1) Calculate average water flow (AMF) through the building. The AMF is a calculated average of the 12 monthly water flow rates prior to discharge (Reports are obtained from the Budget Office).

\[ \text{AMF} = \text{ml} \]

2) Compute the Discharge Safety Volume (DSV) by dividing the AMF by 10. This ensures an adequate safety margin to prevent the TSO from exceeding the discharge limits specified in 10CFR20.2003.

\[ \text{DSV} = \text{ml} \]

3) Calculate the discharge activity by dividing the nuclide activity by the DSV.

\[ \frac{\text{Nuclide Activity (µCi)}}{\text{DSV}} = \text{µCi/ml} \]

4) Enter the amount of activity that has been discharged during the current calendar year (This amount shall not exceed the monthly and yearly limits specified in 10CFR20.2003).

\[ \text{Discharged Activity} = \text{µCi} \]

5) Determine the release fraction by dividing (3) above by the Monthly discharge concentration.

\[ \frac{\text{Discharged Activity}}{\text{Monthly discharge concentration}} = \text{fraction} \]

6) Add the fraction calculated above to the fractions for all radionuclide disposals conducted over the past calendar year (this value must not exceed one).

\[ \text{Total Yearly Fraction} \]

Calculated By: _______________________________ Date: _________________________

TSO Representative

Approved By: _______________________________ Date: _________________________

Radiation Safety Officer