

**NUCLEAR REGULATORY COMMISSION  
ISSUANCES**

**OPINIONS AND DECISIONS OF THE  
NUCLEAR REGULATORY COMMISSION  
WITH SELECTED ORDERS**

January 1, 1995 - June 30, 1995

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## ATOMIC SAFETY AND LICENSING BOARD PANEL

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## PREFACE

This is the forty-first volume of issuances (1 - 496) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Boards, Administrative Law Judges, and Office Directors. It covers the period from January 1, 1995 - June 30, 1995.

Atomic Safety and Licensing Boards are authorized by Section 191 of the Atomic Energy Act of 1954. These Boards, comprised of three members conduct adjudicatory hearings on applications to construct and operate nuclear power plants and related facilities and issue initial decisions which, subject to internal review and appellate procedures, become the final Commission action with respect to those applications. Boards are drawn from the Atomic Safety and Licensing Board Panel, comprised of lawyers, nuclear physicists and engineers, environmentalists, chemists, and economists. The Atomic Energy Commission first established Licensing Boards in 1962 and the Panel in 1967.

Beginning in 1969, the Atomic Energy Commission authorized Atomic Safety and Licensing Appeal Boards to exercise the authority and perform the review functions which would otherwise have been exercised and performed by the Commission in facility licensing proceedings. In 1972, that Commission created an Appeal Panel, from which are drawn the Appeal Boards assigned to each licensing proceeding. The functions performed by both Appeal Boards and Licensing Boards were transferred to the Nuclear Regulatory Commission by the Energy Reorganization Act of 1974. Appeal Boards represent the final level in the administrative adjudicatory process to which parties may appeal. Parties, however, are permitted to seek discretionary Commission review of certain board rulings. The Commission also may decide to review, on its own motion, various decisions or actions of Appeal Boards.

On June 29, 1990, however, the Commission voted to abolish the Atomic Safety and Licensing Appeal Panel, and the Panel ceased to exist as of June 30, 1991. In the future, the Commission itself will review Licensing Board and other adjudicatory decisions, as a matter of discretion. See 56 Fed. Reg. 29 & 403 (1991).

The Commission also has Administrative Law Judges appointed pursuant to the Administrative Procedure Act, who preside over proceedings as directed by the Commission.

The hardbound edition of the Nuclear Regulatory Commission Issuances is a final compilation of the monthly issuances. It includes all of the legal precedents for the agency within a six-month period. Any opinions, decisions, denials, memoranda and orders of the Commission inadvertently omitted from the monthly softbounds and any corrections submitted by the NRC legal staff to the printed softbound issuances are contained in the hardbound edition. Cross references in the text and indexes are to the NRCI page numbers which are the same as the page numbers in this publication.

Issuances are referred to as follows: Commission--CLI, Atomic Safety and Licensing Boards--LBP, Administrative Law Judges--ALJ, Directors' Decisions--DD, and Decisions on Petitions for Rulemaking--DPRM.

The summaries and headnotes preceding the opinions reported herein are not to be deemed a part of those opinions or to have any independent legal significance.

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD PANEL**

**Before Administrative Judges:**

Ivan W. Smith, Presiding Officer  
Dr. Peter S. Lam, Special Assistant

In the Matter of

Docket No. 70-364-ML-Ren  
(ASLBP No. 94-687-01-ML-Ren)  
(Materials License No. SNM-414)

BABCOCK AND WILCOX  
COMPANY  
(Pennsylvania Nuclear Services  
Operations, Parks Township,  
Pennsylvania)

January 3, 1995

**INITIAL DECISION**  
(License Renewal)

In the following decision, I resolve all matters placed into controversy by the parties in favor of authorizing the renewal of the license to use nuclear materials at the Babcock & Wilcox Parks Township facility.

**I. INTRODUCTION**

**A. Procedural Background**

Babcock & Wilcox Company (B&W or Licensee) is the holder of NRC Special Nuclear Materials License No. SNM-414 which authorizes the use of radioactive materials in an industrial complex located at Parks Township, Pennsylvania (Parks Township facility). On April 14, 1989, Licensee filed an

application to renew its license. This application has been revised several times, and the updated version is Revision 5 (June 1993).

The renewal of this license is necessary if the Licensee is to continue operations at the Parks Township facility. The primary activities conducted at this facility include decontamination, repair, maintenance, and testing of equipment and components contaminated with radioactive materials; the volume reduction of low-level radioactive waste; the decontamination of onsite facilities formerly used for plutonium and uranium processing; and the management of an onsite burial area.

On November 3, 1993, the Commission published in the *Federal Register* a Notice of Opportunity for a Hearing pertaining to the renewal of the license. 58 Fed. Reg. 58,711. The notice stated that any person whose interest may be affected by the license renewal could request a hearing.

Citizens' Action for a Safe Environment (CASE) and the Kiski Valley Coalition to Save Our Children (the Coalition) (together referred to as Intervenors) filed a joint Request for Hearing, dated January 5, 1994.

Both B&W and, initially, the NRC Staff opposed the hearing requests on various grounds. I twice permitted the Intervenors to amend their hearing requests. Finally, after considering the petitions, the amendments, and the responses of B&W and the Staff, I issued a Memorandum and Order dated April 22, 1994, granting the request for hearing and admitting the petitioners as intervenors (Hearing Order). LBP-94-12, 39 NRC 215. Based upon information in the hearing requests, I accepted as issues in this proceeding the following areas of concern:

*Broad area of concern:*

Whether there has been, and under a license renewal whether there will be, offsite radiation from the Parks Township facility which threatens the health and safety of the nearby population and threatens radiological contamination of nearby residential, agricultural, and business property.

*Included subareas of concern:*

1. Whether the housekeeping practices (drums, containers, etc.) at the Parks Township facility threaten the offsite release of radiation through water, dust, and air pathways.
2. Whether B&W management practices as manifested by the management of the Apollo facility threaten offsite releases of radiation from the Parks Township facility.
3. Whether transportation of wastes between Parks and Apollo has radiologically contaminated offsite properties.
4. Whether the location of the Parks Township facility waste dump over a mined-out area threatens, through subsidence, the integrity of the dump, and whether the mined-out area creates a threat of offsite release of radiation through a water-migration pathway.

Hearing Order, 39 NRC at 222-23.

## B. Rules and Nature of the Hearing

This hearing is informal under Subpart L to 10 C.F.R. Part 2, a portion of the NRC Rules of Practice. Strict rules of evidence do not apply. The relevant parts of the rule were identified and explained to the Intervenor in the Hearing Order and in earlier issuances.

Persons with standing to intervene, such as the Intervenor here, have a right to the commencement of a hearing even if they have no genuine dispute with an applicant for a license. They need only state rational areas of concern germane to the proceeding. In this case it was necessary to examine a large volume of papers submitted by the Intervenor to identify, often by inference, just what areas of concern they wished to have addressed in a hearing.

It is rather easy for persons who are concerned about activities under a proposed licensing action to be admitted as parties to an informal hearing requested by them. But once the hearing is ordered and the issues are identified, intervenors have important responsibilities. The presiding officer has no authority to examine or decide matters not put into controversy by the parties. 10 C.F.R. § 2.1251(d). Therefore, it is the Intervenor's responsibility to place their concerns into controversy with the Licensee and NRC Staff if they want those concerns examined in the hearing. I may not and have not explored the Intervenor's very extensive filings to postulate or infer controversies that have not been clearly placed into issue by them.<sup>1</sup>

After the order for a hearing is issued, the next step is for the NRC Staff to make the Hearing File available. The Staff did so on May 23, 1994, in an extensive and apparently complete filing containing the renewal application and attendant key papers. As required by the rule, the Staff since has updated the Hearing File.

After the Hearing File is made available, and in accordance with the schedule set in the Hearing Order, Intervenor may file a written presentation. They may also present in writing, under oath or affirmation, arguments, evidence, and documentary data further explaining their concerns. They must describe any defect or omissions in the application. In the discussion below, I explain that their presentation was deficient in several material respects, including the untimely submittal of matters not approved for hearing in the Hearing Order.

The Licensee, followed by the NRC Staff, filed their presentations in accordance with the schedule previously established. Since it is the Licensee who is seeking a right (license renewal) from the NRC, it has the burden of proof with respect to the controversies placed into issue by the Intervenor.

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<sup>1</sup>On the other hand, I am not required to ignore serious safety or environmental matters merely because the Intervenor has not placed them into controversy. In fact, I am *required* by the rule to inform the Commission if I believe that a serious situation exists. I have reviewed the portions of the hearing record brought to my attention by the parties and I find no matter that would warrant informing the Commission.

## C. Comments on the Parties' Presentations

### 1. *Intervenors' Presentation*

#### a. *Disorganized Filings*

On or about July 27, 1994, the Intervenors filed an undated written presentation, but it was not under oath or affirmation as the rule requires. The Intervenors' presentation does not refer to any deficiency or omission in the application for license renewal. This is a serious failure on their part. Section 2.1233 states that intervenors *must* "describe in detail any deficiency or omission in the license application." Therefore, the sufficiency of the application is not an issue in controversy. I may not evaluate it myself to determine whether it is incomplete or deficient.

Moreover, Intervenors failed to discuss any other documents in the Hearing File. Accordingly, unless the Intervenors constructively challenge particular portions of the application and other documents in the Hearing File by documents filed with their own affirmative presentation, I accept the application and the balance of the Hearing File as uncontroverted proof of the information contained therein.

With the exception of the transportation and mine-subsidence issues, Intervenors have not organized their very extensive presentation around the issues I approved for the hearing. Most of their presentation is not helpful in identifying matters in controversy.

I previously admonished the Intervenors that they must improve upon their "disorganized and unstructured approach" to the proceeding when filing papers. Transcript of March 8, 1994 (Tr. 71-72). They have not improved. Although I have spent many days reading Intervenors' papers, I have not been able to recognize any pattern of organization.

Nevertheless, in papers spread randomly throughout the large volume of documents submitted with their presentation, Intervenors challenge B&W's management competence (by implication) and housekeeping practices sufficiently to keep those respective matters in controversy. Thus all matters approved for hearing have been either expressly or implicitly addressed by the Intervenors in their presentation.

It is also significant that the Intervenors' entire presentation consists of arguments and documents. It contains no affidavits of experts or others with knowledge of the matters in dispute.

#### b. *Late-Filed Concerns*

Many of the sections in Intervenors' written presentation raise concerns that fall outside the areas of concern set out in the requests for hearing and accepted

for litigation in the Hearing Order. It is necessary at the threshold, therefore, to resolve whether Intervenor may, without leave of the presiding officer, present these late concerns.<sup>2</sup> For the reasons stated, I conclude below that they may not.

