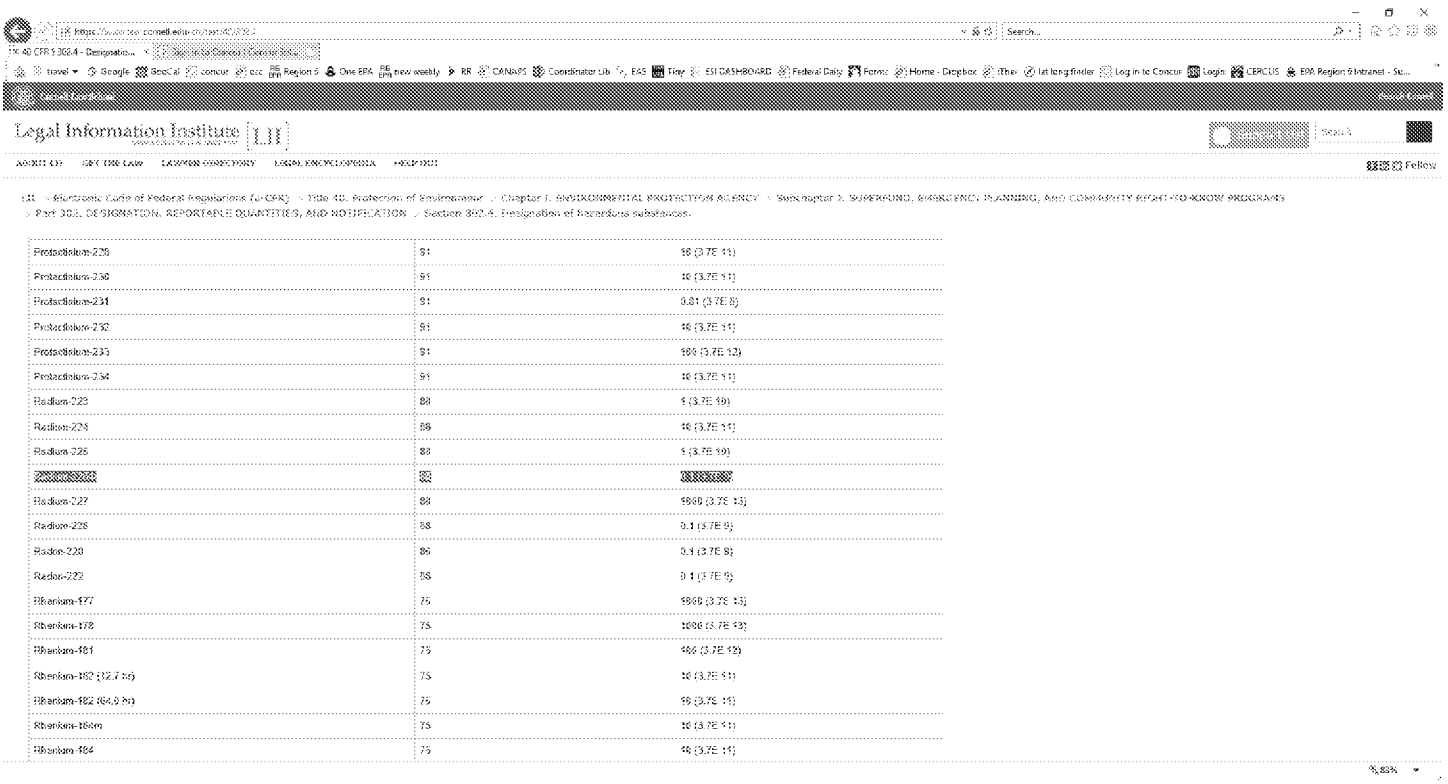
Message

**From:** Fife, Greg [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1EBD5B1EB9104F3E93818DB928C8A313-FIFE, GREG]
**Sent:** 4/29/2019 3:48:45 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.. I'd suggest the following addition in red.

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.

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|---|---|---|
| Protactinium-226 | 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-220 | 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) |

If there is a question bou