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RADIOACTIVE ROULETTE: SHOULD THE NUCLEAR REGULATORY COMMISSION BE REGULATING THE UNITED STATES ARMY CORPS OF ENGINEERS' FUSRAP ACTIVITIES?

MATTHEW HUGHEY*

Abstract: The Formerly Utilized Sites Remedial Action Program was created in 1974 to clean up radioactive waste at sites used in the nation's early atomic energy and atomic weapons programs. For over two decades, this program was administered by the Department of Energy and its predecessor agencies. In 1997, responsibility for FUSRAP was shifted to the United States Army Corps of Engineers. The transfer did not occur without controversy. Congress transferred the program with little legislative direction. Almost immediately, questions arose about the Corps' authority to administer to program without appropriate permits from the Nuclear Regulatory Commission. Since 1997, the NRC has repeatedly asserted that it does not have the authority to govern the remediation activities of another agency in the federal government. This Note explores the reasons why NRC regulation of the Corps' FUSRAP activities is not only proper, but should be undertaken in the interests of public health and safety.

INTRODUCTION

On October 13, 1997, President Clinton signed the Energy and Water Development Appropriations Act for fiscal year 1998.¹ This appropriations bill contained an important provision transferring a little known Department of Energy (DOE) environmental remediation program, the Formerly Utilized Sites Remedial Action Program (FUSRAP), to the United States Army Corps of Engineers (Corps).²

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¹ Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, tit. 1, 111 Stat. 1320, 1326 (1997).

² H.R. CONF. REP. No. 105-271, at 36-37 (1997), *reprinted in* 1997 U.S.C.C.A.N. 1811, 1846-47; *see* Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, tit. 1, 111 Stat. 1320, 1326.

FUSRAP was created in 1974 to remediate contamination at sites creating fissionable material used by two of DOE's predecessor agencies, the Manhattan Engineer District (MED) and the Atomic Energy Commission (AEC).³ Most of the radioactive material at FUSRAP sites was contaminated with low levels of uranium, thorium, and radium.⁴ By the time of the transfer, DOE identified forty-six sites in the program and had remediated twenty-four.⁵

Congress, however, had become dissatisfied with the manner and speed with which DOE administered FUSRAP.⁶ This dissatisfaction not only led to the transfer of the program from DOE to the Corps, but Congress also agreed to almost double the program's budget.⁷ There was considerable belief that the transfer to the Corps would significantly hasten the remediation of the twenty-two remaining FUSRAP sites and reduce costs at the same time.⁸

Congress' faith in the Corps to make "significant cost and schedule"⁹ efficiencies may have been incorrect.¹⁰ According to the Corps' estimates the program would take between four and seven years longer and cost between \$560 and \$970 million more than under the DOE plan.¹¹ Along with the increased costs comes the belief that the remediation criteria used by the Corps are more lenient than those used previously by DOE.¹²

³ S. REP. NO. 105-206, at 77 (1998); U.S. ARMY CORPS OF ENG'RS, FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP): REPORT TO CONGRESS 1 (1998) [hereinafter FUSRAP REPORT].

⁴ FUSRAP REPORT, *supra* note 3, at 1; Charles H. Montange, *Federal Nuclear Waste Disposal*, 27 NAT. RESOURCES J. 309, 357 n.323 (1987).

⁵ FUSRAP REPORT, *supra* note 3, at 1.

⁶ Michael Grunwald, *Nuclear Cleanup's Fallout: Role of Army Corps Engineers in N.Y. Spurs Criticism*, WASH. POST, Apr. 10, 2000, at A1.

⁷ *Id.*

⁸ H.R. CONF. REP. NO. 105-271, at 36-37 (1997), *reprinted in* 1997 U.S.C.C.A.N. 1811, 1846-47 ("The Corps currently manages and executes a similar program, the Formerly Used Defense Sites program, for the Department of Defense, and the conferees believe there are significant cost and schedule benefits to be gained by having the Corps manage FUSRAP as well."); Grunwald, *supra* note 6, at A1.

⁹ H.R. CONF. REP. 105-271, at 36-37.

¹⁰ FUSRAP REPORT, *supra* note 3, at 36. "DOE proposed plan for completing FUSRAP by the year 2002, at a remaining FY98-02 cost of \$910 is questionable." *Id.*

¹¹ *Id.* "Under this [unconstrained baseline] scenario, the program would be complete by the year 2006 at a remaining cost of \$1.56 billion. With constrained budgets . . . , at an annual funding level of \$140 million, the program would cost \$1.88 billion and not be complete until 2011." *Id.*

¹² *See id.*; *see also* Grunwald, *supra* note 6, at A1. Local residents at the Ashland 2 FUSRAP site in North Tonawanda, New York have been angered by the Corps' announcement that the "maximum cleanup standard for uranium would be 600 picocuries per gram—six

The transfer has also raised several legal questions, the most important of which is whether the United States Nuclear Regulatory Commission (NRC) should regulate the Corps' FUSRAP activities.¹³ In 1998, the Natural Resource Defense Council, Inc. (NRDC) petitioned the NRC to use its authority to ensure that the Corps handles FUSRAP waste in accordance with NRC procedures.¹⁴ Envirocare of Utah, Inc., a low-level waste management and disposal firm, and the Snake River Alliance, an environmental group, filed a similar petition in early 2000.¹⁵ Envirocare simultaneously pursued a civil action in the Court of Federal Claims to prevent the Corps from contracting for the removal of FUSRAP waste.¹⁶

The NRDC and Envirocare petitions both claimed that the legislation purportedly transferring authority over FUSRAP from DOE to the Corps was defective.¹⁷ Both challenges claimed the Corps could not administer the program because, unlike DOE, the Corps is not exempt from the licensing requirements of the Atomic Energy Act (AEA).¹⁸ The Corps responded by stating that Congress directed it to conduct its FUSRAP activities according to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).¹⁹ The Corps claimed that its on-site remediation

times higher than any previous radiation cleanup plan, and 10 times higher than the original maximum set by the [DOE]." *Id.*

¹³ See *Envirocare of Utah, Inc. v. United States*, 44 Fed. Cl. 474, 477-78 (1999); *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 302 (1999).

¹⁴ Receipt of Petition for U.S. Nuclear Regulatory Commission Action, 63 Fed. Reg. 67,494, 67,494-02 (Dec. 7, 1998).

¹⁵ Issuance of Director's Decision Under 10 C.F.R. 2.206, 65 Fed. Reg. 79,909 (Dec. 20, 2000); see *NRC Punts on Regulation; Waits for NAS Findings*, NUCLEAR WASTE NEWS, Dec. 21, 2000, available in Westlaw, 2000 WL 29762569.

¹⁶ *Envirocare*, 44 Fed. Cl. at 476.

¹⁷ See *Corps of Eng'rs*, 49 N.R.C. at 302; see also *Envirocare*, 44 Fed. Cl. at 483. Envirocare claimed that the rules of both the House and the Senate "prohibit 'legislating' in appropriation acts." *Envirocare*, 44 Fed. Cl. at 483 (citation omitted).

¹⁸ *Corps of Eng'rs*, 49 N.R.C. at 302. Under 42 U.S.C. § 2014(s), DOE is exempted from the licensing provisions of the Atomic Energy Act because it is exempt from the following definition of person(s) required to obtain an NRC license: "The term 'person' means (1) any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, Government agency other than the Commission . . . , and (2) any legal successor . . . of the foregoing." *Id.* (emphasis added); Atomic Energy Act, 42 U.S.C. §§ 2014-2023 (2001). DOE is the legal successor of the AEC. FUSRAP REPORT, *supra* note 3, at 1.

¹⁹ 42 U.S.C. §§ 9601-9675 (2000).

activities did not require an NRC license because of the federal permit waiver in section 121(e)(1) of CERCLA.²⁰

In a 1999 decision, the NRC sided with the Corps, concluding that Congress did not give the NRC a “clear directive to oversee the [Corps’] on-going effort under CERCLA to complete the FUSRAP cleanup project.”²¹ Citing a reluctance to commit scarce NRC resources to oversee a “sister federal agency” and concerns about the ambiguity of DOE’s role in the program, the NRC accepted that the Corps’ activities were shielded by the CERCLA permit waiver provision.²² Going one step further, the NRC stated that it did not have jurisdiction to regulate some of the Corps’ disposal activities even if the waiver did not apply.²³

This Note will explore the question of whether the NRC should be regulating the Corps’ FUSRAP remediation and disposal activities. Section I will provide a brief history of the origins of the FUSRAP program and the evolution of DOE. Section II will discuss the transfer of FUSRAP from DOE to the Corps. Section III will explore the NRDC and Envirocare challenges to the Corps’ administration of FUSRAP. Section IV will closely examine the question of whether the NRC’s failure to regulate the Corps’ FUSRAP activities represents a breach of the Commission’s statutory duties.

I. A HISTORY OF FUSRAP AND THE CHANGING ROLES (AND NAMES) OF DOE: FROM THE MANHATTAN ENGINEERING DISTRICT TO 1997

The problem of ascertaining which federal agency should regulate the disposal of FUSRAP waste can be traced to the tortured history of DOE and its predecessor agencies.²⁴ From 1946 through 1977, the federal agencies that regulate energy research, development, and

²⁰ *Id.* § 9621(e)(1). This section states that “[n]o Federal, State, or local permit shall be required for the portion of any removal or remedial action conducted entirely onsite, where such remedial action is selected and carried out in compliance with this section.” *Id.*

²¹ *Corps of Eng’rs*, 49 N.R.C. at 309.

²² *Id.*

²³ *Id.* at 307–08.

