

From: "Schoenfelder, Robert P." <R.Schoenfelder@WestonSolutions.com>
To: "NRC-HQ, Elaine" <esb@nrc.gov>
Date: 10/28/03 8:33PM
Subject: Additional response to questions - *Docket 40-6940*

Elaine;
Additional information is provided in the text below, and also in the attached Word file.
Regards,
-Bob

<<RFHFurther responses to Elaine Brummet.doc>>

Further responses to NRC questions. 28 October 2003

Value of Ore (response to 8-20-03, 1 #1).

1. What was asked in RAls of Jan.14, 2003

#1 - cost to transport and dispose of (or why you assume it can easily be sold) the ore, and cost to clean all areas of ore dust and filtercake; (Text to be added to the DFP Cost Estimate)

The ore can reasonably be expected to be sold because the tantalite ore is an asset rather than a liability. It is a valuable commodity that has a strong demand in today's electronics industry, and the market for its trading is expected to stay strong for the foreseeable future. CSM typically has purchased large volumes of the ore, but has also purchased some ore lots that amounted to only a few hundred kilograms of material. This demonstrates that ore buyers are interested in purchasing both small and large lots, so even a small quantity of material on the site will be easily sold.

Disposal Contract for Fluoride Ore Residue (Presscake) (response to 8-20-03, 1 #4).

#4 - information on filtercake disposal contract (duration and acceptance volume of existing or pending contract, and any potential contracts) (Text to be added to the DFP Cost Estimate)

CSM has been working closely over the past 16 months with two uranium mills sites in the western U.S. and licensed transportation companies to establish contracts for disposal of the presscake. Rates for transportation and disposal as used in this cost estimate are taken from final contracts that CSM has established with the facilities and signatures are expected before the end of calendar year 2003. NUREG-1757, Volume 3 'Financial Assurance, Recordkeeping, and Timeliness' does not stipulate that copies of disposal contracts, or their fine details, must be provided to NRC. This is proprietary information. The disposal costs that are provided in Appendix A to the decommissioning funding plan are believed to be accurate and reasonable. The NRC will be notified at the time that the contracts are finalized.

Additional Site Characterization Data (response to 10-16-03, 2b)

2b) when did you obtain more surface data?

WESTON performed supplemental radiological characterization during January 2003. This survey allowed defensible background soil concentrations and gamma radiation levels to be established, and further defined the existing limits of contamination.

Types of Contaminated Media (response to 10-16-03, 3-)

3-implies all contamination in dirt areas, is that correct?

Ground contamination consists of contaminated soil and also contaminated pavement. CSM owns the Boyertown Site, and so there is no commitment to a landlord as to how the site must be restored. The Decommissioning Funding Plan cost estimate assumes that the site will simply be re-contoured. It is important to keep in mind that this site is not a uranium mill and that only a small portion of the overall site (several buildings and some soils around those

buildings) falls under the conditions of the NRC license. It is feasible, even likely, that the limited areas covered by the NRC license could be decommissioned and the license terminated while the remainder of the site might continue to be operated by CSM for non-licensed purposes, or might be closed down and buildings left in-place until future use can be decided. This cost estimate includes the costs necessary to address the areas that will require decommissioning and license termination. There is no requirement to include areas that are not covered by the license

Decommissioning Plan Preparation Hours (response to 10-16-03, 4-)

4- how many staff hours are allotted to decomm plan prep and revision? Is that based on work done for the renewal?

200 hours were designated for the Certified Health Physicist and 100 hours for the Site manager for preparation of the final status survey and final decommissioning plan. Of these hours, 80 and 40 respectively are allocated for preparation of the draft decommissioning plan. Twenty and 10 hours respectively are designated for revisions. These estimates are based on experience gained during license renewal activities.

Wastewater Impoundment Sediment (response to 8-20-03, 3)

3 - Does this volume need to include evaporation pond sludge?

The wastewater impoundment is not a tailings pond and does not receive process liquids. It receives filtered wastewater from the CSM wastewater treatment plant and is not considered part of the NRC-licensed operations at the site. Wastewater that accumulates in the impoundment is periodically pumped to West Swamp Creek. The impoundment sediments have not been sampled for radioactive materials because they are expected to be less radioactive than the landfill cake that is produced at the CSM wastewater treatment plant. It should not be necessary to remove sediments from the impoundment in order to terminate the license.

ALARA (Response to 8-20-03, 3)

3. Since the DCGLs are based on 25 mrem, how will ALARA be demonstrated and at what cost?

More detailed site characterization data is required in order to perform an ALARA analysis. These data will not become available until ore processing has ceased and the pre-remediation survey has been performed. Costs for those surveys were not included in the original cost estimate, but they will be estimated and included in the final revision of the document. The final decommissioning plan will address ALARA on an area-by-area or activity-by-activity basis. The ALARA analysis will follow NRC's guidelines, which are stated in NUREG-1757. A cost of \$2000 per man-rem will be used for the cost-benefit analyses.

SEG Experience (Response to 8-20-03, 4)

4. Document that the waste reduction percentage is current for your type of contamination and equipment, or state why the 1993 assumptions are still valid. Justification for those reduction factors was provided in Section 5.2.1. The following additional text will be added to demonstrate the industry experience of SEG.

The DFP relies on the waste reduction percentage proposed by SEG. SEG was qualified to make these estimates because they were one of the largest radioactive waste management and decommissioning contractors of the 1990s. They had experience, which should qualify them to provide this estimate. It includes operation of their Bear Creek waste minimization and decontamination facility, decommissioning support for the Fort St. Vrain reactor, and holding waste management contracts at numerous Department of Energy facilities. SEG was a major radiological services contractor during the 1990s.

Average Uranium Concentrations in Landfill Cake

Estimated average uranium and thorium concentrations in landfill cake are:

Year	U pCi/g	Th pCi/g
1999	2.81	0.32
2000	1.49	0.11
2001	4.76	0.46
2002	2.61	0.13
2003	3.12	0.05

The Site Map included in the Cost Estimate will be modified to indicate the areas of soil contamination used to calculate soil volumes.

CC: "Tim Knapp" <Timothy_Knapp@cabot-corp.com>, "Rick Haaker, CHP, CIH" <Rick@Haaker.org>, "Schoenfelder, Robert P." <R.Schoenfelder@WestonSolutions.com>

Further responses to Elaine Brummet's e-mail, which was sent on August 20, 2003.

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Created By: R.Schoenfelder@WestonSolutions.com

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