

August 7, 1997

MEMORANDUM TO: Michael F. Weber, Chief
Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

FROM: Sherry C. Wu Original signed by:
Licensing Section 2
Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

SUBJECT: REVIEW OF SHIELDALLOY METALLURGICAL CORPORATION LETTER,
DATED JUNE 24, 1996, REGARDING BAGHOUSE DUST

As requested, I have reviewed Shieldalloy Metallurgical Corporation's (SMC's) letter, dated June 24, 1996, that requested to transfer baghouse dust to a facility not holding an NRC license. The letter included a report entitled, "Technical Basis for the Use of Baghouse Dust as an Additive in Concrete Production." My review included the evaluation of SMC's submitted scenarios and associated calculations. I performed four conservative, in-depth dose assessments, using RESRAD, of the scenarios likely to result in the highest dose. The selected scenarios are a cement worker scenario, a road accident scenario, a resident farmer at abandoned cement manufacturer scenario, and a resident farmer on one truckload of baghouse dust scenario.

The resulting dose for the RESRAD assessment shows that, in very conservative scenarios, the dose is not within the Decommissioning Rule limit of 25 mrem/yr. The only very conservative scenario that had results of doses below the regulatory limit is the road accident scenario. However, with more realistic assumptions and still conservative in the cement worker scenario, the resident farmer at abandoned cement manufacturer scenario, and the resident farmer on one truckload of baghouse dust scenario, the doses are less than 25 mrem/yr. Any actual exposure rates would be significantly less than calculated because of the conservative approach.

Enclosed is the report entitled, "Dose Assessment of Several Potential Scenarios of Shieldalloy Metallurgical Corporation's Transfer of Baghouse Dust Containing 0.05 Percent Uranium and Thorium by Weight to Non-NRC Licensees." If you have any questions, please contact me at (301) 415-6619.

Attachment: As stated

REF I/1

Docket 40-7102
License SMB-743

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DOCUMENT NAME: G:/baghouse.scw

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NAME	SWu		PShea	<i>AK</i>	Hastwood		KHardin	<i>AK</i>	MWeber	
DATE	7/21/97		8/1/97		7/14/97		8/1/97		1/197	

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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