²⁴ See FUSRAP REPORT, *supra* note 3, at 1; see also Peter Eisler, *Contaminated Communities Remain*, USA TODAY, Sept. 8, 2000, at A4 (noting that properties identified for decontamination by DOE and subsequently turned over to Corps jurisdiction have been found to have had “obvious evidence of contamination”).

licensing underwent at least three major reorganizations.²⁵ For example, the federal agency that created FUSRAP does not even exist anymore.²⁶ The various reorganizations led to jurisdictional problems that continue to plague FUSRAP today.²⁷

A. *The Manhattan Engineering District and the Atomic Energy Commission*

During World War II, the federal government created the Manhattan Engineering District (MED) to direct the development of the nuclear bomb.²⁸ While most sites producing fissile and other materials needed to manufacture the bomb were federally owned, some of the material was produced under contract with the private sector on private land.²⁹ During the war, the main goal of the MED and its subcontractors was to complete construction of the bomb.³⁰ Safe disposal of the radioactive waste generated was not a priority.³¹ As a result, the universities, machine plants, and other private facilities used in the process became contaminated with "primarily low levels of uranium, thorium, and radium, with their associated decay products."³² This contamination created a situation where radioactivity was above normal background levels.³³

After World War II, control over the nation's nuclear weapons program was shifted to the civilian Atomic Energy Commission (AEC).³⁴ The AEC was authorized by the Atomic Energy Act (AEA) of 1946 to establish "instructions by rule, regulation, or order, governing the possession and use of nuclear material and the operation of facili-

²⁵ See Atomic Energy Act of 1946, 42 U.S.C. §§ 2011–2297 (2000); Energy Reorganization Act of 1974, 42 U.S.C. §§ 5801–5891 (2000); Department of Energy Organization Act, 42 U.S.C. §§ 7101–7352 (2000).

²⁶ FUSRAP REPORT, *supra* note 3, at 16.

²⁷ *Id.* at 17.

²⁸ Navajo Tribe v. United States, 9 Cl. Ct. 227, 249 (1985); see Eisler, *supra* note 24, at A4.

²⁹ FUSRAP REPORT, *supra* note 3, at 5.

³⁰ Eisler, *supra* note 24, at A4.

³¹ *Id.*

³² FUSRAP REPORT, *supra* note 3, at 1, 5.

³³ *Id.* at 14.

³⁴ Atomic Energy Act of 1946, 42 U.S.C. §§ 2011–2297 (2000); S. REP. NO. 1211, § 2 (1946), reprinted in 1946 U.S.C.A.N. 1327, 1328. "The Atomic Energy Commission is the principle administrative body established in the bill. As such, it is responsible for administering domestic controls over atomic energy, for carrying on production, research and development programs, and for stimulating and supporting private research and development." *Id.*

ties used in conducting its activities.³⁵ As early as 1946, Congress recognized that the radioactive materials (fissionable, source, and by-product materials) created under the auspices of the AEC might represent a danger to human health.³⁶

Under AEC administration, concerns about MED radioactive contamination became more acute.³⁷ Despite the growing Soviet threat and accelerating nuclear weapons program, the AEC retained broad power to promulgate health and safety regulations at AEC sites.³⁸ The power of AEC to regulate activities involving nuclear materials was not limited to federal facilities.³⁹ The AEA of 1954 stated that title to all nuclear material in the country was vested in the federal government.⁴⁰ Thus, the AEC could extend its jurisdiction to private off-site activities.⁴¹ Seizing on this broad power, AEC began to decontaminate sites contaminated under the MED and AEC from the 1940s through the 1960s.⁴² Sites decontaminated to the relatively primitive standards used by the AEC during this time were released for other uses under applicable regulations.⁴³

B. *Bifurcation of the Atomic Energy Commission's Administrative and Regulatory Programs: Creation of DOE and the NRC*

In 1974, Congress set about reorganizing and consolidating the AEC.⁴⁴ The energy shocks of the early 1970s required the creation of a broad based energy policy.⁴⁵ Concerned that the AEC's twenty-year focus on nuclear power would inhibit the Commission's ability to

³⁵ *Natural Res. Def. Council, Inc. v. Abraham*, 244 F.3d 742, 744 nn.5, 6 (9th Cir. 2001), *citing* 42 U.S.C. §§ 2201 (b), 2201 (i) (3).

³⁶ S. REP. NO. 1211, § 12 (1946), *reprinted in* 1946 U.S.C.C.A.N. 1327, 1335. The Atomic Energy Act of 1946 granted the AEC the authority to "establish safety and health regulations for the possession and use of fissionable and byproduct materials to minimize the danger from explosion, radioactivity, and other harmful or toxic effects incident to the presence of such materials." *Id.* (emphasis added).

³⁷ *Eisler*, *supra* note 24, at A4; *see FUSRAP REPORT*, *supra* note 3, at 5.

³⁸ *See* S. REP. NO. 83-1699, ch. 14 (1954), *reprinted in* 1954 U.S.C.C.A.N. 3456, 3481-82. Much of the Senate report accompanying the Atomic Energy Act of 1954 is laced with references to "Red military power" and the "Soviet dictators that [may] attempt to occupy free Europe." *Id.*, *reprinted in* 1954 U.S.C.C.A.N. 3456, 3458.

³⁹ *See id.* ch. 6, *reprinted in* 1954 U.S.C.C.A.N. 3456, 3471.

⁴⁰ *Id.*

⁴¹ *See id.*; Atomic Energy Act of 1954 § 52e(5), 42 U.S.C. § 2076 (2000).

⁴² *See FUSRAP REPORT*, *supra* note 3, at 5.

⁴³ *See id.*

⁴⁴ Energy Reorganization Act of 1974, 42 U.S.C. §§ 5801-5891 (2000).

⁴⁵ S. REP. NO. 93-980, § 5 (1974), *reprinted in* 1974 U.S.C.C.A.N. 5470, 5479.

make unbiased decisions about non-nuclear energy sources, Congress eliminated the AEC.⁴⁶

Passage of the act abolishing the AEC, the Energy Reorganization Act of 1974, led to a dramatic reordering of the nation's nuclear administrative and regulatory regimes.⁴⁷ The Energy Research and Development Administration (ERDA) took over most of the research and development responsibilities previously vested in the AEC.⁴⁸ The AEC's commercial licensing and related regulatory functions were transferred to a newly created, independent regulatory agency, the NRC.⁴⁹ The ERDA retained an exemption allowing them to conduct activities that would otherwise require a NRC license.⁵⁰

Three years later, Congress again acted to reorganize energy responsibilities at the federal level.⁵¹ Citing "organizational problems resulting from the fragmentation of responsibilities" that "hampered the Government's ability to formulate, implement, and enforce a coherent and consistent national energy policy," Congress created a cabinet-level department in the executive branch, the Department of Energy (DOE).⁵² The ERDA was one of several independent agencies, and programs in other departments, whose responsibilities were transferred to DOE.⁵³ By assuming the duties of the ERDA, DOE became responsible for remediation of sites used by the ERDA's predecessor agencies, the MED and the AEC.⁵⁴

⁴⁶ *Id.*, reprinted in 1974 U.S.C.C.A.N. 5470, 5480. Despite this concern, Congress used AEC personnel as the backbone for its new creation, the Energy Research and Development Administration. *Id.*

⁴⁷ 42 U.S.C. §§ 5812, 5814.

⁴⁸ *Natural Res. Def. Council, Inc. v. Abraham*, 244 F.3d 742, 744-45 (9th Cir. 2001); see 42 U.S.C. §§ 5814, 5841.

⁴⁹ 42 U.S.C. §§ 5841-5849; S. REP. No. 93-980, § 6, reprinted in 1974 U.S.C.C.A.N. 5470, 5483.

⁵⁰ See 42 U.S.C. § 2014(s); see also *supra* note 17 and accompanying text. ERDA (and subsequently, DOE) facilities that are "authorized for 'subsequent long-term storage of high-level radioactive waste by the Administration'" were notably excepted from this exemption. *Natural Res. Def. Council*, 244 F.3d at 745, citing 42 U.S.C. § 5842 (2000). No such exception was made for low-level waste facilities. See S. REP. No. 93-980, § 6 (1974), reprinted in 1974 U.S.C.C.A.N. 5470, 5485.

⁵¹ Department of Energy Organization Act, 42 U.S.C. §§ 7101-7352 (2001).

⁵² S. REP. No. 95-164, at 2 (1977), reprinted in 1977 U.S.C.C.A.N. 854, 856-57. At the time of the passage of the Department of Energy Organization Act, "[t]here were over 100 energy programs in 4 agencies." *Id.*

⁵³ Department of Energy Organization Act § 301(a), 42 U.S.C. § 7151.

⁵⁴ FUSRAP REPORT, *supra* note 3, at 5.

C. Creation and Administration of FUSRAP

FUSRAP was created under ERDA auspices in 1974.⁵⁵ The ERDA determined that sites used to manufacture materials used in the early atomic weapons program “were not adequately decontaminated to 1970’s health and safety standards.”⁵⁶ When ERDA functions were transferred to DOE in the Department of Energy Organization Act, DOE assumed control of the nascent FUSRAP program.⁵⁷

After assuming control over FUSRAP, DOE began to undertake additional cleanup measures at sites where ERDA action had already been taken.⁵⁸ The setting of remediation standards was somewhat inhibited by the fact that FUSRAP was not specifically defined by statute.⁵⁹ Passage of CERCLA provided more clarity, but also imposed additional remediation requirements on federal facilities.⁶⁰ DOE utilized FUSRAP clean-ups to meet the “newly applicable human health and environmental standards,” including the new environmental restoration standards imposed by CERCLA.⁶¹

From the creation of the Department in 1977 until 1997, FUSRAP was funded and administered by DOE through the annual appropriations process.⁶² In almost two decades, DOE identified forty-six sites to be remediated by the FUSRAP program in fourteen states.⁶³ DOE identified sites suitable for inclusion in FUSRAP by “[i]dentifying and evaluating all sites used to support early MED/AEC nuclear work and determin[ing] whether the sites need decontamination and/or control.”⁶⁴ By 1997, DOE had completed decontamination at twenty-four sites, restoring the sites to a condition in line with “appropriate federal laws and regulations” and local land use and environmental standards.⁶⁵

As noted earlier, one of the primary difficulties faced by DOE during its administration of FUSRAP was determining the “appropri-

⁵⁵ *Id.* at 16.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ See S. REP. NO. 105–206, at 77 (1998); FUSRAP REPORT, *supra* note 3, at 16.

⁶⁰ FUSRAP REPORT, *supra* note 3, at 16.

⁶¹ *Id.*

⁶² S. REP. NO. 105–206, at 77 (1998).

⁶³ FUSRAP REPORT, *supra* note 3, at 5.

