Radionuclide	2020 EPA calculation	2016 DOE D2	2021 DOE D3
I-126	3.01	23	306
Sr-90	89.1	546	5,123
Tc-99	222.3	1,662	28,410
U-238	213.9	962	6,692

From 2021 DOE D3 FFS (adds a screening level concentration not present in the D2, based on dilution factor of 64x)

Table K.11. Screening level risk-based discharge limits

Radioisotope	Total risk-based screening level discharge limits based on incidental water contact and fish ingestion		
	Dilution Factor	10^{-5} ELCR (pCi/L)	Screening Level radiological discharge limits
Iodine-129	64	306	19,584
Strontium-90	64	5,123	327,872
Technetium-99	64	28,410	,818,240
Tritium	64	6,625,929	424,059,456
Uranium-233/-234[1]	64	5,973	382,272
Uranium-235/-236[1]	64	6,162	394,368
Uranium-238	64	6,692	428,288
Uranium (soluble salts)	24 mg/L		

ELCR = excess lifetime cancer risk

From the 2016 DOE D2 FFS

Table K.12. Total recreational risk-based discharge limits

Radioisotope	Total risk-based discharge limits in based on incidental water contact and fish ingestion		
	10^{-4} ELCR (pCi/L)	10^{-5} ELCR (pCi/L)	10^{-6} ELCR (pCi/L)
Iodine-129	227	23	2.3
Strontium-90	5,459	546	55
Technetium-99	16,618	1,662	166
Tritium	7,182,743	718,274	71,827
Uranium-233/-234[1]	8,594	859	86
Uranium-235/-236[1]	8,849	885	88
Uranium-238	9,625	962	96
Constituent	**HI = 1 (mg/L)**		
Uranium (soluble salts)	24		

[1]lower value for the two radioisotopes selected as representative

From the January 2020 table that we sent to DOE, following the December 2019 meeting in D.C.

Table 1. EPA AWQC Equivalents and Recommended WQBELs for Radionuclides

DOE Reported List of Radionuclide Contaminants of Concern [1,2,6]	Radionuclide AWQC equivalent [Target Risk Level of 1E-5] Based on Recreation Use Classification for Bear Creek [3,4,5]	WQBEL for Discharge of Radionuclides into NT-5 of Bear Creek at the V-Weir [7] [Values the same as Column 2 due to no dilution. See FN #7 below]
Iodine-129, pCi/L	3.01	3.01
Strontium-90, pCi/L	89.16	89.16
Tech-99, pCi/L	222.3	222.3
Tritium, pCi/L	123544	123544
Uranium-233, pCi/L	191.24	191.24
Uranium-234, pCi/L	194.04	194.04
Uranium-235, pCi/L	196.31	196.31
Uranium-236, pCi/L	206.13	206.13
Uranium-238, pCi/L	213.9	213.9