

## **2021 Source Term Template.xlsx**

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## INL Source Term Template for NESHAP Calculation/Reporting for CY-21

This is a screening spreadsheet and is used as a tool to calculate the source term for annual reporting, a new proposed project (APAD) or to calculate a periodic confirmatory measurement (PCM). To use this spreadsheet, fill in the green cells by either typing it in or using the dropdown menu (questions 2, 5, 6, 7, 9 require using the dropdown menu). If heated, enter the maximum temperature to which the radionuclides will be heated for question 8 and enter the number of creditable HEPA filters for question 9.

1. Title	Example	2. Organization	U000	3. Date		4. NEPA/APAD/TEV/ FRM # (if applicable)		
5. Mission Center	MFC_MS  6. Building or Location	FCF	7. Laboratory (only for REC)		8. Maximum Operating Temperature (°C)	1234	9. Number of HEPA Filters	2

To calculate the source term, copy and paste your list of radionuclides in the nuclide column (column A). Then, copy and paste the amount you have for each radionuclide. If your amount was given in grams, paste values in column C. If your amount was given in curies, paste values in column E. Make sure your amount is in years (g/yr or Ci/yr) and you entered the maximum operating temperature in celsius. If a radionuclide is not calculated, then there is no dose conversion factor or specific activity conversion factor for that radionuclide. The total dose is summed in the row below and a cleaner version of the total is visible on the 'Documentation for APAD' sheet.

Total Unabated Dose (mrem/yr) = 4.91E+01 Total Abated Dose (mrem/yr) = 4.91E+01 Unabated Dose % of 0.1 mrem 49111.00%

For column B, enter in the operating temperature for the radionuclide if it's not heated to the maximum operating temperature in question 8 (should be less than the maximum operating temperature).

Nuclide	Individual Operating Temp <sup>1</sup>	Amount Used (g/yr)	Specific Activity (Ci/g)	Amount Used (Ci/yr)	HEPA Filter Efficiency	Dose Conversion Factor (mrem/Ci)	Airborne Release Factor	Unabated Effective Dose Equivalent (mrem/yr)	Abated Effective Dose Equivalent (mrem/yr)	Percent of Unabated Dose Total
cs-136	5678	1.00E+00	7.33E+04	7.33E+04	1.00E+00	6.70E-04	1.00E+00	4.91E+01	4.91E+01	100%
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