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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of  
NUCLEAR ENGINEERING COMPANY, INC.  
(Sheffield, Illinois Low-Level  
Radioactive Waste Disposal Site)

**NRC PUBLIC DOCUMENT ROOM**

Docket No. 27-39

NRC STAFF'S REPLY TO APPLICANT'S  
MOTION TO DISMISS THE PROCEEDINGS



This Board by order of February 27, 1979, granted the Nuclear Regulatory Commission (NRC) Staff's request for permission to file a memorandum addressing Nuclear Engineering Company's (NECO) responsibility for waste it had buried at the 20-acre Sheffield, Illinois, low-level waste disposal site and NECO's responsibility for long-term care of that material; this pleading was due to be filed by March 14, 1979. Prior to the filing of this pleading by the Staff, NECO filed with this Board a notice of withdrawal of its application for license renewal and a request that the present proceedings be dismissed. By order of March 13, 1979, this Board directed that by March 20, 1979, briefs be filed answering NECO's motion. By the present pleading the NRC Staff addresses the specific issues posed by the NECO motion and sets forth its views regarding the matters intended for submission on March 14, 1979. Furthermore, for the reasons set forth in this pleading the NRC Staff interposes its objection to such action upon the ground that license applications may only be withdrawn on such terms and

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conditions as the Commission, or after notice of hearing the presiding officer, may prescribe.<sup>1/</sup> See 10 CFR 2.107(a).<sup>2/</sup>

In the present matter the Nuclear Engineering Company (NECO) has a license for the burial of low-level waste material at its Sheffield, Illinois site, and under that license and NRC regulations has a continuing responsibility for the proper safeguarding of such material. It cannot rid itself of that responsibility by seeking to terminate the license renewal proceeding, or by a purported transfer of the nuclear material by a cancellation of its lease.<sup>3/</sup> A license, whether it be extended under the terms of Section 9(b) of the Administrative Procedure Act, 5 U.S.C. 558(c),<sup>4/</sup> by a timely renewal application or otherwise, cannot be unilaterally terminated by a licensee. Nor may a licensee transfer possession of such material without NRC approval. Thus NECO may not unilaterally end its responsibility for the waste it has buried by simply withdrawing its renewal application, and this proceeding may not be terminated without approval by the presiding Board. Moreover, it is ultimately the responsibility of the NRC, and in some instances the courts--not the licensee--to determine if conditions of a license have been met, and whether a licensee is in compliance with NRC regulations and the terms of the license.

<sup>1/</sup>The NRC Staff as we previously indicated in our cross-motion of January 16, 1979, has no opposition to NECO's withdrawal of its application to license an additional 166 acres of land for waste disposal. This pleading only deals with the Licensee's attempt to withdraw the license application for the 20-acres where waste is already buried.

<sup>2/</sup>Jurisdiction of this Board to set condition in any license renewal permitting termination is granted by that regulation. Boston Edison Co. (Pilgrim Nuclear Co.), LBP-74-62, 8 AEC 324, 326-327 (1974).

<sup>3/</sup>See also 10 CFR §§2.109, 30.37, 40.43, 70.33.

<sup>4/</sup>The Licensee has also asserted in this proceeding that it is terminating the 99-year lease with the State of Illinois for the Sheffield site.

Applicable Requirements

Under the Atomic Energy Act of 1954, as amended, (AEA) nuclear materials, be they special nuclear material, source material removed from its place of deposit in nature or by-product material,<sup>5/</sup> must be under NRC license, with certain exceptions not relevant here.<sup>6/</sup> AEA §§53, 57, 62, 81, 42 U.S.C. §§2073, 2077, 2092, 2111. No State or other person may receive, possess or transfer such material without a Commission license.<sup>7/</sup> See Rochester Gas and Electric Corp. (Sterling Power Project, Unit No. 1), ALAB-507, 8 NRC \_\_\_\_ (November 17, 1978, slip opinion, p. 7).

Although, under the AEA certain uses, quantities or users of special nuclear material or by-product material may be exempted from license requirements, the Commission first "makes a finding" that the exemption of such quantities, uses or users of the material would not constitute an unreasonable risk to the health and safety of the public or be inimical to the common defense and security. AEA Section 57(d) and Section 81, 42 U.S.C. §§2077(d) and 2111. Quantities of mined source material which "in the

<sup>5/</sup> These terms are defined in AEA Sections 11e, z and aa, 42 U.S.C. §§2014e, z and aa.