Section 2.1233 of Subpart L, provides for written presentations. It does not by its terms restrict the Intervenor's written presentation to stating concerns falling within the area of concerns raised in the initial request. However, the overall scheme of Subpart L clearly anticipates that specific concerns set out in the written presentation must fall within the scope of the areas of concerns advanced by a petitioner in the request for hearing and accepted as issues in the hearing by the presiding officer.

Requests for hearing, stating areas of concern germane to the proceeding, must be filed within the time set in the notice of opportunity for hearing (10 C.F.R. § 2.1205(c)(1)) or an extension of time granted by the presiding officer. Areas of concern filed afterward are, in effect, untimely amendments to the request for hearing.<sup>3</sup>

Before untimely requests for hearing may be granted, the presiding officer must find that *the intervenors have established* that any delay was excusable *and* that granting the untimely request will not injure or prejudice other parties. 10 C.F.R. § 2.1205(k)(1).

The Hearing Order clearly stated that the broad area of concern and the included subareas were the issues accepted for hearing. LBP-94-12, 39 NRC at 222. In the February 2, 1994 Memorandum and Order authorizing the Intervenor to amend their hearing request, I cautioned that the order did not authorize them to add new areas of concern. I explained further that "an amended petition containing new areas of concern would have to satisfy the provisions of 10 C.F.R. § 2.1205(k)(1) and (2)." LBP-94-4, 39 NRC 47, 53 n.8 (1994).

The Intervenor does not even refer to the untimely filing of their new areas of concern, let alone try to establish that it is excusable. Nor can I discern on my own that the delay was excusable. None of the late-filed areas of concern appear to be founded upon information contained in the Hearing File. Virtually all of Intervenor's written presentation consists of historical data.

Were I to admit new areas of concern without an opportunity for the other parties to answer, they would be prejudiced in the litigation, perhaps even in its result. If I were to suspend the proceeding pending an amended presentation by

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<sup>2</sup> Licensee has not answered the newly raised concerns, but the NRC Staff has addressed each of them. The Staff, however, did not concede that Intervenor may raise untimely areas of concern. *E.g.*, Staff Presentation at 20, 30-40.

<sup>3</sup> The Commission has traditionally required intervenors in formal proceedings to justify late-filed contentions on the same bases as late-filed petitions to intervene, even though the intervention rules do not expressly state this requirement. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1045 (1983); 10 C.F.R. § 2.714.

Licensee, the unwarranted delay would also be injurious. In fact, the proceeding would be set back almost to the beginning.

In promulgating Subpart L, the Commission explained:

It would not be equitable to require an intervenor to file its written presentation setting forth all its concerns without access to the hearing file. Of course the intervenor is required to identify the *areas of concern it wishes to raise in the proceeding*, which will provide the presiding officer with the minimal information needed to ensure the intervenor *desires to litigate issues* germane to the licensing proceeding and therefore should be allowed to take the additional step of making a full written presentation under § 2.1233. [Emphasis supplied].

Statement of Considerations, Informal Hearing Procedures for Materials Licensing Adjudication, 54 Fed. Reg. 8269, 8273 (Feb. 28, 1989).

The foregoing is significant because it explains that the areas of concern advanced in the initial request are intended to scope the issues to be heard after the hearing is ordered and the Hearing File is made available.

Accordingly, with respect to those concerns stated in the Intervenors' presentation and which are not within the areas of concern admitted for hearing, I rule that the concerns have not been placed into controversy. In accordance with the provisions of 10 C.F.R. § 2.1251(d), I may not examine or decide them. However, I have read each section to determine whether it is arguably within the areas of concern accepted for hearing. Every section and aspect of Intervenors' presentation is identified and discussed in this decision.

Further, pursuant to the provisions of 10 C.F.R. § 2.1205(k)(2), I am required to treat untimely requests for hearing as petitions under 10 C.F.R. § 2.206, and to refer them to the Executive Director for Operations for appropriate disposition. In the Order below, I do so.

## **2. Licensee's Presentation**

In its August 31, 1994 presentation, Licensee addressed each of the five areas of concern admitted for hearing and has attempted to identify portions of Intervenors' presentation relevant to each of the five issues. As directed, Licensee filed its presentation partly in the form of factual findings and legal conclusions proposed for me to adopt.<sup>4</sup> Licensee's presentation was supported by affidavits.

## **3. NRC Staff's Presentation**

The NRC Staff filed its presentation on September 22, 1994, also in the form of proposed findings and conclusions. The Staff states that it did not note any

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<sup>4</sup>I have frequently adopted findings proposed by the Licensee and the NRC Staff when supported by the record, especially when the proposals are uncontested. This is customary in administrative proceedings.

disagreement with the information submitted by the Licensee in the proceeding. Staff presentation at 7. The Staff's presentation is also supported by affidavits.

## II. FINDINGS OF FACT

### A. Affidavits

The affidavits placed on the record by the Licensee and the Staff contribute to the resolution of the matters placed into controversy by the Intervenors. Very often these affidavits are necessary to an understanding of what Intervenors mean by their stated concerns. It is helpful at the outset to examine the affiants' interest in the proceeding, their expertise and experience, and their opportunity to know about the subject matter of their respective affidavits. In addition, the resumes of Licensee's affiants provide information about the quality of B&W's management competence.

#### I. Licensee's Affidavits

Licensee's five affidavits were provided by the following four individuals:

*Dr. Richard V. Carlson* is General Manager, Nuclear Decommissioning Projects, Government Group of B&W. Dr. Carlson has had overall responsibility for all activities and operations at B&W's Apollo and Parks Township facilities since 1990. In addition, from 1974 to 1982, he served in several positions at B&W's Nuclear Fuel Operations, including service as General Manager, with executive responsibility for four nuclear fuel manufacturing plants at these two facilities. Dr. Carlson has over 20 years' experience in nuclear projects and facilities with emphasis on environmental restoration, facility operations, and waste management. He possesses a Doctorate in Nuclear Chemistry. Dr. Carlson's affidavit (Carlson Aff.) concerns B&W's Parks Township facility management.

*Mr. Bernard L. Haertjens* is Manager, Safety & Environmental Compliance Engineering, B&W Nuclear Environmental Services, Pennsylvania Nuclear Services Operation. Mr. Haertjens has been responsible for the development and implementation of a comprehensive health physics program, and for oversight of radiation and industrial safety and industrial hygiene operations at B&W's Apollo and Parks Township facilities since 1990. His resume reveals a very broad background of more than 30 years in the health physics aspects of the nuclear industry. He is a professional health physicist and holds a Masters degree in Radiation Biology. Mr. Haertjens provided two affidavits. One relates to housekeeping practices (Haertjens House-



keeping Aff.). The other relates to radioactive effluent releases (Haertjens Effluent Aff.).

*Mr. Daniel M. Perotti* is Traffic Supervisor, B&W Nuclear Environmental Services, Pennsylvania Nuclear Service Operations. Since 1979, Mr. Perotti has been responsible for directing traffic operations associated with the movement of materials and supplies for B&W's Apollo and Parks Township facilities, and for developing and implementing systems of transportation to conform with the requirements of NRC, Department of Transportation (DOT), and other regulatory agencies. He has received special training in the packaging and shipping of hazardous materials, including accident response operations. Mr. Perotti's Affidavit (Perotti Aff.) relates to the transportation of radioactive materials, particularly transportation between Apollo and Parks Township, the third subarea of concern identified in the Hearing Order.

*Mr. Jack A. Caldwell* is a civil engineer and Project Manager with Jacobs Engineering Group, Inc. Mr. Caldwell is the Jacobs project manager on the Parks Township Shallow Land Disposal Facility (SLDF) remediation project, and as such, has visited the SLDF site on many occasions, read available information about the SLDF site, and formulated and evaluated alternatives to remediate the trenches at the SLDF site. The SLDF is the "burial site" often referred to in the filings. Mr. Caldwell has over 25 years of experience in project management and engineering for the design, construction, and environmental restoration of hazardous, toxic, and radioactive sites and facilities. He holds a Masters degree in Civil Engineering concentrating on geotechnical and groundwater engineering. His affidavit (Caldwell Aff.) relates to the fourth subarea of concern accepted in the Hearing Order, i.e., mine subsidence.

Each of Licensee's affiants is well qualified to provide the evidence submitted in his affidavit.

## 2. *NRC Staff's Affidavits*

The Staff submitted four affidavits by the following four individuals:

*Mr. James E. Hammelman* is Senior Project Manager employed by Science Applications International Corporation (SAIC), a contractor to the NRC's Office of Nuclear Material Safety and Safeguards (NMSS). Mr. Hammelman has a Masters degree in Chemical Engineering and has worked in the nuclear industry since 1970. He worked at the Atomic Energy Commission's (now Department of Energy's) Hanford site from 1970 until 1976 as a process engineer and a nuclear safety engineer. He has worked for SAIC since 1976 as a project manager, a nuclear chemical process engineer, a nuclear safety analyst, and an environmental analyst. Mr. Hammelman's

affidavit (Hammelman Aff.) covers the broad area of concern and the subareas relating to management, transportation, and housekeeping.

*Ms. Heather M. Astwood* is employed by the NRC as a geochemist in the Low-Level Waste and Regulatory Issues Section of the Low-Level Waste and Decommissioning Projects Branch, Division of Waste Management, NMSS. Ms. Astwood has a Bachelors degree in Geology and a Masters degree in Radiogeochemistry. She came to the NRC in 1991 and completed a formal intern program in 1993. Ms. Astwood's affidavit (Astwood Aff.) concentrates on the Shallow Land Disposal Facility (SLDF) at Parks Township as it pertains to the broad area of concern, several admitted subareas of concern, and some of the newer concerns submitted with the Intervenors' presentation.

*Mr. Michael A. Lamastra* is a Senior Project Manager (Health Physics) in the Licensing Branch, Division of Fuel Cycle Safety and Safeguards, NMSS, and has served in this position since February 1993. Mr. Lamastra has a degree in Radiation Science, a Bachelors degree in Physics, and a Masters degree in Radiological Health. Mr. Lamastra joined the NRC in 1976 as a health physicist in the Radioisotopes Licensing Branch, NMSS, and has broad experience in various offices of the NRC in his field. Mr. Lamastra's affidavit (Lamastra Aff.) especially covers the Intervenors' presentation and he relates the presentation to the admitted areas of concern where applicable.

*Mr. Jerome Roth* is currently employed by the Office of Nuclear Material Safety and Safeguards. He was previously employed in the NRC's Region I office beginning in June 1975, and performed inspections of the Parks Township facility beginning in 1976 or 1977. Mr. Roth became the Project Inspector for the Parks Township and Apollo facilities in January 1979 and retained that position until October 1993, when he left Region I and assumed his current position. Mr. Roth's affidavit (Roth Aff.) covers allegations that he had a conflict of interest when inspecting the Parks Township facility because he had previously been employed by former operators of the facility.