⁶⁴ *Id.* Congress also directed DOE to include five additional sites in FUSRAP “because of their similarity with or proximity to sites in the program, even though they did not meet the programmatic standards for inclusion in FUSRAP.” *Id.*

⁶⁵ *Id.*

ate approach to establish general site cleanup criteria.⁶⁶ DOE, the NRC, and the Environmental Protection Agency (EPA) each had standards regulating the cleanup of radioactive materials.⁶⁷ DOE, however, enjoyed a distinct advantage.⁶⁸ DOE remediation activities did not require a NRC license, due to the exemption provided by the AEA.⁶⁹ This exemption was limited to DOE activities, and most activities conducted by DOE contractors; it did not extend to other government parties.⁷⁰ The narrowness of this exemption would create problems after the transfer of the program from DOE to the Corps.⁷¹

II. "MUCK AND TRUCK":⁷² THE TRANSFER OF FUSRAP FROM DOE TO THE CORPS

While DOE continued its efforts to remediate the environmental hot spots created by the Cold War, trouble was brewing in Washington.⁷³ Republicans in Congress were targeting the Department of Energy for elimination.⁷⁴ Secretary Hazel O'Leary was under fire for various political and personal reasons.⁷⁵

Against this background, Congressman Joseph McDade (R-Pa.), Chairman of the House Appropriations Energy and Water Develop-

⁶⁶ *Id.* at 17.

⁶⁷ *Id.*

⁶⁸ See generally *In re* United States Army Corps of Eng'rs, 49 N.R.C. 299, 302 (1999) (noting that DOE was exempted from licensing requirements of the AEA).

⁶⁹ Atomic Energy Act of 1954, 42 U.S.C. § 2014(s) (2000). The Atomic Energy Act of 1954 provided an exemption from the AEC's licensing requirements for activities conducted by the AEC. *Id.* As a legal successor to the AEC, DOE retained the exemption. *Id.*

⁷⁰ See *Corps of Eng'rs*, 49 N.R.C. at 302. Congress implied in the Atomic Energy Act of 1954 that this exemption applied to *Commission activities only*. "Government agencies are on equal footing with all others before the [AEC] with respect to obtaining licenses from the Commission, since the definition of 'persons' specifically includes Government agencies (other than the Commission)." H.R. CONF. REP. NO. 83-2639 (1954), *reprinted in* 1954 U.S.C.C.A.N. 3529, 3530.

⁷¹ See *Corps of Eng'rs*, 49 N.R.C. at 302. One of the primary contentions offered by the NRDC in its petition for NRC licensing of the Corps' FUSRAP activities was that the licensing exception enjoyed by DOE as legal successor to AEC was not transferable to the Corps. *Id.*

⁷² Grunwald, *supra* note 6, at A1. This was the pejorative nickname given to the Corps' remediation methods. It refers to the Corps' technique of aggressively removing supposed contaminants without paying sufficient attention to the overall effect of its activities. See *id.*

⁷³ *Id.*

⁷⁴ *Id.* In 1996, Senator Rod Grams (R-Minn.) introduced legislation that would have eliminated the Department of Energy. S. 236, 105th Cong. (1996). This movement has not died down; Congressman Ed Royce (R-Cal.) introduced similar legislation in 1999. H.R. 2411, 106th Cong. (1999).

⁷⁵ Grunwald, *supra* note 6, at A1.

ment Subcommittee, decided that FUSRAP was the perfect DOE program to target.⁷⁶ McDade was furious that so little progress had been made in FUSRAP in over twenty years of DOE stewardship, as well as the fact that the primary contractor had not been changed since 1980.⁷⁷ He asked the Corps if it was comfortable assuming control over the program.⁷⁸ The Corps responded positively and in 1988, after overcoming opposition from the Clinton Administration and the Senate, the Corps assumed operational control after passage of the Energy and Water Development Appropriations Act, 1998.⁷⁹

The transfer was accompanied with very little in the way of congressional guidance.⁸⁰ The conference report accompanying the Energy and Water Development Appropriations Act provided almost nothing more in the way of direction other than the title to one of the legislation's sections.⁸¹ With regards to the remediation standard to be employed, the report merely directed the Corps to "select an organization and process within the Corps which can execute this high priority program most effectively and efficiently."⁸² Questions remained about DOE's continuing role (if any) and operative regulations governing the Corps' remediation activities.⁸³

⁷⁶ *Id.*

⁷⁷ *Id.* Bechtel, a well-connected environmental remediation conglomerate, had been the primary FUSRAP contractor since 1980. *Id.*

⁷⁸ *Id.* McDade is quoted as stating, "So I asked the Corps if they thought they could take it on instead [of DOE]. They said, 'Hell, yeah.'" *Id.*

⁷⁹ Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, tit. 1, 111 Stat. 1320, 1326 (1997); Grunwald, *supra* note 6, at A1. Senate Democrats and Republicans opposed the transfer of the program, voting against the transfer at a subcommittee mark-up. After some horse-trading, the Democrats backed down. Grunwald, *supra* note 6, at A1.

⁸⁰ See Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, tit. 1, 111 Stat. 1320, 1326. The text of the provision reads:

For the expenses necessary to administer and execute the Formerly Utilized Sites Remedial Action Program to clean up contaminated sites throughout the U.S. where work was performed as part of the nation's early atomic energy program, \$140,000,000, to remain available until expended: *Provided*, that the unexpected balances of prior appropriations provided for these activities in this Act or any previous Energy and Water Development Appropriations Act may be transferred to and merged with this appropriation account, and thereafter, may be accounted for as one fund for the same time period as originally enacted.

Id. There is no mention of the Corps or DOE. See *id.*

⁸¹ See H.R. CONF. REP. NO. 105-271, at 36-37 (1997), reprinted at 1997 U.S.C.C.A.N. 1811, 1846-47.

⁸² *Id.*

⁸³ See *In re* United States Army Corps of Eng'rs, 49 N.R.C. 299, 301 (1999).

The result was confusion about the appropriate remediation standard.⁸⁴ While the Corps recognized that the "DOE, the Nuclear Regulatory Commission (NRC), and EPA all have standards for the cleanup of . . . radioactive materials," it concentrated primarily on the remediation standards and administrative procedures of CERCLA.⁸⁵ The Corps reached this conclusion in spite of the fact that only six of the twenty-two FUSRAP sites that remained to be remediated were National Priority List (NPL), or Superfund, sites.⁸⁶

Perhaps in response to the confusion caused by the abrupt transfer of a program that DOE had administered for over twenty years, Congress attempted to clarify their intentions.⁸⁷ On November 6, 1997, Senator Pete Domenici (R-N.M.) and Congressman McDade sent a letter to Energy Secretary Federico Pena and Defense Secretary William Cohen to clarify the respective roles of DOE and the Corps.⁸⁸ They made clear that the Corps would assume operational, day-to-day control over FUSRAP sites that had not yet been remediated.⁸⁹ The letter emphasized, however, that "*basic underlying authorities for the program remain unaltered and the responsibility of DOE.*"⁹⁰

Seeking to smooth the transition of the program from DOE to the Corps, Congress next directed the agencies to enter into a Memorandum of Understanding (MOU).⁹¹ The purpose of the MOU was to "remedy any misunderstanding that may exist between the two agencies as to the roles and responsibilities related to the cleanup program."⁹² The Corps and DOE executed this MOU in March 1999.⁹³ DOE retained responsibility for, among other things, previously completed sites, long-term operation and maintenance, and "certain responsibilities regarding the designation of any potential additional

⁸⁴ See FUSRAP REPORT, *supra* note 3, at 17.

⁸⁵ *Id.* "Sites will be remediated in accordance with the CERCLA and National Contingency Plan (NCP) process, as has been successfully applied at Superfund sites with similar radioactive contamination." *Id.* at 2.

⁸⁶ *Id.* at 7.

⁸⁷ See *Corps of Eng'rs*, 49 N.R.C. at 301; H.R. REP. NO. 106-253, at 75-76 (1999).

⁸⁸ *Corps of Eng'rs*, 49 N.R.C. at 301.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ S. REP. NO. 105-206, at 77 (1998).

⁹² *Id.*

⁹³ On H.R. 910, *The San Gabriel Basin Water Quality Initiative, and the Role of the Corps of Engineers in the Formerly Utilized Sites Remedial Action Program (FUSRAP) Before the House Subcomm. on Water Resources and the Environment, 106th Cong., (1999)* [hereinafter *San Gabriel Hearings*] (statement of Brigadier General Hans A. Van Winkle), available in Westlaw, 1999 WL 27594995.

sites.”⁹⁴ The Corps was made responsible for “completing remediation at sites which were not completed as of October 13, 1997 . . . and for the evaluation of potential additional sites to determine whether cleanup is warranted.”⁹⁵ In addition, the Corps retained budgetary authority over FUSRAP.⁹⁶

Believing that the respective roles of DOE and the Corps had been addressed by the congressional clarification and the MOU, Congress next attempted to specify the legislative authority controlling Corps activity.⁹⁷ The Energy and Water Development Appropriations Act for fiscal year 1999 stated “[t]hat response actions by the United States Army Corps of Engineers under this program shall be subject to the administrative, procedural, and regulatory provisions of the Comprehensive Environmental Response, Compensation and Liability Act, and the National Oil and Hazardous Substances Pollution Contingency Plan.”⁹⁸ Congress reaffirmed this statement the following year before weighing in on the issue that had spurred administrative and legal challenges: Should the NRC regulate the Corps’ FUSRAP activities?⁹⁹

III. THINGS GET COMPLICATED: VARIOUS CHALLENGES TO THE CORPS’ AUTHORITY AND ITS REMEDIATION PROCEDURES

While Congress attempted to clearly spell out its intent in transferring FUSRAP to the Corps, challenges to the Corps’ oversight of the program and legal authority sprouted.¹⁰⁰ The NRDC was the first party to challenge the Corps’ supervision of the program, contending that it required an NRC license to conduct its remediation activities.¹⁰¹ Envirocare of Utah, Inc. followed the NRDC, filing administrative and legal challenges to the Corps’ authority to conduct its FUS-

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*; Energy and Water Development Appropriations Act, 1998, tit. 1, Pub. L. No. 105-62, 111 Stat. 1320, 1326 (1997).

⁹⁷ See Energy and Water Development Appropriations Act, 1999, tit. 1, Pub. L. No. 105-245, 112 Stat. 1838, 1843 (1998); H.R. REP. No. 106-253, at 75 (1999); H.R. CONF. REP. No. 105-749, at 11 (1998), *reprinted in* 1998 U.S.C.C.A.N. 444, 445.

