

April 26, 2002

MEMORANDUM TO: Chairman Meserve  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan  
Commissioner Merrifield

FROM: William D. Travers */RA/*  
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

The focus of the definition of 11e.(2) byproduct material is whether the material in question is waste or tailings resulting from processing ore for its source material content and the relationship of the material to licensed activity in the post-1978 time period. The focus is not on what waste disposal facility, or class of waste disposal facilities, may be allowed to, or disqualified from, contracting to dispose of the waste. However, several facts related to the Maywood tailings material may be of interest.

The USACE recently informed the staff that a substantial amount of the tailings outside the three pits contains thorium in concentrations equal to or greater than 0.05 percent and thus cannot be disposed of at American Ecology or any other waste disposal facility that does not have an NRC or Agreement State license. Furthermore, USACE has been in contact with several NRC and Agreement State licensed facilities so as to have competitive bids for the disposal.

American Ecology's March 8<sup>th</sup> letter asserted that NRC does not have jurisdiction over the remedy selection at FUSRAP sites. The staff response agrees with American Ecology's contention; however, the question at hand was not the remediation of materials on site, but the disposition and disposal of licensed materials once they are removed from the site.

We also received a letter from Environmental Rail Solutions, Inc. (ERS), (Attachment 7), dated January 9, 2002, that expressed similar concerns. After issuance of our response to American Ecology, we will respond to ERS with a short letter and include a copy of the American Ecology letter.

We intend to respond to American Ecology after the Commission's approval.

SECY please track.

Attachments:

1. Proposed response to American Ecology
2. American Ecology December 3, 2001, letter
3. American Ecology March 8, 2002, letter
4. January 26, 2001, letter to Envirocare
5. Envirocare May 16, 2001, letter
6. September 20, 2001, letter to Envirocare
7. Environmental Rail Solutions January 9, 2002, letter

cc: SECY  
OGC  
OCA  
OPA  
OCFO

# **ATTACHMENT 1**

Mr. Stephen A. Romano  
President and Chief Operating Officer  
American Ecology Corporation  
805 W. Idaho, Suite 200  
Boise, Idaho 83702

SUBJECT: CLASSIFICATION OF FUSRAP MATERIAL AT MAYWOOD, NEW JERSEY

Dear Mr. Romano:

I am responding to your December 3, 2001, and March 8, 2002, letters addressing my letter of September 20, 2001, to Envirocare of Utah regarding the classification of the Formerly Utilized Sites Remedial Action Program (FUSRAP) material at the Maywood, New Jersey, site. My September letter concluded that the tailings from the entire site are 11e.(2) byproduct material. You disputed the basis for the U.S. Nuclear Regulatory Commission (NRC) position in your December 3<sup>rd</sup> letter and requested NRC to review the Maywood classification matter again. In your view, there is no law or regulation that compels tailings that are not in the three licensed pits to be disposed of at an 11e.(2) licensed facility.

In my September letter, I explained the basis for the 11e.(2) classification. Specifically, I stated:

As stated in the January 26, 2001, letter, the tailings material in the three pits identified in NRC materials license STC-1333, issued to Stepan Chemical Company at the Maywood site is 11e.(2) byproduct material. This byproduct material is regulated pursuant to 10 CFR 40.2a.(b) as that material was possessed by a licensee at an inactive site which was licensed both before and after 1978. The Commission's regulatory authority, as explained in the December 30 [sic], 2000, Director's Decision, at page 19, "under UMTRCA only extends to tailings produced or possessed by a person licensed by the NRC as of the effective date of UMTRCA or thereafter." It is our understanding that the tailings in the three licensed pits were produced in the same processes that produced the tailings possessed by the licensee throughout the rest of the Maywood site and that the tailings on the site have essentially the same radiological characteristics. In 1954, the entire site was in essence licensed as the licensee was licensed to possess unlimited quantities of thorium at the Maywood site. By 1978, the licensee was limited to underground storage of a specified amount of material. A broader license could have been issued given the material on the site. In fact, notwithstanding that the license only addressed material in the pits the NRC took the position in a November 1, 1982, letter from R. Haynes, Regional Administrator, Region 1, to J. Stuart, Mayor of Maywood, New Jersey, that NRC continued to have regulatory responsibility for the thorium on the property. In light of the above, it is our view that the tailings from the entire site are 11e.(2) byproduct material.

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.

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.

As to the use of the September 20, 2001, letter at other sites, (e.g., the Shattuck Chemical site in Denver), NRC considers the September letter to be a site-specific determination for the waste at Maywood. Similarly, the classification of material at other sites will be made on a case-by-case basis. As noted in the enclosed letters from the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers to Envirocare, there is nothing in the September letter that would cause the material at Shattuck to be considered 11e.(2) byproduct material. I trust that my reply has responded to your concerns. If you have any further questions, please contact Robert Pierson at (301) 415-7213, or by e-mail at [rcp@nrc.gov](mailto:rcp@nrc.gov).

In accordance with 10 CFR 2.790 of NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at the Public Electronic Reading Room (<http://www.nrc.gov/NRC/ADAMS/index.html>).

Sincerely,

Martin J. Virgilio, Director  
Office of Nuclear Material Safety  
and Safeguards

Docket Nos. 40-8989 and 40-8610  
License Nos. SMC-1559 and STC-1333

Enclosure:

1. EPA November 2, 2001,  
Letter to Envirocare
2. USACE November 5, 2001,  
Letter to Envirocare

cc: W. Sinclair, Utah Division of Radiation Control  
T. Brown, EPA, Region 8, Denver, CO  
A. Wright, Army Corps of Engineers  
J. MacEvoy, Army Corps of Engineers  
T. McDaniel, Army Corps of Engineers

EDO Principal Correspondence Control

FROM: DUE: 02/06/02 EDO CONTROL: G20020031  
DOC DT: 12/03/01  
FINAL REPLY:

Stephen A. Romano  
American Ecology

TO:

Virgilio, NMSS

FOR SIGNATURE OF : \*\* GRN \*\* CRC NO:

Virgilio, NMSS

DESC: ROUTING:

Maywood, New Jersey FUSRAP Site

Travers  
Paperiello  
Kane  
Norry  
Craig  
Burns  
Miller, RI  
Cyr, OGC

DATE: 01/24/02

ASSIGNED TO: CONTACT:  
NMSS Virgilio

SPECIAL INSTRUCTIONS OR REMARKS:

Add EDO and Commission on for concurrence.  
Commission to review response prior to dispatch.

