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Colorado Department
of Public Health
and Environment

JAN 24 2011

Mr. Jim Cain
Radiation Safety Office
Cotter Canon City Milling Facility
PO Box 1750
Canon City, CO

Subject: Demolition plans and completion reports form and content

Dear Jim,

The purpose of this letter is to clarify Department requirements with respect to project documentation for demolition plans, survey requirements, and completion reports of the milling facility and closure of the impoundments. NRC guidance used in crafting these requirements is cited.

Cotter submitted a letter on June 10, 2010 outlining its intention to decontaminate and decommission the existing facilities. It says "...plans are currently being developed to demolish the remainder of the CCMF, dispose of the contaminated materials and associated soils in the tailings impoundments, and close both the Primary and Secondary Impoundments as soon as reasonably achievable. Cotter remains committed to complete the reclamation as described in plans approved by the State for this facility."

The timeliness in decommissioning requirements found at Part 3.16.3 of the radiation regulations apply. Revised Decommissioning and Reclamation plans are due to the Department by March 30, 2011. The existing Decommissioning and Reclamation Plan dated 2005 remains in effect until the Decommissioning and Reclamation plans are revised to reflect the final impoundment design and final site reclamation. The Site Liquids and Solids Materials Management Plan also remains in effect.

We expect a complete and comprehensive plan since you have had a year to revise the 2005 plan. No further time extensions to the plan will be granted; rather we will comment on what you submit in March, and suggest further changes if necessary.

Rather than contracting with engineering firms that specialize in remediation, Cotter is performing much of the work in-house with local contractors. This is within the scope of the licensee, and can be accomplished provided that Cotter has the appropriately trained, experienced and qualified staff, and sufficient resources, material and equipment to do the work safely and in a timely manner.

Cotter is conducting safety reviews as part of the planning of the individual work packages per SPA-12. Cotter must certify that the plans are designed, reviewed and approved by qualified engineering staff, particularly with respect to large picks/lifts that will involve hoisting and rigging needed to take down

large components. The plans are being submitted for Department approval. We currently have six plans from you for Department review, and hope to get specific comments back to you on those plans in the next week.

Since it is likely the site will not transfer to the long-term custodian for some time, documentation of the planning, cleanup, and verification of the site is critical so as to maintain good records and not to inhibit transfer at license termination.

To that end we would like to point out that procedure SA-900, *Termination of Uranium Milling Licenses in Agreement States* was recently updated by NRC, and should be reviewed for required documentation of the decommissioning for site closure. It can be downloaded at: <http://nrc-stp.ornl.gov/procedures/sa900.pdf>. Agreement States are responsible for approval of the remediation plans of uranium milling facilities in their States and for site inspections to ensure that the actual remedial actions have been completed pursuant to the approved plans. The data and reports generated now will be used in the future as the basis of the Completion Review Reports (CRRs) that are central to the NRC SA-900 process.

SA-900 states in part, "Licensees are required under 10 CFR 40.42(j) or equivalent Agreement State regulations to document the results of site decommissioning by conducting a radiation survey of the premises where the licensed activities were carried out. The results of this survey, the contents of which are specified at the Agreement State regulation equivalent to 10 CFR 40.42(j)(2), are submitted to the State for review, as a final status survey report." Cotter should review the entire procedure for what is expected for groundwater remediation and impoundment closure, in addition to the topics being addressed here in this letter.

NUREG-1620 is also germane to this process and is included here by reference. All geotechnical and impoundment closure requirements should be addressed in the revised Decommissioning and Reclamation Plan.

We note that there has not been a final characterization report for the site soils. Cotter insisted that the 2008 characterization was solely for surety planning purposes, and is not sufficient for accurately characterizing soil volumes to be remediated, particularly in the mill facility area.

Cotter shall provide a characterization report addressing the various areas of the facility for volumetric estimation of contamination, excavation, and reclamation. It shall be based on a combination of gamma surveys, borings, and surface and subsurface soil samples. The characterization shall include a historical site assessment and be consistent with the MARSSIM manual, including a robust data quality objectives process. It is suggested that background soil concentrations be established that meet the MARSSIM criteria (i.e., representative of individual soil types and statistically valid number of samples).

Characterization and documentation of groundwater contamination and cleanup shall continue on the current path. The characterization report shall be part of the record for site closure, and may be amended from time to time as more information becomes available (particularly with respect to groundwater).

With respect to content of the decommissioning plan, NUREG-1620 is the primary guidance for minimum requirements. The NUREG-1757 series. Vol.s 1 and 2 (rev.1 – 2006) provides additional information useful for planning purposes for the non-impoundment portions of the site (although it is

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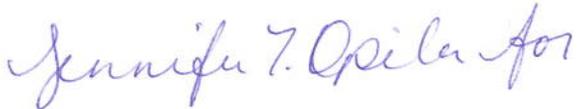
geared to the Part 20 License Termination Rule rather than Part 40). The MARSSIM manual is cited for scoping the surveys, and Visual Sample Plan for designing the surveys. Cotter must show how the UMTRA cleanup criteria are met (i.e., 100 m² area) if using large survey units under MARSSIM. The content of all reports should also meet CERCLA requirements with an eye towards delisting the site. As such, we suggest a meeting to go over all these issues and come to agreement on the details.

We note some these documents have been updated since the last revision to the Cotter Reclamation Plan in 2005.

The four ore pads that are currently partially remediated do not necessarily need further soil characterization; but they will need completion reports documenting the amount of soil removed and the verification data demonstrating the soils meet all criteria. The remainder of the mill facility area (including the CCD tanks soil area) shall be characterized for volumetric estimates of radiological and chemical constituents of concern. We have discussed this requirement with you verbally in the past, and expect that the characterization efforts are well under way.

Please contact Phil Egidi at (970) 248-7162 or electronically at phil.egidi@state.co.us or myself at (303) 692-3423 or steve.tarlton@state.co.us if you have any additional questions.

Thank you,



Steve Tarlton, Manager
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SFT/pve

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