Recommendations for a Coordinated Approach to Regulating the Uranium Recovery Industry:

A White Paper Presented By

National Mining Association
Foundation For America's Future

Addendum

Status of Byproduct Material Created Prior to the Enactment of UMTRCA

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I. INTRODUCTION

This Addendum to the National Mining Association's ("NMA") White Paper,[1] addresses an issue that implicates some of the core aspects of NRC's jurisdiction over uranium recovery operations and that is of great importance to a number of NRC licensees. Specifically, this Addendum examines the regulatory status of materials that were created prior to the enactment of the Uranium Mill Tailings Radiation Control Act ("UMTRCA") in 1978, and that satisfy the definition of "byproduct material" set forth in Section 11e.(2) of the Atomic Energy Act ("AEA"), as amended by UMTRCA.[2]

At the time that it was preparing its White Paper on the regulation of the uranium recovery industry, the NMA understood that the issue of the regulatory status of pre-1978 byproduct material had been resolved by the Commission. This issue had arisen before primarily with respect to materials covered by the Department of Energy's ("DOE's") Formerly Utilized Sites Remedial Action Program (the "FUSRAP" program). The FUSRAP program is aimed at remediating sites contaminated as a result of activities that were supported by the Manhattan Engineering District ("MED") and the Atomic Energy Commission ("AEC") as part of the nation's early atomic energy program. At the time that NMA was preparing its White Paper, NRC had expressed the position that FUSRAP materials that satisfy the definition of byproduct material in AEA Section 11e.(2) qualify as 11e.(2) byproduct material, regardless of whether or not the materials were generated prior to 1978. In a Federal Register notice published in 1992, the *Commission* noted that:

> Government contracts were issued for thorium source material used in the Manhattan Engineering District and early Atomic Energy Commission programs. Wastes resulting from that

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[1] National Mining Association, *Recommendations for a Coordinated Approach to Regulating the Uranium Recovery Industry.*

[2] For the sake of convenience, materials that satisfy the definition of 11e.(2) byproduct material that were created prior to the enactment of UMTRCA and that were not created pursuant to a license issued under the AEA will be referred to in this memorandum as "pre-1978 byproduct material."

> processing and disposal at these [FUSRAP] sites *would qualify as 11e.(2) byproduct material.*

57 Fed. Reg. at 20,527 (May 13, 1992) (emphasis added).

Recently, a number of statements have emanated from NRC that appear to be inconsistent with the Commission's previously stated position that pre-1978 byproduct material qualifies as 11e.(2) byproduct material.[3] These inconsistencies have had troubling regulatory consequences. For example, in a recent solicitation for bids for a nationwide contract to dispose of materials found at FUSRAP sites across the country, the U.S. Army Corps of Engineers ("USACE") characterized those materials as "non-AEA" materials, despite the fact that a substantial portion of those FUSRAP materials qualify as pre-1978 byproduct material. The USACE solicitation thereby purports to open the door for pre-1978 byproduct material to be disposed of at facilities that are not licensed under the AEA. At the same time, there are facilities that are licensed to dispose of 11e.(2) byproduct material under the AEA that have accepted for disposal and disposed of pre-1978 byproduct material from FUSRAP sites, consistent with the Commission's

[3] These statements have been made in the following contexts: (1) NRC's response to recent questions posed by Senator Robert F. Bennett (R-UT), wherein the Commission indicates that it does not have authority to manage FUSRAP materials at FUSRAP sites and that pre-1978 byproduct material is not subject to NRC jurisdiction if it is not present at an NRC-licensed site, but is instead subject to regulation by other federal or state agencies. *See* Responses to Post-Hearing Questions, accompanying Letter to Senator James M. Inhofe, Chairman, Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety from Shirley Ann Jackson, Chairman, NRC, April 1, 1999; (2) the Director's Decision Under 10 C.F.R. § 2.206, 64 Fed. Reg. 16504 (April 5, 1999) (responding to the October 15, 1998 petition of Natural Resources Defense Council ("NRDC") requesting that NRC exert authority to ensure that USACE's handling of radioactive material at FUSRAP sites is effected in accordance with a properly issued license); and (3) Commissioner Shirley Ann Jackson's April 28, 1999 letter to Charles Judd, President of Envirocare of Utah, Inc. in response to Envirocare's request that the NRC revisit its position regarding its jurisdiction over 11e.(2) byproduct material produced as a result of processing ore prior to November 1978. In addition, issues pertaining to the regulatory status of pre-1978 byproduct material have surfaced recently in four other contexts: (1) the August 9, 1999 letter from William Sinclair, Executive Secretary Utah Radiation Control Board to Paul Lohaus, Director, NRC, regarding Envirocare's intent to dispose of pre-1978 11e.(2) byproduct material in its low-level waste disposal cell; (2) Envirocare of Utah, Inc.'s ("Envirocare's") suit against the USACE in the Court of Federal Claims challenging USACE's solicitation regarding the disposal of FUSRAP material, the majority of which DOE has determined to be 11e.(2) byproduct material, *see Envirocare of Utah, Inc. v. United States*, Cl. Ct., 99-76C, slip op. (May 1999); (3) the USACE's award of a contract to dispose of 11e.(2) byproduct material from various FUSRAP sites to Envirosafe, which operates a non-NRC licensed hazardous waste disposal facility; and (4) discussions between USACE and DOE regarding the Memorandum of Understanding ("MOU") concerning their respective roles and responsibilities with regard to the handling of FUSRAP material.

long-standing position that such pre-1978 byproduct material qualifies as 11e.(2) byproduct material.