American Ecology Corporation  
805 W. Idaho, Suite 200  
Boise, ID 83702-8916

208/331-8400  
Fax 208/331-7900  
sromano@americaneecology.com

## American Ecology

STEPHEN A ROMANO  
President and  
Chief Operating Officer

December 3, 2001

U.S. Nuclear Regulatory Commission  
Attn: Mr. Martin Virgilio, Director  
Office of Nuclear Material Safety  
And Safeguards  
Washington, D.C. 20655-0001

Re: 9/20/01 Letter to Jonathan Carter, Envirocare of Utah from Martin Virgilio, Director, Office of Nuclear Materials Safety and Safeguards on Maywood, New Jersey FUSRAP Project

Dear Mr. Virgilio:

American Ecology Corporation subsidiary US Ecology Idaho, Inc. is a disposal contractor to the U.S. Army Corps of Engineers ("Corps") FUSRAP program. We have reviewed your referenced September 20, 2001 letter to Envirocare of Utah and dispute the basis for the significant U.S. Nuclear Regulatory Commission ("NRC") staff policy reversal affecting the Maywood, New Jersey FUSRAP site. This reversal may place the NRC in the position of directly interfering in the competitive marketplace for no valid health and safety reason, no dispositive legal reason, and in a manner inconsistent with the intent of Congress. We ask that NRC staff again review the Maywood waste classification matter and clarify its position as requested below.

Statutory construction and the facts of the matter clearly do not compel a legal finding that the Maywood waste is 11 e (2) material. Prior to the September 20 letter, the NRC has consistently and properly concluded that it lacks authority to regulate uranium or thorium mill tailings not under license prior to the effective date of the Uranium Mill Tailings Radiation Control Act of 1978.<sup>1</sup> The letter's departure from this practical, bright line test by speculating on what the agency may or may not have otherwise done in the distant past at the Maywood site badly confuses this policy for no good purpose. As the record makes clear, NRC radioactive materials license STC-1333 is very precise in defining only the 19,000 cubic yards of buried tailings buried in three delineated pits as the material NRC regulates.<sup>2</sup> The NRC Safety Evaluation Report, groundwater monitoring and other relevant licensing work performed by NRC also relate specifically to the three pits only.

<sup>1</sup> In the Matter of Envirocare of Utah and Snake River Alliance, Office of Nuclear Materials Safety and Safeguards, USNRC, DD-00-06, p. 19, December 13, 2000.

<sup>2</sup> U.S. Nuclear Regulatory Commission Radioactive Material License number STC-1333.

The simple fact is that material outside the three Maywood pits has never been included under the NRC license at any time.<sup>3</sup> Moreover, the 1987 NRC License Renewal Application Safety Evaluation Report explicitly contemplates that the license "shall be terminated" at the start of the "permanent disposal portion" of the project.<sup>4</sup> The September 20, 2001 letter turns this plan on its head by suggesting the retroactive addition of new materials to the NRC license purely for off-site disposal purposes.

In fact, a real question exists as to whether UMTRCA applies to any of the remaining wastes at the Maywood site. UMTRCA is very clear that the U.S. Department of Energy was to fund remediation of uranium mill tailings sites not under NRC licensure. Under Title II of UMTRCA, the NRC is charged with responsibility for assuring proper disposition of licensed wastes at uranium recovery facilities. In rulemaking, NRC applied the authority to "... The tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content..."<sup>5</sup> In a January 15, 1983 letter responding to an NRC Notice of Violation, Stepan Chemical Company noted that the materials outside of the pits was unknown to the company and the NRC at the time they acquired the Maywood facility.<sup>6</sup> Also, the materials resulted from extraction of lanthanum, not source material.<sup>7</sup> Such material would not be properly classified as 11.e (2). Rather, they are properly classified as tailings not licensed by the NRC or, depending on the concentration of thorium present, unlicensed source material.

There is no valid health or safety reason to compel disposal at an 11.e (2) disposal facility. The majority of the tailings outside the three pits have sufficiently low concentrations of constituent radionuclides that they and surrounding contaminated soils are acceptable for disposal at facilities other than NRC licensed 11.e (2) tailings impoundments. With the exception of a few areas, materials outside the pits contain considerably less than 0.05 % by weight thorium. Since the material has been in place since the 1940s or earlier, radioactive daughter products present are in equilibrium with the remaining thorium and occur at activity concentrations equal to that of their parent, thorium-232.<sup>8</sup>

For some time now, safe disposal of EUSRAP materials has been occurring at disposal facilities permitted under Subtitle C of the Resource Conservation and Recovery Act ("RCRA"). This is particularly appropriate where, as at Maywood, constituents regulated under the Resource Conservation and Recovery Act are also present in the waste.<sup>9</sup>

<sup>3</sup> Letter to Mr. Chuck Parodi from Mr. Robert M. Bernero, Director Nuclear Materials Safety and Safeguards, NRC, dated April 26, 1994.

<sup>4</sup> Safety Evaluation Report, Docket No. 40-8610, Stepan Chemical Company, November 5, 1987.

<sup>5</sup> Title 10 Code of Federal Regulations, Part 20, Section 1003, Definition 2 for by-product material.

<sup>6</sup> Letter to Thomas T. Martin, Director Division of Engineering and Technical Programs, USNRC, signed by Richard L. Jacobson, Atty. For Stepan Chemical Co. dated January 15, 1983.

<sup>7</sup> Ibid.

<sup>8</sup> Telephone conversation between David Hayes, USACE, and Charles R. Meyer, US Ecology, Inc., October 29, 2001.

<sup>9</sup> Letter to Ms. Myr Campbell, USNRC, from Mr. Francis T. Breznicki, Laboratory Director, USEPA, Region II, dated July 22, 1981.

Hence, there is a history of safe alternative disposal methodology for FUSRAP materials.<sup>10</sup> By utilizing these properly regulated facilities, the Corps has met the intent of Congress to provide cost effective disposal for pre-UMTRCA FUSRAP materials while considering... "all feasible options that achieve protectiveness and compliance with all applicable federal and state laws."<sup>11</sup>

Through its September 20, 2001 letter, the NRC staff has seemingly stepped into the shoes of the Corps, thereby frustrating the Corps' ability to cost-effectively administer the FUSRAP program at the Maywood site. This is inconsistent with the intent of Congress and the Memorandum of Understanding recently entered into between the two agencies. Through its action, the NRC may also inadvertently prevent our company and others from competing to serve the FUSRAP program at the Maywood site. Having bid the Maywood project on four separate occasions at considerable expense, NRC staff's eleventh hour waste reclassification opinion is very troubling. You should also know that your letter has been employed in attempts to influence disposal Corps decisions for remediation of the Shattuck Chemical radium site in Denver, and will undoubtedly be cited in relation to other Corps of Engineers business opportunities.

