



REQUEST REPLY BY:  
UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

5/13/02  
COMSECY-02-0022

April 26, 2002

Approved.

MEMORANDUM TO:

Chairman Meserve  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan  
Commissioner Merrifield

Richard A. Meserve 5/10/02

FROM:

William D. Travers   
Executive Director for Operations

SUBJECT:

RESPONSE TO LETTER FROM AMERICAN ECOLOGY  
REGARDING CLASSIFICATION OF FUSRAP MATERIAL AT  
MAYWOOD, NEW JERSEY

Attachment 1 is the staff's proposed response to the December 3, 2001, and March 8, 2002, letters from American Ecology Corporation (Attachments 2 and 3) regarding classification of material at the Formerly Utilized Sites Remedial Action Program (FUSRAP) Maywood, New Jersey, site. Staff has coordinated this response with the U.S. Army Corps of Engineers (USACE).

Staff clarified the classification of byproduct material in section 11e.(2) of the Atomic Energy Act of 1954, in a Director's Decision of December 13, 2000, stating that, among other things, the material had to be possessed by a person licensed by the U.S. Nuclear Regulatory Commission (NRC) on or after the effective date of the Uranium Mill Tailings Radiation Control Act of 1978. In a letter dated January 26, 2001, to Envirocare of Utah (Attachment 4), the staff stated that radioactive tailings material in three pits at the Maywood FUSRAP site was 11e.(2) byproduct material because Stepan Chemical Company held NRC license STC-1333 authorizing possession of that material. However, the letter also concluded that tailings material on the Maywood site, but outside the three pits, was not 11e.(2) byproduct material because it was not included in license STC-1333. In response to a May 16, 2001, request from Envirocare's attorney (Attachment 5), staff further considered the situation with respect to radioactive material outside the three licensed pits at the Maywood site. In its September 20, 2001 (Attachment 6), letter to Envirocare, the staff addressed a number of issues and concluded that tailings material from the entire site is 11e.(2) byproduct material. The basis for that conclusion is discussed in the letter.

American Ecology's December 3, 2001, letter asked the staff to reconsider its position regarding the classification of Maywood tailings, stating that NRC's position restricts the competitive market for disposal of the waste and forecloses other safe, cost-effective options for the disposal of this material. The staff recognizes that low-activity wastes posing similar risks are managed in different ways in the U.S., depending upon their classification as 11e.(2) byproduct material, low-activity source material, or technologically enhanced naturally occurring radioactive material. There are opportunities to more efficiently and consistently manage all these materials; and our support of the National Research Council's study on this topic is aimed at identifying these improvements. As staff prepares recommendations on matters related to 11e.(2) byproduct material, the staff will look for solutions which afford licensees flexibility and cost-effective solutions within the bounds of the Commission's interpretation of the definition of 11e.(2) byproduct material.

CONTACT: Myron M. Fliegel, NMSS/FCSS  
(301) 415-6629



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Approved: See attached edit to Attachment 1.

*Greta Joy Dicus*  
Greta Joy Dicus 05/17/02

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The premise for your December 3<sup>rd</sup> letter, citing page 19 of the December 13, 2000, Director's Decision, DD-00-06, is that NRC lacks authority to regulate uranium or thorium mill tailings not under license before the effective date of the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA). However, that decision, as set out in my September letter, states that the NRC authority over mill tailings provided by UMTRCA "extends to tailings produced or possessed by a person licensed by the NRC as of the effective date of UMTRCA or thereafter." This is consistent with 10 CFR 40.2a, which provides that the Commission will regulate byproduct material as defined in 10 CFR Part 40 "located at a site where milling operations are no longer active," if such site is not covered by Title I of UMTRCA, which is not applicable to the Maywood site. As noted in the Director's decision at page 17, this regulation implements Section 83(a) of the Atomic Energy Act and ensures "that sites which continue to hold an NRC license, but which have ceased engaging in milling operations, meet the decommissioning and decontamination standards required by section 83(a)." Thus, the fact that the license explicitly addresses only the three pits is not controlling, since the tailings at the Maywood site are possessed by a person licensed as of 1978 to possess material at the site. This position is supported by the unique circumstances at the Maywood site, which were addressed in my September letter and set out, above, concerning the breadth of the original license at the site, the derivation of the tailings, the presence of source material outside the pits, and NRC's previous view of its responsibility for the site.

Fundamental to a determination that material is 11e.(2) byproduct material is that the material must result from the processing of ore primarily for its source material. Your December 3<sup>rd</sup> letter states that the material outside the pits resulted from extraction of lanthanum, not source material. We understand that the tailings material is the result of extraction of thorium and lanthanum from the monazite sands. Thorium was first extracted from the monazite and the lanthanum was then extracted from the tailings resulting from ~~processing the monazite~~. (The monazite waste from processing thorium was apparently used during World War II because of the war restrictions on monazite imports.) The fact that the tailings came from the lanthanum processing does not prevent the tailings from being characterized as 11e.(2) byproduct material, since the feedstock for the lanthanum processing was the tailings resulting from processing the monazite for thorium. Illinois v. Kerr-McGee Chemical Corp., 903 F.2d 1,7 (D.C. cir 1990). Thus, in this case, the tailings meet the statutory definition of 11e.(2) byproduct material.

*gjd*  
*05-17-02*  
*thorium*

In our view, the tailings at this site result from processing ore for its thorium content and given the circumstances of this case, including the license in effect in 1978, NRC still believes that the tailings were properly classified as 11e.(2) byproduct material. NRC recognizes that pre-1978 uranium and thorium mill tailings with low activity can safely be disposed in landfills that are designed to accept limited amounts of radiologically contaminated materials and permitted under the Resource Conservation and Recovery Act. However, since the tailings are classified as 11e.(2) byproduct material, they must be processed as such and disposed of in a licensed 11e.(2) facility.

Your March 8, 2002, letter also suggested that NRC does not have statutory authority over remediation activities at FUSRAP sites. We agree with your assertion; however, the question put before us dealt with the disposal of NRC regulated material off site of the Maywood FUSRAP site, not the remediation activities conducted on site.



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I approve. I also wish to reiterate my support for the staff's development of flexible and cost-effective solutions, fully protective of health and safety, to issues regarding the management and/or disposal of 11.e(2) byproduct material, as well as other low-activity wastes posing similar risks.

Nils J. Diaz 5/14/02

MEMORANDUM TO:

Chairman Meserve  
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Commissioner Merrifield

FROM:

William D. Travers   
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*E. McGaffigan*  
*5/13/02*

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*Approved.*  
*[Signature]*  
5/15/02

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