



SHIELDALLOY METALLURGICAL CORPORATION

January 14, 2009

U. S. Nuclear Regulatory Commission
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**Re: Response to "Supplemental Request for Additional Information for Environmental Review of Proposed Decommissioning Plan for Shieldalloy Metallurgical Corporation, Newfield, New Jersey"
(License No. 5MB-743)**

Sir/Madam:

Shieldalloy Metallurgical Corporation (SMC) is in receipt of the NRC's December 5, 2008 request for additional information on the "Decommissioning Plan for the Newfield Facility" (Report No. 94005/0-28247, Rev. Ia), hereinafter referred to as the "DP". The purpose of this letter is to respond to your request. Specifically, the enclosure to this letter transmits additional information, proposed modifications to Rev. Ia of the DP and other commitments pertinent to your inquiries.

If you have any questions or if I can provide you with additional information, I can be reached at (856)362-8680.

Sincerely,

David R. Smith
Radiation Safety Officer

enclosure

cc:

John J. Hayes – U.S. Nuclear Regulatory Commission
Allen H. Fetter – U.S. Nuclear Regulatory Commission
Hoy E. Frakes – Shieldalloy Metallurgical Corporation
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Jean Oliva, PE – TRC Environmental
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ENCLOSURE

Shieldalloy Metallurgical Corporation Response to the USNRC's Supplemental Request for Additional Information of December 5, 2008

General comment regarding responses to RAIs: The design of the LTC alternative has changed from that upon which Table 17.14 of the June 2006 Supplement to Decommissioning Plan submittal was based. Therefore, the associated cost estimate will be significantly revised based on the new design, with the revised estimate presented in Rev. 1b of the DP. The cost estimate will also be updated to reflect 2009 costs and, as a result, may utilize new cost reference information. Similarly, the cost estimate for the LT alternative will be revisited based upon the RAIs below and will be updated to reflect 2009 costs. These changes may also result in the utilization of new cost reference information. Therefore, some of the RAIs presented below may not be directly applicable to the new cost estimates (e.g., RAI No. 12 regarding the basis for a 5% markup for Admin Costs; if the total cost for the alternative changes, this particular cost may change). In such cases, the RAIs have been addressed to the extent possible, given the potential revisions in the cost estimates that will be presented in Rev. 1b of the DP.

RAI No. 1 (Comments on Table 17.14): Please provide references for all line item costs.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 2 (Comments on Table 17.14): It is our understanding that Area/Piles number 10 and 11 would be included in this alternative. However, the quantity estimates do not include these piles. Area/Pile number 11 is located outside of the Storage Yard on Figure 1-6 of the ER (SMC 2005); however, it is not listed on Table 1-1 of the same report. Based on review of DP Rev 1 b, the Design Drawings do not discuss either Area/Piles number 10 or 11. Please clarify how you plan to rectify these omissions.

SMC Response: Areas 10 and 11 contain uncontaminated concrete from the demolition of Buildings D111 and D102. They are destined for disposition at a concrete recycler prior to the start of on-site decommissioning activities.

Action to be Taken: References to Areas 10 and 11 will be removed from Rev. 1b of the DP.

RAI No. 3 (Comments on Table 17.14): The quantity (28,000 SY) of dust suppression on haul roads seems large if just haul roads are being considered. A) Explain how the area for dust suppression was quantified. B) Does the dust suppression line item apply to material within the restricted area as well; not just haul roads? This is alluded to in the DP Rev 1, p. 97, 2nd paragraph. C) Additionally, describe the equipment/materials that are proposed to suppress the dust. (ER p. 1-8).

SMC Response: The cost of dust suppression on haul roads will be revisited based on the revised design and will be reflected within the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 4 (Comments on Table 17.14): Are the haul roads being referred to above the same as those referred to on page 1-8, of the ER and shown on Figure 1-5 of the same report (highlighted in green and perpendicular to Weymouth Road)? Does this road still exist after portions of the road were excavated prior to 1998 (ER, p. 1-8)? If the haul roads don't exist, please add construction of the haul roads to the estimate. Suggest identifying the haul roads on the LTC alternative figure.