I find that each of the Staff's affiants is well qualified to provide the evidence contained in the respective affidavits.

## **B. Background Facts**

The primary activities conducted at the Parks Township facility are the decontamination, repair, maintenance, and testing of equipment and components contaminated with radioactive materials, the volume reduction of low-level radioactive waste, the decontamination of onsite facilities formerly used for

plutonium and uranium processing, and the maintenance and monitoring of the inactive burial area known as the Shallow Land Disposal Facility.

B&W performs a necessary service for the nuclear industry by receiving and processing equipment and components contaminated with byproduct material from nuclear power plants. Services include the decontamination of equipment and components by cleaning and refurbishment, which allows the reuse of still serviceable nuclear power plant equipment and materials. Decontamination and volume reduction facilitate the disposal of equipment and materials that are no longer useful. License Renewal Application at 1-1 to 1-2, 3-6.

Licensee has conducted extensive monitoring and characterization activities at the SLDF site in order to develop a remediation plan for such site. Site Characterization Report (SLDF SCR) (Oct. 1993) (submitted in the NRC Hearing File) and Haertjens Effluent Aff., generally. Such activities have developed information that is relevant to several issues in this proceeding.

### C. Matters in Controversy

#### 1. Broad Area of Concern Related to Effluent Releases

Repeating the broad area of concern approved for hearing in this proceeding:

Whether there has been, and under a license renewal whether there will be, offsite radiation from the Parks Township facility which threatens the health and safety of the nearby population and threatens radiological contamination of nearby residential, agricultural, and business property.

##### a. Previous Radioactive Effluent Releases from the Parks Township Facility

The Licensee urges a legal/evidentiary ruling that the only radioactive effluent releases that can be relevant to a determination on the renewal request are those that occurred after B&W acquired the stock of the company that owned the facility on November 1, 1971. Licensee also argues that the period that would be most relevant to whether the license should be renewed would be the period of recent activities, since that would be the most predictive of future activities under the license. Presentation at 13; Haertjens Effluent Aff. ¶7. As a general rule, I agree with the Licensee, particularly where the releases are seen as an unfavorable reflection upon Parks Township management. However, any exacerbation or continuation of conditions caused by previous operators might also be relevant to a renewal of the license.<sup>5</sup>

<sup>5</sup> In a "Request for Motion for More Definite Statement," dated September 22, 1993, intervenors protest any limitation on the relevant period for consideration. As I explain in the order ruling on that motion, issued today.

(Continued)

Mr. Haertjens states that B&W submitted detailed information on effluent releases from the Parks Township facility for the past 18 years (1976-93). Haertjens Effluent Aff. ¶8 and Attach. 1-3. Effluent releases originated from Buildings A, B, and C. *Id.* ¶10 and Attach. 4. Building A was a source of limited air and liquid effluent releases from 1976 to 1993. It is a former plutonium fuel processing facility and is currently a nuclear decontamination and refurbishment center. *Id.* ¶11. Building B is a former uranium metals processing facility. It has been a source of low-level liquid effluent emissions originating in residual material in piping and tanks. *Id.* ¶12. Building C is a former high-enriched uranium (HEU) fuel manufacturing facility. Operations in Building C ceased in 1978 and significant decontamination has been performed since that time. *Id.* ¶13.

Liquid and airborne effluent release data from 1976 to 1993, compiled by B&W on an annual basis pursuant to former 10 C.F.R. § 20.106(a), indicate that levels of radioactivity at onsite facility measuring points were consistently below even the most conservatively applied maximum permissible concentrations (MPC) permitted under NRC regulations. *Id.* ¶10. No reportable releases in excess of NRC regulatory limits occurred in the period 1976 through 1993. *Id.*

Although detailed tables were not prepared by B&W for effluent discharges prior to 1976, the record regarding effluent releases during that period is available. Studies conducted by both Licensee and NRC Staff indicate very small doses to the public from effluent releases prior to 1976, amounting to less than 3 millirem per year (mrem/yr) to any organ from airborne effluents, and less than 0.01 mrem/yr to any organ from liquid effluents. *Id.* ¶9. This was equivalent to less than 1% of the total allowable airborne and liquid effluent exposure to individuals over the period of one year as set forth in former 10 C.F.R. § 20.105(a). *Id.*

I find that the relevant history of operation at Parks Township supports in part the conclusion below that the Licensee is fully qualified to maintain radioactive effluent releases within regulatory limits so that the public health and safety and the environment are not threatened.

However, in the Order below I request the NRC Staff to give special attention to Intervenor's newly filed allegation in Section X of their presentation pertaining to the "NUMEC 1966" report on dairy herd contamination in Parks Township.

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I have not set any hard and fast time limit on relevance. Each concern and matter discussed in this Decision is assessed in its own time context.

*b. Future Radioactive Effluent Releases from the Parks Township Facility*

Mr. Haertjens explains that the major active site operations are performed in Building A,<sup>6</sup> and discharged liquid effluents are now released to the sewer system of the Kiski Valley Water Pollution Control Authority (KVWPCA). Haertjens Effluent Aff. ¶19. Airborne and liquid effluent emission levels may vary due to the cyclical nature of the nuclear service center work and the effects of remediation projects. However, recent upgrades of the liquid effluent system (including a tank replacement and significant improvements in the recirculation system and filtration system), use of the ventilation controls developed during the active use of the building as a fuel processing facility, the application of job-specific ALARA<sup>7</sup> controls, and strict adherence to quality control practices and procedures as required by B&W's Quality Assurance Program are expected to maintain airborne and liquid effluent emissions at less than historical activity levels and well below the applicable 10 C.F.R. Part 20, Appendix B, Table 2, col. 1 (airborne effluents) and Table 3 (release of liquid effluents to sewers) release limits that became effective as of January 1, 1994. *Id.*

Building B currently houses administrative offices and a sample preparation and analysis laboratory. Effluent emissions originate from low-level residual activity in the drain lines and laboratory. Alpha and beta air emissions combined are expected to be substantially less than 10% of the applicable 10 C.F.R. Part 20, Appendix B, Table 2 release limits. Building B liquid effluents are combined with those of Building A prior to analysis and subsequent release to the KVWPCA. *Id.* ¶20.

Building C is not presently in use. Should B&W resume activities that would cause effluents to be generated for release, Mr. Haertjens, on behalf of B&W, assures the parties and the public that the activity levels will be comparable to or less than those seen during the period of active use of the building. Airborne effluent levels (alpha plus beta) are each expected to be less than 1% of the applicable 10 C.F.R. Part 20, Appendix B, Table 2 release limits, and no liquid effluents are anticipated. *Id.* ¶21.

Licensee's control of effluents and effluent monitoring practices has been reviewed by the NRC in its 1993 Environmental Assessment (EA). This document was submitted in the Hearing File and has not been mentioned or controverted by Intervenor. On the basis of the 1993 EA, the NRC issued a Finding of No Significant Impact (FONSI), which states that the "NRC has concluded that the environmental impacts that would be created by the proposed licensing action would not be significant and do not warrant the preparation of an Environmental

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<sup>6</sup>The site activities are described in detail in Chapter 16 of the License Renewal Application.

<sup>7</sup>ALARA is a frequently used acronym for "as low as reasonably achievable." This concept requires licensees to maintain exposures to radiation as far below regulatory limits as is practical. 10 C.F.R. § 20.1003.

Impact Statement." 58 Fed. Reg. 58,711-12 (Nov. 3, 1993).<sup>8</sup> In the FCNSI, the NRC also states that "[t]he total effective dose equivalent (TEDE) for each year of operation to the hypothesized maximally exposed individual (a person living 220 meters SSW in a prevailing wind direction, eating vegetables from his/her own garden, fishing from the shoreline of the Kiskiminetas River, drinking water from the river near the outfall of the Kiski Valley waste treatment plant, and eating the fish from the river) is calculated to be on the order of 2.5 E-3 mSv (0.25 mrem)." Haertjens Effluent Aff. ¶ 22.<sup>9</sup>

In its FONSI, the NRC Staff "concludes that the environmental impacts associated with the proposed license renewal for continued operation of the B&W facility are expected to be insignificant." *Id.*

I conclude, relying principally upon Mr. Haertjens' affidavit, and the Environmental Assessment that the maintenance of exposure rates to members of the general public from effluent releases at such a low level is evidence of excellent effluent control. Licensee has established that radioactive effluent releases from the Parks Township facility under the license renewal will not pose a radiological threat to the health and safety of the nearby population or to nearby residential, agricultural, and business property within the scope of the broad area of concern admitted as an issue in this hearing.

The Shallow Land Disposal Facility (SLDF) at the Parks Township site is an area where low-level radioactive waste from the Apollo facility was disposed of from 1961 to 1970 in accordance with the requirements of former 10 C.F.R. § 20.304. Haertjens Effluent Aff. ¶ 23.<sup>10</sup>

A recent full-scale radiological assessment of the SLDF is documented in the Parks SLDF Site Characterization Report (SCR). During the period 1990 through 1993 a four-phase Ground Water Assessment/Site Characterization was performed as part of the SLDF SCR. It included a comprehensive groundwater and surface water monitoring program, which is continuing. As a result of this comprehensive evaluation of the SLDF, the SLDF SCR concludes that: "The data collected during the site characterization program demonstrated that the site does not pose a near-term threat to human health and safety, nor is it presently impacting the offsite environment." SLDF SCR at ES-4. In responding to an inquiry from the Pennsylvania Department of Environmental Resources (PADER), the NRC similarly concluded that "there is no indication from the extensive groundwater monitoring data from the SLDF that waste buried there

<sup>8</sup> The issue of whether an Environmental Impact Statement should be prepared is decided later in this section.

<sup>9</sup> The National Council on Radiation Protection and Measurements, in NCRP Report No. 93 entitled "Ionizing Radiation Exposure of the Population of the United States," states (at page 58) that "exposures below 10 microSieverts per year (1 mrem per year) correspond to a negligible risk level (NCRP, 1987b) and should not be considered further." Haertjens Effluent Aff. ¶ 21.

<sup>10</sup> The SLDF is described in Section II.C.5 below, which addresses the issue of potential mine subsidence at the SLDF site.

poses a present threat to public health and safety." Letter to Matviya (PADER) from McDaniel (NRC) dated April 28, 1994.