⁹⁸ Energy and Water Development Appropriations Act, 1999, tit. 1, Pub. L. No. 105-245, 112 Stat. 1838, 1843 (1998) (citations omitted).

⁹⁹ H.R. REP. No. 106-253, at 76.

¹⁰⁰ See *Envirocare of Utah, Inc. v. United States*, 44 Fed. Cl. 474, 477 (1999); Receipt of Petition for U.S. Nuclear Regulatory Commission Action, 63 Fed. Reg. 67,494, 67,494-02 (Dec. 7, 1998).

¹⁰¹ 63 Fed. Reg. 67,494-02.

RAP activities without a NRC license.¹⁰² Although these legal challenges helped frame the legal issues involved, the debate over NRC regulation continued, shifting back to the halls of Congress.¹⁰³

A. The NRDC's Petition to the NRC and the NRC Decision

1. The NRDC's Petition and Their Argument for NRC licensing of Corps' FUSRAP Activities

The NRDC filed their challenge at the NRC¹⁰⁴ in October of 1998, contending that the NRC should "exert authority to ensure that the [Corps'] handling of radioactive materials in connection with the [FUSRAP] is effected in accord with [a] properly issued license and all other applicable requirements."¹⁰⁵ The NRC essentially stated that this was a matter of first impression and acknowledged that it did not require the Corps to obtain a license at the time of the NRDC challenge.¹⁰⁶

The NRDC's basic contention was that the transfer legislation, ostensibly shifting control of FUSRAP to the Corps, did not *transfer legal authority* of the program to the Corps.¹⁰⁷ In other words, the Energy and Water Development Appropriations Act of 1998 shifted day-to-day control over the program to the Corps, but DOE retained ulti-

¹⁰² *Envirocare*, 44 Fed. Cl. at 476; Issuance of Director's Decision Under 10 CFR 2.206, 65 Fed. Reg. 79,909 (Dec. 20, 2000). The Snake River Alliance joined *Envirocare* in this administrative challenge. *Envirocare*, 44 Fed. Cl. at 476; Issuance of Director's Decision Under 10 CFR 2.206, 65 Fed. Reg. 79,909.

¹⁰³ See *The Nuclear Regulatory Comm'n Authorization Act For the Fiscal Year 2000, Hearing Before the House Subcomm. on Energy and Power of the Comm. on Commerce on H.R. 2531*, 106th Cong. 45-46 (1999) (statement of David E. Adelman, Project Attorney, Natural Resources Defense Council, Inc.) [hereinafter *NRC Hearings*].

¹⁰⁴ Under 10 C.F.R. § 2.202(a), the NRC can "institute a proceeding to modify, suspend, or revoke a license or to take such other action as may be proper." Like many administrative agencies, the NRC can hold hearings to determine any issue that is subject to the jurisdiction of NRC. See *id.* Moreover, "any person may file a request to institute a proceeding pursuant to § 2.202." NRC, *Procedures for Imposing Requirements by Order, or for Modification, Suspension, or Revocation of a License, or for Imposing Civil Penalties*, 10 C.F.R. § 2.206(a) (2001). The NRDC filed its petition pursuant to this section.

¹⁰⁵ Receipt of Petition for U.S. Nuclear Regulatory Commission Action, 63 Fed. Reg. 67,494, 67,494.

¹⁰⁶ See *id.* "In October 1997, Congress transferred funding for FUSRAP from DOE to the Corps. NRDC believes that the Corps should obtain an NRC license to conduct activities under FUSRAP. At this time, the NRC has not required the Corps to obtain a license." *Id.*

¹⁰⁷ *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 302 (1999).

mate legal authority.¹⁰⁸ The NRDC claimed that nothing in the transfer legislation suggests a “contrary result; the text does not grant [the Corps] anything beyond budget authority over FUSRAP.”¹⁰⁹

According to the NRDC, this interpretation created a regulatory and oversight problem.¹¹⁰ DOE, while it administered the program, enjoyed a license exemption provided by the AEA.¹¹¹ Unlike DOE and its contractors, the Corps is “not exempt from the licensing requirements” of the AEA.¹¹² Further, DOE acknowledged that it could not extend its licensing exemption for its private contractors to the Corps and that DOE had no regulatory authority over the Corps’ FUSRAP activities.¹¹³ Absent an exemption from NRC licensing or authorized DOE supervision, the NRDC claimed that the Corps did not have authority without first obtaining a license from the NRC.¹¹⁴

The NRDC paired its legal argument with a public policy discussion.¹¹⁵ It contended that the Corps was not suited to carry out FUSRAP remediation without the supervision of the NRC.¹¹⁶ It claimed that the primary mission of the NRC was to ensure the “safety and security of the nation’s nuclear activities.”¹¹⁷ The Corps’ primary mission, by contrast, was to focus on construction and other projects, not environmental remediation.¹¹⁸

Further, the NRDC was concerned that the Corps was relying solely on CERCLA for its guidelines regarding FUSRAP remediation projects.¹¹⁹ The NRDC contended that the cleanup of radioactive materials was highly technical.¹²⁰ For this reason, Congress placed the administrative power for the cleanup and disposal of radioactive materials in the NRC and DOE.¹²¹ That is precisely why Congress “commanded that, with very few exceptions, no agencies other than DOE

¹⁰⁸ *See id.*

¹⁰⁹ *NRC Hearings, supra* note 103, at 46.

¹¹⁰ *Corps of Eng’rs*, 49 N.R.C. at 302.

¹¹¹ Atomic Energy Act, 42 U.S.C. § 2014(s) (2000); *see supra* note 18 and accompanying text.

¹¹² *Corps of Eng’rs*, 49 N.R.C. at 302.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.*; *NRC Hearings, supra* note 103, at 46.

¹¹⁶ *Corps of Eng’rs*, 49 N.R.C. at 302.

¹¹⁷ *NRC Hearings, supra* note 103, at 46.

¹¹⁸ *Id.* During his testimony, Mr. Adelman alluded to the problems that the Corps was having at the Ashland 2 FUSRAP site in North Tonawanda, New York. *Id.*; *see discussion supra* at note 12.

¹¹⁹ *NRC Hearings, supra* note 103, at 46.

¹²⁰ *Id.*

¹²¹ *Id.*

be permitted to handle nuclear materials except in accordance with a license issued by the NRC."¹²² Thus, the Corps could only benefit from NRC supervision, especially when it comes to handling radioactive material that may remain hazardous for "thousands of years."¹²³

2. The Corps' Counterargument

By the time of the NRC decision, the Corps had a particularly good reason for its reliance on CERCLA.¹²⁴ By March 1999, Congress had stated that Corps FUSRAP activities were to be governed by CERCLA.¹²⁵ According to the Corps, this congressional mandate afforded it the protections of a federal permit waiver contained in CERCLA.¹²⁶ Under section 121 of CERCLA, federal cleanup activities conducted entirely on site initiated under the authority of CERCLA do not require federal, state, or local permits.¹²⁷ According to the Corps, this permit waiver stripped the authority of the NRC to regulate the Corps' onsite remediation activities under FUSRAP.¹²⁸

Further, the Corps contended that Congress intended that it act as the legal successor of DOE, as the party responsible for the supervision of FUSRAP.¹²⁹ If the NRC accepted this contention, it would render the NRDC's legal argument moot.¹³⁰ Under the AEA, the actions taken by a legal successor of the AEC (ERDA and DOE) are shielded from the licensing provisions of the Act.¹³¹ If the Corps is a designated

¹²² *Id.*

¹²³ *Id.* The NRDC stated further that FUSRAP sites were "not your typical Superfund project," because they involved radioactive contaminants that had halflives of thousands of years. *Id.*

¹²⁴ See Energy and Water Development Appropriations Act, 1999, tit. 1, Pub. L. No. 105-245, 112 Stat. 1838, 1843 (1998).

¹²⁵ Congress had passed the Energy and Water Development Appropriations Act, 1999, on October 8, 1998. This Act contained the provision ordering the Corps to undertake FUSRAP cleanups subject to the procedures of CERCLA. See *supra* note 98 and accompanying text. The NRC decision on the NRDC petition was not handed down until March 26, 1999. *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 299 (1999).

¹²⁶ See *Corps of Eng'rs*, 49 N.R.C. at 303; see text of 42 U.S.C. § 9621(e)(1) (2000), *supra* note 20.

¹²⁷ 42 U.S.C. § 9621(e)(1); see McClellan Ecological Seepage Situation (MESS) v. Cheney, 763 F. Supp. 431, 434 (E.D. Cal. 1989).

¹²⁸ *Corps of Eng'rs*, 49 N.R.C. at 303. Note that the exemption applies only to remediation activities undertaken entirely on site. The Corps did not assert, nor did the NRC accept, that the CERCLA permit waiver would protect its off-site activities (primarily disposal of waste material). *Id.* at 307.

¹²⁹ *Id.* at 303.

¹³⁰ See *id.*

¹³¹ *Id.*; see discussion *supra* at notes 69-70.

legal successor of the AEC, the NRC is without authority to license its activities.¹³²

3. The NRC Decision: A Victory for the Corps and a Jurisdictional Problem

In short, the NRC denied the NRDC's request to require the Corps to obtain a NRC license to conduct FUSRAP activities.¹³³ The rationales for the decision, however, were slightly more complicated.¹³⁴ The NRC accepted that the Corps was entitled to the federal permit waiver protections of CERCLA.¹³⁵ In addition, the NRC stated that it did not have jurisdiction to regulate Corps activity at several FUSRAP sites.¹³⁶

The NRC explained why the Corps' argument—that its activities were covered by the CERCLA federal permit waiver—was correct.¹³⁷ The NRC accepted the Corps' contention that because "Congress specifically subjected FUSRAP sites to the provisions of CERCLA in the 1999 Act, section 121(e)(1) applies to Corps response actions at FUSRAP sites."¹³⁸ Since section 121(e)(1) applies to federal agencies, and the Corps can "take the role of 'lead agency' in a CERCLA cleanup action," it is entitled to the protections of the waiver.¹³⁹

Citing cases mentioned in the Corps' response to the NRC inquiry, the NRC agreed with the federal court's holding that the section 121(e) waiver allows government bodies, such as the Corps, to avoid NRC licensing, even though it would be necessary absent the waiver.¹⁴⁰ For example, in *McClellan Ecological Seepage Situation (MESS) v. Cheney*, the plaintiff claimed that the Department of Defense was

¹³² *Corps of Eng'rs*, 49 N.R.C. at 303. DOE disagreed with the Corps on this point when the NRC solicited its opinion. DOE stated that the NRC should "evaluate the licensability of the Corps' activities in the same manner as it would evaluate the activities of any other 'person' within the meaning of the Atomic Energy Act." *Id.* Thus, according to DOE, if the Corps escaped NRC licensing authority, it was not because of the waiver provided under the AEA. *See id.* NRC would accept DOE's interpretation of the AEA exemption, thus rejecting the Corps' argument. *Id.* at 309.