SMC Response: The haul roads referred to above are the existing on-site roads that will be used to bring engineered barrier cover materials into the Storage Yard area from West Boulevard. They are not the same as the Haul Road that is referred to on page 1-8 of the ER. That Haul Road no longer exists.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 5 (Comments on Table 17.14): Please explain why radiological and air monitoring are proposed for only 13 weeks if construction is to occur over 7 months.

SMC Response: The cost of the radiological and air monitoring was based on the 13-week period during which the Storage Yard materials would be consolidated (see Figure 18.9, Rev. 1 of the DP), prior to the placement of engineered barrier cover materials. The required monitoring period will be revisited based on the revised design.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 6 (Comments on Table 17.14): The unit cost component for labor allows for one person for 3 hrs/day at \$1 00/hr or 2 hrs/day at \$1 50/hr - are the remaining hours per day for this person included in another line item (a line item for health and safety is not included)? Do the labor hours include the on-site analysis of air filter samples and has the counting equipment been included in the cost estimate, or will the samples be sent to an offsite lab and have analytical costs been included? Please provide the cost basis for the Radiological and Air Monitoring line item. Include the number of monitors and their unit rate.

SMC Response: Concur. Counting of filters will be done on-site, with some off-site analyses for quality assurance purposes.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 7 (Comments on Table 17.14): Please provide the cost basis for the Adjacent Soil Characterization line item.

SMC Response: The cost basis for the adjacent soil characterization will be addressed during the preparation of the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 8 (Comments on Table 17.14): The unit costs listed for types of grading are as follows: 1) Rough Grading of Coarse Slag at \$6.74/SY; 2) Grading of Sub grade Cap Materials at \$0.26/SY; 3) Grading at \$0.36/SY (in Table 17.1 5). Please explain the rationale for the three different unit costs for grading and why number 1 is so much higher than the others.

SMC Response: The costs of grading and cost basis will be revisited based on the revised design.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 9 (Comments on Table 17.14): The ER states that an FSS will be performed for the entire plant, which would include building and soil surveys. Were the analytical costs included in this estimate? Explain why the FSS is the same cost for the LTC alternative and the LT alternative since the footprint of the consolidated materials pile would not be included in the FSS for the LTC alternative. Please provide the basis for the materials, labor, and equipment costs for the Final Status Survey (FSS).

SMC Response: The cost basis for the FSS will be addressed during the preparation of the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 10 (Comments on Table 17.14): Although the text indicates fencing is included, it is not included as a line item. Please add the cost of fencing as a line item. [DP Rev 1, p. 150, last bullet].

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 11 (Comments on Table 17.14): Please provide a line item for preparation of a final topo survey once the engineered barrier is complete (to be used for as-builts).

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 12 (Comments on Table 17.14): The 5 percent markup for Admin Costs (\$88,755) is assumed to include a secretary in the field or in the office. Assumed costs for a secretary of loaded \$40/hr at 8 hr/day at 5 days/wk at 4wk/mo at 7mo = \$45,000 (vs \$88,755 in Table 17.14). Is it anticipated that the remaining approximate \$44,000 will be enough to support additional

subcontracting, invoicing, timekeeping, expense reporting, etc., services necessary for this project?

SMC Response: These costs and the cost basis will be revisited based on the revised design.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 13 (Comments on Table 17.14): The 10 percent markup for Project Management During Construction (PMDC) (\$177,510) appears to be low. For this project it would be expected that a field project manager and a field engineer would be needed, plus corporate project management. Please provide backup to support a 10 percent markup on PMDC (sufficient to allow an independent third-party to carry out the decommissioning [NUREG 1757, Vol 3, Section A.3.1.21]).