Thus, the inconsistent positions that have been expressed by NRC have resulted in an Alice-in-Wonderland situation within the regulated community. Facilities that are *not* licensed under the AEA and that have disposed of pre-1978 byproduct material (like the Buttonwillow facility in California) could have done so lawfully only if pre-1978 byproduct material does *not* qualify as 11e.(2) byproduct material. On the other hand, if pre-1978 byproduct material does not qualify as 11e.(2) byproduct material then facilities such as the Envirocare facility in Utah, that are licensed to dispose of 11e.(2) byproduct material and that have in fact disposed of pre-1978 byproduct material without satisfying NRC's Non-11e.(2) Policy, would be acting unlawfully. Since pre-1978 byproduct material either *does* or *does not* qualify as 11e.(2) byproduct material, one of these facilities – either Buttonwillow or Envirocare – *is disposing of material unlawfully* and in a manner that creates commingled 11e.(2) and non-11e.(2) waste.

Because this issue touches upon core aspects of NRC's jurisdiction, and because of the untenable situation that now exists within the regulated community as a result of the apparently inconsistent positions emanating from NRC, and because the implications of confusion in this area are so dramatic both for licensees and for NRC in the administration of the uranium recovery program, NMA feels that it is appropriate and necessary to submit this Addendum to the White Paper. Moreover, NMA believes that in order to eliminate the confusion that has been created by NRC's apparently inconsistent statements, it is important that the Commission clarify its position with respect to the regulatory status of pre-1978 byproduct material. Specifically, NRC should clarify that pre-1978 byproduct material is 11e.(2) byproduct material under the AEA. In addition, because much of the current confusion surrounding the status of pre-1978 byproduct material pertains to FUSRAP materials, NRC should reinforce the following two related points:

- First, although pre-1978 byproduct material is 11e.(2) byproduct material, such material, when present at a FUSRAP site or another DOE-administered facility, is subject to DOE regulation and therefore, not subject to regulation by NRC. Consequently, remediation activities at FUSRAP sites – whether undertaken by USACE or by an on-site remediation contractor – do not require an 11e.(2) license.

- Second, pre-1978 byproduct material at a FUSRAP or other DOE-administered site becomes subject to licensing and regulation by NRC if disposed of off site at a non-DOE facility. Consequently, off-site disposal of pre-1978 byproduct material from a FUSRAP site or another DOE-administered site can lawfully occur only at a facility with an 11e.(2) license or at another DOE-administered facility.

Because these issues are so fundamental to the Commission's jurisdiction over the uranium recovery industry, and because the apparently inconsistent positions that have been expressed by NRC Staff have resulted in considerable confusion within the regulatory community, the Commission should address these issues as quickly as possible. Indeed, in order to expedite the clarification of these issues it would be appropriate for the Commission to address these issues outside of the context of the Commission's current review of SECY 99-011, SECY 99-012, and SECY 99-013 (pertaining to other aspects of the NMA White Paper).

II. PRE-1978 BYPRODUCT MATERIAL IS SUBJECT TO REGULATION AS 11E.(2) BYPRODUCT MATERIAL.

The confusion that currently exists regarding the status of pre-1978 byproduct material can be traced to a letter that was written a little over a year ago by Robert L. Fonner, Special Counsel for Fuel Cycle and Safeguards Regulations at NRC, regarding the scope of NRC's jurisdiction over materials present at various FUSRAP sites.[4] In that letter (hereinafter the

[4] Letter from Robert L. Fonner, Special Counsel for Fuel Cycle and Safeguards Regulations, NRC, to Ann Wright, Counsel, HTRW Center of Expertise, USACE (March 2, 1998)

"Fonner Letter"), Mr. Fonner articulated an approach to pre-1978 byproduct material that was inconsistent with NRC's previously announced position. *See supra* at 2. Specifically, the Fonner Letter stated as follows:

> UMTRCA gave NRC statutory authority over tailings [from ore processed for source material content], but only over tailings from activities licensed by NRC as of the effective date of the Act (November 8, 1978), or thereafter. See Section 83 of the Atomic Energy Act of 1954 as amended.
>
> . . .
>
> Because the residuals at the listed [FUSRAP] sites were generated long before NRC had any jurisdiction over tailings, and were never produced from source material extraction under NRC license, NRC today has no basis to assert any regulatory authority over the handling of those residuals at the listed sites.

Fonner Letter at 1. In other words, the Fonner Letter appears to assert that NRC cannot exercise jurisdiction over pre-1978 byproduct material because the Commission does not have the authority to regulate as 11e.(2) byproduct material tailings or wastes that were generated prior to the enactment of UMTRCA, unless those tailings or wastes were generated pursuant to an NRC-issued license. The letter goes on to conclude that since pre-1978 byproduct material cannot be regulated by NRC as 11e.(2) byproduct material, NRC regulations would not preclude the disposal of such material in a facility that is not licensed under the AEA (for example, a RCRA hazardous waste disposal facility). *Id.* at 2. As explained below, the Fonner Letter is incorrect in its assertion that pre-1978 byproduct material is not 11e.(2) byproduct material and in its conclusion that such material can be disposed of in a facility that is not licensed under the AEA. On the other hand, the Fonner Letter correctly concludes that such material, when present *at a FUSRAP site* or other DOE-administered site, is not subject to regulation by NRC.

A. The Plain Language Of The Statute Reveals That Tailings And Wastes Generated Prior To The Enactment Of UMTRCA Are 11e.(2) Byproduct Material, Regardless of Whether They Were Produced Pursuant To An AEA License.

