MDNR Appendix F - Section Specific Comment 133:

Comment:

Section 4.3.4.3, Comparison of EPA Web Calculator and RESRAD Results, first paragraph, page 11 – The second sentence of the first paragraph states, "Risks from radon are not addressed separately in the EPA calculator so no direct comparison between the two methodologies could be verified for the radon pathway." Remediation goals are generated for Rn-222 using the EPA calculator for air and soils. In addition, this statement is not accurate. EPA's PRG calculator does estimate risk from exposure to radon, while providing a formula that considers a continual source. For ambient air PRGs and monitoring levels, calculation is straight forward using the EPA calculator. According to EPA, in situations where the contaminant in the air has a continual source (e.g., indoor radon from radium in the soil), the EPA PRG equation which does not include the half-life decay function should be used. Also, both RESRAD and EPA PRG calculator should be used to determine if the UMTRCA cleanup values for radium, including progeny product, are protective of human health. The only limitation is that RESRAD can only be used to determine soil PRGs for radium in soils, the source of radon, and not risk from ambient air concentrations of radon.

Discussion:

The text will be changed to clarify that risks from radon <u>emanation</u> are not addressed separately in the EPA <u>soil</u> calculator so no direct comparison between the two methodologies could be verified for the radon pathway.

Proposed Text Change:

The first paragraph of Section 4.3.4.3 in the revised Appendix F now reads:

"In order to determine if RESRAD was calculating risks in a manner that was consistent with EPA methodology, risks from direct radiation exposure to surface soil containing radium-226 were calculated using both methods. Risks from radon emanation are not directly addressed in the EPA soil calculator so no direct comparison between the two methodologies could be verified for the radon pathway."

EPA FEEDBACK:

EPA accepts this response and the proposed text change, with the minor redline change included above.