

Shieldalloy PEmails

From: John Hayes
Sent: Friday, November 14, 2008 11:37 AM
To: Oliva, Jean (Windsor,CT-US); Smith, David R. (Windsor,CT-US); White, David; Carol D. Berger
Cc: Jenny Goodman; Steve Spayd
Subject: Master Draft RAIs - Cost Estimates Mixed Waste 11202008 Meeting (2).doc
Attachments: Master Draft RAIs - Cost Estimates Mixed Waste 11202008 Meeting (2).doc

These are the Environmental RAIs on the cost estimate and the SE RAI on the mixed waste. The SE RAIs on ALARA will be sent either later today or the first thing Monday morning.

Jack

Hearing Identifier: Shieldalloy_DP_Public_EX
Email Number: 17

Mail Envelope Properties (D841D501B2C4D244B75AB897F70C149484665ACF43)

Subject: Master Draft RAIs - Cost Estimates Mixed Waste 11202008 Meeting (2).doc
Sent Date: 11/14/2008 11:37:03 AM
Received Date: 11/14/2008 11:37:44 AM
From: John Hayes

Created By: John.Hayes@nrc.gov

Recipients:

"Jenny Goodman" <Jenny.Goodman@dep.state.nj.us>
Tracking Status: None
"Steve Spayd" <Steve.Spayd@dep.state.nj.us>
Tracking Status: None
"Oliva, Jean (Windsor,CT-US)" <JOliva@trcsolutions.com>
Tracking Status: None
"Smith, David R. (Windsor,CT-US)" <DRSmith@trcsolutions.com>
Tracking Status: None
"White, David" <dwhite@metvan.com>
Tracking Status: None
"Carol D. Berger" <CDBerger@IEM-Inc.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time	
MESSAGE	192	11/14/2008 11:37:44 AM	
Master Draft RAIs - Cost Estimates Mixed Waste 11202008 Meeting (2).doc			44654

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

**Supplemental Request for Additional Information
Shieldalloy Metallurgical Corporation
Docket No. 04007102**

The U.S. Nuclear Regulatory Commission (NRC) staff is conducting its environmental review of Shieldalloy Metallurgical Corporation's (SMC's) proposed plan for decommissioning its Newfield, New Jersey site in support of preparing the Environmental Impact Statement (EIS). In October 2005, SMC submitted a Decommissioning Plan (DP) (Rev 1) and a draft Environmental Report (ER). On June 30, 2006, a supplemental DP (Rev 1a) was submitted. SMC also intends to submit an additional supplemental DP (Rev 1b) in April or May 2009. Based on NRC staff review of these reports, previously submitted information and anticipated information to be provided in DP (Rev 1b), the NRC staff has developed a supplemental request for additional information to support its evaluation of the potential environmental impacts of SMC's proposed DP and alternatives.

Cost Estimate RAIs Based on Shieldalloy Cost Estimates Provided in Decommissioning Plan, Rev1a and Rev 1b Interim

Action needed to complete the staff's review: Shieldalloy needs to update the cost estimates and provide the detailed cost bases and applicable references for their cost estimates in Tables 17.14, 17.15, 17.16 in the Decommissioning Plan, Rev 1a, and specifically address the comments/questions in the comment tables.

Basis or bases why the information is needed: The major costs and benefits of each alternative must be considered in the EIS in accordance with 10 CFR 51.71. The cost benefit analysis provides input to determine the relative merits of various alternatives. The comments on the LTC, LT, and LC alternative cost estimates need to be provided in order to fully and objectively evaluate the costing portion of these alternatives. . An evaluation of the cost estimates is critical as they directly impact the cost-benefit analysis.

Requirement/criteria for the information: Shieldalloy needs to provide supporting documentation and references where applicable.

Comments on Table 17.14 – Cost Estimate for the LTC (Long Term Control) Alternative

1. Please provide references for all line item costs.
2. It is our understanding that Area/Piles #10 and #11 would be included in this alternative. However, the quantity estimates do not include these piles. Area/Pile #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 1b, the Design Drawings do not discuss either Area/Piles #10 or #11. Please clarify.
3. Explain how the area for dust suppression was quantified. The quantity (28,000 SY) of dust suppression on haul roads seems large if just haul roads are being considered. 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, pg 97, 2nd para. Additionally, describe the equipment/materials that are proposed to suppress the dust? (ER p 1-8).
4. 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, pg 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.
5. Please explain why radiological and air monitoring are proposed for only 13 weeks if construction is to occur over 7 months.
 6. Please provide the cost basis for the Radiological and Air Monitoring line item. Include the number of monitors and their unit rate. The unit cost component for labor allows for one person for 3 hrs/day @\$100/hr or 2 hrs/day @ \$150/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 off-site lab and have analytical costs been included?
 7. Please provide the cost basis for the Additional Soil Characterization line item.
 8. Please explain the rationale for the three different unit costs for grading and why #1 is so much higher than the others: 1) Rough Grading of Coarse Slag @ \$6.74/SY, 2) Grading of Subgrade Cap Materials @ \$0.26/SY, 3) Grading @ \$0.36/SY (in Table 17.15).
 9. Please provide the basis for the materials, labor, and equipment costs for the Final Status Survey (FSS). 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.
 10. 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, pg 150, last bullet]
 11. Explain why the line item Fine Grade, Seed and Mulch is referred to in a volumetric unit (CY) when typically it is estimated in SY or acres. The value given, 18,300 CY, is three times the volume of topsoil to be used in areas outside the consolidated materials pile, which seems unreasonable unless Fine Grade, Seed, and Mulch are to be applied to an area larger than the topsoil area. Define the area to be covered by the seed and mulch.
 12. Please provide a line item for preparation of a final topo survey once the engineered barrier is complete (to be used for as-builts).
 13. The 5% markup for Admin Costs (\$90.8K) is assumed to include a secretary in the field or in the office. Assumed costs for a secretary of loaded \$40/hr*8hr/day*5days/wk*4wk/mo*7mo = \$45K (vs \$90.8K in Table 17.14). Is it anticipated that the remaining \$45K will be enough to support additional subcontracting, invoicing, timekeeping, expense reporting, etc. services necessary for this project?
 14. The 10% markup for Project Management During Construction (\$181.6K) 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 a breakdown of the elements of this cost, including basic wages and benefits, overhead, and contractor profit (sufficient to allow an independent third-party to carry out the decommissioning [NUREG 1757, Vol 3, Section A.3.1.2]).
 15. For permits and legal documentation, explain what is included in the estimated cost of ~\$200K.
 16. Explain what is included in the Engineering Design Costs of \$200K. If it includes Work Plans, H&S Plans, O&M Plans, Soil Management Plans, continuous scheduling updates, etc., the cost appears to be low.
 17. 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.
 18. Is groundwater monitoring included in the annual O&M costs? If not, please estimate and add a line item for groundwater monitoring.