*c. Environmental Impact Statement or Environmental Assessment?*

Section N of the Intervenors' presentation, entitled "NRC document re: significant adverse effect on environment," provides a copy of an NRC letter to B&W, dated July 13, 1977, discussing the need for an Environmental Impact Statement (EIS) for Apollo. Based upon this letter and a news report of March 27, 1994, relating to puzzling cancer rates in Armstrong County, Pennsylvania, Intervenors apparently request that an Environmental Impact Statement be required for the renewal of the Parks Township license. The issue of whether an EIS is required for the Parks Township site license renewal was not mentioned in the requests for hearing nor specifically admitted as an issue in this proceeding. However, it arguably pertains to the broad area of concern about offsite contamination discussed in this section.

As noted above, the Staff prepared an Environmental Assessment dated September 1993, and a Finding of No Significant Impact. It was the Staff's conclusion, based on the EA, that an EIS was not required. Lamastra Aff. ¶ 27. This conclusion is consistent with 10 C.F.R. § 51.21, which provides that all licensing and regulatory actions subject to 10 C.F.R. Part 51, Subpart A, require an Environmental Assessment, except for fourteen licensing actions identified in 10 C.F.R. § 51.20(b). The latter require an Environmental Impact Statement. Thirteen of the fourteen categorically do not apply to the licensing action here. However, under section 51.20(b)(14), the preparation of an EIS is required if the Commission determines that renewal of the license is a major Commission activity significantly affecting the quality of the human environment. The EA states that "[t]he environmental impacts associated with the proposed licensed activities would be similar to those during recent years and would not be significant." EA at 9-1. The Intervenors have ignored the Staff's EA which was provided in the Hearing File. Therefore, the Staff's conclusions in the EA remain uncontroverted in this hearing and no EIS is required for the renewal licensing action. This conclusion is also supported by the record as a whole.

**2. *Housekeeping Practices at the Parks Township Facility***

The first subarea of concern:

Whether the housekeeping practices (drums, containers, etc.) at the Parks Township facility threaten the offsite release of radiation through water, dust, and air pathways.

This subissue relates to outside storage practices at the Parks Township facility. The issue derives from the videotape recording presented by the Intervenors in support of their hearing request. Hearing Order, 39 NRC at 220. In addition, Intervenors submitted another videotape taken in April 1994 and some photographs with their presentation.

The April 1994 videotape states Intervenors' basic concern about the issue. The tape is predicated upon the unstated assumption that the area depicted, a part of the Shallow Land Disposal Facility, is heavily contaminated with radioactive materials. The anonymous narrator implies that the contamination is blown offsite by wind blowing across open drums and by vehicles leaving the site onto the public roadway without first being washed off. The narrator also suggests that B&W workers are being exposed to radiation without protective cover.<sup>11</sup> Intervenors do not explain what is happening in the videotape, or for that matter, what area is shown. I depended upon B&W and the Staff for explanations.

B&W's Mr. Haertjens explains that radioactive materials licensed under the Parks Township license are not used in activities at the SLDF. Haertjens Housekeeping Aff. ¶11. Drums located at the SLDF are used only for drill cuttings (materials brought to the surface during drilling) resulting from the development of wells and for well-development water, and are held as a precautionary measure while such materials are tested for their radiological contents. If the tests show that any materials are not suitable for release for unrestricted use, the drums are properly marked, maintained in-process, secured in a roped-off and marked outside area or in the present onsite shed inside the SLDF fence, and then transferred offsite to a licensed disposal facility for ultimate disposition. Only a few drums have contained such radioactive materials and they have been shipped offsite for appropriate disposal. *Id.*

In addition, B&W stores only licensed radioactive materials in containers that meet Department of Transportation requirements for classification under 49 C.F.R. § 173.425(b)(1) as "strong, tight" for shipping purposes, and which are all made totally of welded steel construction. Haertjens Housekeeping Aff. ¶9. Therefore, the radioactive materials in the DOT containers, which are stored within fenced-in areas, are essentially inaccessible to the environment and cannot contribute to the liquid and airborne effluents at the site. The threat of offsite radiation from the outside storage of licensed radioactive materials is further mitigated by B&W's standard work practice to survey, at a minimum, all containers of licensed radioactive materials stored outside on a weekly basis to ensure that they continue to meet all guidelines for fixed and removable

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<sup>11</sup> As it turns out there is no need for protective cover against radiation in the area depicted. Even so, I was puzzled by the statements made by the narrator in the April 1994 videotape. The narrator repeatedly stated that the workers shown there wore no protective clothing whatever. This is simply not true. They wore heavy-duty impermeable gloves, boots, and coveralls. Moreover, the videotape does not support the allegation of sloppy housekeeping. The premises depicted looked neat and consistent with normal industrial activity.



contamination levels. *Id.* Since 1971, it has been site practice not to store radioactive materials outside in 55-gallon drums if the radioactive concentration levels are greater than those set by the NRC for the disposal or storage of soils suitable for unrestricted use. *Id.* ¶10.

Mr. Haertjens specifically addresses the videotape and explains that none of the pictured drums was used by Licensee for the storage of radioactive materials. All of the drums were either empty or contained drill cuttings from the development of wells and well-development water, which had been analyzed and found not to contain radiological levels greater than those set by the NRC for unrestricted use of soils or for effluents to unrestricted areas. *Id.* ¶13. Since licensed radioactive materials are not used at the SLDF site, and the site is maintained free of contamination that would require the site to be controlled as a controlled contamination area under B&W procedures, the use of protective equipment or the radiological monitoring of personnel and vehicles is not necessary. *Id.* ¶14.

The NRC Staff assigned Ms. Heather Astwood to address the housekeeping matter. Her affidavit supports Mr. Haertjens' statements. Ms. Astwood reviewed the videotape and identified the area in question from the Licensee's Site Characterization Report. Astwood Aff. ¶18 and Attachs. A-4 and A-5.

Ms. Astwood explained that the surface soils of the SLDF do not contain elevated quantities of radioactive materials. The area of the SLDF shown on the video is not a contaminated area. The materials in the barrels (soil and water) do not contain elevated levels of radioactive materials. She pointed out that no evidence of offsite contamination was presented in the video. Astwood Aff. ¶20.

Mr. Haertjens also explained the Intervenor's photographs. They show scenes of the decommissioning of Licensee's Apollo facility, including pictures of the site itself and of railroad cars utilized in transporting low-level radioactive waste away from the site for disposal at a licensed site in Utah. He observes no evidence that these photographs depict any improper radiological health and safety practices. *Id.* ¶16. I agree. With the exception of an apparently fresh spill of an unidentified substance, the photographs do not tend to establish poor housekeeping practices. Some of the photographs show activities at the SLDF site of the same type as are shown in the videotapes discussed above. *Id.* ¶17.

Intervenors have not identified any deficiency or omission in Licensee's license renewal application relating to the offsite release of radionuclides from the outside storage of radioactive materials. Their area of concern about the housekeeping depicted in the videotapes was based upon a completely mistaken understanding of the activities depicted. This subissue is resolved in Licensee's favor.

The NRC Staff also presented detailed information about the effectiveness of Licensee's contamination control program through Mr. Hammelman's affi-

davit. However, since the Intervenors have been completely mistaken about the housekeeping issue, and because their stated concern is without any foundation, their allegation about outside storage cannot serve as an example to bring into controversy Licensees' overall contamination control program and housekeeping. Therefore, I do not examine the broader housekeeping issue addressed by Mr. Hammelman.<sup>12</sup>

### 3. *Subarea of Concern Related to Management Practices*

The second subissue approved in the Hearing Order is:

Whether B&W management practices as manifested by the management of the Apollo facility threaten offsite releases of radiation from the Parks Township facility.

This issue was inferred from material presented with the requests for hearing.

There are three categories of evidence on this issue: (1) Licensee's self-appraisal of its management record; (2) the Staff's appraisal of Licensee's management; and (3) the historical data submitted by the Intervenors.

#### a. *Licensee's Appraisal of Its Management Competence*

The Licensee presents the affidavit of Dr. Richard Carlson, General Manager of B&W's Nuclear Decommissioning Projects, Government Group and the B&W Nuclear Environmental Services. He points to B&W's record of performance in its most recent activities at the Apollo facility during the implementation of the decommissioning plan approved by the NRC in mid-1992.

Dr. Carlson characterizes it as one of the most extensive commercial nuclear decommissioning projects on record. It included deconstruction of large buildings, excavation and processing of approximately 1,800,000 cubic feet of soil and rubble, and packaging and shipment of almost 800,000 cubic feet of soil containing low concentrations of special nuclear material to a licensed burial site. This \$70 million dollar project is now essentially completed. Carlson Aff. ¶8.

According to Dr. Carlson, the high level of B&W's management competence is demonstrated by the most recent activities at Apollo. Throughout this project, emissions from the Apollo site complied fully with the applicable requirements of the NRC regulations in 10 C.F.R. Part 20. Carlson Aff. ¶9. In addition, B&W also compiled an industrial safety record during this project

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<sup>12</sup> It is worth noting, however, that Mr. Hammelman reported some examples (contained in the Hearing File and ignored by Intervenors) of poor housekeeping at Parks Township in 1989 and 1991. However, "these shortcomings were not associated with a loss of contamination control." Hammelman Aff. ¶¶ 26-29.

without any lost-time injury. Moreover, although 512 workers were badged to work on the decommissioning project and accumulated 275 person-years of effort, radiological exposure of personnel did not exceed a small percentage of allowable limits. *Id.* ¶ 10.

In addition, according to Dr. Carlson, B&W's record of compliance with other NRC requirements at Apollo has been excellent since the decommissioning plan was approved in mid-1992. Although the Apollo decommissioning project has been the subject of frequent NRC inspections, the NRC issued only three notices of violation, none of which was higher than Severity Level IV. *Id.* ¶ 11.

Dr. Carlson believes that B&W's management record regarding effluent releases at the Apollo facility was excellent prior to implementation of decommissioning in mid-1992 and demonstrates that B&W is a capable licensee whose activities are fully protective of the environment. *Id.* ¶ 12. B&W's overall record of compliance with other NRC requirements at the Apollo facility is also favorable and has improved steadily since 1971. The NRC concluded in 1978 that B&W had made improvements at the Apollo facility and that none of the infractions or deficiencies in the previous several years reflected a basic weakness in the program or resulted in measurable adverse effects to the health of employees or to the health and safety of the public. The performance trend has continued to be favorable. There were only five items of noncompliance from 1982 to mid-1992. Since 1974 there has been no health and safety or environmental noncompliance item at a severity level higher than an infraction or Severity Level IV. *Id.* ¶ 13.

As in the case of the Apollo facility, B&W's overall record of compliance with other NRC requirements at the Parks Township facility has been excellent for at least the past 15 years. *Id.* ¶ 17. In 1979, the NRC Staff concluded that the two main problem areas in the earlier years of B&W's operations had largely been resolved.

