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AUG 08 1984

MEMORANDUM FOR: Guy A. Arlotto, Director
Division of Engineering Technology
Office of Nuclear Regulatory Research

FROM: K. G. Steyer, Chief
Chemical Engineering Branch
Division of Engineering Technology

SUBJECT: CONSULTANT REPORT ON "UTILITY FINANCIAL INSTABILITY
AND THE AVAILABILITY OF FUNDS FOR DECOMMISSIONING"

Dr. J. Siegel, Associate Professor at the Wharton School, University of Pennsylvania, has completed the enclosed report for RES/CEBR entitled "Utility Financial Instability and the Availability of Funds for Decommissioning." The purpose of Dr. Siegel's report is to analyze whether the internal reserve funding method as permitted by the proposed decommissioning rules provides reasonable assurance of the availability of funds for decommissioning in light of the current financial instability of some nuclear utilities. An earlier report by Robert Wood of the Office of State Programs of NRC ("Assuring the Availability of Funds for Decommissioning Nuclear Facilities, Draft 3," March 1983) indicated that, in general, use of any of the four methods of funding (prepayment, external sinking funds, internal reserve, and insurance) could provide reasonable assurance of the availability of funds and hence could be termed acceptable methods of funding. However, recent developments in the utility industry indicate a potential weakness in the financial stability of certain utilities. Hence this report was undertaken to answer the question of whether all of these methods should continue to be ranked as acceptable. The report addresses the question of whether financial problems such as bankruptcy of a utility or other financial weaknesses pose a serious enough problem to eliminate the use of any of the funding methods, in particular the internal reserve method.

In the report, Dr. Siegel analyzes specific case situations of five utilities which have experienced significant financial distress. These include Long Island Lighting Company, Public Service Company of Indiana, Public Service Company of New Hampshire, Philadelphia Electric Company, and Washington Public Power Supply System. In Section A of the report, Dr. Siegel analyzes the reasons for the financial difficulties, potential bankruptcy scenarios, and impairment of utility assets. Sections B and C of the report contain an analysis of the asset values of utilities and how these could be used for financial coverage of decommissioning during periods of financial distress.

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Section C also discusses scenarios that could affect the availability of funds for decommissioning.

In Section D of the report Dr. Siegel concludes from his analysis that the market value of utilities, even those in extreme financial crisis, is still far in excess of decommissioning costs and that the net value of their remaining assets is more than adequate to cover projected decommissioning costs. Based on this he indicates that from a financial standpoint, the funding methods allowed in the rule, including internal reserve, are acceptable and can provide excellent assurance of the availability of funds for decommissioning.

Based on his analysis in Section C.2, Dr. Siegel does caution that a utility could attempt to sell its productive assets to another corporation, leaving the inactive, but not yet decommissioned, reactor in a shell corporation with no other assets, although he indicates the possibility of this is very small. He indicates that by doing this the utility could seek to rid itself of the financial obligations of decommissioning. Based on this, Dr. Siegel indicates that the NRC may wish to strengthen the language of provisions specifying the firm legal obligation of the utility and of any successor organizations to undertake decommissioning and pay decommissioning expenses. He also indicates NRC may wish to seek prior approval of any corporate change of structures or ownership involving a substantial portion of the utility's assets because such a change could potentially threaten the availability of decommissioning funds.

We have reviewed these concerns and suggestions with UELD and the Office of State Programs. In particular, we reviewed with UELD those requirements of the Atomic Energy Act, and of NRC's existing and proposed rules which could serve to address these concerns and suggestions. Based on this review, we concluded that if the NRC's existing regulations were amended as proposed, NRC would have adequate legal authority to take any regulatory action necessary to prevent occurrence of the situation described by Dr. Siegel. Specifically:

- (1) Section 50.54(bb)(3) of the proposed rule indicates that as a condition of license a licensee will be required to provide a reasonable level of assurance that funds will be available when needed to cover the costs of decommissioning. Proposed sections 50.62 (a) and (b) require a licensee to submit a proposed decommissioning plan that, among other things, indicates how decommissioning will be carried out to protect public health and safety and includes a plan for assuring the availability of adequate funds to complete decommissioning; Section 50.62(e) states that upon approval of this plan the Commission will issue an order authorizing the decommissioning. UELD indicated that these proposed sections impose a firm legal obligation on the utilities to provide

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funds for decommissioning and to carry out the decommissioning activities safely. Efforts on the part of a licensee to create a corporation with no assets for decommissioning or to rid itself of financial obligations would be a violation of proposed Sections 50.54(bb)(3) and 50.82(c).

- (2) Existing section 50.61 of the regulations, which is based on Section 184 of the Atomic Energy Act of 1954, as amended, states that any creditor is subject to the same requirements and restrictions as would apply to the licensee pursuant to provisions of the license and the Commission's regulations. A creditor, as defined in section 50.81(d)(2), includes the trustee under any mortgage, pledge or lien on a facility. According to OELD, Section 184 of the Act, which requires prior approval of a transfer subject to reasonable conditions, to protect public health and safety, and this implementing regulation provide a sound legal basis for requiring any successor organizations that might be created following financial crisis of a utility to provide decommissioning funds and carry out decommissioning activities.
- (3) With sections 50.54(bb)(3), 50.82, and 50.61 in place there is no need to add additional requirements concerning approval of corporate changes which threaten availability of decommissioning funds since the availability of these funds is required by these regulations.

We have reviewed the text of the proposed rules in the light of the conclusions reached in the previous discussion, namely that: (1) utility assets are sufficiently large that use of an internal reserve funding method provides reasonable assurance of funds for decommissioning; (2) the possibility of events occurring that would undermine this assurance is small; and (3) even in this situation, provisions contained in the proposed rule and the NRC's existing rules would give NRC adequate legal authority to take any needed action. Based on this review, it is the considered conclusion of RES/CEBR, ELD and OSP staff that the decommissioning rules as currently being proposed in the package to be sent to the Commission provide a reasonable level of assurance that funds will be available for decommissioning. The staff is of the opinion that Dr. Siegel's study supports the conclusion that the internal reserve funding method is adequate. To the extent that Dr. Siegel's study recognizes the importance of placing decommissioning funding on a firm legal basis, it should give additional impetus to promulgation of these rules.

Original signed by R. M. Steyer

Keith G. Steyer, Chief
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