<sup>6/</sup> Illinois, where the subject facility is located, is not an "agreement" state under AEA §274, 42 U.S.C. 2021 (see also 10 CFR Part 150), and exceptions to this rule for such states are not relevant here.

<sup>7/</sup> "Person" is defined to include the states. AEA §11(S), 42 U.S.C. §2014(s).

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Commission of the Commission, are unimportant" are also exempt from licensing. AEA Section 62, 42 U.S.C. §§2092, 10 CFR 30.13. Thus, under the applicable provisions of the Act, all receipt, possession or transfer of material must be in accordance with the authority contained in an NRC license, unless an exemption has been granted by the Commission. Those in possession of such material must observe Commission standards and instructions to protect the public health and safety. Failure to follow standards and instruction or to be in possession of nuclear material or to transfer such material without a requisite authority subjects one to enforcement proceedings and civil and criminal penalties. AEA Sections 228, 232, 234, 42 U.S.C. §§2278, 2280, 2282.

The NRC regulations implementing the above provisions of the AEA similarly require that nuclear materials in the hands of any person including State government<sup>8/</sup> be under license from the Commission. No such materials may be received, possessed, used or transferred without a license. See 10 CFR 30.3, 40.3 and 70.3. No license for possession of such materials, or right under such a license may "be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly" without approval of the Commission. 10 CFR 30.34(b), 40.46, 70.36. Although no specific license is needed for the ownership of such material, 10 CFR 31.9, 40.21

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<sup>8/</sup>"Person" is defined to include State and local government. 10 CFR 30.4, 40.4 and 70.4.

and 70.21, possession of licensed material may not be transferred except to authorized persons where the transferor verifies the transferee has a specific license or certificate to possess the material. 10 CFR 30.41(c), 40.51(c), 70.42(c); Rochester Gas & Electric Co., supra; Nuclear Advisors, Inc., 2 AEC 196 (1962), 2 AEC 254 (1963).

Effect of Burial on the Need for a License

Under the foregoing provisions of law and the implementing regulation, NECO needed a license for the material it buried at the Sheffield low-level radioactive waste disposal facility until it no longer had possession of the material or was otherwise relieved of responsibility for the material by the NRC. NECO seeks to counter this fact with the argument that it did not have the material or responsibility for the material it buried on the land it possessed under a 99-year lease from the State of Illinois on the assertion that, "once low-level radioactive waste is disposed of, i.e., by burial, it is deemed to have been returned to nature and not subject to the possession limits of a license."<sup>9/</sup> However, there is no exemption in the statute for materials which a person may bury.<sup>10/</sup> Consequently, to justify

<sup>9/</sup> NECO is the tenant in possession of land owned by the State of Illinois until 2065 under the terms of its 99-year lease entered into in 1966. The lease and related documents are attached to the State of Illinois reply to Applicant's answer filed February 22, 1979.

<sup>10/</sup> Source material, in contrast to by-product and special nuclear material, prior to removal from "its place of deposit in nature" is not subject to licensing. 42 U.S.C. 2092. However, all material involved herein has been moved, and must be licensed.

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such a concept, there must be a specific action of the Commission exercising its statutory authority to grant exemptions "upon a finding that it will not constitute an unreasonable risk to the common defense or security and to health and safety of the public." AEA §81, see also AEA §§57(d) and 62. NECO points to no Commission regulation or Commission finding which exempts from licensing persons in possession of licensed material received from others as waste and buried in the large quantities here involved. Nor is there such a finding by the Commission that the quantity or use or the possession by NECO of the amounts and kinds of licensed by-product, source and special nuclear material authorized to be buried on site would not constitute an unreasonable risk to public health and safety, in the absence of the continued monitoring and control requirements. Under the scheme of the AEA and the regulations the material in NECO's Sheffield site must be under license. It is immaterial that the material has been buried in shallow trenches by NECO. The material NECO accepted was under license and there has been no NRC action, generically or in this instance, to remove the material from the purview of the regulations.