¹³³ *Id.* at 304.

¹³⁴ *Id.* at 304–09.

¹³⁵ *Id.* at 304.

¹³⁶ *Id.* at 307–09.

¹³⁷ *Corps of Eng'rs*, 49 N.R.C. at 304.

¹³⁸ *Id.*

¹³⁹ *Id.* at 305.

¹⁴⁰ *Id.* at 305–06; *see* *United States v. City of Denver*, 100 F.3d 1509, 1513 (10th Cir. 1996); *McClellan Ecological Seepage Situation (MESS) v. Cheney*, 763 F. Supp. 431, 434 (E.D. Cal. 1989).

required to obtain a Resource Conservation and Recovery Act (RCRA)¹⁴¹ permit for hazardous wastes being stored at McClellan Air Force Base.¹⁴² McClellan Air Force had been listed on the National Priorities List pursuant to a CERCLA remedial action.¹⁴³ The court in *McClellan* stated that when the RCRA permit would be required solely because of actions that are part of a CERCLA remedial action, “[s]ection 121(e) expressly provides that that [RCRA] activity does not have to be separately permitted.”¹⁴⁴

Further, NRC claimed that Congress did not indicate that it wished to suspend the waiver provision in section 121(e)(1) with regards to the Corps' FUSRAP activities.¹⁴⁵ Accepting the premise that the transfer legislation did not “alter the extent of DOE and perhaps NRC authority under the AEA,” the NRC stated that Congress also did not direct the NRC to regulate the Corps' activity.¹⁴⁶ With this in mind, and in light of the fact that Congress explicitly mentioned that the Corps' remedial actions should be governed by CERCLA, the NRC concluded that congressional silence indicated that they did not want the NRC to regulate the Corps' FUSRAP activities.¹⁴⁷

Further, the NRC asserted that it did not have “regulatory jurisdiction” over Corps FUSRAP activity “regardless of whether response actions by the Corps are subject to CERCLA.”¹⁴⁸ The NRC claimed that it did not even have jurisdiction over twelve of the twenty-one FUSRAP sites where remediation had not completed by the time of the program transfer.¹⁴⁹ The NRC based this argument on the language of the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978.¹⁵⁰

Many of the sites in FUSRAP were used to process uranium ore.¹⁵¹ Since over 2000 pounds of ore were needed to create one to five pounds of useable uranium, this created a tremendous amount of

¹⁴¹ 42 U.S.C. §§ 6901–6992k (2000).

¹⁴² 763 F. Supp. at 433–34.

¹⁴³ *Id.* at 434.

¹⁴⁴ *Id.* at 435.

¹⁴⁵ *Corps of Eng'rs*, 49 N.R.C. at 306.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 307.

¹⁴⁹ *Id.*

¹⁵⁰ See Uranium Mill Tailings Radiation Control Act of 1978 § 2(b)(1)–(2), 42 U.S.C. § 7901 (2000).

¹⁵¹ See H.R. REP. NO. 95–1480(I), at 11 (1978), reprinted in 1978 U.S.C.C.A.N. 7433, 7433–34.

waste.¹⁵² Much of this waste was under the control of the federal government, but about twenty-seven tons were left at inactive mill sites with little or no regard for their “unstabilized and unprotected condition.”¹⁵³ Congress sought to regulate such waste through the NRC licensing process, requiring producers of “tailings or wastes produced by the extraction of or concentration of uranium or thorium from any ore processed primarily for its source material content” to comply with NRC guidelines regarding their disposal.¹⁵⁴

The NRC stated that prior to the passage of the UMTRCA, neither the AEC nor the NRC had jurisdiction over uranium tailings or similar residual material.¹⁵⁵ After passage of the UMTRCA, the NRC made cleanup of such materials a condition of the renewal of a NRC license.¹⁵⁶ Further, the NRC alleged that the previous failure of the AEC and the NRC to regulate some of these materials was a product of conscious action.¹⁵⁷ Therefore, the residual material regulated by the UMTRCA created prior to its passage in 1978 was not the subject of a subsequent license renewal.¹⁵⁸ According to the NRC, waste from inactive sites was never subject to NRC regulation.¹⁵⁹ As far as the NRC was concerned, it could not assert jurisdiction over waste that was never the subject of a NRC license.¹⁶⁰ This was the situation of twelve of the twenty-one sites where remediation had not yet been completed.¹⁶¹

B. *Envirocare's Various Legal Challenges to the Corps' Authority*

Envirocare, in a lawsuit that was filed in the United States Court of Federal Claims,¹⁶² made similar claims to those advanced by the

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ Atomic Energy Act, 42 U.S.C. § 2014(e) (2000). Because the Uranium Mill Tailings Radiation Control Act of 1978 amended the AEA's section 11(e) definition of by-product waste, such waste is called 11(e)(2) waste. *See Envirocare of Utah, Inc. v. United States*, 44 Fed. Cl. 474, 477 (1999).

¹⁵⁵ *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 307 (1999).

¹⁵⁶ *Id.*

¹⁵⁷ *Id.* “Though the NRC exercised some control over such material in connection with licensed processing of ore for source material, it did not exercise jurisdiction at inactive sites where no license was in effect.” *Id.* at 308.

¹⁵⁸ *Id.* at 307.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Corps of Eng'rs*, 49 N.R.C. at 307.

¹⁶² Envirocare (along with the Snake River Alliance) filed a parallel petition before the NRC. *See generally* Issuance of Director's Decision Under 10 C.F.R. 2.206, 65 Fed. Reg.

NRDC.¹⁶³ Envirocare claimed that the Corps could not issue contract solicitations for FUSRAP activities, because it did not have a NRC license and because potential "offerors require a[] NRC license in order to accept 11(e)(2) byproduct material for disposal."¹⁶⁴ Envirocare mounted a number of other challenges without success, including a collateral attack on the legislation transferring authority over FUSRAP from DOE to the Corps.¹⁶⁵

The United States filed a motion to dismiss the case.¹⁶⁶ In deciding on the motion, the court discussed the NRC's decision on the NRDC petition.¹⁶⁷ The court concluded that "[t]he issue addressed in the NRC's decision is identical to that raised in Count IV of plaintiff's complaint: whether the Corps' FUSRAP activities are subject to NRC licensing."¹⁶⁸ Since this decision constituted an agency's final action, the "federal courts of appeals have exclusive judicial review."¹⁶⁹ Envirocare subsequently appealed the decision to the United States Court of Appeals for the Federal Circuit.¹⁷⁰ The suit was subsequently dismissed at the request of both parties.¹⁷¹

C. *The NRDC Continues the Debate: Challenging the NRC's Decision in Congress*

In July 1999, the House Commerce Committee held hearings on legislation to reauthorize the NRC.¹⁷² The NRDC, fresh off of their legal defeat before the NRC, used the hearings as a forum to point out the problems with the NRC's decision to not regulate FUSRAP

79,909 (Dec. 20, 2000). The NRC ruled on this petition on December 13, 2000, but no decision has been filed. The NRC issued an order extending the period in which the decision could be appealed. *In re* Envirocare of Utah & the Snake River Alliance, 2001 NRC LEXIS 2, at *1 (Jan. 5 2001).

¹⁶³ *Envirocare of Utah, Inc. v. United States*, 44 Fed. Cl. 474, 478 (1999).

¹⁶⁴ *Id.* at 477.

¹⁶⁵ *Id.* at 482-83. The court dismissed this challenge, noting that "Congress can and frequently does 'legislate' in appropriation acts." *Id.* at 482.

¹⁶⁶ *Id.* at 477.

¹⁶⁷ *Id.* at 478.

¹⁶⁸ *Id.*

¹⁶⁹ *Envirocare*, 44 Fed. Cl. at 478.

¹⁷⁰ *Envirocare of Utah, Inc. v. United States*, 217 F.3d 852 (Fed. Cir. 1999) (unpublished table decision).

¹⁷¹ *Id.*

¹⁷² See *The Nuclear Regulatory Commission Authorization Act For the Fiscal Year 2000: Hearing Before the House Subcomm. on Energy and Power of the Comm. on Commerce on H.R. 2531*, 106th Cong. 1 (1999) (statement of Chairman Barton, Chairman of House Subcomm. on Energy and Power).

waste.¹⁷³ David Adelman, a project attorney for the NRDC, continued to press the public policy rationales for NRC regulation of FUSRAP waste.¹⁷⁴ In addition, the NRDC took issue with the NRC's assertion that it did not have jurisdiction over many of the FUSRAP sites because of disputed language in the UMTRCA.¹⁷⁵

As noted earlier, the NRC stated that it did not have jurisdiction to regulate the disposal of waste at twelve of the twenty-one unremediated FUSRAP sites.¹⁷⁶ This position was based on the NRC's understanding that passage of the UMTRCA in 1978 did not extend its regulatory authority to the disposal of waste from mills that were inactive at the time of the Act's passage.¹⁷⁷ One of the most important features of the UMTRCA was a redefinition of by-product material under the AEA.¹⁷⁸ It has been noted that this effort was made in part to close a "regulatory gap" and allow the NRC to regulate radioactive tailings, like those contaminating FUSRAP sites.¹⁷⁹ Instead, the NRC claimed that because it was only required to attach licensing conditions regarding the remediation and disposal of mill tailings at sites licensed after passage of the UMTRCA, it did not have jurisdiction to deal with inactive sites.¹⁸⁰ The NRDC countered that the NRC's reading of the UMTRCA not only misconstrued Congress' intent in passing the

¹⁷³ See *NRC Hearings*, *supra* note 103, at 45–48.

¹⁷⁴ See *id.* at 46. Substantively, the NRDC's public policy arguments echoed those made before the NRC. See *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 302 (1999).

