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# SHIELDALLOY METALLURGICAL CORPORATION

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February 10, 2005

U.S. Certified Mail: 7001 1940 0004 1212 2332

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: Action Plan for Phased Approach (License No. SMB-743, Control No. 132074)**

Dear Mr. Kalman:

In December of 2004, SMC submitted a schedule for completing three key components of our revised decommissioning plan. As we progressed on those tasks, we identified a number of issues that would require resolution before a particular task could be completed. The following is a discussion of those issues.

**Leachability of Slag** - One parameter that must be input to the RESRAD computer code requires knowledge of the leachability of the materials that are the subject of our decommissioning plan. In early 1994, SMC acquired leachability data pursuant to ANSI N16.1, "Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure" (1986). It was our intent to use that report to develop a distribution coefficient (Kd) for the slag that is currently in SMC's Storage Yard. However, the analytical results that formed the basis of that assessment were not detectable by the measurement method that was used.

In order to be defensible, the data used to develop the Kd used as input to the RESRAD code must have a statistically-positive value or a sufficiently low detection limit. Therefore, in consultation with representatives of Argonne National Laboratory (ANL) who authored the RESRAD computer code, SMC determined the optimum form and sensitivity of leachability information that would be needed. We then submitted specifications for performance of two analytical methods (TCLP and ASTM 4319) to a commercial analytical laboratory and we received their commitment to meet those specifications.

Shortly a single sample of slag will be collected from the stockpile that currently exists in the SMC storage yard and forwarded to the laboratory for preliminary analysis by the two different test methods. From those results, SMC will select the methodology that provides the most defensible data for Kd development and then mount a representative slag sampling

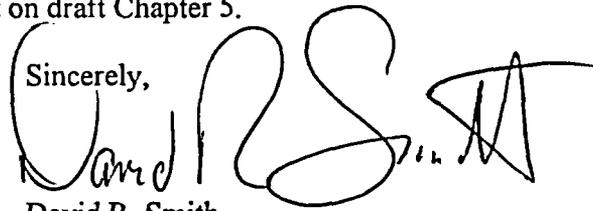
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campaign. Those samples will be analyzed by the selected methodology and the results will be used to justify the Kd used in our dose modeling efforts.<sup>1</sup>

**Air Quality Analysis and Source Term Development** - In order to perform these analyses, and to support source term confirmation, an aerial survey and topographic map is required. Acquisition of this information was delayed beyond our original projection due to weather delays (snow cover) that hindered the performance of the aerial surveys. However, we do anticipate receiving the necessary documents shortly.

Attached is a revision to our December, 2004 schedule. Baring the identification of additional impacting issues, we intend to submit a draft environmental report to the USNRC by April 29, 2005, a draft Chapter 5 on dose modeling by April 15, 2004, and a draft Chapter 6 on the ALARA analysis approximately 45 days after receipt of USNRC input on draft Chapter 5.

Sincerely,



David R. Smith,  
Radiation Safety Officer

cc: Eric Jackson  
Joe Diegel  
Charles L. Harp, Esq. - Archer & Greiner  
Carol D. Berger, CHP - Integrated Environmental Management, Inc.  
Bill R. Thomas, CHP - Integrated Environmental Management, Inc.  
Jean Oliva, PE - TRC  
Marie Miller - USNRC Region I

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<sup>1</sup>At this time, we do not know which of the two sampling methods will meet our requirements. One of them, ASTM 4319, requires long processing times and multiple aliquot analyses, with a turn-around time from the date of sample receipt of approximately 45 business days. Therefore, SMC reserves the right to amend the attached schedule if the ASTM 4319 methodology must be performed for the follow-up sampling campaign.