Congress created Title II of UMTRCA to regulate the management and disposition of uranium mill tailings and related wastes at active mill tailings sites (*i.e.*, sites subject to an active license). *See* 42 U.S.C. § 7901 *et seq.*; *see also* H. Rep. No. 95-1480 at 13. The keystone of the Title II program was the creation of a new category of AEA-regulated material – 11e.(2) byproduct material -- which Congress defined as:

> the tailings and wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

42 U.S.C. § 2014e.(2). A plain reading of this definition shows that Congress did not impose any temporal limitations on the materials that qualify as 11e.(2) byproduct material. Similarly, Congress did not limit 11e.(2) byproduct material to include only materials produced pursuant to an AEA license. For purposes of AEA Section 11e.(2), byproduct material is defined in terms of two characteristics: (i) the type of material at issue (*i.e.*, tailings and wastes), and (ii) the process by which the material was created (*i.e.*, by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content). Congress did not define 11e.(2) byproduct material in terms of *when* the material was produced or whether it was produced pursuant to an AEA license. In other words, notwithstanding the Fonner Letter's contrary assertions, Congress did *not* define 11e.(2) byproduct material to mean tailings and wastes produced only *after* the date of enactment of UMTRCA or only *after* the effective date of UMTRCA; Congress also did not define 11e.(2) byproduct material to exclude material that was not produced pursuant to an NRC-issued license. As the plain language of the statute indicates, Congress understood that materials that meet the definition of 11e.(2) byproduct material generated prior to the effective date of UMTRCA outside the context of an NRC license are 11e.(2) byproduct material.

Similarly, Section 81 of the AEA sets out the basic requirement for licensing 11e.(2) byproduct material. That section provides that no person may own, possess, produce, transfer or receive 11e.(2) byproduct material without obtaining a license or other authorization from NRC. 42 U.S.C. § 2111. There is absolutely no indication in Section 81 that this licensing requirement is intended to apply only to byproduct material created after the date of enactment or after the effective date of UMTRCA, and there is certainly no indication that this provision applies only to materials that have been produced pursuant to an AEA license. Instead, the Section 81 licensing requirement on its face applies to *any* material that satisfies the definition of 11e.(2) byproduct material, regardless of when that material was first created and whether it was created pursuant to a license.[5]

In this regard, the Fonner Letter's reliance on AEA Section 83 to support the assertion that NRC may not license or otherwise regulate pre-1978 byproduct material is erroneous. According to the Fonner Letter:

> UMTRCA gave NRC statutory authority over such [uranium mill] tailings, *but only over tailings resulting from activities licensed by NRC as of the effective date of the Act (November 8, 1978) [sic] or thereafter. See, Section 83 of the Atomic Energy Act of 1954 as amended.*

Fonner Letter at 1 (emphasis added). In other words, the Fonner Letter cites Section 83 to support the assertion that NRC has regulatory authority only over tailings from activities conducted pursuant to an NRC-issued license that was either in effect on the effective date of UMTRCA or that was issued after the effective date of UMTRCA. In reality, Section 83 in no way limits NRC's authority to license pre-1978 byproduct material. Instead, that section simply

[5] It is important to distinguish between the requirement to obtain a license under Section 81 and the material for which a license is required. Clearly, the requirement to obtain a license for handling 11e.(2) byproduct material can only apply to persons handling 11e.(2) byproduct material *after* the effective date of UMTRCA (*i.e.*, a person could be found liable for handling byproduct material without a license under AEA Section 81 only *after* the Section 81 licensing requirement took effect). However, once this licensing requirement became effective, it applied to *any* 11e.(2) byproduct material handled after that date, *regardless* of when that byproduct material was first generated.

prescribes certain provisions that must be included in licenses issued as of the effective date of UMTRCA. Specifically, Section 83 provides that:

> Any license issued or renewed after the effective date of [UMTRCA] . . . of any activity which results in the production of any [11.e(2)] byproduct material . . . shall contain terms and conditions . . . to assure that, prior to termination of such license –
>
> (1) the licensee will comply with decontamination, decommissioning, and reclamation standards prescribed by the Commission . . . and
>
> (2) ownership of any [11e.(2)] byproduct material . . . that resulted from such licensed activity shall be transferred to (A) the United States or (B) the State in which such activity occurred [at the state's option].

42 U.S.C. § 2113. In addition, Section 83 contains similar provisions regarding the inclusion in licenses of provisions requiring transfer of title to land used for the disposal of 11e.(2) byproduct material. In other words, AEA Section 83, broadly speaking, requires that certain provisions pertaining to the transfer of ownership and custody over byproduct material and the land used for its disposal must be included in 11e.(2) licenses that are issued after the effective date of UMTRCA and in licenses that were already in existence as of the effective date of UMTRCA. Although Section 83 prescribes certain provisions that must be included in 11e.(2) licenses, that section does not speak to the broader question of NRC's *authority* to license activities involving 11e.(2) byproduct material. Section 83 certainly does not purport to *limit* NRC's authority to license the handling of pre-1978 byproduct material. The Fonner Letter's reliance on Section 83, therefore, is simply erroneous.

B. The Position Expressed In The Fonner Letter Is Inconsistent With Congress' Purpose In Enacting UMTRCA.

The position articulated in the Fonner Letter is inconsistent not only with the plain language of the AEA, but also with Congressional intent underlying the statute. By enacting UMTRCA, Congress intended to create a comprehensive system for regulating the tailings and related wastes resulting from processing ore for its source material content. Congress expressed

the twofold purpose of UMTRCA to be as follows: (i) to assess and remediate *inactive* mill tailings sites (*i.e.*, sites contaminated with uranium mill tailings and related wastes that are not subject to an active NRC license), and (ii) to regulate the management and disposition of uranium mill tailings and related wastes at *active* mill tailings sites (*i.e.*, sites subject to active licenses). *See* 42 U.S.C. § 7901. To meet these dual objectives, Congress created an integrated, two-part regulatory scheme, under which tailings at inactive sites are addressed primarily under Title I of UMTRCA and tailings present at active sites are addressed primarily under Title II.

