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October 7, 2004

Kenneth L. Kalman
Decommissioning Branch
Division of Waste Management
Office of Nuclear Materials Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Teleconference Summary (License No. SMB-743, Control No. 132074)

Dear Mr. Kalman:

First of all, I would like to thank the representatives of the U. S. Nuclear Regulatory Commission (USNRC) for participating in the teleconferences with representatives of Shieldalloy Metallurgical Corporation (SMC) on Thursday, September 23, 2004. Our objective in scheduling these calls was to discuss and receive clarification on some issues pertaining to the preparation of our revised decommissioning plan. Thanks to the assistance of Mr. Robert Johnson, Mr. Mark Thaggart, Ms. Melanie Wong, Ms. Adrienne Lester and Ms. Shamica Walker, I believe that objective was met.

The first of the two teleconferences held at 2:00 p.m. on September 23rd, focused on dose modeling. The second, which began at 3:00 p.m. on the same day, addressed the development of SMC's environmental assessment. As follow-up to the teleconferences, I have summarized the key issues that were discussed and the conclusions that were drawn. The purpose of this summary is to ensure SMC has an accurate understanding of the USNRC's guidance and position on dose modeling and environmental assessments - as they pertaining to the decommissioning of our Newfield site - so that we can avoid having our revised decommissioning plan fail the test for acceptability for technical review.

The following is a listing of the key points made during each of the two teleconferences. They are presented in no particular order of importance, but rather reflect the general flow of the discussions.

Teleconference on Dose Modeling

1. SMC understands that the entirety of our property in Newfield, New Jersey would be subject to the terms and conditions of a Long Term Control (LTC) license, even though most of the residual radioactivity at the site after decommissioning is complete would be confined to a restricted area equal to a portion of what is currently called the "Storage Yard".
2. SMC understands that in order to demonstrate compliance with the USNRC's License Termination Rule (LTR), the restricted and unrestricted areas of the property may be subject

to different exposure scenarios that may be mutually exclusive. In that case, the dose modeling results for each scenario would be compared to the relevant dose criterion in the LTR in order to determine whether the compliance status of the proposed decommissioning action.

3. In demonstrating the radiation dose potential when "all controls fail", SMC understands this to mean all *institutional* controls. Instead, we may assume that engineering controls may or may not fail once institutional controls fail, or their effectiveness may degrade over time.
4. SMC's Site Specific Advisory Board (SSAB) should be queried as to land use issues and how that might impact the selection of exposure scenarios.
5. Consistent with recent USNRC guidance on decommissioning for restricted release, SMC should rule out extreme exposure scenarios and instead assess the radiological impacts of the decommissioned site on realistic but justifiable exposure scenarios.
6. SMC understands that if dose modeling is performed for the following hypothetical populations, and assuming all institutional controls remain in place, we can be reasonably confident that our revised plan will not be rejected for technical review on that basis: (1) nearest off-site resident; (2) on-site workers that do not have access to the restricted area; (3) workers that perform routine maintenance and inspection of the restricted area; and (4) trespassers.
7. SMC understands that if dose modeling is performed for the following hypothetical populations, and assuming all institutional controls fail, we can be reasonably confident that our revised plan will not be rejected for technical review on that basis: (1) trespassers (recreational users, casual visitors, hunters, etc.) and (2) nearest resident.
8. SMC understands that while it may be possible to decommission the site in a variety of ways, including caps with a steep slope, caps with a gradual slope, stone-bearing caps, clay/soil/vegetation caps, or no cap at all, the results of dose modeling for the preferred methodology, under conditions of both effective and failed institutional controls, must comply with the dose criteria in the LTR.
9. SMC understands that all parameters used as input to the dose modeling that have the potential for significantly impacting the final results must be justified and defended. Those parameters with little-to-no impact on the final result may be simply referenced.