¹⁷⁵ See *NRC Hearings*, *supra* note 103, at 46–48. The UMTRCA contained two titles: Title I provided for cooperative partnership between states and the federal government to remediate inactive mill tailing sites and Title II granted the NRC express jurisdiction over the production and disposal of mill tailings at active sites. Uranium Mill Tailing Radiation Control Act § 2(b)(1)–(2), 42 U.S.C. § 7901 (2000).

¹⁷⁶ *Corps of Eng'rs*, 49 N.R.C. at 307–08.

¹⁷⁷ *Id.*

¹⁷⁸ Uranium Mill Tailing Radiation Control Act § 201, 42 U.S.C. § 2014 (2000). Section 201 provides that:

Section 11e of the Atomic Energy Act of 1954 is amended to read as follows:
 e. The term "byproduct material" means (1) any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material, and (2) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

Id.

¹⁷⁹ See *Kerr-McGee Chem. Corp. v. NRC*, 902 F.2d 1, 7 (D.C. Cir. 1990).

¹⁸⁰ *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 307 (1999).

UMTRCA, but also was contrary to court decisions interpreting the Act.¹⁸¹

The NRDC first turned to the language of the UMTRCA.¹⁸² When the UMTRCA was passed, Congress concluded in its "Findings and Purpose" section "that there are 'potential and significant radiation hazard[s] to the public' from 'mill tailings located at active and inactive mill operations.'"¹⁸³ Further, the NRDC noted that Congress was careful to include programs that would remediate pollution created by mill tailings at both inactive and active mill sites.¹⁸⁴ Taken together, the NRDC concluded that "Congress' intent in enacting UMTRCA is clear from this language: UMTRCA applies to byproduct material generated at sites closed prior to passage of the Act in 1978."¹⁸⁵ The NRDC's assertion that NRC regulatory authority extends to inactive sites is supported by language from the Congressional reports accompanying the UMTRCA.¹⁸⁶

The NRDC also noted that attempts similar to the NRC's efforts to distinguish waste created prior to 1978 from waste generated after 1978 have been rejected by the courts.¹⁸⁷ In support of this position, the NRDC cited *Kerr-McGee Chemical Corp. v. NRC*.¹⁸⁸ In *Kerr-McGee*, the court confronted a challenge to a NRC decision to treat two waste piles on the same site in West Chicago, Illinois differently "because of [their] history."¹⁸⁹ The NRC had attempted to distinguish waste materials on the basis of the objective for which the ore is first processed rather than their physical characteristics.¹⁹⁰ The court was critical of the NRC's reading of the UMTRCA, stating that the NRC's interpretation of the UMTRCA would "frustrate the policy that Congress sought to implement."¹⁹¹ It appeared as though the court found the NRC's

¹⁸¹ *NRC Hearings*, *supra* note 103, at 46–47.

¹⁸² *Id.* at 47.

¹⁸³ *Id.* at 47 (citations omitted).

¹⁸⁴ *See id.* at 47.

¹⁸⁵ *Id.* at 47.

¹⁸⁶ H.R. REP. NO. 95–1480(1), at 16 (1978), *reprinted in* 1978 U.S.C.A.N. 7433, 7438. The House noted that "[t]he [NRC] should issue all necessary permits or licenses for uranium mill tailings sites." *Id.*; *see also* *Waste Action Project v. Dawn Mining Corp.*, 137 F.3d 1426, 1429 (9th Cir. 1998) ("Thus, UMTRCA was enacted in part to close the regulatory gap and give NRC the express authority to regulate mill tailings at inactive sites.").

¹⁸⁷ *See NRC Hearings*, *supra* note 103, at 47.

¹⁸⁸ *Id.* at 47.

¹⁸⁹ *Kerr-McGee Chem. Corp. v. NRC*, 903 F.2d 1, 5 (D.C. Cir. 1990).

¹⁹⁰ *Id.* at 7. Similar to the controversy addressed in this Note, the court in *Kerr-McGee* was confronted by a controversial NRC determination of what constitutes section 11(e)(2) by-product waste. *Id.*

¹⁹¹ *Id.*

narrow interpretation of the section 11(e)(2) language to be wholly inconsistent with the UMTRCA's purposes.¹⁹²

As the court noted in *Kerr-McGee*, the UMTRCA was meant to augment "the existing regulatory regime to bring mill tailings within the NRC's explicit authority and to establish a comprehensive program to provide for their safe disposal."¹⁹³ The court criticized the NRC's interpretation of the UMTRCA, because "[it] recreate[d] the regulatory gap that the UMTRCA was designed to eliminate and excludes from regulation for the public health some of the radioactive tailings that Congress intended to bring within the [NRC's] authority."¹⁹⁴ Other court rulings also support the NRDC's contention that there is no reason to differentiate between pre-1978 and post-1978 waste.¹⁹⁵

Mr. Adleman, speaking for the NRDC, also engaged in a discussion with the House Subcommittee on Energy and Power about the importance of sending radioactive FUSRAP material to NRC licensed disposal sites.¹⁹⁶ Before FUSRAP was transferred from DOE to the Corps, FUSRAP waste was disposed of at NRC regulated sites¹⁹⁷ or at "DOE-operated sites."¹⁹⁸ In his prepared statement submitted to the Subcommittee, Adelman attacked a decision made by the NRC that allowed the Corps to dispose of FUSRAP waste at RCRA disposal sites.¹⁹⁹ He noted that there were very different "monitoring and containment" requirements between RCRA and NRC licensed landfills.²⁰⁰ In addition, Adelman stated that RCRA licensed landfills were designed to deal with hazardous waste, but had not incorporated specific standards needed to deal with radiological contaminants.²⁰¹

¹⁹² *See id.* at 8.

¹⁹³ *Id.* at 3.

¹⁹⁴ *Id.* at 7.

¹⁹⁵ *Waste Action Project v. Dawn Mining Corp.*, 137 F.3d 1426, 1430 (9th Cir. 1998); *Macias v. Kerr-McGee Corp.*, No. 92-C-3389, 1993 WL 408357, at *2 (N.D. Ill. Oct. 12, 1993).

¹⁹⁶ *NRC Hearings*, *supra* note 103, at 46, 51-52.

¹⁹⁷ These sites included sites designated by agreement states—states that had assumed, under agreement with the NRC, responsibility for regulating nuclear waste. *See Montange*, *supra* note 4, at 355-56. The NRC requires that the regulatory programs of agreement states be "compatible" with that of NRC." *Id.* at 356. Indeed, the state requirements may be more stringent. *Id.*

¹⁹⁸ *NRC Hearings*, *supra* note 102, at 48.

¹⁹⁹ *Id.* at 50.

²⁰⁰ *Id.* at 51.

²⁰¹ *Id.* at 51-52. The NRC has also noted that 11(e)(2) waste *does not* fall under the jurisdiction of RCRA. *Uranium Mill Facilities, Request for Public Comment*, 57 Fed. Reg. 20,525, 20,528 (May 13, 1992).

He contended that disposal of FUSRAP waste at unlicensed facilities would pose various health and environmental risks.²⁰²

IV. MAKING THE CASE FOR NRC REGULATION OF FUSRAP WASTE: IS THE NRDC RIGHT?

In July 2001, the NRC and the Corps executed a Memorandum of Understanding (MOU) that sought to solidify the NRC's decision on the NRDC's petition.²⁰³ While the MOU recognized that the NRC had statutory authority over waste at least at some FUSRAP sites, the NRC essentially abdicated control over such waste by allowing for the suspension of its licensing authority.²⁰⁴ The MOU failed to critically examine the findings made in the NRDC case.²⁰⁵ In particular, the MOU simply accepted that the Corps did not need to obtain an NRC permit for its remediation activity at FUSRAP sites because of the permit waiver contained in CERCLA.²⁰⁶ Further, there was no discussion of the NRC's finding that it had no authority to regulate section 11(e)(2) by-product waste created before, and not subject to an NRC license at the time of the passage of UMTRCA.²⁰⁷ While the NRC relies on both of these conclusions to avoid oversight of the Corps' FUSRAP activity, both are vulnerable to attack and may not be correct as a matter of law.²⁰⁸

A. *Is the Corps Entitled to the CERCLA Permit Waiver?*

Section 121(e) of CERCLA exempts most cleanup activities from federal, state, and local licensing requirements.²⁰⁹ The Corps claimed, and the NRC accepted, that this permit waiver shields Corps FUSRAP

²⁰² See *NRC Hearings*, *supra* note 102, at 48.

²⁰³ See Memorandum of Understanding Between the U.S. Nuclear Regulatory Commission and the United States Army Corps of Engineers for Coordination of Cleanup and Decommissioning of the Formerly Utilized Site Remedial Action Program (FUSRAP) Sites with NRC-Licensed Facilities, 66 Fed. Reg. 36,606, 36,607-08 (July 12, 2001).

²⁰⁴ *Id.* Four FUSRAP sites were subject to NRC licensing at the time of the MOU. *Id.* at 36,609.

²⁰⁵ See *id.* at 36,607.

²⁰⁶ *Id.* "[The Corps] as provided for in section 121(e) of CERCLA and 40 CFR 300.400(e), is not required to obtain a NRC license for its on-site remediation activities conducted under its CERCLA authority." *Id.* at 36,607.

²⁰⁷ See *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 307-08 (1999); *NRC Hearings*, *supra* note 103, at 46-48.

²⁰⁸ See *Corps of Eng'rs*, 49 N.R.C. at 307-08; *NRC Hearings*, *supra* note 103, at 46-48.

²⁰⁹ CERCLA, 42 U.S.C. § 9621(e)(1)-(2) (2000).

remediation actions from NRC licensing requirements.²¹⁰ This contention is vulnerable for several reasons.²¹¹ First, the AEA has made clear that only DOE remedial actions are exempt from NRC licensing requirements.²¹² Second, the cases relied upon by the NRC and the Corps to justify extending the section 121(e) permit waiver to Corps FUSRAP activities do not necessarily support the NRC's decision.²¹³

1. First Things First: Conflict Between the AEA and CERCLA

The NRC relied almost exclusively on the section 121(e) permit waiver in deciding that it did not have the authority to regulate the Corps' FUSRAP activities.²¹⁴ In its discussion of the applicability of the section 121(e) waiver, however, the NRC ignored the far more narrow AEA exemption.²¹⁵ Under the AEA, only the Atomic Energy Commission (AEC) and its successor agencies (including DOE) are exempt from the NRC licensing requirements.²¹⁶

In fact, DOE explicitly rejected the Corps' contention that it could rely upon the AEA exemption to relieve itself of the burden of obtaining a NRC license.²¹⁷ The AEA made it clear that it was the exclusive province of the AEC (and its successor agencies, ERDA and DOE) to dispose of radioactive materials.²¹⁸ In describing the general authority of the AEC, Congress granted the AEC the power to "[d]ispose of radioactive materials and make other special dispositions for reasons of national security *without regard to the provision of other laws.*"²¹⁹ Therefore, it would appear that the NRC's decision to allow the Corps to dispose of FUSRAP waste without an NRC license would contradict congressional intent.²²⁰

²¹⁰ *Corps of Eng'rs*, 49 N.R.C. at 304–06.

