

**From:** Penny Lanzisera  
**To:** TWD2.TWP8.GCC1  
**Date:** 4/8/97 12:04pm  
**Subject:** Shieldalloy EA Q's

⑩ File Shieldalloy  
8/6/97

I know this is late in the game and I was looking at it with fresh eyes since it has been a while since I reviewed this. Essentially, I understand from this document that continued allowance of operation and level of FA is contingent upon SMC receiving amendments and enforcing amendments to export the CANAL material and to sell the baghouse dust material.

Comments are:

- 1) Where does the crushing process to produce CANAL material performed and what have been the results of the air sampling performed around this process. My impression is that the air sampling has been relatively low.
- 2) Statement in 3.5.2. indicates that "Analytical laboratories have been unable to consistently provide low enough minimum detection levels (MDLs) for gross alpha measurements". Does this mean that the alpha data is not reliable or that results may be greater than the 15 pCi/l based on inadequate sample analysis.
- 3) Statement in 3.7 indicates that "An assessment of potential doses to public from airborne emissions from the SMC site was conducted in 1992". Does this mean that effluent or environmental air sampling was performed in 1992. Section 2.1.3.3 indicates that effluent air sampling was last done in 1987.
- 4) Section 3.7.1 states that uranium, thorium, and radium concentrations are provided by the ore supplier. Does SMC do any confirmatory measurements or sampling?
- 5) Section 3.7.3 states that 15 TLD's are located at the perimeter and Section 2.1.3.3 states that 14 are.
- 6) Section 4.1.1.1 - Same comment as Marie's on the 10 millirem dose criteria for members of the public.
- 7) Section 4.1.1.3 states that if uranium-238 is in the more neutral ph, the concentration of 15 pCi/l would reach water table in 101 years and if more alkaline ph, the time would be 0.14 years. The Section summarizes that since these levels have not been detected in the groundwater downgradient yet, the K(d) is most likely between the two examples. Should we request additional information from SMC on the form of uranium in the dust piles?

**CC:** MTM1

Gary Comfort's responses to above:

Conference call 4/8/97 at 2pm

- 1) CANAL process still on line to go thru. Air sample data collected for one and only run. The results were very low.
- 2) MDL statement - amount detected is so far below 15 pCi/l limit, that SMC is not having a problem meeting the limits. Gary will re-word.
- 3) Air sampling was last done in 1987. A hand calculation was performed in 1992 based on the 1987 data.
- 4) Gary not aware of any confirmatory sampling performed by SMC. He has a conference call setup with them today and will verify.
- 5) Total number of TLD's and total number of perimeter TLD's will be verified during conference call with SMC today.
- 6) Gary requesting that SMC perform an evaluation on the efficiency when bags break. Contractor is in the process of performing modeling.
- 7) Will pursue uranium form and ph question and whether this will effect the EA since SMC planning on selling the dust. The monitoring performed for NJ shows no high levels of gross alpha or gross beta (other than background). SMC has stated that could get rid of dust pile in one manufacturing unit.

Also discussed the soil contamination indicated in Berger 1992 (>40 pCi/g soil contamination). Marie commented that Branch Technical Position requires cleanup unless probability of re-contamination. Gary stated that during cleanup of filters and placement into trucks, some continued contamination is caused. Gary also indicated that some cleanup has occurred since Berger 1992 study. Gary agreed to review ALARA considerations with management, but feels that it should not affect EA.

Also discussed buried material. Gary stated that slag was previously buried to provide support to facility and not as a waste disposal mechanism. He stated that most of the slag has been dug up and the location of the rest is documented.