As already discussed, Congress created Title II of UMTRCA to regulate the management and disposition of uranium mill tailings and related wastes at active mill tailings sites (*i.e.*, sites subject to an active license). Title I of UMTRCA was intended to perform a complementary role, by providing for the remediation and regulation of tailings and wastes associated with uranium processing activities that had occurred at *inactive and abandoned* milling sites. Congress, in Title I, specified 22 inactive milling sites to be evaluated and remediated by DOE and directed DOE to identify, evaluate and, if necessary, remediate any additional inactive milling sites designated by DOE, as well as sites in the vicinity of inactive milling sites that were contaminated with tailings and wastes from the milling activities (so-called "vicinity sites"). 42 U.S.C. §§ 7911(6); 7912. As the legislative history of the statute indicates, it was Congress' intent that the remedial program established under UMTRCA would provide a definitive resolution for the disposition of tailings at inactive sites.

> The committee does not want to visit this problem again with additional aid. The remedial action must be done right the first time.

H.R. Rep. No. 1480, 95th Cong., 2d Sess., pt. 2, at 29-30 (1978).

Congress' overriding aim in enacting UMTRCA was to ensure that tailings and wastes from the processing of ore for its source material content -- *whether already existing at the time of UMTRCA's passage or yet to be created* -- would be adequately regulated in a manner that

would provide definitive long-term protection of public health and the environment. Indeed, as the legislative history reveals, one of Congress' principal purposes for enacting UMTRCA was to close a regulatory gap that had previously existed, by providing the Commission with the authority to regulate tailings at sites where milling operations had ceased.

> The Committee [on Interstate and Foreign Commerce] is convinced that *all* tailings pose a potential and significant radiation health hazard to the public. Legislation is needed now to stabilize and control *all* such tailings in a safe and environmentally sound manner and to minimize or eliminate radiation health hazards to the public. . . . The significant factor [favoring enactment of UMTRCA] is the lack of adequate authority under the Atomic Energy Act of 1954 to regulate these tailings. As the NRC testified:
>
> > Historically, the NRC and its predecessor agency have not had regulatory jurisdiction over uranium mill tailings after mill operations are terminated because the tailings are not themselves licensable material. . . . Therefore, after operations ceased at the 22 inactive sites being considered and all licensable quantities of source material removed, the regulatory staff had no further role.
>
> The lack of control over these inactive sites under the 1954 act and other laws to require clean up of these sites is the principal basis for committee action to authorize this remedial program [established in UMTRCA]. This situation does not exist at active mill tailings sites. . . . This bill will provide *additional* authority to effectively control tailings at these active and all future sites.

H.R. Rep. No. 1480, 95th Cong., 2d Sess., pt. 2, at 29-30 (1978) (emphasis added).

Thus, it is clearly erroneous to suggest, as the Fonner Letter does, that UMTRCA does not provide authority to regulate pre-1978 byproduct material, since one of Congress' primary goals in enacting UMTRCA was to ensure that uranium mill tailings and related wastes would be comprehensively regulated, at the time of enactment and in the future, even if those tailings or wastes are present at sites where active milling operations had already ceased at the time of the statute's enactment.[6]

[6] In addition, it is important to recognize that pre-1978 byproduct materials at FUSRAP sites are essentially indistinguishable from other materials that Congress expressly intended to address through UMTRCA. As already

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C. The Fonner Letter's Reliance On *Bowen* Is Incorrect.

The Fonner Letter cites *Bowen v. Georgetown Hospital*, 468 U.S. 204 (1988) ("*Bowen*") to support the assertion that pre-1978 byproduct material at FUSRAP sites cannot be regulated as 11e.(2) byproduct material. Specifically, the Fonner Letter suggests that any attempt by NRC to regulate such material as 11e.(2) byproduct material would constitute a retroactive application of the Commission's regulations. *See* Fonner Letter at 1. The Fonner Letter's reliance on *Bowen* is incorrect.

In *Bowen*, the Department of Health and Human Services sought to apply retroactively certain cost reimbursement regulations that required medical providers to reimburse the government monies that the government had actually paid out to the providers in accordance with the prior regulations. The Court held that such retroactive application of an agency rule, overriding the rule in effect during the time period at issue, was not permitted under the statutory scheme at issue. *Bowen* at 215.

The rule in *Bowen* is not applicable here. In the first place, the decision in *Bowen* pertains to an agency's change in its *regulations* in a way that overrides the agency's preexisting

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indicated, pre-1978 byproduct materials at FUSRAP sites consist primarily of mill tailings and related wastes from the extraction of source material conducted by or on behalf of MED and AEC in support of the country's early atomic energy program. Similarly, when it created the remediation program in Title I, Congress recognized that the government had a special responsibility for these sites because they had also been used to process uranium for the MED and AEC. *See, e.g., Uranium Mill Tailings Radiation Hearings* at 238 ("the sites [covered by Title I] are locations where uranium ore has been processed to produce uranium to sell to the government for national defense"); *Id.* at 241-243 ("These tailings [at Title I sites] . . . were produced primarily as a result of the Federal Government's Manhattan Engineering District and Atomic Energy Commission programs from the early 1940's through the early 1970's. . . . Given these circumstances, the GAO believes that the Federal Government has a strong moral responsibility to at least assist in cleaning up the abandoned tailings. Further, it is probably the only organization with the ability to carry out such a cleanup on a comprehensive basis.") Along the same lines, when Congress enacted Title X of the Energy Policy Act it recognized that pre-1978 byproduct material generated in support of the nation's early atomic energy program had been disposed of at Title II mill tailings impoundments ("commingled" with non-AEC/MED tailings and wastes). Title X was intended to address the federal government's moral responsibility for sharing in the costs of remediating Title II sites containing such "commingled" tailings. It is implausible to suggest, as the Fonner Letter does, that Congress did not intend for pre-1978 byproduct material at FUSRAP sites to be regulated under UMTRCA when that was clearly Congress' intent with respect to other, essentially identical, materials such as commingled tailings at Title II sites and tailings at Title I sites.

regulations. The regulation of pre-1978 byproduct material as 11e.(2) byproduct material does not involve the retroactive application of an agency rule in a way that overrides a previous regulation. Rather, the regulation of pre-1978 byproduct material, such as certain FUSRAP materials, as 11e.(2) byproduct material constitutes a *prospective* application of a *statute* (the AEA) and its definition of "byproduct material" in Section 11e(2).