²¹¹ *NRC Hearings*, *supra* note 103, at 46–48.

²¹² Atomic Energy Act, 42 U.S.C. § 2014(s) (2000).

²¹³ *See Corps of Eng'rs*, 49 N.R.C. at 305–06.

²¹⁴ *Id.* at 309.

²¹⁵ *See* 42 U.S.C. § 2014(s).

²¹⁶ *Id.*

²¹⁷ *Corps of Eng'rs*, 49 N.R.C. at 303.

²¹⁸ S. REP. NO. 1211, § 12(f), *reprinted in* 1946 U.S.C.C.A.N. 1327, 1336.

²¹⁹ *Id.* (emphasis added).

²²⁰ *See id.*; *NRC Hearings*, *supra* note 103, at 46.

2. A Dubious Proposition: The Corps' Reliance on Section 121(e) Case Law

In response to the NRDC's contention that the NRC should regulate its activities, the Corps claimed that its assertion that the section 121(e) permit waiver shielded its FUSRAP activities was supported by two decisions interpreting that waiver.²²¹ The Corps acknowledged that the permit waiver provision "has been rarely addressed by the courts."²²² Nevertheless, the Corps cited two cases that purportedly supported its contention that the section 121(e) permit waiver covered its FUSRAP remediation activities.²²³

The applicability of these cases to the Corps' FUSRAP responsibilities is dubious at best.²²⁴ For example, in *City of Denver*, the issue was whether or not Denver could use its zoning ordinance to stop remedial activity required by an EPA order.²²⁵ The EPA issued an order requiring a landowner to perform a remedial action on one of his parcels contaminated with radium.²²⁶ The City countered with an "Order to Cease and Desist" that stated that the land was not permitted to maintain a "radioactive disposal or dump site," which it ostensibly would become if the landowner complied with the EPA order.²²⁷ The trial court found that the "Cease and Desist Order [was] void and unenforceable pursuant to the Supremacy Clause because it is in direct conflict with the [record of decision] and the EPA order"²²⁸ The trial court did not even reach the issue of whether the city's action was barred by section 121(e).²²⁹ While the Court of Appeals did note that section 121(e)(1) could indeed override the city's zoning ordinances, the Supremacy Clause framed the issue.²³⁰ In the case of the controversy surrounding the Corps' activities, there is a conflict

²²¹ *Corps of Eng'rs*, 49 N.R.C. at 305, 306.

²²² *Id.* at 305.

²²³ *Id.* at 305-06; see generally *United States v. City of Denver*, 916 F. Supp. 1058 (D. Colo. 1996), *aff'd* 100 F.3d 1509 (10th Cir. 1996); *McClellan Ecological Seepage Situation (MESS) v. Cheney*, 763 F. Supp. 431 (E.D. Cal. 1989).

²²⁴ See *City of Denver*, 916 F. Supp. at 1063.

²²⁵ *Id.* at 1060.

²²⁶ *Id.*

²²⁷ *Id.*

²²⁸ *Id.*

²²⁹ *Id.* at 1063. "This result makes it unnecessary to consider the United States' Second Claim for Relief regarding CERCLA section 121(e)(1)" *Id.*

²³⁰ *United States v. City of Denver*, 100 F.3d 1509, 1513 (10th Cir. 1996).

between two *federal* agencies with concurrent authority to regulate radioactive waste.²³¹

The other case cited by the Corps provides more support for NRC's decision not to regulate FUSRAP waste.²³² In *McClellan Ecological Seepage Situation (MESS) v. Cheney*, an environmental group challenged the government's contention that a waste pit at McClellan Air Force Base did not require a RCRA permit because the pit was the subject of a CERCLA remedial action.²³³ Absent the CERCLA remedial action, the court accepted that "a RCRA permit [would be] required for that activity."²³⁴ The court, however, noted that "[s]ection 121(e) expressly provides that that activity does not have to be separately permitted."²³⁵ The problem with relying on this decision to justify the NRC's decision to allow the Corps to conduct its FUSRAP remedial actions without an NRC license is noted in the NRC decision.²³⁶ As the NRC discussed, the holding in *McClellan* "was later vacated on the basis of subject matter jurisdiction."²³⁷

B. *Illiteracy: The NRC's Reading of the UMTRCA and the Folly of Differentiating Between By-Product Waste Created Before and After 1978*

Accepting for the sake of argument that the Corps is entitled to the section 121(e) permit waiver for its remedial work conducted at FUSRAP sites, it does not necessarily follow that this exemption extends to activities conducted wholly *offsite*.²³⁸ Even the NRC noted that the "waiver in section 121(e)(1) does not apply to offsite activities."²³⁹ Nevertheless, the Corps has read the CERCLA waiver to cover offsite activities, such as disposal.²⁴⁰ The Corps has taken advantage of the

²³¹ FUSRAP REPORT, *supra* note 3, at 2.

²³² See generally *McClellan Ecological Seepage Situation (MESS) v. Cheney*, 763 F. Supp. 431 (E.D. Cal. 1989).

²³³ *Id.* at 433-36.

²³⁴ *Id.* at 435.

²³⁵ *Id.*

²³⁶ *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 305 n.15 (1999).

²³⁷ *Id.*, citing *McClellan*, 47 F.3d 325.

²³⁸ See CERCLA, 42 U.S.C. § 9621(e)(1) (2000); *NRC Hearings*, *supra* note 103, at 46. Offsite activities include transfers of waste and disposal. 42 U.S.C. § 9621(e)(1) (2000); *NRC Hearings*, *supra* note 104, at 46.

²³⁹ *Corps of Eng'rs*, 49 N.R.C. at 307.

²⁴⁰ See U.S. ARMY CORPS OF ENG'RS, ENGINEER CIRCULAR 200-1-3: OFF-SITE DISPOSAL OF MATERIALS FROM THE FORMERLY UTILIZED SITE REMEDIAL ACTION PROGRAM 2 (2000). The Corps states that it "will dispose of FUSRAP radioactively contaminated materials only at facilities licensed by the Nuclear Regulatory Commission . . . or at facilities permitted by a

NRC's curious reading of the UMTRCA to dispose of FUSRAP waste at facilities not licensed by the NRC.²⁴¹

The NRC decided that the language of the UMTRCA did not give it the authority to regulate FUSRAP waste at sites not licensed by the NRC at the time of the passage of UMTRCA.²⁴² Certainly, the NRC is correct when it states that it "did not exercise jurisdiction at inactive sites where no license was in effect" prior to the passage of the UMTRCA.²⁴³ Prior to passage of the UMTRCA, uranium mill tailings were not included in the definition of "by-product material" in the Atomic Energy Act, and therefore not subject to NRC licensing.²⁴⁴ Even the court in *Kerr-McGee* noted that "[a]s early as 1960 . . . the AEC had concluded that because these mill tailings generally could not be classified as source material," and, therefore, could not be regulated by the AEC.²⁴⁵

The fault with NRC's interpretation of the UMTRCA, however, lies with its determination that it has no authority whatsoever to regulate the disposal of by-product waste created before 1978.²⁴⁶ In *Kerr-McGee Chemical Corp. v. NRC*, the NRC tried, and failed, to create a distinction between waste materials that essentially had the same physical characteristics.²⁴⁷ The NRC attempted in *Kerr-McGee* to draw a regulatory line based on the objective for which the "feedstock ore is first processed."²⁴⁸ The court rejected that distinction because the definition of "'by-product material' . . . adopted by Congress was designed to extend the NRC's regulatory authority over *all* wastes resulted from the extraction and concentration of source materials in the course of the nuclear fuel cycle."²⁴⁹

In the case of *In re United States Army Corps of Engineers*, the NRC is essentially attempting to draw a similar, illogical distinction to avoid the trouble of ensuring that the Corps dispose of all FUSRAP waste at

Federal or state regulator to accept radioactive materials in accordance with all applicable laws and regulations." *Id.* (emphasis added).

²⁴¹ *Corps of Eng'rs*, 49 N.R.C. at 307.

²⁴² *Id.* at 307; see discussion *supra* notes 147-160 and accompanying text.

²⁴³ *Corps of Eng'rs*, 49 N.R.C. at 308.

²⁴⁴ H.R. REP. No. 95-1480(II), at 43 (1978), reprinted in 1978 U.S.C.C.A.N. 7450, 7470.

²⁴⁵ *Kerr-McGee Chem. Corp. v. NRC*, 903 F.2d 1, 3 (D.C. Cir. 1990).

²⁴⁶ See *id.* at 7; see also *Waste Action Project v. Dawn Mining Corp.*, 137 F.3d 1426, 1429 (9th Cir. 1998) (noting that the "UMTRCA was enacted in part to close the regulatory gap and give NRC the express authority to regulate mill tailings at inactive sites").

²⁴⁷ See *Kerr-McGee*, 903 F.2d at 7.

