

Public Comment Opportunity through February 17, 2012
Cotter Cañon City Mill

Cotter has prepared several documents related to on-site characterization and soil removal and soil clean up criteria. Comments on these approaches are solicited from the public.

Onsite Characterization

A synopsis of the approach to the onsite characterization and remediation strategy is attached, including the January 5, 2012 Groundwater Characterization Plan Technical Memorandum.

Soil Cleanup Criteria

Soil cleanup criteria are presented in two documents and comments from the CDPHE, as follows:

- Soil Remediation Plan for Site Decommissioning and Radioactive Materials License Termination, March 30, 2011
- Soil Remediation Plan for Site Decommissioning and Radioactive Materials License Termination, Criteria 6(6) review, Letter to John Hamrick from Steve Tarlton, October 17, 2011
- Assessment of Proposed Changes to Soil Cleanup Standards and Implications for the Cañon City Milling Facility and Surrounding Environs, January 4, 2012
- Assessment of Proposed Changes to Soil Cleanup Standards and Implications for the Cañon City Milling Facility and Surrounding Environs, January 9, 2012

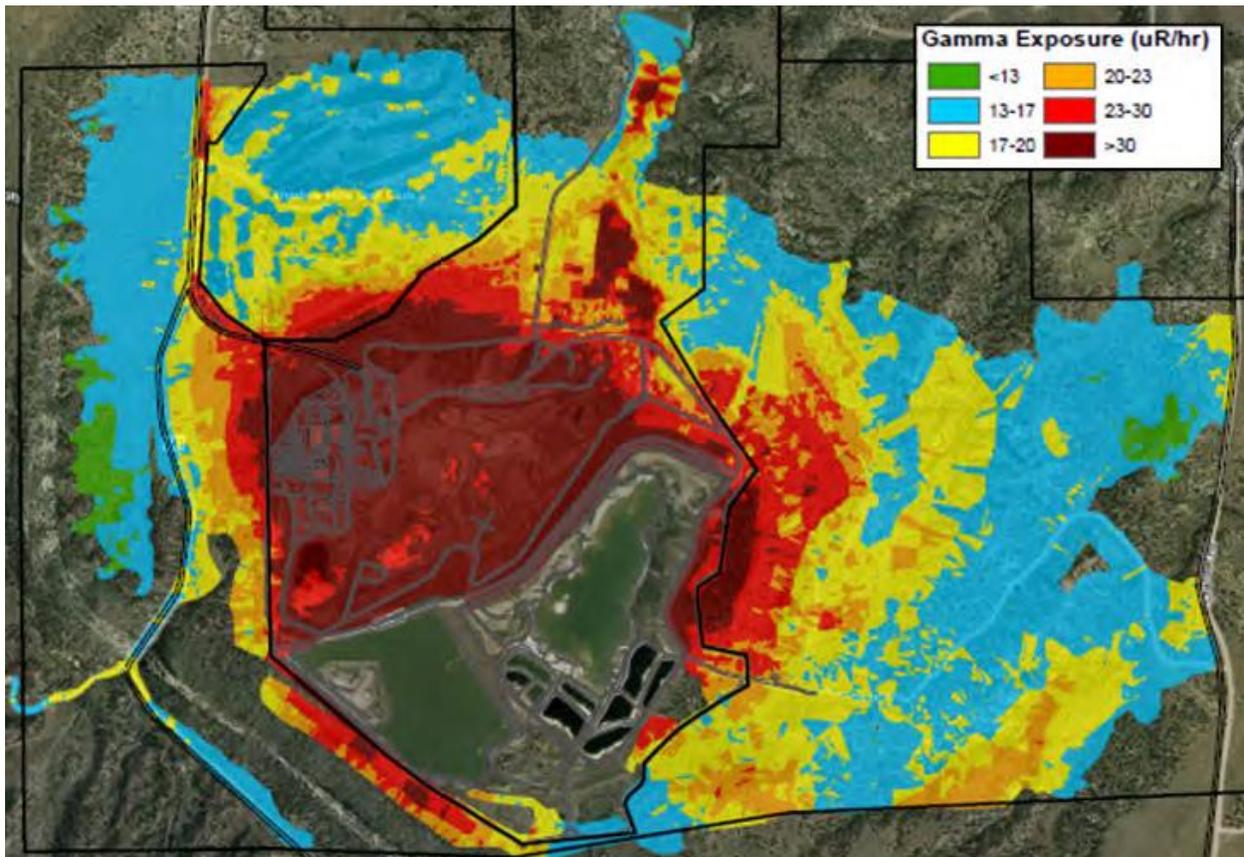
Comments will be accepted by the Department through February 17, 2012. A public meeting will be held to summarize the proposed approaches and receive comments on February 8 in Cañon City.

Cotter Onsite Characterization and Remediation Strategy (January 9, 2012)

From Soil Remediation Plan for Site Decommissioning and Radioactive Materials License Termination, March 30, 2011:

“The remedial strategy is to remove all surface and subsurface soils with radionuclide concentrations in excess of soil surface cleanup standards. Excavations will begin at the surface in all areas where gamma readings exceed 23 $\mu\text{R/hr}$, and will continue vertically until real-time radiological screening measurements indicate that compliance has been achieved or until bedrock is encountered.”

The material to be removed is generally approximated in most areas by the dark areas (orange, red and brown) in the figure (Appendix A, Section 9) below:



The largest potential for exceedance of dose or risk standards for NPL delisting and license termination is associated with external gamma radiation from residual radium in soil. The calculated gamma screening level sufficient to demonstrate compliance with the Part 18 soil radium standard for license termination is 23 $\mu\text{R/hr}$. To further reduce radium in soil, an additional ALARA goal is to further remove soils until gamma screening measurements approach 20 $\mu\text{R/hr}$.

The general approach for soil radium cleanup is to employ equipment and methods necessary to achieve broad-scale removal of soils across large areas (such as use of large scrapers working downwards from the surface in 6-inch lifts). The data indicate that natural background gamma radiation in areas east of the restricted zone exceed 20 uR/hr in many locations and to avoid cleaning up background level soils, the above gamma screening criteria will not be applied east of the restricted area.

An initial (interim) soil cleanup phase, also based on radium in soil, will have a gamma screening goal of 25 uR/hr to remove the majority of contaminated soils as soon as possible for burial in the impoundment. Characterization for additional COCs in soil will follow interim cleanup to 25 uR/hr, followed by additional soil removal as needed to satisfy related requirements for NPL delisting and license termination. In addition, separate investigations may be required for leach fields or other potentially buried source areas.

Groundwater characterization is proposed using existing data and additional monitoring, as described in the January 5, 2012 Technical Memorandum.