

Summary of ODCM bounding calc of U2 SFP water to the Environment –
Rev 1

The following calc is an attempt to bound the offsite dose from a 10,000 ml per day leak from the U2 pool to the discharge canal.

There was no accounting for hold-up due to leaching or filtering in the soil or concrete.

The minimum dilution flow rate allowed by station procedures (100,000 gpm) was used). Normally, the dilution flow rate is 4 to 5 time higher than this value. This value also does NOT account for any Service Water dilution.

The CURRENT U2 Pool water isotopic concentrations, with some additional conservative estimates for Beta emitters, were used instead of the observed isotopic concentrations.

These parameters are all very conservative and result in doses that are probably 2 to 4 orders of magnitude higher than reality. However, this is intended as a worst case bounding calculation.

Notice that a leak of 10,000 ml per day can be converted to annual dose by multiplying the final dose values by 365.

The doses calculated are for one day.

The one day calculated whole body dose is ????? mrem.

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