



## SHIELDALLOY METALLURGICAL CORPORATION

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February 13, 1992

Mr. Yawar Faraz  
Mail Stop 6H-3  
Advanced Fuel & Special Facilities Section  
Fuel Cycle Safety Branch  
Division of Industrial & Medical Nuclear Safety  
Office of Nuclear Material Safety & Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

RE: Shieldalloy Metallurgical Corporation  
Source Material Possession Limit for Newfield, NJ Facility  
License No. SMB-743; Docket No. 40-7012

Dear Mr. Faraz:

On July 18, 1988, Shieldalloy Metallurgical Corporation (SMC) applied for renewal of License No. SMB-743 for its Newfield, N.J. facility, and as part of that application requested an increase in the amount of source material that may be possessed under the license. By letter dated May 22, 1990, SMC requested an amendment to the existing license to increase the possession limits while the license renewal application was under review.

In recent discussion, you requested that SMC revise its proposed source material possession limits to reflect the recent recalculations of the inventory at the Newfield facility. This letter responds to your request.

As of December 31, 1991, the inventory of source material at Newfield is estimated at 237,400 kg of Th-232 and 29,600 kg of U-238. Further, it is estimated that SMC's normal operations at the Newfield site will produce an additional 12,500 kg of Th-232 and 1,000 kg of U-238 annually, corresponding to fairly constant monthly increases of about 1,050 kg of Th-232 and 90 kg of U-238.

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We understand the NRC's concern about accumulation of material that will eventually require some disposition. SMC is currently addressing this concern by exploring any identified disposal mechanisms; but the range of alternatives is currently limited and in a state of flux. For example, the NRC's proposed policy on the acceptability of processing alternative feed material at uranium mills, as articulated in SECY-91-347, may eliminate one of the alternatives that SMC was evaluating. Currently, with the triple surcharge and limited capacity, disposal at existing LLW disposal facilities is not viable; and the long term prospects for a disposal facility in New Jersey cannot be predicted with any certainty. To date, no disposal site outside the United States has been identified, although this too is being explored. Even in-situ disposal standards appear to be changing and subject to uncertainty.

Because disposal alternatives are in a state of flux and subject to considerable uncertainty, the eventual disposition of the slag must be treated as a long term issue. For this reason, the possession limits should be set at a level which would enable it to continue operating until long-term disposal options were available and had been properly evaluated, and until time had been allowed to begin the disposal process. While longer term options are being explored, the slag is being maintained in a manner that adequately protects the public health and safety, and financial assurances for site decommissioning are in place. In any event, continued SMC operation will not qualitatively change the types of options for dealing with the source material, or the availability of these options. In sum, there is no need for restrictions on operations at this time.

Putting aside our philosophical concern with arbitrary limits on the storage of source material inventory, SMC submits that any possession limit in a renewed license should accommodate the operations at the Newfield facility for at least the five year license renewal period. Accordingly, SMC requests that the renewed license for the Newfield facility specify a possession limit of no less than the sum of the inventory estimated at the time of renewal plus the five year increase of 62,500 kg of Th-232 and 5,000 kg of U-238. This limit should only apply to licensed materials at the site, and not to other exempt or unregulated materials that may contain unimportant quantities of uranium and thorium.

If a renewed license were issued today, the request above would result in a possession limit of 300,950 kg of Th-232 (237,400 kg inventory as of 12/31/91 + approximately 1,050 kg produced in January + 62,500 kg for five additional years of operations) and 34,690 kg of U-238 (29,600 kg as of 12/31/91 + approximately 90 kg produced in January + 5,000 kg for five additional years). For each month that passes before the Newfield license is renewed, this calculated limit would be increased by 1,050 kg of Th-232 and 90 kg of U-238.

We understand that you may increase the possession limit for the Newfield facility by amending the existing license in advance of final action on the renewal application. If the NRC proceeds in this manner, SMC proposes that a possession limit be set that allows at least five years of operation from issuance of the amendment, as calculated above. This letter, therefore, amends SMC's May 22, 1990 application accordingly.

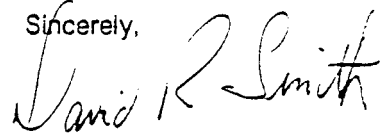
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However, if the NRC proceeds in this manner, SMC requests that the possession limit be recalculated again when the existing license is renewed, so that operations are permitted throughout the entire renewal term.

If you have any questions or wish to discuss this matter further, please do not hesitate to call.

Sincerely,

A handwritten signature in dark ink, appearing to read "David R. Smith". The signature is fluid and cursive, with the first name "David" and last name "Smith" being clearly legible, and "R." as a small middle initial.

David R. Smith  
Director of Environmental Services

DRS:lms

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