The court's opinion in *Chemical Waste Management, Inc. v. EPA*, 869 F.2d 1526 (D.C. Cir. 1989), although also dealing with agency regulations, provides insight into the distinction between prospective and retroactive application of statutes and regulations. *Chemical Waste Management* involved the implementation of certain regulations promulgated by EPA pursuant to the Resource Conservation and Recovery Act ("RCRA") in which EPA identified a number of newly listed hazardous wastes. Specifically, EPA's new rule addressed the management of hazardous waste leachate, and required that leachate containing newly listed hazardous wastes be managed in accordance with the new rules, even though the leachate was derived from wastes that were not deemed hazardous at the time they were disposed of. The question presented to the court was whether EPA improperly engaged in retroactive rulemaking by having its leachate regulations apply to leachate derived from wastes that were not deemed hazardous at the time they were disposed of but were newly listed. 869 F.2d at 1532.

The court held that the regulation was not retroactive but was prospective in application. 869 F.2d at 1536. In reaching this conclusion, the court explained that EPA made no effort to impose legal penalties for disposal of hazardous waste that was not already deemed hazardous at the time of disposal. Instead, the court concluded, EPA was prospectively regulating the management of leachate. In sum, the court in *Chemical Waste Management* determined that the crucial question was not whether the EPA was authorized to promulgate a retroactive rule, but rather it was whether the challenged regulation operated retroactively. The court concluded it did not. *Id.* Such is the case here. UMTRCA defines certain materials as 11e.(2) byproduct material. That statutory definition does not seek to penalize any activities that may have taken

place with respect to those materials before UMTRCA's effective date. Rather, UMTRCA is intended to ensure that, after its effective date, 11e.(2) byproduct material will be managed in accordance with the statute and NRC's implementing regulations. In sum, the Fonner Letter, like the EPA regulations reviewed in the *Chemical Waste Management* case, "use[s] the word 'retroactive' in a way that careful lawyers would not." 869 F.2d at 1537.

D. The Fonner Letter is Inconsistent with NRC's Prior Determination that Pre-1978 Byproduct Material at FUSRAP Sites Qualifies as 11e.(2) Byproduct Material.

As already discussed, the Commission has previously taken the position that pre-1978 byproduct material at FUSRAP sites constitutes 11e.(2) byproduct material. Specifically, in the preamble to the Federal Register notice publishing its proposed Alternate Feed and Non-11e(2) Policies, NRC noted, with respect to FUSRAP sites, that:

> Government contracts were issued for thorium source material used in the Manhattan Engineering District and early Atomic Energy Commission programs. Wastes resulting from that processing and disposal at these [FUSRAP] sites *would qualify as 11e.(2) byproduct material.*

57 Fed. Reg. at 20,527 (May 13, 1992) (emphasis added). It would be a stunning reversal of position for NRC to now assert, based on the Fonner Letter, that FUSRAP material and other pre-1978 byproduct material does not qualify as 11e.(2) byproduct material simply because it was not produced pursuant to an NRC-licensed activity or was produced prior to the enactment of UMTRCA.[7]

[7] Moreover, it would be contrary to the Staff's acceptance of DOE's designation of certain FUSRAP material as 11e.(2) byproduct material. *See* Affidavit of Joseph J. Holonich, Deputy Director, Division of Waste Management, Nuclear Materials Safety and Safeguards, in the Matter of International Uranium (USA) Corp., Docket No. 40-8681 MLA-4 (Jan. 29, 1999).

E. DOE's Determination that Certain FUSRAP Materials Constitute 11e.(2) Byproduct Material is Entitled to Deference.

DOE has determined that certain materials at FUSRAP sites constitute 11e.(2) byproduct material.[8] That determination should be entitled to deference since UMTRCA specifically grants to DOE the authority to determine whether materials qualify as "residual radioactive materials" subject to regulation under Title I, and the term "residual radioactive materials" encompasses materials that meet the definition of 11e.(2) byproduct material.

Congress defined "residual radioactive material" in Title I of UMTRCA to mean:

> (A) waste (which the Secretary [of DOE] determines to be radioactive) in the form of *tailings resulting from the processing of ores for the extraction of uranium* and other valuable constituents of the ores; and
>
> (B) other waste (which the Secretary [of DOE] determines to be radioactive) at a processing site which relate to such processing, including any residual stock of unprocessed ores or low-grade materials

42 U.S.C. §7911(7) (emphasis added). As the highlighted portion of this definition indicates, the term "residual radioactive material" used in Title I of UMTRCA encompasses materials that constitute 11e.(2) byproduct material. Congress simply defined residual radioactive material more broadly to sweep in a wider range of wastes that might be found at abandoned milling sites and vicinity properties.[9,10]

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[8] *See*, U.S. Department of Energy, *The Formerly Utilized Sites Remedial Action Program (FUSRAP): Building Stakeholder Partnerships to Achieve Effective Cleanup*, DOE/EM-0233 (April 1995).

