UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DEC 0 8 1992

Mr. Andrew Wallo III, Director
Air, Water, and Radiation Programs
Department of Energy
EH-232
Air, Water, and Radiation Division
Office of Environmental Guidance
Washington, D.C. 20585

Dear Mr. Wallo:

This is in response to your letter (dated November 2, 1992) to W. E. Brach, formerly the Acting Branch Chief of the Low-Level Waste Management Branch. That letter requested additional information regarding the U.S. Nuclear Regulatory Commission's conclusion that overreporting may have occured in the case of thorium waste sent to disposal at the Chem-Nuclear Systems Incorporated, Barnwell, South Carolina disposal facility.

With regard to reported thorium inventories, for the year 1990, we discovered that the quantity of source material in pounds (reported from waste manifest data) when divided by the specific activity in curies per pound only accounted for one tenth of the reported thorium activity in the site inventory. Follow-up examination of shipping manifest for the same year also revealed that most of the thorium source material shipped was comming from one company. It was further discovered that thorium, reported as natural thorium by this waste generator, was transposed by the site operator into thorium-232. This apparently accounts for the descrepancy between site inventory data and shipment manifest data. We did not look at this data for the years 1987-1989 for any of the three operating disposal sites.

NRC has attempted to reduce the incidence of overreporting of waste inventory by making waste generators, disposal site operators, and Agreement State Authorities aware of practices which cause overreporting. Further studies to identify more accurate methods for reporting long-lived radionuclides in waste may help reduce the overreporting. However, unless the activities are related to public health and safety or common defense, these studies would be beyond the scope of NRC funded activities.

We have informed the NRC Office of State Programs (see enclosure) that overreporting of thorium source material quantities may be occuring at the currently operating waste disposal sites and that the Agreement States where these sites are located would be the proper authority to initiate any corrective action. We will provide you with comments from the Agreement States when they are received.

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We trust this responds to your concerns and if you have questions please contact Roy Person of my staff at 301-504-2575.

Sher Bahadur, Acting Chief
Low-Level Waste Management Branch
Division of Low-Level Waste Management
and Decommissioning
Office of Nuclear Materials Safety
and Safeguards

Enclosure: As Stated

Distribution: (L-312) Central File NMSS r/f
RBangart WBrach JAustin JSurmeier SBahadur
JKennedy JThoma RPerson LLMW t/f LLWB r/f
PDR YES X
PDR NO ___ Category: Proprietary ___ or CF Only ___ ___
ACNW YES ___ NO X ___
SUBJECT ABSTRACT: RESPOND TO QUESTIONS RE: THE DRAFT REPORT ON RADIONUCLIDE INVENTORY DATA FOR LLW

* See Previous Concurrence

OFC	LLWB*		LLWB*		LLWB	E		
NAME	RPerson		JThoma		SBahadur			
DATE	12/03/92		12/03/92		12/03/92			

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