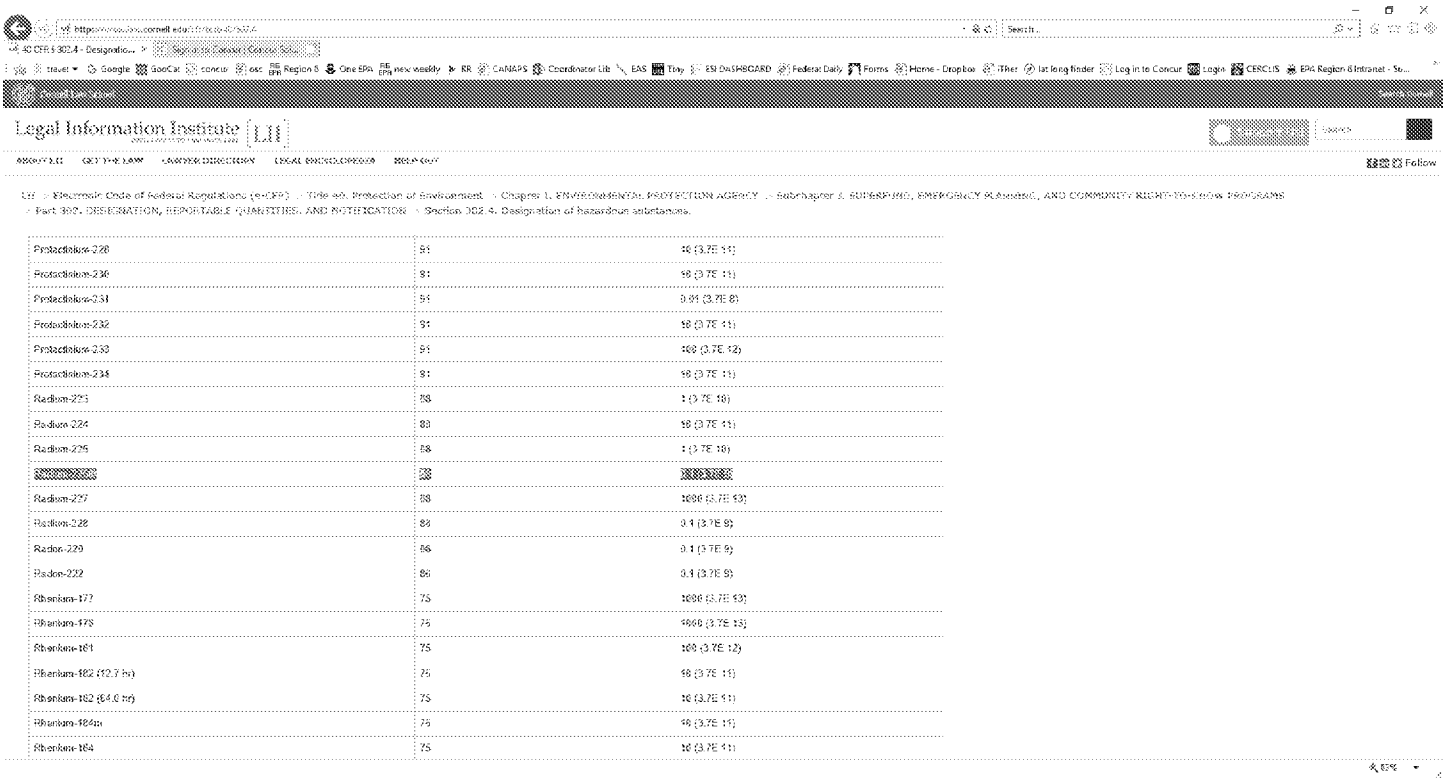
Message

From: Fife, Greg [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1EBD5B1EB9104F3E93818DB928C8A313-FIFE, GREG]
Sent: 4/29/2019 3:42:29 PM
Subject: lowerline draft action memo.docx
Attachments: lowerline draft action memo.docx

With regard to whether Radium-226 is a hazardous substance versus a pollutant or contaminant: Part 302.4 includes Radionuclides and then in Appendix B, the radionuclides are listed with specific RQs, etc.

Radium-226 is a radionuclide and a hazardous substance according to section 101(14) of CERCLA, 42 U.S.C. § 9601(14) and 40 C.F.R. § 302.4, specifically Appendix B. *See* Attachment 2, Material Safety Data Sheet for Radium.



Protactinium-228	91	10 (3.7E 11)
Protactinium-230	91	10 (3.7E 11)
Protactinium-231	91	0.01 (3.7E 8)
Protactinium-232	91	10 (3.7E 11)
Protactinium-233	91	100 (3.7E 12)
Protactinium-234	91	10 (3.7E 11)
Radium-223	88	1 (3.7E 10)
Radium-224	88	10 (3.7E 11)
Radium-225	88	1 (3.7E 10)
[redacted]	[redacted]	[redacted]
Radium-227	88	1000 (3.7E 13)
Radium-228	88	0.1 (3.7E 9)
Radon-219	86	0.1 (3.7E 9)
Radon-222	86	0.1 (3.7E 9)
Rhenium-177	75	1000 (3.7E 13)
Rhenium-178	75	1000 (3.7E 13)
Rhenium-181	75	100 (3.7E 12)
Rhenium-182 (12.7 h)	75	10 (3.7E 11)
Rhenium-182 (64.0 h)	75	10 (3.7E 11)
Rhenium-184m	75	10 (3.7E 11)
Rhenium-184	75	10 (3.7E 11)