In a Safety Evaluation Report issued in 1986 in connection with a proposed amendment to authorize a waste compactor and incinerator, the NRC Staff discussed B&W's satisfactory compliance history at the Parks Township facility since 1979, including the fact that most violations had been for minor procedural inadequacies and that all were corrected within reasonable time periods.

In the respective contested hearing, the Presiding Officer concluded that "the evidence shows . . . B&W has become a responsible licensee with a very good record of compliance during the past 10 years." *Babcock and Wilcox (Parks Township, Pennsylvania, Volume Reduction Facility)*, LBP-86-40, 24 NRC 841, 867 (1986).<sup>13</sup>

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<sup>13</sup> Mr. John P. Bologna, Chairperson of the Coalition, one of the Intervenor in this proceeding was an intervenor in the 1986 proceeding. The Commonwealth of Pennsylvania also participated. Judge Paris's decision, based upon an oral hearing, is very reliable on this issue.

B&W's good record of compliance at Parks Township has continued since that Presiding Officer's decision. There have been minor violations. None exceeded Severity Level IV and none involved environmental issues or impacts on the general public. Carlson Aff. ¶ 17.

Thus, Licensee's compliance record supports the decision resolving the management issue in favor of license renewal.

Turning now to staffing, the Parks Township facility is staffed with qualified personnel, most with undergraduate degrees and many with advanced degrees. The majority of the staff has 20+ years' experience in the nuclear industry. The staff is actively involved in the day-to-day operations and provides an organization comprised of checks and balances to ensure that safety and compliance are of a paramount concern. *Id.* ¶ 19.

The Parks Township site has an active Safety Advisory Board comprised of qualified professionals whose responsibility is to stress ongoing attention to radiological, industrial and chemical safety matters, as well as to review overall safety programs and to advise management on areas that may require attention and improvement. *Id.* ¶ 21. Operations and maintenance activities that are conducted at the Parks Township facility comply with documented health safety instructions, industrial safety instructions, operating procedures, or engineering releases that carefully plan work that needs to be done. The Parks Township facility is committed to the ALARA principle. All activities are planned, engineered, and practically applied to ensure that any dose to employees, and any emissions to the environment, are ALARA. *Id.* ¶ 20.

Dr. Carlson's testimony on the Parks facility management is very thorough and convincing. Parks Township facility has a qualified and professional staff, and Dr. Carlson's testimony supports the conclusion below that B&W is a responsible and capable licensee and qualified to operate the Parks Township facility in compliance with all applicable regulations and requirements.

*b. NRC Staff's Appraisal of Parks Township Management*

The Staff addressed this issue in the affidavits of Messrs. Lamastra and Hammelman. Together they evaluated both past management practices and the organization and qualifications of the Licensee's management, which will have the responsibility for conducting the activities that are the subject of the license renewal application.

To evaluate whether the Licensee's management practices have contributed to significant radiological releases from the Parks Township facility, the practices relating to material confinement or contamination control were examined using information in inspection reports from 1988 to 1993. Hammelman Aff. ¶ 13.

These reports, contained in the Hearing File, were reviewed for indications of poor management, such as violations related to inadequate contamination con-

trol. The Staff selected this time period because it reflects current management practices responding to current regulatory requirements and plant operations similar to those proposed for license renewal. A combined inspection conducted in 1988 reviewed management organization and controls and found no violations. A combined inspection report from 1993 reviewed the Apollo site's contamination control program and found no inadequacies. This report also reported a failure to cover stored soil as a contaminated-dust control measure, which B&W had committed to implement in its application for Apollo decontamination and decommissioning. This was a Severity Level V violation, the lowest of NRC Severity Levels. Hammelman Aff. ¶ 14.

A third combined inspection in 1989 alleged a violation, but the notice of violation was later rescinded. *Id.* ¶ 15.

A fourth combined inspection report alleged a violation that was a Severity Level IV, when the inspector noted that the door between the hot area and the controlled contamination-free area was open. *Id.* ¶ 16.

A fifth NRC inspection report in 1991 discussed the inadvertent placement of two wells into contaminated areas of the SLDF. Neither of these activities was in violation of NRC requirements. *Id.* ¶ 17.

A sixth inspection report in 1991 also noted that the airflow direction in a Parks Township building was not always from areas of lower contamination to areas of higher contamination. This was noted as a safety concern, not a violation. This report also reviewed management controls, and concluded that corrective actions were not completed in a timely manner, although no violation was issued. For example, housekeeping deficiencies that were identified at the site during audits conducted in 1988 had still not been corrected at the time of this inspection (June 1991). *Id.* ¶ 18.

A seventh report in 1993 disapproved of a practice relating to the body frisker but was not cited as a violation. *Id.* ¶ 19.

The October 12, 1993 combined inspection report (70-135/93-02 and 70-364/93-03) is the most relevant to the issue of management competence. The report noted three minor violations (two Severity Levels IV and one Severity Level V). One of the violations indicated that the "manager of Pennsylvania operations" did not meet the Professional Qualifications Requirements contained in the current Parks Township License (which authorizes nuclear fuel manufacturing). The current license requires a Baccalaureate Degree in Engineering or a technical field and a minimum of 10 years' experience associated with nuclear fuel or associated material. The current manager of B&W has a B.S. degree and only 7 years' experience. *Id.* ¶ 20; Lamastra Aff. ¶ 22. The Staff stated that while this appears to be a violation of the license, it is considered minor, since the Licensee does not have the capability to manufacture nuclear fuel. *Id.* In any event, Staff considers the current manager of B&W to have sufficient training for the current operations at the facility. Lamastra Aff. ¶ 22.

In the Staff's concluding opinion, its review of the inspection records indicates seven instances where there have been deficiencies of the B&W management systems with respect to proper contamination control practices, only three of which resulted in cited violations, and these were relatively minor violations (Severity Level IV or V). They are less severe than Level III, which the NRC associates with a significant regulatory concern. Mr. Hammelman asserts that all of the instances appear to be associated with new or changing operations and continuing decontamination and decommissioning activities at both facilities. He concludes that there is no indication that these management failures resulted in or could have resulted in a significant release of contamination. It is the Staff's opinion that the Licensee's management appears to be capable of directing and controlling proposed activities at the Parks Township site. Hammelman Aff. ¶21. The Staff's expert opinion as to the significance of the violations is entitled to substantial weight.

As part of its review of the Licensee's renewal application, the Staff evaluated the qualifications and organization of the Licensee's management. Lamas-tra Aff. ¶23. The renewal request by the Licensee is limited to a services-type license. In its review of this request, the Staff reviewed the organizational responsibilities and authority of management to ensure: (1) that key positions with responsibilities important to safety were identified and their functions described, (2) that the Licensee's organization provides separate lines of authority for production and safety functions, and (3) the lines of responsibility leading to top management are clearly indicated. The Staff determined that the renewal application identified key positions important to safety and demonstrated that safety functions and production functions were separated. The Staff also determined that the lines of responsibility leading to top management were indicated. Accordingly, the Staff has found the Licensee's proposed organization to be acceptable. *Id.*

The Staff also reviewed the renewal application to ensure that it contained a description of the minimum qualifications and requirements (i.e., education, training, and experience) for all positions that are important to safety. Normally, for the type of license currently being requested by B&W, the Staff stated that it requires at least one individual with experience in radiation protection (3-5 years) using the types and quantities of licensed material being requested, and a second individual with management experience (3-5 years) in supervising the type of requested activities. The Staff stated that it has reviewed the Licensee's proposed minimum training criteria contained in Chapter 2 of the renewal application and found them acceptable. *Id.*

The evidence presented by the NRC Staff supports a finding that the Licensee's management has not engaged in practices that have resulted, or are likely to result, in offsite contamination if this license were to be renewed. I also find that the evidence adduced by the Staff supports the conclusion that

the Licensee's management is capable of conducting the activities that are the subject of the license renewal application.

*c. Intervenors' Criticism of Management*

As I noted at the outset, the Intervenors' submittals have been poorly organized and lacking in structure. They do not indicate which of the twenty-seven sections of their presentation relate to the management issue. Those that are arguably related to management have been examined in that context.

Section A is described by Intervenors as "Violations, MUFs,<sup>14</sup> incidents and accidents historically." The related Enclosure A, a collection of documents about 1 1/4 inches thick, relates to various NRC inspections and enforcement actions during the period 1974-1976. Intervenors discuss the enclosure briefly without helpful annotations to it. Much of the discussion is argumentative. Apparently Intervenors intend the contents of Enclosure A to discredit Licensee's management, i.e., "negligence, and disregard of health, safety and the environment as well as security." Presentation at 2. However, they have left it to me to evaluate the significance of the enforcement history. Also, I am requested to seek more information. As an impartial judge in the hearing, I cannot construct Intervenors' case for them. I may not decide matters not placed into controversy by the parties.

I have, however, examined the contents of Enclosure A to determine whether there is a clear pattern of enforcement action relevant to B&W's present management. I find none. The pattern that emerges from Enclosure A is that, for every violation and infraction identified by the Staff, there was a corrective action. In other words, every problem was attended by a remedy. It is not feasible to inquire into the violations and the respective corrective actions 20 years after the fact. If one is to assume that the enforcement charges were well founded, one must also assume that the attendant corrective actions were effective.

Section E is entitled "Independent contractors reports & recommendations re: Apollo area." It addresses concerns contained in an enclosed report entitled "ECO<sup>15</sup> Radiation Survey Report, Apollo, Pennsylvania Area, 1993" (ECO Report) and a report from the Center for Hazardous Material Research. Were it not for the Licensee's discussion of Enclosure E, and the Staff's comments, I would not be able to understand the significance and context of these reports. Intervenors have again placed material into the record with sparse comment, apparently with the hope that I will bring it all together in a coherent finding.

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<sup>14</sup> MUF is an initialism for "material unaccounted for."

<sup>15</sup> ECO is identified in the report as "Environmental Compliance Organization."

Intervenors' Presentation at 5. I accept the two reports as bringing into question B&W's management capability to control offsite releases.

Licensee explains that the two contractors whose reports are included in Enclosure E were employed by the Pennsylvania Department of Environmental Resources (PADER) as part of oversight activities during the decommissioning of the Apollo facility. Licensee recognizes that Intervenors believe that this information reflects adversely on Licensee's decommissioning of the Apollo facility and thus reflects adversely on B&W's ability to operate the Parks Township facility safely. Licensee, of course, believes that these concerns are unfounded, as discussed below.