The Commission has made clear that it does not view buried materials as exempt. The regulations particularly require any who intend to commercially dispose of waste by burial must apply for and receive a Commission license, as the Applicant has done. 10 CFR 20.302. The quantities and types of material to be buried must be specified, the site must be analyzed, and procedures provided for the minimization of unexpected risk or hazardous exposure. 10 CFR 20.302(a); of 10 CFR 20.304. Further as the license here required,

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the licensee must monitor the waste after it is buried, keep records of the waste buried and the results of the monitoring, and report any excess radiation coming from the buried waste or theft of the buried waste. See 10 CFR 20.401-409. Plainly, a licensee who engages in commercial waste burial does not lose responsibility for the land it has leased or the waste it has buried on that land under the Atomic Energy Act, the regulations of this Commission, or the terms of its license.<sup>11/</sup> It is only with specific action, upon the findings called for in the statute and regulations can a licensee's responsibility be ended. It is on the NRC, not the licensee, to determine when that responsibility ends.<sup>12/</sup>

11/

NECO's vague allusions at p. 7 of its answer to the State, to other instances in which the NRC (or its predecessor AEC) have permitted the "termination" of licenses with respect to material which had been buried, calling only for deed restrictions, fails to recognize that rather than supporting the NRC's concept--that upon burial the material had "returned to nature" and was therefore no longer subject to licensing demonstrates quite the contrary. In those cases, the transfer of possession by the person who had done the burying to subsequent owners of the property had been the subject of scrutiny by the agency with an assessment by the agency that the only necessary condition to assure adequate protection of the buried material were the deed restrictions. With these deed restrictions observed, the agency permitted a transfer of the possession of the buried material that required no license for persons subsequently "possessing" the material by virtue of ownership of the surface land. In such cases, upon the necessary determination that such material did not provide an unreasonable risk to public health and safety, such action is completely consistent with the Commission's statutory authority. Such cases are vividly distinguishable from this case. See, e.g., Dr. Bell's affidavit of January 15, 1979, indicating the reasons why no such finding can be made in the NECO case at this time.

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The NRC cannot, of course, act arbitrarily or capriciously in refusing to end that responsibility.

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The NRC license NECO accepted particularly recognized NECO's continued responsibility of the materials underground in providing for NECO's continued monitoring of that material, and obligations to maintain security and integrity of the site and the individual trenches where the waste was buried.<sup>13/</sup>

NECO possessed the material under this license. Absent transfer of the material, NECO continues to have responsibility and possession of that material until the NRC finds it is relieved of that responsibility. See AEA §§57, 62, 81. There may be cases where one may be relieved of responsibility by burying materials; however, here as the affidavits previously filed establish this material still may present radioactive hazards to the health and safety of the public. Further, this material in shallow trenches can be uncovered by accident or by design. In such a situation, and under the scheme of the Atomic Energy Act, the licensee remains responsible for the material until the Commission determines otherwise.<sup>14/</sup>

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See Amendment No. 11 to NECO License No. 13-10042-01, January 6, 1977, incorporating by reference terms in application of November 4, 1976, Condition 8 governing monitoring of buried material, maintenance of burial site and trenches, and limitations on effluents. See also Conditions 4, 5 and 7 containing condition on concentrations and the form of buried waste.

<sup>14/</sup>

Issues of ownership of the material are not relevant. Under Commission regulations it is possession and not ownership which requires a license. See Rochester, Gas & Electric Co., supra.



The lack of specific quantitative possession limits in the license on the amounts of waste that might be buried is not probative of any lack of possession of the land and the waste or any lack of responsibility for what is buried. Properly buried waste generally has little or no direct interaction, from the standpoint of radiological health considerations, with materials in the course of processing or handling in the above ground facilities, and buried materials can generally be excluded from those considerations which limited the quantity of materials that can be handled and processed in the above ground equipment and facilities. Similarly, very small quantities of special nuclear material, dispersed in large quantities of other refuse properly buried at a commercial waste burial site, have no credit potential for contributing to a critical mass, and consequently, completely consistent with the statutory limitation, may be disregarded in determining whether the number of grams of SNM possessed is sufficient to form a critical mass for purposes of transfer of jurisdiction to an agreement State. Thus, a lack of limitations on the quantity of materials that may be in a licensee's leased tract is immaterial to the issues of its responsibility for and possession of that material. The license did however, as we have stated,

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recognize NECO's continued possession, control and responsibility for the buried material by placing monitoring requirements on NECO in regard to the buried material, obligations to maintain the trenches where the material is buried, and obligations to take action if the effluents from the trenches exceeded set limits.