Conclusion:

We do not dispute the NRC finding that FUSRAP materials at the Maywood site may go to a licensed 11.e (2) disposal facility such as the Envirocare of Utah facility. There is, however, no valid legal or health and safety reason for an NRC staff finding seeking to compel disposal of all non-pit Maywood site waste at an 11.e (2) disposal facility, thus disqualifying our company and other Corps contractors from participating in the largest FUSRAP project to date (estimated 400,000 tons). At a minimum, NRC staff should promptly clarify that the final decision on selection of a cost-effective disposal option consistent with protection of public health and safety and the environment is the responsibility of the U.S. Army Corps of Engineers. NRC staff should also clarify (consistent with the recent Memorandum of Understanding entered into with the Corps) that the referenced NRC staff correspondence on the Maywood waste classification matter are non-binding on the Corps and advisory in nature, and that no law or regulation compels disposal of all removed non-pit Maywood site material at a licensed 11.e (2) facility.

We look forward to your timely response to this request. In the meantime, please contact me at (208) 331-8400 if you or your staff have any questions.

Sincerely,



Stephen A. Romano  
President and Chief Operating Officer

<sup>10</sup> "In the Matter of Envirocare of Utah and Snake River Alliance", Office of Nuclear Materials Safety and Safeguards, USNRC, DD-00-06, p. 22, December 13, 2000. And DOE/BC/W-31-109-ENG-38-8, An Assessment of Disposal of Petroleum Industry Non-hazardous Landfills, Argonne National Laboratory, p. 3, October, 1999.

<sup>11</sup> "Off-Site Disposal of Materials from the Formerly Utilized Sites Remedial Action Program", p. 2, US Department of the Army, U. S. Army Corps of Engineers, Engineer Circular 200-1-3, January 3, 2000.

cc: Richard Meserve, Chairman, and Members, U.S. Nuclear Regulatory Commission  
Michael Weber, NRC  
Tim Curtin, US Ecology Idaho, Inc.  
C. Russ Meyer, Radiation Safety Officer, US Ecology Idaho, Inc.  
Robert Trimble, General Counsel, American Ecology Corporation  
Tom Urbaniak, FUSRAP Program Manager, USACE, Kansas City  
Jean Jennings, Contract Administrator, USACE, Kansas City  
Aca Wright, Counsel, USACE, Omaha

## American Ecology

40-800  
40-8987

**STEPHEN A ROMANO**  
President and  
Chief Operating Officer

March 8, 2002

U.S. Nuclear Regulatory Commission  
Attn: Mr. Martin Virgilio, Director  
Office of Nuclear Material Safety  
And Safeguards  
Washington, D.C. 20655-0001

Re: Request for Response to American Ecology's 12/3/01 Inquiry Into Maywood, New Jersey FUSRAP Project Waste Disposal Decision Authority

Dear Mr. Virgilio:

This is to request a timely response to the above correspondence to help ensure that American Ecology is not deprived of a significant economic opportunity.

We specifically seek NRC concurrence that pre-1978 material at the Maywood site which is not governed by an 11.e(2) license may, at the U.S. Army Corps of Engineers' (USACE) discretion, be disposed of at facilities permitted to accept these wastes whether or not such off-site disposal facilities have an 11.e(2) license.

In addition to the information in our December 3, 2001 letter, we note that that Congress granted the USACE the above authority through enactment of the 1998 Energy and Water Development Appropriations Act. In doing so, Congress used the appropriations process to exclude NRC regulatory authority under UMTRCA with respect to FUSRAP.

In the 1999 Energy and Water Development Appropriations Act, Congress affirmed this exclusion and further specified that remedial actions undertaken by the USACE under FUSRAP are subject to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA grants very broad authority to fashion remedies notwithstanding other environmental laws, further evidencing the intent of Congress that FUSRAP remedy selection is not subject to NRC jurisdiction. The 2001 appropriations bill contains similar language, indicating that Congress made a conscious choice.

NMSSo1  
Public

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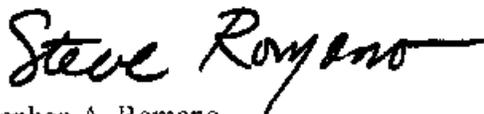
We believe that Congress' decision to assign health and safety responsibility to the USACE under CERCLA provides authority to utilize disposal facilities permitted under the Resource Conservation and Recovery Act and approved by responsible state regulatory agencies to accept limited concentrations of various radionuclides.

American Ecology's disposal facility near Grand View, Idaho is authorized to accept CERCLA waste. Since the nuclide concentrations in approximately 80% (400,000 tons) of the Maywood waste fall within the permit limits established for our Idaho facility, there is no health and safety reason or site permit condition that would prevent us from receiving such material. With five decades of experience handling radioactive materials at multiple facilities (including numerous facilities licensed under the Atomic Energy Act), American Ecology also has the requisite expertise to properly administer the waste acceptance criteria, radiological monitoring and worker protection aspects of its permit.

For these reasons and others set forth in our December 3, 2001 letter, we respectfully submit that the USACE has full authority to designate our Idaho facility as a suitable repository for FUSRAP waste at the Maywood site that meets our facility's permitted waste acceptance criteria, and is not currently regulated under an 11.e(2) license.

We hope this additional information is useful and look forward to NRC's response. In the meantime, please contact me at (208) 331-8400 if you or your staff have questions.

Sincerely,



Stephen A. Romano  
President and Chief Operating Officer

cc: Richard Meserve, Chairman, and Members, USNRC  
Michael Weber, USNRC  
Tim Curtin, US Ecology Idaho, Inc.  
C. Russ Meyer, Radiation Safety Officer, US Ecology Idaho, Inc.  
Tom Urbaniak, FUSRAP Program Manager, USACE, Kansas City  
Jean Jennings, Contract Administrator, USACE, Kansas City  
Ann Wright, Counsel, USACE, Omaha

January 26, 2001

Envirocare of Utah, Inc.  
Attn: Kenneth L. Alkema  
Senior Vice President  
46 West Broadway, Suite 116  
Salt Lake City, UT 84101

RE: REQUEST TO RECEIVE MAYWOOD AND WAYNE, NEW JERSEY FUSRAP  
MATERIAL FOR DISPOSAL

Dear Mr. Alkema:

This is in response to Envirocare of Utah's (Envirocare) letter of September 15, 2000, concerning the U.S. Army Corps of Engineers (Corps) request that Envirocare seek an approval from the U.S. Nuclear Regulatory Commission (NRC) to receive Formerly Utilized Sites Remedial Action Program (FUSRAP) waste from the Wayne and Maywood sites. As will be discussed below, the NRC is unable to grant such an approval, in its entirety, at this time.

In recent years, the NRC has made clear its position that it lacks jurisdiction over tailings produced at a facility not licensed by the NRC on the effective date of the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) or thereafter. This includes certain material at FUSRAP sites. As you are aware, on December 13, 2000, the staff issued a Director's Decision in response to your petition filed pursuant to 10 CFR § 2.206. The Snake River Alliance submitted a similar petition that was considered in conjunction with Envirocare's petition. The Director's Decision constitutes the final agency position on this matter.