10. The guidance on grouping input parameters with respect to their impact on modeling results found in NUREG-6697 should be used with caution as they are based upon generic exposure scenarios that may not be fully applicable to the Newfield site.
11. For the preferred decommissioning alternative and for the case where all institutional controls fail, SMC maintains that dose modeling results will be most sensitive to the following input parameters: (1) distribution coefficients; (2) density of cover materials, contaminated zone and saturated zone; (3) porosity of cover materials, contaminated zone, saturated zone and unsaturated zone; (4) hydraulic conductivity of the saturated zone; (5) shielding factors for the direct exposure pathway; and (6) transfer factors for uptake by plants.
12. In cases where site-specific input parameters do not exist, SMC understands that even in cases where the dose modeling results are sensitive to a particular input parameter, it would be acceptable to reference industry-standard parameters or technically-defensible parameters rather than acquiring site-specific data as long as the most conservative of the range of parameters is selected.
13. While both SMC and the USNRC agree that a resident farmer scenario is not relevant if the site is decommissioned for restricted use with LTC, it will be important for SMC to make that argument in the revised decommissioning plan.
14. SMC understands the benefits of broadening the extent of stakeholder input beyond that currently in place with the SSAB, and that while input of almost any type is helpful during the decommissioning planning phase, it is not necessary for SMC to capture and address input in the revised decommissioning plan that goes beyond that which is required in 10 CFR 20.1403 (i.e., input on the potential effectiveness of the proposed institutional controls, and input on the adequacy of funding made available to ensure the controls remain in place and are paid for in advance).

Teleconference on the Environmental Assessment

1. SMC intends to capture the environmental report required as part of the decommissioning plan in a stand-alone appendix to the plan. Those same environmental issues called out in the body of the plan in response to the recommendations found in NUREG-1748 will not be re-stated. Instead, a clear reference to the relevant section of the environmental report appendix will be given.

2. SMC understands that it will be acceptable to present applicable regulatory requirements and permits in a table format that briefly summarizes each requirement and how it is or is not applicable to the site. For permits, the status of the permit will be indicated in the table.
3. It is acceptable to summarize and reference previous cultural resource surveys conducted at the site. The consultation process with the New Jersey State Historic Preservation Office (NJSHPO) will also be described therein.
4. In addition to the existing ecological data that has already been collected for the site, the U.S. Fish and Wildlife Service will be contacted to obtain ecological resource information on a federal level. If the Natural Heritage Data Base has been updated since 2002 (the date of the last inquiry for this site), the updated data base information will also be obtained and presented.
5. In evaluating the cultural diversity of the Newfield area, it is not sufficient to simply reference county-wide distribution patterns. Instead, year 2000 data based on census block groups for areas near the facility should be presented.
6. All of the items required in Section 6.3 and 6.4 of NUREG-1748 may not be applicable to the proposed decommissioning action. In these cases, it is SMC's understanding that it will be sufficient to merely list those sections and state or demonstrate why they are not applicable.
7. SMC understands that the lack of historic noise level data will not negatively impact the acceptance of the decommissioning plan for technical review. The lack of noise data from periods when the SMC site was more active may make comparisons of noise generated as a result of decommissioning activities to historic noise levels more difficult. However qualitative evaluations can be provided.
8. Site conditions will remain relatively unchanged following decommissioning, therefore little impact on the visibility of the slag piles will occur. Therefore, SMC understands that it is not necessary to include BLM ratings for assessing impacts on visual and scenic resources in the plan. Instead, photographs of the current conditions of the site may be overlaid with graphical representations of post-decommissioning conditions in order to demonstrate visual impacts, etc.
9. SMC understands that the waste generation information needed in the assessment should be sufficient to permit the USNRC to evaluate local impacts of non-radioactive waste generation associated with decommissioning activities (e.g., impacts on local landfills, etc.). If little non--radioactive waste will be generated during implementation of the proposed

Kenneth L. Kalman
DWM-NMSS-USNRC
October 7, 2004
Page 5 of 5

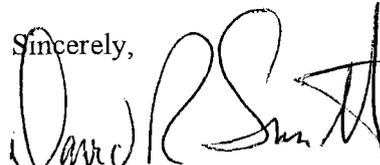
decommissioning plan, this will be stated with an explanation that local impacts will be minimal.

10. SMC understands that our current commitment to perform an ecological evaluation to ensure local flora and fauna are established at the site after decommissioning is complete should be a sufficient demonstration of mitigation measures.

Once again, SMC appreciates the USNRC time spent in discussing dose modeling and environmental assessments with us in advance of submitting our revised decommissioning plan. The teleconferences were certainly productive from SMC's point of view. While we believe we have a better understanding of the USNRC's expectations in these two key areas, we hope we can contact you again for additional clarification if the need should arise.

In the meantime, I hope you will let me know if the USNRC's understanding of the conclusions drawn during the two teleconferences differs from ours. In addition, please don't hesitate to call me at (856) 692-4201, extension 226, if I can answer any questions or provide you with additional information.

Sincerely,



David R. Smith,
Radiation Safety Officer

cc: Eric Jackson
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