[9] Recent amendments to the AEA implicitly recognize that 11e.(2) byproduct material and residual radioactive material are essentially equivalent, by providing for the *direct disposal* of residual radioactive material from Title I sites at licensed Title II facilities. *See* 42 U.S.C. § 7918(a)(1). As a practical matter, no one has disputed that tailings at Title I facilities are quite similar to tailings at Title II sites – the radium content and the sand-like quality of the two sets of tailings are virtually identical. Similarly, the mill tailings and related wastes present at FUSRAP sites are essentially identical to the residual radioactive materials found at Title I sites. However, a given site containing tailings and related wastes would have been addressed under the FUSRAP program rather than the Title I program typically either because there was a responsible party associated with the site (*i.e.*, the site was not abandoned and therefore would not have been a likely candidate for inclusion within the Title I program) or because the site was owned or controlled by the government (since sites owned or controlled by the federal government are expressly excluded from the Title I program). *See* 42 U.S.C. § 7911(6).

Since DOE is granted the authority under UMTRCA to determine whether materials constitute "residual radioactive material," DOE's determination that a material qualifies as a particular subcategory of residual radioactive material (*i.e.*, 11e.(2) byproduct material) should be entitled to deference.[11] With regard to FUSRAP material specifically, DOE is very familiar with the history and characteristics of the material and based its determination on this information. Moreover, deference to DOE's determination would be consistent with the past practices of the Commission Staff in the licensing context, where the Staff has, in fact, accepted DOE's designation of certain FUSRAP material as 11e.(2) byproduct material.[12]

Similarly, any soil or other environmental media that is contaminated with 11e.(2) byproduct material, whether through leaching, run-off, windblown dust or otherwise, contains 11e.(2) byproduct material and must be considered to be and remediated as 11e(2) byproduct material. DOE should be given deference in its determination, at any FUSRAP site, as to the extent of such contamination and what materials are therefore 11e.(2) byproduct material. For example, it is estimated that approximately 8,000 tons of 11e.(2) byproduct material was generated at the Linde site in Tonawanda, New York as a result of MED activities. This material was moved to the Ashland 1 and Ashland 2 FUSRAP sites and, due to contamination of native

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Footnote continued from previous page

[10] Indeed, to the extent that Title I material consists of pre-1978 byproduct material, the material is 11e.(2) byproduct material and should be subject to regulation as 11e.(2) byproduct material – just like any other pre-1978 byproduct material.

[11] In addition, public policy considerations also favor deferring to DOE's determination that a material constitutes 11e.(2) byproduct material. When DOE makes such a determination it is fully cognizant of the fact that if that material is ultimately disposed of in an NRC-licensed 11e.(2) impoundment, DOE will eventually have to take custody of the material (and the site used for its disposal). *See* 42 U.S.C. § 2113. In other words, DOE makes its 11e.(2) determination "with its eyes open" and as a co-equal regulatory authority under UMTRCA. Thus, for example, if FUSRAP material designated as 11e.(2) byproduct material by DOE were to be processed as an alternate feed material in an NRC-licensed uranium mill, *NRC could be assured that processing the material and disposing of the resulting tailings and wastes in the mill's tailings impoundment would not jeopardize transfer of title and custody of the mill tailings impoundment to DOE following site closure* (a key concern underlying the Alternate Feed Policy), since DOE will have already determined that the material qualifies as 11e.(2) byproduct material.

[12] *See* Affidavit of Joseph J. Holonich, Deputy Director , Division of Waste Management, Nuclear Materials Safety and Safeguards, in the Matter of International Uranium (USA) Corp., Docket No. 40-8681 MLA-4 (Jan. 29, 1999).

soils, has resulted in the remediation of much more than 8,000 tons of material from those sites. All of this material has been properly classified by DOE as 11e.(2) byproduct material. The NRC Staff has accepted DOE's designation of all of this material as 11e.(2) byproduct material. *See* fn. 12, *supra*.

F. The Position Articulated in the Fonner Letter Would Have Severe Unintended Consequences.

Finally, as a practical matter and a matter of public policy, if NRC were to adopt the position articulated in the Fonner Letter (that pre-1978 byproduct material, including FUSRAP material cannot be regulated as 11e.(2) byproduct material) the consequences would be severe. For example, Envirocare, an NRC-licensed 11e.(2) facility, has accepted and disposed of FUSRAP materials that were determined by DOE to be 11e.(2) byproduct material. If NRC were now to adopt the position that FUSRAP materials cannot be 11e.(2) byproduct material, the Commission would be in the position of having violated its Non-11e.(2) Policy by allowing these non-11e.(2) FUSRAP materials to be disposed of in a licensed 11e.(2) facility without first ensuring that the nine criteria set out in the Non-11e.(2) Policy were satisfied. Similarly, Envirocare (and other 11e.(2) licensees that have already accepted such materials for disposal) arguably would have violated the terms of their licenses by accepting "non-11e.(2) material" for disposal, and the disposal sites would be vulnerable to dual regulation and susceptible to the possibility that DOE would not ultimately take title to and custody of the materials disposed of there (and the disposal sites themselves) since material that NRC now considers not to qualify as 11e.(2) byproduct material would have been disposed of in an 11e.(2) facility. This is precisely the outcome that NRC's Alternate Feed and Non-11e.(2) Policies were designed to avoid.[13]

[13] *Uranium Mill Facilities, Notice of Two Guidance Documents: Final Revised Guidance on the Disposal of Non-Atomic Energy Act of 1954, Section 11e.(2) Byproduct Material in Tailings Impoundments; Final Position and Guidance on the Use of Uranium Mill Feed Materials Other Than Natural Ores*, 60 Fed. Reg. 49,296 (1995).