**REVISED SCHEDULE**  
 (status as of February 10, 2005)

Environmental Report Task	Schedule
<ul style="list-style-type: none"> <li>- Review existing file information for applicability and identify additional data needs (completed on schedule)</li> <li>- Set ground control for new site survey (completed on schedule)</li> </ul>	January 3 – January 14
Conduct site visits to collect additional local, site-specific data, as necessary <ul style="list-style-type: none"> <li>- Noise data (completed 2/1)</li> <li>- Visual/scenic resource data (to be conducted after topographic data is available; not expected to impact overall schedule)</li> <li>- Zoning, land use, socioeconomic, transportation data (as necessary) (on schedule)</li> </ul> Conduct flyover to perform aerial photography (completed on schedule)	January 17 – February 4
Collect other data from other sources, as necessary <ul style="list-style-type: none"> <li>- Meteorological data (NJDEP will not address request until initial modeling is completed, topographic information is required to conduct modeling – see modeling task below for more detail)</li> <li>- Socioeconomic data (90% complete)</li> </ul>	January 17 – April 8
Prepare site topographic map from aerial photography (on schedule)	February 4 – March 4
Model current and future site conditions under proposed alternatives, as necessary <ul style="list-style-type: none"> <li>- Visual/scenic impacts (on schedule)</li> <li>- Noise impacts (on schedule)</li> <li>- Air quality impacts               <ul style="list-style-type: none"> <li>- Conduct initial modeling based on topographic information (March 4 – March 18)</li> <li>- Request emissions inventory information from NJDEP based on initial modeling results (dependent upon timely response from NJDEP; assume March 18 – April 8)</li> <li>- Complete modeling effort (April 8 – April 22)</li> </ul> </li> <li>- Water quality impacts (on schedule)</li> </ul>	January 31 – April 22
Prepare draft report (approximately 30% complete)	February 14 – May 6
Conduct internal review	May 6 – May 13
Finalize draft report for submittal to USNRC	May 13 – May 27
Conference Call/Meeting with USNRC	TBD
Revise draft report in accordance with NRC comments and submit with revised Decommissioning Plan	30 business days after conference call/meeting.

**REVISED SCHEDULE**  
 (status as of February 10, 2005)

Dose Modeling Evaluations	Schedule
Develop exposure scenarios and input parameters (completed on schedule, with exception of leachability information as described above) <ul style="list-style-type: none"> <li>- In concert with ANL RESRAD authors, determine appropriate testing methodology for leachability (complete)</li> <li>- Prepare laboratory specifications and secure quotations (complete)</li> <li>- Collect slag sample and submit to laboratory for test determination of radionuclide leachability test method (scheduled collection date is February 11, 2005)</li> <li>- Receive and validate leachability testing results from laboratory and select the most useable method (scheduled completion date is March 25, 2005)</li> <li>- Perform representative sampling/analysis of the slag pile (scheduled sampling date will be as soon as possible after the methodology has been identified. Results should be received between 10 and 45 business days from the date of sample receipt by the laboratory, depending upon the analytical method selected.)</li> </ul>	December 17, 2005 - April 1, 2005
Execute RESRAD Code and analyze sensitivities (completed on schedule with exception of leachability information as described above)	December 31 - April 1, 2005
Revise text for Chapter 5 of DP	December 31 - April 8, 2005
Incorporate comments on Chapter 5 text	April 13, 2005
Distribute Chapter 5 text to USNRC	April 15, 2005
Conference Call/Meeting with USNRC	TBD
Revise draft chapter in accordance with NRC comments and submit with revised Decommissioning Plan	10 business days after conference call/meeting
<b>Decommissioning Alternatives/Rationale</b>	<b>Completion Date</b>
Revise text for Chapter 6 of DP	30 business days after conference call/meeting.
Incorporate comments on Chapter 6 text	10 business days after completion of previous step.
Distribute Chapter 6 text to USNRC	5 business days after completion of previous step
Conference Call/Meeting with USNRC	TBD
Revise draft chapter in accordance with NRC comments and submit with revised Decommissioning Plan	10 business days after conference call/meeting