Because the Wayne site was not under NRC or Agreement State license on the effective date of UMTRCA, or thereafter, we do not agree with the determination that FUSRAP material from the Wayne site constitutes 11e.(2) byproduct material. Accordingly, Envirocare is not authorized to accept the Wayne FUSRAP waste under its current license because the procedures set out as an attachment to Envirocare's March 8, 1994 letter, which are incorporated in the Envirocare license by condition 9.3, prohibit disposal of waste other than 11e.(2) mill tailings in the 11e.(2) cell. For the same reason, Envirocare is not authorized to accept wastes originating from other pre-1978 FUSRAP tailings sites, such as the St. Louis, Missouri, and Niagara Falls, New York, sites.

It is our understanding that the Maywood site to which you refer is the Stepan Company facility, portions of which are currently licensed by the NRC under license number STC-1333. We note that the Maywood licensee is authorized to possess material stored in three burial pits and that this material is described as alkaline thorium phosphate tailings. Envirocare should verify through the Corps that the material it proposes to accept from the Maywood site is material from the burial pits licensed by the NRC. Envirocare should ensure that the disposal of the material is in conformance with the conditions of its license. Having met these conditions, Envirocare is authorized to accept this material for disposal.

It is also our understanding that some of the material that would be received from the Maywood site is material other than that stored in the NRC-licensed pits. For the same reasons detailed for the Wayne site above, Envirocare is not authorized under its current license to accept Maywood material from these areas.

Envirocare may request a license amendment to allow it to receive and dispose of pre-UMTRCA mill tailings, including material from the Wayne and Maywood sites. The amendment could provide that, notwithstanding the procedures set forth in the March 8, 1994, letter, pre-UMTRCA mill tailings may be disposed of in the 11e.(2) cell. On November 30, 2000, NRC issued interim guidance on disposal of non-11e.(2) byproduct material in tailings impoundments, as an attachment to NRC Regulatory Issue Summary 2000-23, "Recent Changes to Uranium Recovery Policy."

We understand that the Wayne and Maywood site material is radiologically, physically and chemically similar to and compatible with materials already being disposed of in the 11e.(2) cell, and we note that disposal in an 11e.(2) cell will provide adequate protection of the public health, safety, and the environment. Therefore, NRC would exercise Enforcement Discretion, and would not object to continued disposal of pre-UMTRCA mill tailings while Envirocare prepares, and NRC reviews, a license amendment request to dispose of such material in the manner described above. We would allow Envirocare 120 days from the date of this letter to prepare and submit to NRC its license amendment request to dispose of pre-UMTRCA mill tailings in its 11e.(2) cell.

In accordance with 10 CFR 2.790, a copy of this letter will be available for public inspection in the NRC Public Document Room or electronically from the Publicly Available Records (PARS) component of NRC's document management system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

If you have any questions, please contact Harold Lefevre of my staff, either by telephone at (301) 415-6678, or by e-mail at [hel@nrc.gov](mailto:hel@nrc.gov).

Sincerely,  
**/RA/**

Michael F. Weber, Director  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 40-8989  
License No. SMC-1559

cc: W. Sinclair, Utah Division of Radiation Control  
T. Brown, EPA, Region 8, Denver, CO  
T. McDonald, USACE, Washington, DC

**ENVIROCARE** OF UTAH, INC  
*THE SAFE ALTERNATIVE*

May 16, 2001

**VIA FACSIMILE (301-415-3725) and U.S. MAIL**

James Lieberman, Esq.  
U.S. Nuclear Regulatory Commission  
Office of the General Counsel  
Mail Stop: 15D21  
One White Flint North Building  
11555 Rockville Pike, Room 14E16  
Rockville, Maryland 20852-2738

Re: Maywood FUSRAP Site and My Letter of February 22, 2001

Dear Mr. Lieberman:

Thank you for providing the opportunity for Len Bickwit and me to present our views to you last week on the legal status of the mill tailings at the Maywood, New Jersey, FUSRAP site. The attached discussion points reflect those views, as well as related positions we presented to your colleagues on March 28, 2001 and points we have developed since our discussion.

As I mentioned last week, I would like to modify my letter of February 22, 2001 to Mike Weber at the NRC as to the confirmation of your position on the Maywood mill tailings. As we have discussed, we firmly believe that all of the Maywood mill tailings are 11e.(2) material. Please consider our views on this subject and, if you ultimately find those views persuasive, I ask that you modify the position expressed on this matter in the NRC's letter of January 26, 2001. Please include your response in your letter responding to my letter of February 22.

As you may be aware, the Army Corps of Engineers' contractor at the Maywood site has initiated a procurement regarding the disposal of the Maywood waste. It no doubt would be best for all concerned if the NRC's views on both the source material issue referred to in

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*ENVIROCARE*

James Lieberman, Esq.  
May 16, 2001  
Page 2

my earlier letter and the 11e.(2) issue referred to in this letter were known as soon as possible in view of this pending procurement.

If we can provide any further assistance in clarifying our position on these matters, we would be pleased to do so at your convenience. As you know, we strongly disagree with the Director's Decision of December 13, 2000 on the NRC's authority over mill tailings. Nonetheless, accepting the NRC's position in the Decision as correct for the sake of argument, the application of the reasoning in the Decision to the issues at the Maywood site in the manner proposed in the NRC's January letter is a serious departure from the provisions of the Uranium Mill Tailings Control Act and the Decision itself.

Thank you again for your time and your consideration of our requests.

Yours sincerely,



Jonathan P. Carter  
General Counsel

Enclosure

cc: Michael F. Weber, U.S. Nuclear Regulatory Commission, NMSS/FCSS,  
via facsimile, w/enclosure  
Myron H. Fliegel, U.S. Nuclear Regulatory Commission, NMSS/DWM/URLL,  
via facsimile, w/enclosure

## **THORIUM TAILINGS IN MAYWOOD ARE SUBJECT TO THE NRC'S JURISDICTION**

### **Basic Thesis**

The thorium mill tailings located at the FUSRAP site in Maywood, New Jersey, were "produced . . . by a person licensed by the NRC as of the effective date of UMTRCA or thereafter." Accordingly, the NRC has jurisdiction over all such material. The quoted language, which is taken from the December 13, 2000, NRC Director's Decision on NRC mill tailings regulation, constitutes one of several tests from that decision that are intended to determine when mill tailings should be considered section 11e.(2) material. This paper asserts the test quoted above will most readily produce a result regarding Maywood's mill tailings that is consistent with Congress's intent in enacting UMTRCA. It is not conceivable that Congress intended, in a statute whose principal purpose was to enhance NRC regulatory authority over mill tailings, to deny the NRC regulatory jurisdiction over any of the tailings that are now at Maywood, given that (i) the AEC and the NRC have had an extensive historical involvement in licensing source material activities at what is now the Maywood FUSRAP site; (ii) the NRC was actually regulating tailings under a license issued to a longstanding AEC and NRC licensee, Stepan Chemical Company, at the time of UMTRCA's enactment; (iii) all of the tailings at Maywood were produced by a facility that was owned by Stepan or its predecessor in interest, Maywood Chemical Works, at all times during the life of the facility; (iv) production, possession and storage at the facility itself were earlier licensed by the AEC; and (v) the site, according to the DOE, was one that over the years "had been used essentially for commercial ventures." Accordingly, the NRC should apply the test quoted above and determine that all of the Maywood tailings are subject to its jurisdiction.