Moreover if NRC were to adopt the position that pre-1978 byproduct material is not 11e.(2) byproduct material and therefore can be disposed of in a facility that is not licensed under the AEA, NRC will be sanctioning the disposal of material that is physically, chemically and radiologically indistinguishable from 11e.(2) byproduct material in facilities that were not designed to accommodate uranium mill tailings and related wastes. NRC's regulations at 10 C.F.R. Part 40, Appendix A set forth detailed technical requirements that apply to facilities used to dispose of 11e.(2) byproduct material. These requirements are intended to ensure that 11e.(2) disposal sites provide adequate protection against the unique hazards presented by 11e.(2) byproduct material. Among other things, such facilities must be designed to provide reasonable assurance of the control of radiation hazards for 1,000 years, to the extent reasonably achievable, and in any case for at least 200 years; they must comply with the Appendix A requirements for radon barriers and final covers; new impoundments and extensions of existing impoundments must be constructed with an appropriate liner and leakage detection system, and all such impoundments must be transferred to the government following closure, for long-term surveillance and maintenance. If pre-1978 byproduct material is allowed to be disposed of in non-AEA licensed facilities, then material which is in all relevant respects identical to 11e.(2) byproduct material will be disposed of in facilities that do not provide the degree of protection that NRC deemed necessary in its regulations at 10 C.F.R. Part 40 Appendix A.

Finally, if NRC were to adopt the position that pre-1978 byproduct material at FUSRAP sites cannot constitute 11e.(2) byproduct material, a substantial amount of mill tailings and related wastes currently in DOE inventory that DOE has designated as 11e.(2) byproduct material could be "orphaned," since DOE (or USACE) might be unwilling to send material that DOE has designated as 11e.(2) byproduct material to a non-11e.(2) disposal facility and no licensed 11e.(2) facility would accept for disposal material that does not qualify as 11e.(2) byproduct material (unless that facility was able to satisfy the requirements of the Non-11e.(2)

Policy). The creation of this kind of orphan waste is exactly what Congress intended *not* to happen when it enacted UMTRCA.[14]

III. USACE DOES NOT NEED AN 11E.(2) LICENSE FOR REMEDIATION ACTIVITIES INVOLVING PRE-1978 BYPRODUCT MATERIAL THAT OCCUR AT A FUSRAP SITE OR ANOTHER DOE-ADMINISTERED SITE.

Recently, Congress appropriated funds to USACE to conduct remediation activities at FUSRAP sites pursuant to the Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, and the Energy and Water Development Appropriations Act, 1999, Pub. L. No. 105-245. The Appropriation Acts reflect Congress' intent that the DOE will continue to own, operate, and regulate FUSRAP sites and material thereon, but that the USACE will " . . . clean up contaminated sites throughout the Unites States where work was performed as part of the Nation's early atomic energy program." Pub. L. No. 105-62, 105-245.

In appropriating funds to USACE to remediate FUSRAP sites, Congress intended that the USACE "manage the [DOE's] FUSRAP program"[15] but expressly stated that DOE would retain jurisdiction and regulatory control over the sites. As the chairmen of the appropriating committees responsible for USACE's involvement in the FUSRAP program stated: "[i]t should be emphasized that the basic underlying authorities for the program remain unaltered and the responsibility of the DOE." Letter from Peter V. Domenici, Chairman, Subcommittee on Energy and Water Development, House Committee on Appropriations to Federico Pena, Secretary of Energy and William S. Cohen, Secretary of Defense (Nov. 6, 1997). Similarly, the 1999 appropriations legislation for the FUSRAP program specifically states:

> In fiscal year 1998, Congress transferred responsibility for cleanup of contaminated sites under FUSRAP to the U.S. Army Corps of

[14] *See Kerr McGee*, 903 F.2d at 7 ("NRC's interpretation recreates the regulatory gap that the UMTRCA was designed to eliminate and excludes from regulation for the protection of the public health some of the radioactive mill tailings that Congress intended to bring within the Agency's authority.").

[15] H.R. Rep. No. 190, 105th Sess., 99 (1997).

> Engineers. In appropriating FUSRAP funds to the Corps of Engineers, the Committee intended to transfer *only the responsibility for administration and execution of cleanup activities* at eligible sites where remediation had not been completed. *It did not intend to transfer ownership of and accountability for real property interests that remain with the Department of Energy*. The Committee expects the Department to continue to provide institutional knowledge and expertise needed to best serve the Nation and the affected communities in executing this program.

H.R. Rep. No. 105-581 (1998) (emphasis added).

The transfer of authority to USACE has caused some to question whether USACE or its contractors are required to have an NRC-issued 11e.(2) license in order to conduct on-site remediation activities with respect to 11e.(2) material at FUSRAP sites.[16] The answer to this question is no, for two reasons: (1) neither USACE nor its contractors are "persons" subject to licensing under the AEA, and (2) section 121(e)(1) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9601 *et seq.*, waives any NRC license requirements that would apply to the USACE's, and its contractors', on-site activities.

A. Neither USACE Nor its Contractors are "Persons" Subject to Licensing Under the AEA.

Under the AEA, any "person" handling 11e.(2) byproduct material *must* have an NRC license. Section 81 of the AEA states in relevant part:

> No person may transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, own, possess, import, or export any byproduct material, except as authorized by this section. The Commission is authorized to issue general and specific licenses to applicants seeking to use byproduct material.

42 U.S.C. § 2111. Person is defined in Section 11 of the AEA to mean:

> any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, Government agency

[16] *See Director's Decision Under 10 C.F.R. § 2.206*, 64 Fed. Reg. 16504 (April 5, 1999).

> *other than the Commission*. . . or other entity; and (2) any legal successor, representative, agent, or agency of the foregoing.

