

ESP Calc Instructions

Note: a discussion of the principles used in this program can be found in the Phase I Report: Methodology for Assessing Risk from Radioactive Materials Found in Medical, Industrial and Academic Sites, Appendix G. This report is downloadable from SecureRAM.com.

This program is used to evaluate the storage/use of radioactive materials by a licensee. Transport of radioactive material is not addressed. The user will proceed through the list of security devices to arrive at a numerical value for his/her radioactive materials. If the numerical value is less than the goal for that category of radioactive material, then the user is expected to proceed through the list again and select procedures to add to, or enhance, the current security program. The user should balance cost of implementation and continued use of each procedure against the effectiveness of that procedure. Once the category goal has been achieved, the user should then add the selected enhancement procedures to his/her security program.

CAUTION: The information entered in this program should be considered sensitive security information and it should be protected from unauthorized persons as all times!

The ESPCalc program is an Excel spreadsheet used with macros. Be sure to:

- Turn on macros!
- Make sure the workbook sheets are in “protected” mode! There are no passwords.

Step 1: Enter the name of the individual responsible for determining security measures or entering this data. Also enter the other information in the yellow boxes. Only enter information in the yellow boxes.

Step 2: Enter the identification of the radioactive material (isotope), such as Co-60. A drop down list is available.

Step 3: Identify the device, such as: gauge, container, source holder, etc.

Step 4: Indicate the form of the material, such as: sealed source, unsealed, loose, liquid, etc.

Step 5: For unique identifier, enter the source ID, such as the serial number. In some cases, one may want to use the device serial number. If multiple sources, such as 10 sources, indicate “10 sources”.

Step 6: Enter the quantity of radioactive material being considered. One can consolidate multiple sources. For example, if multiple Co-60 sources of the same basic type are used because they are stored together, enter the total curie amount.

The green boxes (not editable) will display returned information. The (IAEA) category will be shown in box 9 (green). This would be an equivalent if multiple sources are used herein.

Step 7: On the right side of the page, proceed down the column of methods (column G) of the spreadsheet, checking the boxes in the current status column if your program uses the method for security.

Step 8: After going through the methods and checking the boxes, check the value of your current security level in the 2nd orange box.

Step 9: Compare your score to the “minimum security level” value in the orange box above your score.

Step 10: If your score is less, then go back through the security procedures and check additional procedures that you feel would fit into your program while balancing cost and effectiveness.

Step 11: Once you have arrived at an acceptable score, you are through.

Step 12: Save your file.

Step 13: Implement your selected procedures.

Remember, you must request a license amendment authorizing your changes from the agency that issued your license.

It is advisable that you periodically reevaluate your program.