### **Brief History**

Maywood Chemical Works was founded in 1895. From 1916 to 1956, Maywood Chemical Works extracted thorium and rare earth elements from monazite sands for use in commercial products. Originally the company used thorium to produce gas mantles containing thorium nitrate. During World War II, some of the monazite sands processed by Maywood Chemical Works were used to produce lanthanum oxide, which was used by Eastman Kodak in the manufacture of optical lenses for the U.S. Army.

Maywood Chemical Works used thorium residues as fill in a swampy area on its property, and the company later built on this area. In addition, the company used large areas just outside its property as dumping areas for process wastes that included large quantities of thorium. This included land through which, in 1932, NJ Route 17 was built, as well as lands west of Route 17. (Maywood Chemical Works, i.e., the present Stepan property, was located east of Route 17.) Thorium wastes also spread via the former Lodi Brook onto properties where commercial buildings and residences were later built, and some wastes were used on nearby properties as mulch and fill.

Source material activities at and near the Maywood processing facility were continuously licensed by the AEC from 1954 to 1972. Maywood Chemical Works was the original licensee in

1954. The 1954 license, STC-130, authorized possession and processing of source material. Maywood Chemical Works ceased thorium production in 1956 and stopped processing monazite sands the following year. In 1959, Stepan Chemical Company acquired Maywood Chemical Works. In 1961, the AEC granted Stepan a renewal of license STC-130 that prohibited processing but that specifically allowed Stepan to sell thorium inventory on hand from previous operations. Subsequent license renewals were for storage only.

In 1963, with the knowledge of the AEC, Stepan began cleanup of waste material that had been stored in a number of dikes and piles. In 1966, Stepan buried 8,358 cubic yards of material from east of Route 17 in what is now known as Pit 1. In 1967, it buried 2,053 cubic yards of such material in Pit 2. In 1968, the AEC granted Stepan permission to relocate additional wastes, and Stepan buried 8,600 cubic yards of waste in Pit 3. Source Material License No. STC-130 was subsequently allowed to expire on May 31, 1972.

In late 1976, the NRC noted that Stepan "possessed [in 1972] and apparently still possesses roughly 250,000 ft.<sup>3</sup> of thorium residues which are buried on their property." Letter from Gen W. Roy to P.R. Nelson dated Dec. 13, 1976. The NRC took steps to require Stepan to "apply for renewal of their license." *Id.* In 1977, Stepan submitted an application for renewal of source material license STC-130 that indicated "[a]t two locations [a]pprox. 9500 cu. yd. of [t]horium waste tailings are buried." The NRC granted a "Materials License" numbered STC-1333 on April 4, 1978. Under the heading "Byproduct, source, and/or special nuclear material," the NRC listed "Thorium." The license further indicated that the license covered 9,500 cubic yards of buried alkaline thorium phosphate tailings.

In the early 1980's, Stepan was required to add the third pit to its source material license, and a company official was fined \$20,000 for withholding information about the material in the third pit. Accordingly, Stepan's 1983 application for renewal was for "Thorium content about 0.1% in about 9500 yd<sup>3</sup> of tailings & about 0.25% in about 8600 yd<sup>3</sup> of tailings."

In a related development, in the early 1980's it was discovered that thorium contamination in Maywood was much more widespread than was previously thought, in areas both on and off Stepan's property. The mayor of Maywood wrote to the NRC requesting assistance in dealing with the problem. While the NRC acknowledged regulatory jurisdiction over the material, it disclaimed any authority for the agency itself to conduct an independent cleanup of the material. In 1983, Maywood was added to the National Priorities List for Superfund cleanup, and in 1984, Congress appropriated funds to DOE for cleanup of the site.

DOE treated thorium wastes at the Maywood site as 11e.(2) material. It remediated numerous residential properties between 1984 and 1986, storing waste materials on federal property acquired for that purpose from Stepan Chemical. From 1994 to 1996, DOE shipped 35,000 cubic yards of this 11e.(2) material by rail for disposal at licensed 11e.(2) disposal facilities. When FUSRAP was transferred to the Army Corps of Engineers in 1997, the Corps assumed responsibility for cleanup at the Maywood site.

## Discussion Points

1. In a letter dated January 26, 2001, the NRC set forth a test for determining whether tailings are or are not 11e.(2) material. That test, as applied to the Maywood site, does not produce the result stated in the letter and suffers from other critical defects.
  - The January letter states that the NRC “lacks jurisdiction over tailings produced at a facility not licensed by the NRC on the effective date of [UMTRCA] or thereafter.” (Emphasis added.)
  - The letter concludes that the material in the Maywood pits is 11e.(2) material, but that no other material at the Maywood site meets the test of the letter.
  - Yet none of the tailings at the Maywood site, including the tailings in the pits, meets this test. The facility that produced the tailings (the processing facility of Maywood Chemical Works) was last licensed for processing in 1961.
  - Moreover, if the test in the January letter is correct, all of the NRC’s post-UMTRCA actions relating to non-source material in the pits — including licensing Stepan and fining Stepan for not disclosing pit 3 — were ultra vires. Under the test, the NRC never had authority over such material.
  - Most significantly, as discussed in point 3 below, there is no possibility that the Congress that enacted UMTRCA would have wished to exclude from NRC jurisdiction all the tailings that this test would exclude, (i.e., all of the non-source material tailings at Maywood). Since the purpose of the test is to reflect Congressional intent, the test is not viable as it relates to Maywood.
2. An alternative test implicit in the January letter is arbitrary and would produce anomalous results.
  - The January letter alternatively suggests that the applicable test is whether the tailings themselves were specifically covered by an NRC license effective on or after UMTRCA’s enactment. That would mean that whatever tailings NRC chose to license, regardless of the theory used (or even if there were a mistaken application of the correct theory), are 11e.(2) material. This means essentially that there is no standard; the NRC may do as it pleases. Congress certainly did not contemplate such a “test.”
  - This test, moreover, would mean that all mill tailings at Envirocare’s 11e.(2) disposal facility, including tailings where neither the person nor the facility producing the tailings was licensed on or after UMTRCA’s enactment, are 11e.(2) material. In correspondence and meetings with Envirocare, the NRC has consistently indicated otherwise.
  - In addition, this test would arbitrarily distinguish between material specifically licensed by the NRC and material otherwise subject to NRC regulation. The regulatory history of the Maywood site demonstrates the arbitrariness of this