The Center for Hazardous Materials Research (CHMR) "conducted off-site radiological surveying and soil sampling of residential properties to determine if radiological constituents have been deposited on these properties." Apollo Oversight Project — Off-Site Radiological Surveying and Soil Sampling (CHMR Interim Report) at 1 (December 1993). Among other things, CHMR concluded that the results for Apollo area properties show radioactivity levels typical of those found in natural soils and rocks in this area, and that some elevated levels of uranium isotopes that are components of nuclear fuels found at several nearby properties are less than NRC release guidance and current EPA standards. Carlson Aff. ¶27, alluding to the CHMR Report at 5. No information presented in the CHMR Report evidences any inadequacy in B&W's performance of the Apollo Decommissioning Plan. *Id.*

ECO was a subcontractor of CHMR, and conducted a separate survey of radiation levels in the Apollo area. Although ECO did not identify any location that exceeded current NRC regulatory guidance, it alleged that under some hypothetical scenarios the levels ECO measured would exceed "EPA's goal" of a risk no more than 1 excess cancer per million. ECO Report at 22 (1993).

ECO's survey results are challenged in the technical criticisms of ECO's instrumentation, methodology, assumptions, and conclusions contained in the independent peer review performed by Dr. Thomas B. Borak of Colorado State University, at the request of Licensee. See Attachs. 1 and 2 of Carlson Aff. Dr. Borak's qualifications are excellent and relevant. *Id.*, Attach. 1.

Also relying in part upon Dr. Borak's evaluation, the Staff believes that the ECO report is of poor quality and should be given little weight. Dr. Borak concluded that the information supplied in the report did not support any of the concerns articulated in the conclusion of the report, the report had a profound misunderstanding of many concepts and definitions for radiation quantities and units, and the radiation surveys were conducted with inappropriate instrumentation which was not properly calibrated. The Staff also reviewed the ECO Report and agreed with Dr. Borak's conclusions, and found that the report could not be used to reach a valid conclusion about radiation levels near Apollo.



Pennsylvania. Lamastra Aff. ¶13. Thus, Dr. Borik's opinion is supported by the Staff's expert opinion.

The ECO report and the CHMR Report raise no credible concern about Licensee's management competence.

Intervenors also allege a conflict of interest on the part of CHMR because that organization appears on B&W's emergency response phone list. Since B&W does not rely upon CHMR to establish its management competence, the allegation of a conflict of interest, even if true, is irrelevant.

Section F of Intervenors' presentation entitled "Information re: sewage disposal and sewer line contamination," concerns disposal of radioactive waste by release into Kiski Valley Water Pollution Control Authority sanitary sewerage systems. This information is arguably a reflection upon B&W's management. It is also discussed above in Section II.C.1.b in relation to future releases from the facility.

Enclosure F contains newspaper articles and a single letter dated September 2, 1959, which documents the Licensee's (and predecessors') plan for an on-lot sewage disposal system.

The Licensee lawfully disposed of some licensed material by the sanitary sewerage system and it will continue to dispose of some material in the sewerage system. Prior to January 1994, 10 C.F.R. § 20.303, "Disposal by release into sanitary sewerage systems" authorized such release if certain specific conditions were met, including that the material was readily soluble or dispersible in water.

The Staff discovered that nonsoluble radioactive material in certain cases could become concentrated in sewage sludge. While this reconcentration of radioactive material represents a small radiation risk to workers and the public, the NRC revised its regulations to reduce the risk even further. In the revised 10 C.F.R. Part 20, which became effective January 1, 1994, the Commission revised sanitary sewerage disposal regulation (10 C.F.R. § 20.2003) to eliminate nonsoluble biological material from this authorization and reduce the allowed concentration limits for radionuclides released to sanitary sewer systems. The elimination of nonsoluble biological material and lower limits is expected to reduce the concentration of radioactive material in sewage sludge. Lamastra Aff. ¶¶ 16, 17.

In Intervenors' "Request for Motion for More Definite Statement," September 22, 1994, they request that a news report of that date be added to Section F.<sup>16</sup> The report alludes to 57 picocuries of uranium in one of two ash samples at the Kiski Valley Water Pollution Control Authority. Mr. Lamastra of the NRC Staff has evaluated the news report and concludes in an affidavit addressing the "Request" that the ash does not represent "anything other than a small risk to

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<sup>16</sup> Other aspects of this multiple-purpose pleading are decided in a separate order issued today.

the public." Mr. Lamastra's opinion is consistent with the information in the news report itself, i.e., there is no basis for concern.

*Section G* simply reveals the nature of some radioactive isotopes used at Parks Township, in support of Intervenor's complaint that testing should include the listed mentioned isotopes. Presentation at 6. Apparently Intervenor is unaware of Chapter Six of the Staff's Environmental Assessment, contained in the Hearing File, where the Parks environmental monitoring program is described. Having failed to examine and discuss the Environmental Assessment, Intervenor has failed to place this matter into controversy.

*Section J* consists of several hundred pages relating to alleged personnel exposures at the Parks Township or Apollo facilities. Licensee objects on the basis that the issue in this proceeding relates only to threats of offsite releases; thus information relating to personnel exposures is beyond the scope of the proceeding. Licensee's Presentation at 32-33.

I disagree. Just as Licensee pointed with pride to its injury-free decommissioning work at Apollo as a sign of good management, worker exposure could be an indicator of poor management. However, all but two of these documents are too old to be relevant to B&W management, because they relate to events that took place prior to 1971 when B&W took over. *Id.*; Carlson Aff. ¶30. The other two minor incidents almost 20 years ago do not reflect adversely upon B&W's current entitlement to a license. In addition, the NRC approves of the current personnel contamination control program, and believes that it is sufficient to prevent significant radiation contamination from leaving the site on workers. Lamastra Aff. ¶21.

*Section K* is a one-paragraph allegation of "a continual pattern of violations and bad practices" without analysis. Enclosure K consists primarily of several hundred pages of very old correspondence. According to Intervenor, the enclosure is "voluminous" but incomplete. I am urged to examine this enclosure to "see the magnitude of the problems these plants have unleashed." However, I may not extract a controversy on behalf of the Intervenor from their bulk papers.<sup>17</sup> As is the case in Enclosure A of Intervenor's presentation, the inspection reports in Enclosure K couple violations with corrective actions, producing a neutral impact on the factual record of the management issue.

*Section V* contains about 100 pages of newspaper articles to support Intervenor's claim that there has been a "long-time controversy," but the controversy and parties to it are not identified in the narrative presentation. I have not analyzed the newspaper stories for the reasons stated in the preceding section and

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<sup>17</sup> A small part of Enclosure K is explained in the presentation (at 7) and it relates to the inspection report dated October 12, 1993, about the qualifications of PANSO manager J.J. Cepicka. This report was covered by Mr. Lamastra's affidavit (¶22) and is discussed earlier in this section.

elsewhere in this decision. Moreover, controversy in itself is not relevant to this proceeding.

However, I have identified a portion of Section V as arguably relevant to management because of Intervenor's allegation concerning NRC Inspector Jerome Roth.<sup>18</sup>

According to the allegation, as I infer its meaning: (1) In December 1991, Mr. Roth reported that no major problems were found at Apollo during a week-long inspection. (2) But Mr. Roth was a former employee of the facility "and has a vested pension with the company." (3) Therefore there is a conflict of interest. (4) Therefore, I am to infer that major problems were uncovered but not reported. Presentation at 12. This is a very weak syllogism.

Since Licensee has not offered the news article in support of its license renewal application, it is not probative on that issue. Also, since it is favorable to B&W, it is, at worst, neutral to the renewal application.

Moreover, Mr. Roth has never been employed by B&W. Although he was employed by predecessors NUMEC and ARCO, he "does not have and never had any vested pension" from them or B&W. Roth Aff. ¶¶ 4, 6.

The above allegation is unfounded. Also, I have not examined the irrelevant allegation that a Commonwealth of Pennsylvania employee also has a conflict of interest.

Section W in part accuses B&W of sending mixed waste illegally to the low-level waste site in Utah. The allegation is credibly denied by Dr. Carlson in his affidavit in ¶ 34. Moreover, even if the allegation is intended to relate to the environment, rather than to B&W's management ethics, Intervenor in this proceeding has no standing to raise issues pertaining to the environment in Utah.

#### *d. Conclusion on Management Issue*

Notwithstanding the requirements in 10 C.F.R. § 2.1233(c), Intervenor has neither identified nor described in detail any deficiency or omission in B&W's license renewal application relating to its management practices at either the Apollo or the Parks Township facility, or how such alleged deficiency or omission would threaten releases of radiation from the Parks Township facility. I have examined Intervenor's presentation and those enclosures, which arguably could relate to B&W's management competence, and have found no bases advanced by them to controvert the license renewal application or the strong evidentiary presentation by B&W.

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<sup>18</sup> Valley News Dispatch article of December 14, 1991.

The reliable evidence presented by B&W and the NRC Staff demonstrates that B&W has had an excellent record of performance at both its Apollo and Parks Township facilities for at least the past 15 years and there is every reason to expect that such performance will continue. B&W's effective programs, practices, and staffing demonstrate that B&W is a responsible and capable licensee and is qualified to operate the Parks Township facility in compliance with applicable NRC regulations and policies.

#### 4. *Subarea of Concern Related to Transportation*

The third subissue accepted for hearing is:

Whether transportation of wastes between Parks and Apollo has radiologically contaminated offsite properties.

To address this issue, Licensee presented the affidavit of Daniel M. Perotti who is currently Traffic Supervisor of B&W Nuclear Environmental Services. I found that he is well qualified to speak on this matter at the beginning of this decision. His knowledge of transportation issues extends back to 1971.

Mr. Perotti explains that the transportation of any radioactive materials between the Parks Township and Apollo facilities is subject to the same regulatory requirements as is applicable to any other shipment of radioactive materials to or from these facilities. Since 1971, approximately 5,000 shipments of radioactive materials have taken place between these two sites. Perotti Aff. ¶7. Each of these shipments was subject to applicable requirements contained in NRC and DOT regulations, conditions in License No. SNM-414 (for shipments from the Parks Township facility) or License No. SNM-145 (for shipments from the Apollo facility), and B&W's shipping procedures at each site. *Id.* ¶8.

Pursuant to the foregoing requirements, Licensee would have to file a report with the NRC if, for example, a transportation accident occurred resulting in a radiation dose to a member of the public in excess of regulatory limits. In addition, Licensee would have to file a report with the DOT if, for example, a transportation accident occurred resulting in the potential discharge of any radioactive waste. Records are maintained of each radioactive material shipment to or from the Parks Township and Apollo facilities, including records of any event report filed with the NRC or DOT. *Id.* ¶9.

