-out) on a radiation safety record. Make corrections by drawing a single line through the error, then initial and date the correction.
 - 16) Save a copy of the survey for your records. This may be an electronic file or hard copy, but must be immediately available for inspection. It is highly recommended that you save an electronic version as a template for your monthly surveys.
 - 17) If you are unsure about any part of the form or the survey results, contact Radiation Safety for assistance. If you are using the electronic form for the first time, you may wish to send a draft of the survey to Radiation Safety via e-mail for review prior to submitting as a finished document.