distinction. In a 1982 letter to the mayor of Maywood, the NRC explained that it was regulating material outside the pits: “The NRC continues to regulate Stepan’s activities with regard to the thorium on its property as well as Stepan’s handling of the thorium waste located on the private land west of Route 17 in Rochelle Park, New Jersey.” Letter from Ronald C. Haynes to John A. Stuart, Jr., dated Nov. 1, 1982. It is not reasonable to contend that Congress intended to cover under UMTRCA material specifically included in an NRC license, but intended not to cover other material that the NRC regulated after 1978.

- Other documents from the early 1980’s regarding thorium mill tailings at Maywood also show that the NRC asserted regulatory jurisdiction over material not specifically referred to in the NRC licenses for the Maywood pits. When New Jersey considered cleaning up the residential properties itself, it inquired of the NRC regarding licensing for such activities. The NRC at one point indicated in a letter to the New Jersey Department of Environmental Protection that “[t]he Stepan Chemical Company source material license could be amended to authorize the receipt and storage” of “thorium contaminated soil from the private residences in Maywood, New Jersey.” Letter dated July 2, 1981, from R.G. Page to M. Stanton, at 1. “As was discussed, [the NRC] will be happy to cooperate with the State of New Jersey in any way possible to resolve this problem, including providing radiological monitoring at the residences during the decontamination efforts.” *Id.*

3. Rejecting jurisdiction over any Maywood tailings, whether in or out of the pits, (i.e., adopting either of the above two tests) is directly at odds with congressional intent.

- Maywood is precisely the kind of site that Congress insisted on subjecting to NRC mill tailings regulation. It is a site where most of the tailings were produced in commercial and/or licensed activities, and where the NRC had clearly indicated at the time of UMTRCA’s enactment its intention to regulate the site’s thorium tailings. All the thorium tailings at the site of which the NRC had been apprised by Stepan — pits 1 and 2 — were under license, and when other tailings were later discovered, the NRC either licensed the tailings (as with pit 3) or stated that these tailings were otherwise subject to its regulatory authority.
- The idea that Congress intended to preclude the NRC from licensing any non-source material thorium tailings in or near the already-licensed pits is not rational. Likewise, the view that it intended to deny the NRC jurisdiction over any other tailings later discovered on or near the Stepan property, and produced by the same operations that produced the pit material, cannot be correct. In short, the thought that Congress did not intend to cover all such tailings, in a statute specifically designed to allow the NRC to regulate mill tailings after license terminations, is untenable. In this regard, it is relevant to ask how a member of the Congress that enacted UMTRCA would have responded to the following question: “If, at a site containing thorium mill tailings that are subject to a current NRC source material license, thorium mill tailings of a lower concentration (below 0.05%) produced by the same facility that produced the licensed tailings are later found on and around that same property, are those tailings intended to be off-limits to NRC regulation?” One cannot conceive of an affirmative

answer. Add to that the fact that the facility itself was formerly under a source material license and was at all times during the life of the facility owned by the current licensee or its predecessor in interest, and that proposition becomes even more certain.

4. The Director's Decision includes another test for determining NRC jurisdiction that produces a reasonable result in these circumstances and is far more consistent with congressional intent than either of the tests discussed above.
  - The Director's Decision contains numerous tests, but one in particular could be relied on here: "the Commission's new regulatory authority under UMTRCA only extends to tailings produced or possessed by a person licensed by the NRC as of the effective date of UMTRCA or thereafter." DD-00-06 (hereinafter "Decision") at 19.
  - By referencing this test, the Decision suggests that UMTRCA was to give the NRC additional authority over its existing licensees, but was not designed to expand the universe of NRC-regulated entities beyond those licensees. This is the very least the Congress intended to accomplish in UMTRCA.
  - Stepan was an NRC licensee in 1978, and its predecessor in interest, Maywood Chemical Works, is the undisputed source of all the thorium contamination in the Maywood area. Therefore, all the Maywood material should be regarded as subject to NRC jurisdiction.
5. This last test is consistent with the Decision's view of UMTRCA's legislative history.
  - The Decision indicates that sites discussed by Dr. James Liverman of DOE in legislative hearings were to be excluded from Title II because, although these sites were similar to Title I sites, DOE already had authority to remediate them. That authority, according to Dr. Liverman's testimony, stemmed from the AEC's possible liability for having cleaned up the sites in question incompletely before turning the sites over to the private sector. See, e.g., Uranium Mill Tailings Control: Hearings on H.R. 13382, H.R. 12938, H.R. 12535 and H.R. 13049, H.R. 13650 Before the Subcomm. on Energy and the Environment of the Comm. on Interior and Insular Affairs, 95<sup>th</sup> Cong. 49 (1978). The Maywood site does not fit the description of the sites Dr. Liverman was referring to. First, DOE had no liability or authority with respect to Maywood of the sort that Dr. Liverman described. Second, Maywood is not similar to Title I sites and could never have been remediated under Title I, because it was not a site where "all or substantially all of the uranium was produced for sale to any Federal Agency prior to January 1, 1971, under a contract with any Federal agency." UMTRCA § 101(6). Finally, unlike the sites that Dr. Liverman appeared to have in mind, Maywood was a site on which an active NRC licensee was still subject to ongoing NRC regulation at the time of UMTRCA's enactment.
  - While the Decision indicates that Title II of UMTRCA was intended to focus on "active sites," the Decision also makes clear that certain inactive mill tailings sites would be subject to Title II. The Decision indicates that sites such as Edgemont,

South Dakota, that were inactive but still licensed when UMTRCA was enacted are subject to the NRC's Title II authority and, in particular, to 10 C.F.R. § 40.2a. The Decision specifically states: "[s]ection 40.2a is intended to address . . . the inactive, but still licensed site." Decision at 18 (emphasis added). Maywood should be viewed as falling into this category.

- The NRC could of course distinguish between Edgemont, where the milling facility itself was licensed after 1978, and Maywood, where it was not. If the purpose of that distinction is to reflect congressional intent, however, the distinction is ill-conceived. The discussion in point 3 above demonstrates that reliance on that distinction to exclude Maywood tailings from NRC jurisdiction would be seriously at odds with congressional intent.