Mr. Perotti's review of records of radioactive material shipments between the Parks Township and Apollo facilities since 1971 and discussions with knowledgeable employees indicate that every one of these shipments was made without accident, incident, or loss of radioactive materials. *Id.* ¶10. No shipment involved any event that required a report to or notification of NRC or DOT, and

there is no evidence of any radiological contamination of offsite properties from such shipments. *Id.*

The Staff approached the issue empirically by assuming that if transportation of wastes between Parks Township and Apollo had radiologically contaminated offsite properties, such contamination would be present near the roadway between the Apollo and Parks Township sites. There was no soil sampling data along the roadway between the sites, except for the area of the roadway adjacent to the sites, but there are a few TLD (thermoluminescent dosimeter) monitoring locations near the road. None of these readings have been above what appears to be normal background variation. No evidence was found by the Staff to indicate contamination along the roadway between Parks Township and Apollo that could be the result of transportation of waste in the late 1960s and early 1970s. Accordingly, the Staff concluded that there is no evidence to indicate that transportation of waste between the Apollo and Parks Township sites has caused offsite contamination. Hammelman Aff. ¶22.

Also, there is no basis to be concerned about future shipments between those points because decommissioning at Apollo is nearly complete. Perotti Aff. ¶11.

Intervenors' Section D, entitled "Transportation of radiologically contaminated waste to offsite area" contains miscellaneous correspondence and a 1980 NRC inspection report concerning the placement of soil from the Apollo facility into a landfill in North Vandergrift, Pennsylvania. This is a matter beyond the scope of this hearing.

I conclude that Intervenors' concern relating to any radiological contamination of offsite properties resulting from transportation of radioactive materials between the Parks Township and Apollo facilities is unfounded.<sup>19</sup> There is no evidence of any incident occurring in the course of radioactive material shipments between the Apollo and Parks Township facilities from 1971 to the present, or of any offsite contamination resulting from such shipments.

##### 5. *Subarea of Concern Related to Mine Subsidence*

The final subissue accepted in the Hearing Order is:

Whether the location of the Parks Township facility waste dump over a mined-out area threatens, through subsidence, the integrity of the dump, and whether the mined-out area creates a threat of offsite release of radiation through a water-migration pathway.

Intervenors in their presentation in Section Z (at 14) state the issue as:

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<sup>19</sup> Initially the transportation issue derived from Intervenors' "Illustration" (February 25, 1994) in which they stated "waste was transported between the two facilities . . ." (*Id.* at 6), referring to Parks Township and Apollo. Nothing in their written presentation even alludes to that concern.

- 1) How extensive is the mined-out area?
- 2) Will subsidence occur?
- 3) Will subsidence create a threat of off-site release of radiation?

I accepted this issue for hearing primarily based upon mine maps and a report by Benjamin Ross, dated May 7, 1987, prepared for the United Mine Workers and entitled, "The Burial Grounds at the Parks Township Plant . . . ." This report was resubmitted with Intervenors' presentation. Intervenors also submitted a news story concerning subsidence in Leechburg in 1991 in support of their position on the issue.

All parties recognize, and it is well known locally, that extensive underground mining occurred in the area in the early part of this century. Mine maps submitted by Intervenors and in the SLDF Site Characterization Report illustrate this beyond question.

However, it turns out that mine subsidence has very little to do with this license renewal proceeding, particularly from Intervenors' perspective. The only activities at the SLDF authorized by the requested license renewal will be monitoring and maintenance of the site and, possibly, collection of additional site data relating to site characterization and the remediation of the SLDF. Caldwell Aff. ¶7. A remediation plan for the SLDF is being prepared and will be submitted to the NRC for its approval. Review and approval of the remediation plan, and any content thereof relating to mine subsidence at the SLDF, will be part of a separate NRC action and is not part of this license renewal proceeding.<sup>20</sup>

The real issue in this proceeding is, given the potential for mine subsidence affecting the SLDF, what relief do the Intervenors seek? They don't say. See Intervenors' Presentation at 14-15 (Section Z). I must infer that they *do not* want B&W to stop monitoring and maintaining the facility, as is authorized under the license renewal.<sup>21</sup> Remediation planning leading to decommissioning under NRC supervision is under way in an orderly and thorough manner. Denial of the renewal application as it pertains to the SLDF would not serve the interests of the Intervenors and the public residing near the SLDF.

Another question pertaining to this issue is: what factual aspect of the matter has been placed into controversy by Intervenors? Mr. Ross in his 14-page report (at 9) discusses hydrology and possible chemical and radiological contamination.

<sup>20</sup> The decommissioning of the SLDF is not an issue in this proceeding. LBP-9 -12, 39 NRC at 220. At the time I accepted the mine subsidence issue for hearing, I did not understand that the SLDF is no longer an operating disposal site and that maintenance, monitoring, remediation, and decommissioning were the only remaining significant aspects of the SLDF management. See also note 21.

<sup>21</sup> In the Memorandum and Order issued today, I discuss Intervenors' "Request for Motion for More Definite Information" as it relates to "splitting" the SLDF license from the balance of the Parks Township facility. Apparently, Intervenors do not understand the facts of this issue, my jurisdiction over the matter, and the scope of this proceeding.

With respect to mine subsidence, he states only that "the burial grounds have not been properly secured for the long term. At present the trenches are infiltrated with water, seem to be subsiding, and are subject to erosion."

While Licensee might not be willing to concede that the trenches seem to be subsiding, there is no dispute that potential subsidence is a matter that must be addressed in the final remediation of the SLDF. The Hearing File contained the SLDF Site Characterization Plan, the Site Characterization Report (SCR), and two volumes of appendices to the report. The potential for mine subsidence is discussed in these documents, as is the potential for radiological and chemical releases from the site. In particular, Appendix K to the SCR contains a straightforward discussion of the potential for subsidence and mitigation options. B&W's affiant, Mr. Caldwell, describes this information as noted below. These papers are the best, and probably the only reliable, source of information on the issue. Yet, Intervenor's do not even mention the SCR or related papers in their presentation.<sup>22</sup>

At the least, the Intervenor's had the duty to state the relief they seek and to address the SCR. They have not fairly placed the mine subsidence matter into controversy. They have contributed nothing to the record; there is no purpose to be served in further examining the facts of the matter as a part of this Decision. I resolve the issue in favor of license renewal.

I recognize that there is concern in the community about the short-term risks attendant to the integrity of the SLDF. Therefore, as a convenience, I restate the following information provided by the Licensee in this hearing because it may be of interest.

B&W's Mr. Caldwell explains that, in the course of characterizing the SLDF site in order to select and develop a remediation plan, extensive information has been gathered and developed regarding the mine workings underlying the SLDF site and adjacent areas. Much of that information is contained in the SLDF SCR and its Appendix K, "Assessment of Potential for Coal Mine Subsidence and Subsidence Mitigation Options" (Assessment of Mine Subsidence) (August 1993).<sup>23</sup> As described in the SLDF SCR, low-level radiological wastes were disposed of in the SLDF site in a series of trenches from 1961 to 1970, in

<sup>22</sup> Intervenor's Sections C and Mc also relate to burials in the waste dump trenches. Issues raised in Sections C and Mc were not included in the hearing requests or in the Hearing Order. Even if these issues had been timely raised by Intervenor's, they have not been fairly placed into controversy. The SLDF Site Characterization Report (SCR) deals squarely with the burial there. Intervenor's have not challenged the SCR, except to include a March 1994 NRC document in Enclosure Mc alluding to the Staff's continuing review of the SCR. Moreover, even if the concerns raised in Intervenor's Sections C and Mc were well pleaded and timely, the effect would be to support licensing the SLDF for maintenance, monitoring, and continued characterization.

<sup>23</sup> The Hearing File (including the SLDF SCR) and the presentations of all parties is available for inspection by the public at the NRC Local Public Document Room, Apollo Memorial Library, 219 N. Pennsylvania Avenue, Apollo, Pennsylvania. Appendix K, entitled "Assessment of Potential for Coal Mine Subsidence and Subsidence Mitigation Options," prepared in August 1993 by GAI Consultant of Monroeville, Pennsylvania, and discussed in Mr. Caldwell's affidavit, can be found in Document G of the Hearing File.

accordance with the requirements of former 10 C.F.R. § 20.304. Prior to these disposals, a coal seam (the Upper Freeport Coal Seam) was strip-mined and deep-mined at and adjacent to the SLDF site. Caldwell Aff. ¶10. The coal seams beneath and adjacent to the SLDF site were mined from the turn of the century until about the 1920s. People have built their homes and businesses over the mine workings, and there is no record that any have been affected by the workings. There is no evidence in the form of topographic depressions either at the SLDF site or in the adjacent community that any surface movement has occurred as a result of mine subsidence. *Id.* ¶13.

Mine subsidence has occurred for many years at Leechburg, which is located down the Kiskiminetas River from the SLDF site. *Id.* ¶14. However, there are differences between the two sites; and there is no technical basis to conclude that because subsidence has occurred at one site, it will occur in another. The correct way to evaluate the potential for mine subsidence is to undertake a site-specific evaluation of the potential for mine subsidence, which has been done for the SLDF site. *Id.*

The SLDF SCR describes in detail the geology, hydrogeology, and groundwater conditions at the site, and provides all the information necessary to evaluate the impact of potential subsidence on the groundwater at the SLDF site in the vicinity of the trenches. In addition, the SLDF SCR describes the conditions at the SLDF site that control and limit erosion of the site and the covers over the trenches. *Id.* ¶15.

The Assessment of Mine Subsidence (Appendix K) discusses the site conditions and concludes that conditions at the SLDF are not conducive to the development of sinkhole-type subsidence in either the short or long term. *Id.* ¶16.<sup>24</sup> However, SLDF site conditions may in the long term lead to the development of trough-type subsidence. *Id.* ¶17. Even if a trough were to develop at the SLDF site, the waste in the trenches would not be adversely affected for a number of reasons: the limited deformation of the surface and the soil surrounding the trenches; the relative flexibility of the waste and its ability to respond to limited deformation; the absence of sinkhole or other larger voids or passages in the rock beneath and the soil surrounding the trenches; and continued presence of the soil over the trench materials. *Id.* ¶19. In particular, migration of solid wastes from the trenches is neither possible nor feasible even if mine subsidence occurs, because no significant openings in the soil or rock immediately adjacent to or beneath the trenches would occur as a result of subsidence and trough development, i.e., there would not be any practical passageway by which solid materials could exit the trenches. *Id.*

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<sup>24</sup> Site conditions that make sinkhole development improbable include the significant depth of the mine workings beneath the upper trenches (between 55 feet and 100 feet), the two thick sandstone sequences, and the small height of the mine workings (generally less than 3 feet, and up to 6 feet in the adits and old access tunnels). *Id.* ¶16.