²⁴⁸ *Id.*

²⁴⁹ *Id.*

NRC licensed facilities.²⁵⁰ This time, however, the NRC is trying to avoid its responsibility to ensure the safe disposal of radioactive waste by differentiating between waste materials created before and after passage of the UMTRCA.²⁵¹ The NRDC has been quick to point out that it “make[s] no sense from a technical perspective to base regulation of radioactive waste on when the material was generated.”²⁵² When dealing with radioactive materials that remain hazardous for thousands of years, time is “not a relevant factor”²⁵³ Even the Corps has noted that FUSRAP waste will remain radioactive for a long period.²⁵⁴

This loophole created by the NRC’s reading of the UMTRCA leads to absurd results.²⁵⁵ Of the twenty-one remaining FUSRAP sites, nine were subject to NRC licensing since passage of the UMTRCA.²⁵⁶ As a result, waste materials at these sites must be disposed of at NRC-licensed facilities.²⁵⁷ At the same time, the remaining twelve FUSRAP sites, containing similar by-product waste, were inactive mills at the passage of the UMTRCA.²⁵⁸ These sites were never subject to NRC licensing and therefore, according to the NRC and the Corps, the waste at these sites is not by-product waste under the AEA.²⁵⁹ Since the NRC does not consider waste at the inactive sites to be covered by the AEA, it can be disposed of at facilities that are not licensed by the NRC.²⁶⁰ This creates a situation almost identical to that in *Kerr-McGee*: two piles of almost identical waste can be disposed of in different ways, one at a site regulated by the NRC and another at a facility not equipped to handle radioactive waste.²⁶¹

When Congress passed the UMTRCA, the NRC noted that “long-term release from tailings piles may pose a radiation health hazard if the piles are not effectively stabilized”²⁶² In reaching its conclusion in *Corps of Engineers*, the NRC has reversed course by interpreting the UMTRCA to allow the Corps to dispose of radioactive waste mate-

²⁵⁰ NRC Hearings, *supra* note 103, at 46–47.

²⁵¹ *In re* United States Army Corps of Eng’rs, 49 N.R.C. 299, 307 (1999).

²⁵² NRC Hearings, *supra* note 103, at 48.

²⁵³ *Id.*

²⁵⁴ FUSRAP REPORT, *supra* note 3, at 14.

²⁵⁵ See NRC Hearings, *supra* note 103, at 47.

²⁵⁶ *Id.* at 47.

²⁵⁷ *Id.*

²⁵⁸ *Id.* at 46–47.

²⁵⁹ *Id.*

²⁶⁰ *Id.* at 47.

²⁶¹ NRC Hearings, *supra* note 103, at 47.

²⁶² H.R. REP. NO. 95–1480(II), at 25 (1978), reprinted in 1978 U.S.C.C.A.N. 7450, 7452.

rials at sites that are not equipped to handle them.²⁶³ In so doing, the NRC has undermined the rationale for passage of the UMTRCA, eliminating the public health threat created by uranium mill tailings.²⁶⁴

As noted by David Adelman during his testimony before Congress, allowing the Corps to dispose of FUSRAP waste at RCRA landfills is potentially hazardous.²⁶⁵ When Congress passed RCRA, it specifically excluded "source, special nuclear, or byproduct material as defined by the Atomic Energy Act" from the RCRA definition of solid waste.²⁶⁶ The logical import of this decision is clear: Congress did not intend to have waste regulated under the AEA further regulated by RCRA.²⁶⁷ Therefore, RCRA disposal facilities were not required to be designed to receive AEA waste.²⁶⁸ On the other hand, NRC licensed facilities are required to comply with tight restrictions on site design that are specifically tailored to reduce the chances of the release of radioactive waste.²⁶⁹ There are also specific guidelines to protect the general population,²⁷⁰ individuals who inadvertently venture onto the site,²⁷¹ and on-site workers from releases.²⁷² In other words, NRC licensed disposal facilities are specially designed to deal with radioactive waste in ways that RCRA sites are not.

Therefore, the NRC's failure to act could have serious long-term consequences on both human health and the environment.²⁷³ The Corps has noted that long-term exposure to these materials can create "health risks from chronic exposure and ingestion/inhalation" ²⁷⁴ FUSRAP waste generates large amounts of radon, which can cause cancer and genetic mutations.²⁷⁵ Further, "individuals may be directly

²⁶³ See *NRC Hearings*, *supra* note 103, at 46–48.

²⁶⁴ See Uranium Mill Tailings Radiation Control Act of 1978 § 2, 42 U.S.C. § 7901 (2000).

²⁶⁵ See *NRC Hearings*, *supra* note 103, at 51–52.

²⁶⁶ RCRA, 42 U.S.C. § 6903(27) (2000).

²⁶⁷ See *id.* § 6905. In fact, the statute states that "[n]othing in this Act shall be construed to apply to . . . any activity or substance which is subject to . . . the Atomic Energy Act of 1954" *Id.*

²⁶⁸ See *id.*

²⁶⁹ See, e.g., NRC Licensing Requirements for Land Disposal of Radioactive Wastes, 10 C.F.R. § 61.52 (2001).

²⁷⁰ *Id.* § 61.41.

²⁷¹ *Id.* § 61.42.

²⁷² *Id.* § 61.43.

²⁷³ See H.R. REP. NO. 95–1480(I), at 11 (1978), *reprinted in* 1978 U.S.C.C.A.N. 7433, 7433.

²⁷⁴ See FUSRAP REPORT, *supra* note 3, at 14.

²⁷⁵ H.R. REP. NO. 95–1480(I), at 11 (1978), *reprinted in* 1978 U.S.C.C.A.N. 7433, 7433.

exposed to gamma radiation from radioactivity in the tailings; and . . . radioactive and toxic substances from tailings may leach into water and then be ingested with food or water, or inhaled following aeration.²⁷⁶ These potential dangers demonstrate the real risk that the NRC is taking by failing to ensure that the Corps dispose of its radioactive FUSRAP waste properly.²⁷⁷

Perhaps the strangest facet of the NRC's decision is that after all of the FUSRAP remediation of mill tailings is completed, the NRC will have to license the disposal sites.²⁷⁸ While DOE is responsible for creating guidelines for the disposal of Title I UMTRCA waste, the NRC must license the site where FUSRAP mill tailings will ultimately reside.²⁷⁹ If nothing else, this makes the NRC's contention that it does not have authority to regulate FUSRAP waste a bit specious.²⁸⁰ Rather than do it once and do it right, the NRC is allowing the Corps, an agency with little institutional knowledge of remediating nuclear waste, to dispose of radioactive waste at ill-suited sites.²⁸¹ In the end, the NRC and DOE will both have to deal with the NRC's failure to exercise its authority in its field of expertise.²⁸²

CONCLUSION

The NRC can surely be forgiven for its failure to assert its regulatory authority and attempting to avoid the FUSRAP abyss. FUSRAP was created at a time when the federal agencies responsible for energy research, development, and regulation were in a state of relative chaos.²⁸³ In fact, when the ERDA created FUSRAP, the NRC did not even exist.²⁸⁴ For twenty years after the regulatory functions of the ERDA were vested in the NRC, the NRC did not have to concern itself with FUSRAP.²⁸⁵ As long as DOE administered FUSRAP, its remedia-

²⁷⁶ Groundwater Standards for Remedial Actions at Inactive Uranium Processing Sites, 60 Fed. Reg. 2854, 2855 (Jan. 11, 1995) (to be codified at 40 C.F.R. pt. 192).

²⁷⁷ *NRC Hearings*, *supra* note 103, at 46.

²⁷⁸ Uranium Mill Tailings Radiation Control Act § 105(b), 42 U.S.C. § 7915(b) (2000).

²⁷⁹ *Id.*

²⁸⁰ See *In re United States Army Corps of Eng'rs*, 49 N.R.C. 299, 307-08 (1999); *NRC Hearings*, *supra* note 103, at 46-48.

²⁸¹ See, e.g., *NRC Hearings*, *supra* note 103, at 45-48.

²⁸² See Uranium Mill Tailings Radiation Control Act § 105(b), 42 U.S.C. § 7915(b); *NRC Hearings*, *supra* note 103, at 48.

²⁸³ See discussion *supra* Part I.C.

²⁸⁴ See discussion *supra* Part I.B.

²⁸⁵ See discussion *supra* Part I.C.

tion activities were shielded from NRC regulation by an AEA exemption.²⁸⁶

Of course, Congress changed all of this when it shifted day-to-day responsibility for FUSRAP from DOE to the Corps.²⁸⁷ This change dropped the problem of FUSRAP squarely in the lap of the NRC.²⁸⁸ By removing FUSRAP from DOE control, the remediation and disposal of FUSRAP waste was no longer protected by the AEA exemption.²⁸⁹ While Congress ordered the Corps to remediate pursuant to CERCLA standards, DOE, the NRC, and EPA all have standards for the cleanup of radioactive materials.²⁹⁰ It is not surprising that the NRC had a difficult time determining the appropriate standards for the remediation and disposal of FUSRAP waste.

The strange birth and reckless transfer of FUSRAP from DOE to the Corps, however, does not excuse the NRC's failure to regulate the manner in which the Corps administers FUSRAP.²⁹¹ By allowing the Corps to take advantage of the CERCLA permit waiver, the NRC has failed to acknowledge the fact that radioactive waste has consistently been subject to a different regulatory regime than other types of hazardous waste.²⁹² Until the NRC's decision in the case of *In re United States Army Corps of Engineers*, it was the exclusive province of the AEC and its successor agencies to handle and dispose of radioactive waste.²⁹³ The NRC has now allowed the Corps, an organization with almost no experience in handling radioactive materials, to administer a program created to remove radioactive waste without any NRC oversight.²⁹⁴

Further, the failure of NRC to adequately oversee the disposal of dangerous radioactive waste has allowed the Corps to dispose of this waste at sites that are not equipped to handle them.²⁹⁵ The NRC should recognize that Congress was concerned about the health threats posed by all radioactive mill tailings when it passed the UMTRCA.²⁹⁶ Waste materials located at inactive sites when the UMTRCA

²⁸⁶ See discussion *supra* Part I.C.

²⁸⁷ See discussion *supra* Part II.

²⁸⁸ See discussion *supra* Part II.

²⁸⁹ See discussion *supra* Parts II & III.A.1.

²⁹⁰ See discussion *supra* Part II.

²⁹¹ See discussion *supra* Parts III.A & Part IV.

²⁹² See discussion *supra* Part IV.A.1.

²⁹³ See discussion *supra* Part IV.A.1.

²⁹⁴ See discussion *supra* Part IV.A.1-2.

²⁹⁵ See discussion *supra* Part IV.B.

²⁹⁶ See discussion *supra* Part IV.B.

was passed are just as dangerous as those at active sites.²⁹⁷ Previous attempts by the NRC to distinguish between waste materials that have substantially similar physical characteristics have failed.²⁹⁸ This effort to distinguish between waste materials that remain dangerous for thousands of years should also be rejected.

²⁹⁷ See discussion *supra* Part IV.B.

²⁹⁸ See discussion *supra* Part IV.B.