Furthermore, the amount of waste that could be buried under NECO license was limited by license conditions setting out the size of the burial site, the size and number of burial trenches, the concentration in containers that may be buried in the trenches, and the methods of burial. As indicated in the papers previously filed in this proceeding, NECO's 20 acre Sheffield site could contain only a finite quantity of waste. NECO recognized the quantitative limitations on the site, when it ceased burying waste in April, 1978 when the site was filled to its licensed capacity.<sup>15/</sup>

There is no inconsistency between labelling of such burial as disposal in section 20.302 of the regulations (10 CFR 20.302), and a licensee's continued possession of and responsibility for the waste. The Commission has not used the terms "disposal" or "disposed of" to indicate that one who buries waste at its licensed waste disposal site is relieved of possession of that waste or responsibility for that waste.<sup>16/</sup> As we

<sup>15/</sup> See affidavit of M. Bell, November 29, 1978, Paragraph 5.

<sup>17/</sup> Webster's Third International Dictionary primarily defines "disposal" as an "orderly or systematic, distribution, or arrangement." It is only when we come to the fourth meaning do we learn that the word can also at times mean "a discarding or throwing away." Similarly, the primary meaning of the term "dispose of," in Webster's, is "to place, distribute, arrange, esp. in an orderly or systematic way." It is only a subsidiary meaning that recognizes that it may also have another meaning of getting rid of matter or throwing something away. Thus, the use of the term "disposal" does not show that possession and responsibility for the waste was somehow separated from that for the land upon which the waste is buried.

have stated, Section 20.302 looks to procedures to minimize the risk of radioactive exposure. Relevant AEC documents (Commission papers AEC 180/12, December 3, 1959 and AECR 8/10, November 28, 1960) generated at the time of adoption of the regulation requiring Federal or State ownership of the site (10 CFR 20.302(b)) do not indicate any intention that buried materials be released from regulation and control, or be exempted from licensing.<sup>18/</sup> Indeed, the documents show such concern for long-term precautions necessary for health and safety that the Staff advised that only ultimate Governmental control of the site could insure a lasting long-term institutional arrangement. Thus, the rule for State or Federal ownership of the land was established to place the responsibility for such waste in a government after a private licensee's legal responsibilities have been lawfully terminated under established agency procedures.<sup>19/</sup>

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<sup>18/</sup> The NRC Staff is supplying copies of these documents to the Board and the parties.

<sup>19/</sup> We are not here considering instances in which no one has "possession" of such waste as in the case of air and water effluents. Only in dealing with effluent releases, e.g., 10 CFR 20.303, and 20.106, which are released to and remain in the general environment can "dispose" clearly connote a release of legal responsibility for the material after release in accordance with the Commission's regulations.

The Effect of NECO's Purported Withdrawal of Application and Cancellation of Lease.

NECO may not walk away from its responsibility for the materials it has buried under the license by purportedly withdrawing its application for license renewal, and by seeking to terminate its lease with the State of Illinois for the site where these materials are buried.

Whether or not NECO seeks license renewal it has the materials and must have a license for them under the law until relieved of that responsibility by the NRC. It continues to legally possess those materials because it made timely application for license renewal. Under the Administrative Procedure Act, 5 U.S.C. 558(c),<sup>20/</sup> one who has timely applied for a license renewal is deemed to have a license extended until the renewal application is acted upon. NECO cannot end its license by withdrawing the application as it would then be in possession of the materials in violation of law. This Board and Commission could not sanction such a violation in the exercise of its discretion under 10 CFR 2.107(a). Before any license withdrawal, steps must be taken to assure that the public health and safety are protected. Such actions might include, the approval of a transferee to receive the material or possibly the exemption of the material upon a finding that there can be no "credible possible contamination of the ground, water or air." Walker Trucking Co., 1 AEC 668 (1961); see also Industrial Waste Disposal Corp. 1 AEC 399, 401 (1960). However presently, without such a determination NECO remains responsible for the waste it has buried and must have a license.