SMC Response: These costs and the cost basis will be revisited based on the revised design.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 14 (Comments on Table 17.14): For permits and legal documentation, explain what is included in the estimated cost of \$177,510.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 15 (Comments on Table 17.14): Explain what is included in the Engineering Design Costs of \$177,510. If it includes Work Plans, H&S Plans, O&M Plans, Soil Management Plans, continuous scheduling updates, etc., the cost appears to be low.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 16 (Comments on Table 17.14): Section 9.3.2.1 of the DP, Rev 1, indicates that radiological, industrial hygiene, and industrial safety support will be provided, but there are no line item costs for health and safety. Please provide these costs.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 17 (Comments on Table 17.14): Provide rationale for not including groundwater monitoring in this alternative.

SMC Response: Analysis of the leachability potential for all of the materials in the Storage Yard demonstrates the radioactivity and other elements are tightly-bound. A further analysis of the potential for contaminant migration was performed that supports this finding. Therefore, there is no need for groundwater monitoring for radionuclides after decommissioning is complete.

Action to be Taken: The Source Term Document and the Groundwater Impact Analysis Report, both of which demonstrate groundwater monitoring for radioactivity is not necessary at the site, will be included in Rev. 1b of the DP.

RAI No. 18 (Comments on Table 17.14): Explain how overhead and profit (O&P) was applied to each line item. Most items have -25 percent O&P added to the base costs. In other cases, it is 17 percent (DP Rev 1a, Table 17.14, Sediment and Erosion Controls) or 31 percent (DP Rev 1a, Table 17.14, Drainage Improvements) or other. The text states a universal 25 percent O&P factor applied to most unit costs, with certain activities requiring higher health and safety precautions thus labor and equipment productivity were reduced by 45 percent, and 25 percent respectively (DP Rev 1, p150, 4th bullet). Explain how the reduced productivity rates were incorporated into the unit costs. O&P factors >25 percent are reasonable; O&P factors <25 percent are not typical.

SMC Response: The cost basis for the O&P and the incorporation of the reduced productivity rates will be addressed during the preparation of the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 19 (Comments on Table 17.14): Explain the rationale for the markup percentage chosen for each estimate, as they vary between estimates. For example, Engineering Design costs are 10 percent of the construction costs in Table 17.14 (LTC alternative); whereas it is 2 percent in Table 17.1 5 (LT alternative). A similar situation exists for other markups.

SMC Response: Additional information on the basis for the costs represented by markup percentages will be provided along with the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 20 (Comments on Table 17.14): Clarify cubic yards line items, to be loose cubic yards, or bank cubic yards as this would add a level of accuracy to the estimate.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 21 (Comments on Table 17.14): Indicate if and where non-labor costs (e.g. PPE, shipping, taxes, insurance [NUREG 1757, Vol 3, Appendix A, p. A-28]) and field support items such as field trailers/portable toilets/computers/electricity/water etc. have been included in the estimate. If they have not been included, add line items for these costs.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 1 (Comments on Table 17.15) - Please provide references for all line item costs.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 2 (Comments on Table 17.15) - It is our understanding that Area/Piles number 10 and 11 would be included in this alternative. However, the quantity estimates do not include these piles. Please clarify whether these piles will be addressed in this alternative.

SMC Response: See Response to RAI No. 2 (Comments on Table 17.14), above. Areas 10 and 11 are not included in this alternative.

Action to be Taken: All references to Areas 10 and 11 will be deleted in Rev. 1b of the DP.

RAI No. 3 (Comments on Table 17.15) - Explain why the move cost is the same in this alternative as in the LTC alternative. Explain why demove is more expensive than move in this alternative.

SMC Response: The move costs for the LTC alternative will be revisited based on the revised design, with any differences in costs between the LT and LTC alternatives explained.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 4 (Comments on Table 17.15) - Explain the logistics of loading the rail cars and transporting off site. For example, is there enough track to hold the number of railcars to be loaded at any given time or should costs for additional track be added? Since the track dead ends at the site and there is one way in and one way out for the cars, how does SMC/EnergySolutions plan to logistically load the railcars and transport off-site? Is there enough room for the 10 railcars? Is a car puller to be utilized or will the switcher be used to maneuver railcars?

SMC Response: Concur.

Action to be Taken: Additional information on the rail car logistics will be presented in Rev. 1b of the DP.