6. Maywood's post-UMTRCA designation as a FUSRAP site is not relevant to determining whether material at the site is 11e.(2) material.

- The January letter acknowledges that Maywood's inclusion in FUSRAP should not be considered to remove the material in the pits from the NRC's 11e.(2) jurisdiction.
- Moreover, the Decision itself indicates that inclusion of a site in FUSRAP does not by itself exclude the site's tailings from NRC jurisdiction. The Decision, rather, applies the various tests discussed above to determine the reach of that jurisdiction. Consistent with that approach, the Decision states: "A review of UMTRCA as a whole . . . supports the conclusion that the NRC lacks jurisdiction over most FUSRAP material. Decision at 8 (emphasis added). The Decision also includes the following quote from the NRC's 1999 Director's Decision involving FUSRAP mill tailings: "Because the residual material at many FUSRAP sites was generated in activities that were not licensed when UMTRCA was enacted, or thereafter, NRC today has no basis to assert any regulatory authority over handling of residuals at those sites." Decision at 3 (emphasis added). In sum, the NRC has consistently indicated that the applicable test is what matters, not the inclusion of a site in FUSRAP.
- In any event, Maywood, as noted above, differs markedly from the typical FUSRAP site. According to the DOE, "Most FUSRAP sites were MED/AEC sites used for processing, handling, and storing radioactive materials. . . . The 1984 Energy and Water Development Appropriations Act (EWDAA) (Public Law 98-50) authorized DOE to conduct a decontamination research and development project at four sites that had been used essentially for commercial ventures. These sites include . . . Maywood and Wayne in New Jersey." U.S. Department of Energy, FUSRAP Management Requirements and Policies Manual, at 1-4 (Rev. 2, May 5, 1997) (emphasis added). While some of Maywood's thorium production was used in lenses made for the Army during World War II, this constituted only a fraction of Maywood's historical production since the late 1800's.

## Conclusion

The NRC should affirm that it possesses regulatory jurisdiction over all thorium mill tailings at the Maywood site, including the material outside Pits 1, 2 and 3. This is the only result that is consistent with congressional intent and that fairly accounts for the NRC's and AEC's extensive involvement in licensing activities at the site. As advocated in this paper, it should reach that result by determining, under the test of the Director's Decision discussed above, that all such tailings were "produced . . . by a person licensed by the NRC as of the effective date of UMTRCA or thereafter."

Alternatively, notwithstanding much of what has been argued in this paper, the NRC could also reach that result through a different – and less literal – application of the test of the NRC's January letter than the paper assumes was intended by that letter. As discussed in the "Brief History" section above, both the NRC and Stepan regarded Stepan's application for license STC-1333, and presumably the license itself, as a "renewal" of license STC-130. STC-130 in its various incarnations did in fact relate to activities regarding the Maywood processing facility. In that sense, a "renewal" of STC-130 could also be viewed as a license regarding that facility. If the NRC chooses to apply the test of its January letter in this manner, it could regard all the tailings at Maywood as tailings produced at a facility with respect to which a license was effective on or after the effective date of UMTRCA.

Whether either of these approaches is selected, however, the critical matter is that the NRC should clearly determine that all the tailings at Maywood are subject to its jurisdiction. For the reasons stated above, any other determination would be a significant departure from what the UMTRCA Congress intended and directed.

September 20, 2001

Jonathan P. Carter, Esq.  
Envirocare of Utah, Inc.  
46 West Broadway, Suite 116  
Salt Lake City, Utah 84101

SUBJECT: DISPOSAL OF FUSRAP WASTE AT ENVIROCARE

Dear Mr. Carter:

I am responding to your letter to Michael Weber, Director of the U.S. Nuclear Regulatory Commission's (NRC's) Division of Fuel Cycle Safety and Safeguards, dated February 22, 2001, and your letter to James Lieberman of the NRC Office of General Counsel, dated May 16, 2001, in which you sought clarification concerning several issues associated with the status of mill tailings located at the Wayne and Maywood, New Jersey FUSRAP sites. These issues arise out of the 2.206 Director's Decision issued on December 13, 2000, to respond to the petition submitted by Envirocare and the Snake River Alliance and our January 26, 2001, letter to Kenneth Alkema from Mr. Weber. In your letter of February 22, 2001, you took the view that the pre-UMTRCA (Uranium Mill Tailings Radiation Control Act) mill tailings at Maywood were subject to NRC's requirements as source material. Upon further reflection, you indicated in your May 16, 2001, letter that your view was now that all the tailings at Maywood are 11e.(2) byproduct material.

The third item in your February 22, 2001, letter seeks confirmation that the pre-UMTRCA material at Wayne and Maywood is radiologically, physically, and chemically similar to and compatible with the material in Envirocare's 11e.(2) cell and that disposal of such material in an 11e.(2) cell will provide adequate protection to the public health, safety, and environment. This is our understanding as reflected in our January 26, 2001, letter to Kenneth Alkema. Our understanding of the nature of the material is based on representations made by Envirocare and by the U.S. Army Corps of Engineers. Subject to Envirocare verifying, as it would do with any other material, that the material meets disposal requirements, disposal of such material in a 11e.(2) cell should provide adequate protection of the public health, safety, and environment.

In regard to the fourth item in your February 22, 2001, letter concerning enforcement discretion, the NRC has been relying on its enforcement discretion to allow Envirocare to continue disposing of pre-UMTRCA mill tailings in its 11e.(2) disposal cell. Although the 120-day period identified in our January 26, 2001, letter expired on May 28, 2001, we are currently reviewing Envirocare's license amendment request dated May 22, 2001, to dispose of the material as non-11e.(2) byproduct material in accordance with the NRC's November 30, 2000, interim guidance, set forth in Regulatory Issue Summary 2000-23, "Recent Changes to Uranium Recovery Policy." The NRC will continue to exercise enforcement discretion during its review of the license amendment application.

Your fifth item in your February 22, 2001, letter seeks confirmation that the NRC would not require Envirocare to take any action or seek a license amendment to address the non-11e.(2) byproduct material already in its 11e.(2) cell. We agree that, at this time, we would not require

any action or license amendment. However, you should recognize that there is not yet a commitment from the long-term custodian of the site to accept that material. Until such a commitment is made, we can not assure you that no further action is needed with respect to the non-11e.(2) byproduct material currently in the 11e.(2) cell.