42 U.S.C. § 2014(s) (emphasis added). The "Commission" referred to in the definition of "person" is the former Atomic Energy Commission ("AEC"). *See* 42 U.S.C. § 2014(f). The Energy Reorganization Act of 1974 did away with the AEC and transferred its functions to NRC and the Energy Research and Development Administration ("ERDA"). *See* 42 U.S.C. §§ 5814, 5841. ERDA was subsequently abolished and its functions transferred to DOE. *See* 42 U.S.C. §§ 7151(a), 7293. Thus, NRC and DOE are the "legal successors" to the AEC. As "legal successors" to the AEC, both DOE and NRC are exempt from the licensing requirements of the AEA. *See* Letter from Robert M. Andersen, Chief Counsel, Department of the Army to Karen D. Cyr, General Counsel, U.S. NRC (Jan. 12, 1999) at 3. Similarly, USACE is also exempt from the licensing requirements of the AEA, since it is acting as a Congressionally-appointed agent of the "Commission" (*i.e.*, DOE). *Id.*[17]

B. Section 121(e)(1) of CERCLA Also Waives Any NRC License Requirements that Would Apply to On-Site Remediation Activities Performed by USACE or its Contractors.

An alternative basis for concluding that USACE and its contractors do not require NRC licenses for on-site remediation activities derives from the legislation by which Congress transferred to USACE responsibility for overseeing remediation at FUSRAP sites. In the Energy and Water Development Appropriations Act for fiscal year 1999 (FY99), P.L. 105-245, Congress subjected FUSRAP sites to the provisions of CERCLA. Section 121(e)(1) of CERCLA waives any NRC license requirements that would apply to the USACE's, or its contractors', on-site activities. 42 U.S.C. 9621(e)(1); *see also* 10 C.F.R. § 300.400(e). NRC's Executive Director's

[17] This conclusion is consistent with NRC's response to recent questions posed by Senator Bennett wherein the Commission indicated that it did not have the authority to manage FUSRAP materials *at FUSRAP sites*. *See* Responses to Post-Hearing Questions, accompanying Letter to Senator James M. Inhofe, Chairman, Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety from Shirley Ann Jackson, Chairman, NRC, April 1, 1999. Furthermore, it is consistent with the April 5, 1999, Director's 2.206 Decision concluding (pursuant to an NRDC request for a decision) that the USACE did not need an NRC license to manage FUSRAP facilities. *See Director's Decision Under 10 C.F.R. § 2.206*, 64 Fed. Reg. 16504 (April 5, 1999).

Office recently reached the same conclusion, in the context of a petition filed under 10 C.F.R. § 2.206. *See Director's Decision Under 10 C.F.R. § 2.206*, 64 Fed. Reg. 16504 (April 5, 1999).

IV. PRE-1978 BYPRODUCT MATERIAL AT FUSRAP SITES, IF DISPOSED OF OFF SITE, MUST BE SENT TO AN NRC LICENSED 11E.(2) FACILITY.

The Fonner Letter suggests that pre-1978 byproduct material at a FUSRAP site can be disposed of off-site, at a facility that does not possess an NRC-issued 11e.(2) license. Specifically, the Fonner Letter states:

> There are no NRC rules or regulations that would preclude disposal of the described FUSRAP wastes at a [RCRA] disposal facility.

The Fonner Letter's suggestion that pre-1978 byproduct material at FUSRAP sites can be disposed of off site at a non-DOE facility that does not possess an NRC-issued license is inconsistent with the plain meaning of the relevant statutory provisions and inconsistent with Congressional intent.

As discussed above, under the AEA any "person" (other than DOE or its agent, legal successor, *etc.*) *receiving or possessing* 11e.(2) byproduct material *must* have an NRC license. Section 81 states:

> No person may transfer or *receive* in interstate commerce, manufacture, produce, transfer, acquire, own, *possess*, import, or export any byproduct material, except as authorized by this section. The Commission is authorized to issue general and specific licenses to applicants seeking to use byproduct material.

42 U.S.C. § 2111 (emphasis added). Person is defined in Section 11 of the AEA to mean:

> any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, Government agency *other than the Commission* . . . or other entity; and (2) any legal successor, representative, agent, or agency of the foregoing.

42 U.S.C. § 2014(s) (emphasis added). Thus, the plain meaning of the AEA, as amended by UMTRCA, requires any "person," including non-DOE off-site disposal facilities, receiving or possessing 11e.(2) FUSRAP material to have an NRC license.[18]

In addition, Congress' purpose in enacting UMTRCA was to ensure that uranium mill tailings are adequately regulated by either DOE or NRC. As discussed above, while pre-1978 byproduct material is at a FUSRAP site, it is subject to DOE jurisdiction and control. However, once that material is transferred to any "person" as defined in section 11 of the AEA, NRC has jurisdiction over the material and the material is subject to NRC regulatory control, including NRC licensing requirements. Since Congress' objectives require that uranium mill tailings and related wastes be regulated either by NRC or DOE, pre-1978 byproduct material that is removed from a FUSRAP site for disposal off-site must be disposed of properly only in an NRC-licensed facility or a DOE-administered facility.

V. CONCLUSION

For the foregoing reasons, NRC should clarify that (i) pre-1978 byproduct material constitutes 11e.(2) byproduct material; (ii) NRC does not have jurisdiction over such materials at FUSRAP sites or other DOE-administered sites; (iii) neither USACE nor its on-site remediation contractors are required to have an NRC-issued 11e.(2) license in order to conduct on-site remediation activities at FUSRAP sites; and (iv) at any place other than a DOE facility, an NRC-issued 11e.(2) license is required for the disposal of pre-1978 byproduct material (including "residual radioactive material" containing pre-1978 byproduct material). This approach is consistent with the plain language of the AEA, furthers Congressional intent, conforms with the

[18] Clearly, the waiver in section 121(e)(1) of CERCLA for on-site remediation activities, discussed in the previous section, would not apply to off-site disposal activities. 42 U.S.C. 9621(e)(1); *see also* 40 C.F.R. § 300.400(e)(1) ("[t]he term on-site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of response actions.")

manner in which UMTRCA and the FUSRAP program have been administered, and makes sense as a matter of public policy and practicality.

Because of the importance of these issues and the apparent inconsistent statements that have emanated from NRC Staff recently regarding these issues, the Commission should address these issues as quickly as possible.

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