<sup>20/</sup> See also 10 CFR §§2.109, 30.37, 40.43, 70.33.

NECO cannot unilaterally say it is complying with the license, and therefore of itself, conclude that there is no threat to the public health and safety from its abandoning the Sheffield site. It is the responsibility of the NRC to determine if license conditions and regulations are being met and whether a license may be terminated. As indicated in the affidavits submitted in this proceeding with the cross-motion of January 16, 1978 to dismiss a portion of the proceedings, it cannot now be determined that the site may be left without future danger to the public health and safety. The affidavit of Dr. M. Bell dated January 15, 1979, stated:

9.LLW (The low level waste branch) staff is not able to conclude that wastes buried on the presently licensed 20 acres have been buried in a manner to assure protection of the public health and safety.

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10. Staff believes a two-fold approach is required . . . First, procedures to provide for continued and adequate environmental monitoring, site maintenance, and surveillance are needed. Second, information to resolve whether the 20 acres can safely contain buried wastes, to specify and implement any necessary remedial actions and to prepare the site for eventual turnover to the State (decommissioning) is needed.

In the present posture of this proceeding there is no basis to allow the license and NECO's responsibilities to lapse.

The action of NECO renouncing its lease with Illinois cannot affect its obligations. The Commission's regulations provide that a license

for nuclear materials may not be "transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly" except with the approval of the Commission. 10 CFR 30.34(b), 40.46, 70.36. No material may be transferred unless the transferor first verifies that the transferee has a license or other Federal authority permitting it to receive the material. 10 CFR 30.41(c), 40.51(c), 50.42(c); Nuclear Advisors Inc., supra. No State or other person can receive or possess materials without authorization of the Commission. 10 CFR 30.3, 40.3, 70.3. NECO's purported transfer of the buried materials to Illinois by renunciation of the lease does not relieve it of possession or responsibility for the material. Illinois is not a licensed recipient of the materials, and thus NECO cannot transfer the materials or responsibility for the materials to the State. As we have indicated, it matters not that Illinois is a State. Under the Atomic Energy Act and our regulations, States as others must be licensed before they can receive nuclear materials or possess them. Regardless of State law or any covenants, the supreme Federal law keeps possession of and responsibility for the nuclear material in NECO. NECO continues to require a license and must follow the terms of conditions of that license.

The foregoing does not mean that the licensee, NECO, is bound forever to be licensed. What it does mean is that suitable arrangements must be made, subject to NRC approval, under which the license can be terminated on

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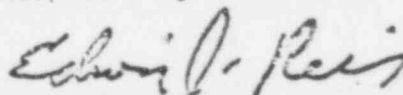
findings that such action and the conditions would be consistent with the public health and safety. This could be done, among other ways, by transfer of the material to another NRC licensee, such as a state should it be licensed, or by granting an exemption on a finding that the site, after proper treatment, may hold the buried materials without any undue risk to the health and safety of the public. AEA §§57, 62 and 81.

As we have shown, the major question faced in this proceeding is not whether buried material is subject to perpetual licensing by the NRC. It is rather one of proper procedures to be used in assuring the public's health and safety, and in arranging for proper transfer of the material or in imposing conditions on license termination. The concept of loading a site with potentially dangerous material and then walking away is abhorrent to the whole scheme of the AEA.

CONCLUSION

As a matter of statutory law, regulation and common sense, NECO still has responsibility for the nuclear waste it buried. It cannot walk away from that responsibility by simply withdrawing an application for license renewal and cancelling a lease. This proceeding should continue to determine under what conditions NECO may continue in lawful possession, and look to methods and terms under which NECO's license can be terminated with NRC's approval. For these reasons NECO's motion should be denied.

Respectfully submitted,



Edwin J. Reis  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 20th day of March 1979

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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Docket No. 27-39

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S REPLY TO APPLICANT'S MOTION TO DISMISS THE PROCEEDINGS" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk by deposit in the Nuclear Regulatory Commission internal mail system, this 20th day of March, 1979:

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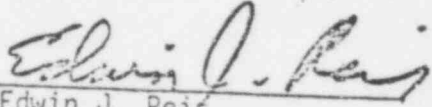
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