Your February 22, 2001, letter also sought clarification of the licensing requirements applicable to pre-UMTRCA mill tailings containing 0.05 percent by weight or greater uranium or thorium. We agree with your conclusion that such material is subject to NRC requirements applicable to source material and are taking this opportunity to clarify the December 2000, 2.206 Director Decision. That decision noted throughout the document that pre-UMTRCA mill tailings were not regulated by the NRC. That statement was made in the context of mill tailings which normally contain only a very small concentration of uranium or thorium (usually assumed to be somewhat less than 0.05%). However, to the extent that mill tailings contain greater than 0.05% uranium or thorium, the tailings are clearly licensable under 10 CFR Part 40. In regard to determining concentration, it is important to note that the sampling process for the determination of the concentration, absent other applicable requirements, should generally be based on the license conditions of the licensed site for which the material is to be sent. In the absence of license requirements, standard sampling practices should be followed. It is recognized that the process of preparing contaminated material for shipment may result in some mixing with cleaner material as it is "dug up" and loaded for shipment before sampling. This natural dilution of the concentration of uranium and thorium in contaminated material is in contrast to the intentional dilution of contaminated material for the purpose of reducing its concentration below 0.05% which is not acceptable in the absence of prior authorization. Finally, we note that pre-UMTRCA mill tailings from FUSRAP sites which are source material may be placed in a 11e.(2) cell if the conditions of the November 2000 guidance are met.

With respect to the first two items in your February 22, 2001, letter and your May 16, 2001, letter to James Lieberman of the NRC's Office of the General Counsel, we remain of the view as stated in our January 26, 2001, letter to Envirocare that its license for disposal of 11e.(2) byproduct material (NRC Materials License SMC-1559) does not authorize Envirocare to dispose of radioactive material from the Wayne, New Jersey FUSRAP site. However, we have reconsidered the statements in the January 26 letter concerning the classification of the material at the Maywood, New Jersey site.

As stated in the January 26, 2001, letter, the tailings material in the three pits identified in NRC Materials License STC-1333, issued to Stepan Chemical Company at the Maywood site, is 11e.(2) byproduct material. This byproduct material is regulated pursuant to 10 CFR 40.2a.(b) as that material was possessed by a licensee at an inactive site which was licensed both before and after 1978. The NRC's regulatory authority, as explained in the December 30, 2000, Director's Decision, at 19, "under UMTRCA only extends to tailings produced or possessed by a person licensed by the NRC as of the effective date of UMTRCA or thereafter." It is our understanding that the tailings in the three licensed pits were produced in the same processes that produced the tailings possessed by the licensee throughout the rest of the Maywood site and that the tailings on the site have essentially the same radiological characteristics. In 1954, the entire site was in essence licensed as the licensee was licensed to possess unlimited quantities of thorium at the Maywood site. By 1978, the licensee was limited to underground storage of a specified amount of material. A broader license could have been issued, given the material on the site. In fact, notwithstanding that the license only addressed material in the pits,

the NRC took the position in a November 1, 1982, letter from R. Haynes, Region I Administrator, to J. Stuart, Mayor of Maywood, New Jersey that NRC continued to have regulatory responsibility for the thorium on the property. In light of the above, it is our view that the tailings from the entire site are 11e.(2) byproduct material.

Finally, as a result of the above positions, a question remains concerning the treatment of material at the Maywood site which is considered source material because of its greater than 0.05 weight percent thorium and uranium content and also considered 11e.(2) byproduct material because of the process by which it was created. Given that the material fits into two different legal classifications with different regulatory requirements both of which are protective of the public health and safety, we conclude that the NRC has the discretion to appropriately classify the material. Rather than impose two different regulatory approaches to essentially the same material, we conclude that classifying all the tailings at the Maywood site as 11e.(2) byproduct material, even if some of the tailings contain licensable source material, is sensible regulatory policy.

I hope these responses are helpful to you. If you have any further questions, please contact Mr. Weber at (301) 415-7212, or by e-mail at [mfw@nrc.gov](mailto:mfw@nrc.gov).

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at the Public Electronic Reading Room (<http://www.nrc.gov/NRC/ADAMS/index.html>).

Sincerely,

M. V. Federline for /RA/

Martin J. Virgilio, Director  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 40-8989  
License No. SMC-1559

cc: W. Sinclair, Utah Division of Radiation Control  
T. Brown, EPA, Region 8, Denver CO  
A Wright, Army Corps of Engineers



# environmental rail solutions, inc.

*Handwritten note:*  
V. [unclear]  
[unclear]

January 9, 2002

U.S. Nuclear Regulatory Commission  
Attn: Mr. Martin Virgilio, Director  
Office of Nuclear Material Safety and Safeguards  
Washington, D.C. 20655-0001

Re: September 20, 2001 Letter from Martin Virgilio, Director, Office of Nuclear  
Materials Safety and Safeguards to Envirocare of Utah  
Via Express Delivery

Dear Mr. Virgilio:

As you may know, Environmental Rail Solutions, Inc. (ERS), a women-owned small business with corporate offices in New Jersey, submitted their proposal to transport and dispose of over 400,000 tons of soil and debris from the Maywood New Jersey FUSRAP site (MISS) to Stone & Webster (S&W) in August 2001. Unfortunately, ERS was notified in October 2001 by S&W that ERS would be disqualified from the bidding process.

We believe our disqualification came as a direct result of your letter to Envirocare of Utah referenced above. The NRC's change in position preventing disposal of the MISS soil at a secure Subtitle C disposal facility and requiring disposal at an 11e. (2) licensed facility offering an inferior liner system virtually eliminated our bid. Not only has Envirocare utilized your letter to pursue all of the Maywood site waste, they have also employed it in arguing for inappropriate classification changes at other clean-up sites.

For it's Maywood bid, ERS teamed with a subtitle C facility exclusively based in large measure on the fact that the NRC had twice confirmed that the material was pre-UMTRCA. The agency's surprising policy reversal after our bid was submitted requiring that all Maywood material must carry an 11e. (2) classification has confused the market place and disqualified ERS from being considered for an award.

I am attaching a copy of our protest letter to Stone & Webster for your review. The Army Corps of Engineers had accepted your previous and appropriate pre-UMTRCA classification and actually has shipped thousands of tons from this site in the past 6 months as pre-UMTRCA material. Under the circumstances, it is difficult for us to detect any reason for NRC to have changed its prior position other than in response to lobbying pressure from a commercial entity with an obvious economic self-interest.

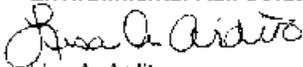
115 cloverdale circle tinton falls, nj 07724  
(732) 389-6554 fax (732) 389-6470  
e-mail: ersdavid@home.com

Attachment 7

Page 2  
January 9, 2002  
Mr. Martin Virgilio, Director  
Office of Nuclear Material Safety and Safeguards

We accordingly urge you to revisit the issue at your earliest convenience and are hopeful that the NRC will determine that there is no precedent or health and safety benefit to changing its original non-UMTRCA classification. We request a response to this inquiry. Please feel free to contact us at (732) 389-8554 with any questions.

Sincerely,  
**Environmental Rail Solutions, Inc.**



Lisa A. Ardito  
President