19. Explain how overhead and profit (O&P) was applied to each line item. Most items have ~25% O&P added to the base costs. In other cases, it is 17% (DP Rev 1a, Table 17.14, Sediment and Erosion Controls) or 31% (DP Rev 1a, Table 17.14, Drainage Improvements) or other. The text states a universal 25% 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% and 25% respectively (DP Rev1, pg 150, 4th bullet). Explain how the reduced productivity rates were incorporated into the unit costs. O&P factors >25% are reasonable; O&P factors <25% are not typical.
20. Explain the rationale for the markup percentage chosen for each estimate, as they vary between estimates. For example, Engineering Design costs are 10% of the construction costs in Table 17.14 (LTC alternative); whereas it is 2% in Table 17.15 (LT alternative). A similar situation exists for other markups.
21. Clarify CY line items to be loose (LCY) or bank (BCY) as this would add a level of accuracy to the estimate.
22. Provide the reference for the 1996 move and demove costs.
23. Indicate whether all non labor costs have been addressed as specified in NUREG 1757 .
24. Indicate if and where non-labor costs (e.g. PPE, shipping, taxes, insurance [NUREG 1757, Vol 3, Appendix A, pg 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.

Comments on Table 17.15 – Cost Estimate for the LT (License Termination) Alternative

1. It is our understanding that Area/Piles #10 and #11 would be included in this alternative. However, the quantity estimates do not include these piles.
2. 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.
3. 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?
4. For railway transport, indicate if and where the costs for loading scales have been included in the cost.
5. 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 R347216-10), timber crossties are typically placed every 22 inches on center. Please explain.
6. Clarify whether the Railcar Switcher unit cost includes labor.
7. 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 @\$100/hr or 2 hrs/day @ \$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?
8. 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. 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.

9. Explain why mulch is not included in site restoration as was done for the LTC alternative.
10. Please include costs for a survey crew for railroad installation.
11. 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.
12. For permits and legal documentation, explain what is included in the estimated cost of \$475K.
13. Explain what is included in the Engineering Design Costs of \$200K. If it includes Work Plans, H&S Plans, O&M Plans, Soil Management Plans, continuous scheduling updates, etc., the cost appears to be low.
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.
15. Explain how overhead and profit (O&P) was applied to each line item. Most items have ~25% O&P added to the base costs. In other cases, it is 17% (DP Rev 1a, Table 17.14, Sediment and Erosion Controls) or 31% (DP Rev 1a, Table 17.14, Drainage Improvements) or other. The text states a universal 25% 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% and 25% respectively (DP Rev1, pg 150, 4th bullet). Explain how the reduced productivity rates were incorporated into the unit costs. O&P factors >25% are reasonable; O&P factors <25% are not typical.
16. Explain the rationale for the markup percentage chosen for each estimate, as they vary between estimates. For example, Engineering Design costs are 10% of the construction costs in Table 17.14 (LTC alternative); whereas they are 2% in Table 17.15 (LT alternative). A similar situation exists for other markups.
17. Clarify CY line items to be loose (LCY) or bank (BCY) as this would add a level of accuracy to the estimate.
18. Indicate if and where non-labor costs (e.g. PPE, shipping, taxes, insurance [NUREG 1757, Vol 3, Appendix A, pg 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.

Mixed Waste RAI:

Has mixed waste ever been present on the SMC site? If mixed waste is still onsite, how will it be dispositioned? If mixed waste was formerly on the SMC site, how was it dispositioned? Has SMC sampled to determine the occurrence of mixed waste on the surface and in the subsurface? If no sampling has been performed, how will SMC demonstrate that mixed waste are not present? Is there chemically contaminated equipment being considered for consolidation under the engineered barrier thus creating the potential for mixed waste? Demonstrate through either process knowledge, historic operating practices, or from sample analysis whether mixed waste is present onsite. This discussion should address the likelihood of mixed waste in the storage yard as well as in underground structures and systems such as septic systems, drains, pipes, and discharge lines.