RAI No. 5 (Comments on Table 17.15) - For railway transport, indicate if and where the costs for loading scales have been included in the cost.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 1 (Comments on Table 17.15) - Based on the quantities given, there are 3,000 crossties proposed for 2,400LF of track. Therefore, each crosstie is to be placed every -9 inches. Based on RS Means (2008, Assembly R347216-1 O), timber crossties are typically placed every 22 inches on center. Please explain.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 7 (Comments on Table 17.15) - Clarify what is included in the Railcar Switcher unit cost (i.e. labor, equipment, and/or materials).

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 8 (Comments on Table 17.15) - For the Radiological and Air Monitoring item, explain why the costs are different for LT and LTC alternatives and explain the basis for the cost. Include the number of monitors and their unit rate. The unit cost component for labor allows for one person for 3 hrs/day at \$100/hr or 2 hrs/day at \$150/hr - are the remaining hours per day for this person included in another line item (a line item for health and safety has not been included in the estimate)? Do the labor hours include the on-site analysis of air filter samples and has the counting equipment been included in the cost estimate, or will the samples be sent to an off-site lab and have analytical costs been included?

SMC Response: Concur. Counting of filters will be done on-site, with some off-site analyses for quality assurance purposes.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 9 (Comments on Table 17.15) - Provide the costs to be added to construct the staging area as it is currently proposed in a grassy area, e.g., include poly, concrete pad, gravel base, gravel entrance/exit, etc. as necessary to protect human health and the environment. If the paved areas immediately adjacent (to the west) will be used as well, include costs for preparation of that area (there are cracks in the existing pavement). Also, describe the plan and costs for secondary containment and storm water management measures in the staging area.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 10 (Comments on Table 17.15) - Explain why mulch is not included in site restoration as was done for the LTC alternative.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 11 (Comments on Table 17.15) - Please include costs for a survey crew for railroad installation.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 12 (Comments on Table 17.15) - Drainage improvements for the LT alternative are included in Table 17.15 at the same cost as presented in Table 17.14, however, drainage improvements are not described in the text for the LT alternative. Please clarify.

SMC Response: The drainage improvement costs for the LTC alternative will be revisited based on the revised design and additional information will be provided regarding the LT alternative drainage improvements.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 13 (Comments on Table 17.15) - For permits and legal documentation, explain what is included in the estimated cost of \$474,449.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 14 (Comments on Table 17.15) - Explain what is included in the Engineering Design Costs of \$948,899.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 15 (Comments on Table 17.15) - Section 9.3.2.1 of the DP, Rev 1, indicates that radiological, industrial hygiene, and industrial safety support will be provided, but there are no line item costs for health and safety. Please provide these costs.

SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 16 (Comments on Table 17.15) - Explain how overhead and profit (O&P) was applied to each line item. Most items have -25 percent O&P added to the base costs. In other cases, it is 17 percent (DP Rev 1 a, Table 17.14, Sediment and Erosion Controls) or 31 percent (DP Rev 1 a,

Table 17.14, Drainage Improvements) or other. The text states a universal 25 percent O&P factor applied to most unit costs, with certain activities requiring higher health and safety precautions thus labor and equipment productivity were reduced by 45 percent and 25 percent respectively (DP Rev 1, pg.150, 4th bullet). Explain how the reduced productivity rates were incorporated into the unit costs. O&P factors >25 percent are reasonable; O&P factors <25 percent are not typical.

SMC Response: The cost basis for the O&P and the incorporation of the reduced productivity rates will be addressed during the preparation of the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

RAI No. 17 (Comments on Table 17.15) - Explain the rationale for the markup percentage chosen for each estimate, as they vary between estimates. For example, Engineering Design costs are 10 percent of the construction costs in Table 17.14 (LTC alternative); whereas they are 2 percent in Table 17.15 (LT alternative). A similar situation exists for other markups.

SMC Response: Additional information on the basis for the costs represented by markup percentages will be provided along with the revised cost estimate.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.

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SMC Response: Concur.

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SMC Response: Concur.

Action to be Taken: This RAI will be addressed in Rev. 1b of the DP.