### III. MATTERS NOT DECIDED

Each of the matters identified below is a section of Intervenors' presentation not included in their initial hearing requests and are not within the scope of the issues accepted for hearing in the Hearing Order. As I ruled at the outset, each of these matters is late without excuse and therefore may not be examined or decided. In addition, some are beyond the scope of the proceeding, and have other defects. I discuss them briefly to explain my rulings and to identify those that are referred to the Executive Director for Operations in accordance with the provisions of 10 C.F.R. § 2.1205(k)(2).

*Section B* of the Intervenors' presentation is entitled "Preoperational monitoring surveys." Intervenors believe that a preoperational testing survey should have been required by the AEC/NRC prior to the issuance of the original license. Lamastra Aff. ¶ 10. Even if this were so, no relief can now be afforded and the matter is irrelevant to the renewal proceeding.

*Section H*, entitled "Historical documents re: Parks with a 20 year time flow," provided an unidentified Licensee document which appears to provide information on probable radionuclides that would be involved in an accident. I am unable to determine what the original purpose of the document was from the information provided in Enclosure H, nor can the NRC Staff. Staff Presentation at 28-29. I do not understand what Intervenors would have me make of this information and, therefore, I rule that it is irrelevant to this proceeding.

*Section I* is entitled "Historical documents re: burials." Intervenors state a concern that in 1969 NUMEC did not have a permit from the Commonwealth of Pennsylvania to bury low-level radioactive waste at the Parks Township site. The Staff stated that it is not aware of whether a permit was issued by the Commonwealth or even whether such a permit was required at the time the materials were buried. Astwood Aff. ¶ 13. In addition, assuming that a permit was required, and that none was issued, I cannot find any relevance in that circumstance to this license renewal proceeding.

*Section M*, entitled "NRC's Authority and Responsibility over non-radiological hazards," provides a snippet of a very large December 17, 1986 *Federal Register* notice (51 Fed. Reg. 45,124) concerning the Material Safety Regulation Review Study Group Report. Intervenors apparently argue that NRC should regulate chemical hazards. *Section O* raises the same issue with respect to the Apollo decommissioning, but in a series of rhetorical questions.

The issue of whether the NRC has the authority and/or should regulate chemical hazards at NRC-licensed sites is not relevant to the broad issue of offsite radioactive contamination from the Parks Township facility or the other subareas of concern that I admitted as issues in this proceeding. See Hearing Order, 39 NRC at 219.

Furthermore, I can find no NRC regulation expressly covering the regulation of purely chemical contamination or evidence that the recommendations of the Study Group were adopted. Nor does any Memorandum of Understanding between the NRC and the EPA cover the matter.

*Section P* alludes to chemicals listed as "CLASSIFIED" at Apollo in 1975, and Intervenors want someone to tell them what the chemicals are and why they are classified. I don't know the answer. The point is clearly beyond the scope of the Parks Township license renewal proceeding.

*Section Q* is entitled "Experimental Out-of-plant program; Environmental Monitoring." *Section R* is a part of Section Q. In Enclosure Q, the Intervenors supplied documents dated in 1966, 1968, and 1969 concerning the Apollo NUMEC plant exhaust emission of radioactive materials. Intervenors point to the wind rose and allude to cancer cluster areas. Apparently Intervenors believe that the population was exposed to very high levels of radiation in an Apollo experiment.

The Staff's Mr. Lamastra explains the historic and regulatory significance of the concern. This was not an experiment in the classical sense, but a gathering of data in support of an amendment request made in accordance with 10 C.F.R. § 20.106, "Radioactivity in effluents to unrestricted area." Lamastra Aff. ¶¶ 20, 21.

In any event, since the amendment related to the Apollo license and not to the Parks license, this concern is not related to the issues admitted in this proceeding.

*Section S* is entitled "Former Top Secret FBI document." In Enclosure S, the Intervenors provided an FBI document dated October 27, 1979. The FBI interviewed Mr. Earle Hightower, a former Assistant Director, Policy and Plans, Office of Safeguards and Security, Atomic Energy Commission (AEC). The document suggests that the purpose of the investigation was about diversion. Mr. Hightower is reported to have stated that the material accountability at NUMEC during the early 1960s was sloppy, and that the "[t]rees and bushes (surrounding NUMEC) were covered by a white residue," which information he heard from those he supervised.

Staff stated in its response to this section, as well as to Section A of the Intervenors' presentation, that the Staff does not dispute that violations of AEC/NRC regulations occurred with regard to material accountability, and corrective actions by NUMEC were required. Lamastra Aff. ¶ 34.

It is not clear how Intervenors would have me apply this information to this hearing. Its ethereal implications about NUMEC's management of Apollo in "the early 1960s" is too far removed to relate to B&W's management of Parks Township today. Whatever the white residue referred to by Mr. Hightower was, the effects of it have not been reported in this hearing with respect to Parks

Township, although there has been a great volume of monitoring and reporting of radiological effluents. See Section I.C.1.a, above.

*Section T* is entitled, "Document re: serious health, safety, and operational problems dated March 29, 1968 (Company confidential) & Document dated May 12, 1967, re: personnel turnover." In the related enclosure, the Intervenors provided an internal memorandum dated March 28, 1968, from R. Caldwell, apparently of NUMEC, to F. Cain, and a Commonwealth of Pennsylvania internal memorandum dated May 12, 1967, from Joel Lubenau to Thomas M. Gerusky, a Pennsylvania Radiological Health official.

Mr. Caldwell was requesting plant modifications to reduce worker radiation exposures and to reduce the concentration of radioactive material in laundry wastewater discharge. The issue of worker dose does not pertain to the broad concern of offsite contamination or to any of the subareas of concern in this proceeding with the possible exception of the management issue. Even there the connection is too remote in time. In any event the documents show affirmative action by the operator of Apollo to correct the problem.

One document alludes to the apparent high turnover of operating personnel (as high as 100%) and plant worker health and safety. The Intervenors do not explain how these concerns pertain to the current situation at the Parks Township facility.

*Section U* is entitled "Documents dated 1992-1993 re: B&W's misuse of EPA identifier numbers." The allegation begins with the "misuse of EPA Identifier numbers," then, by a route I cannot follow, wanders off to charges against the NRC for its leniency and the negligence of all responsible entities. Without the Staff's explanation, I would not understand the concern.

According to the Staff, EPA identifier numbers are required by 40 C.F.R. § 262.12. Each generator of hazardous material is assigned a unique identification number. Without this number, the generator is barred from testing, storing, disposing of, transporting, or offering for transportation any hazardous waste. Enclosure U contains the results of a Resource Conservation and Recovery Act (RCRA) inspection conducted by the Commonwealth of Pennsylvania Department of Environmental Resources and other related documents concerning EPA identifier numbers. *Lamastra Aff.* ¶¶ 38-39.

It is not apparent to me how RCRA violations and EPA identifier numbers violations pertain to the broad concern of offsite contamination or to any of the subareas of concern admitted as issues in this proceeding. I cannot see the relationship of these concerns to NRC decommissioning/release criteria, which, in itself, is a premature concern.

*Section W* is entitled "Documents re: Pa.D.E.R.s controversial involvement at both sites." Presentation at 12. Enclosure W contains a variety of Pennsylvania Department of Natural Resources (PADER) documents concerning general chemical safety issues at the Licensee's facilities. The Intervenors are concerned

that PADER is not enforcing its regulations and "down-plays" Intervenors' request for EPA involvement. Intervenors urge that EPA should regulate mixed waste at the site.

The issue of PADER's or EPA's involvement or regulatory authority is beyond the scope of this hearing. I have no authority over either agency.<sup>25</sup>

*Section X* is entitled "Letters from U.S. Congressman Murtha to Sec. of Agriculture, Espy." The enclosure to *Section X* contains two letters from Congressman John P. Murtha. One is to the Secretary of Agriculture, requesting a copy of a report on Farmers Delite Dairy Farm (apparently located in Parks Township), entitled NUMEC-1966. Intervenors claim that the report pertains to radionuclides in cows' milk and thyroid problems in the cows at the farm, but the report has suspiciously vanished from the U.S.D.A. library. Apparently, Intervenors want me to find the document. I cannot do this. But given the implications of the concern, and the specificity with which it is stated, I am emphasizing this concern in the referral to the Executive Director for Operations.

The other letter was from Congressman Murtha to Mr. Sprout on the independent oversight for the Apollo Project. It is offered by Intervenors to debunk the independence of the oversight committee, which, by the way, it doesn't do. The issue is beyond the scope of this hearing.

*Section Y* is entitled "Info re: recent lawsuits filed in Federal Court about these sites." The enclosures to *Section Y* include a copy of the lawsuit filed against the Licensee by plaintiffs, including the Intervenor, Ms. Ameno, and news articles concerning the lawsuit. I have not analyzed the complaint for issues admitted in this hearing because the information is apparently offered as a comment on a failing system of accountability in overseeing the Apollo and Parks sites. Intervenors seek no relief in this hearing with respect to their complaint in the lawsuit.

#### **IV. REFERRAL TO THE EXECUTIVE DIRECTOR FOR OPERATIONS**

I have found that the concerns discussed in the foregoing section should not be entertained in this hearing because they are untimely filed and for other reasons stated. Therefore, pursuant to the provision of 10 C.F.R. § 2.1205(k)(2), the concerns are treated as requests for action under 10 C.F.R. § 2.206 and are constructively referred to the Executive Director for Operations for appropriate disposition.

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<sup>25</sup> A portion of *Section W*, alleging the illegal shipment of mixed waste, was arguably related to the management issue and is discussed above in that section.

This referral is a ministerial act, mandated by regulation. The referral carries no presumption that a determination has been made in this hearing that the concerns require any action. Some of the concerns seek no relief. I also note that technical members of the NRC Staff and the legal counsel representing the Staff have already evaluated these concerns and reported on them in the Staff's presentation in this hearing.

The concern raised in Section X of the Intervenor's written presentation, pertaining to possible radiological contamination of a Parks Township dairy herd in 1966, is worthy of note. I request that it be given special attention, and that the Staff reconsider its stated view that the concern falls outside the issues of this hearing.

The implications of the concern are too tenuous and too old to suspend this hearing while they are explored. Reliable and probative evidence adduced in this hearing provides adequate assurance that the public health and safety are not threatened by radiation from continued operation of the Parks Township facility. The concern is newly raised but, were it not for the passage of time, it seems to fall within the broad area of concern accepted as an issue in this hearing.

## V. CONCLUSIONS OF LAW

Based upon the entire evidentiary record in this proceeding and upon the factual findings set forth above, I make the following conclusions of law:

- A. Notwithstanding the requirements of 10 C.F.R. § 2.1233(c), Intervenor's have not identified any omission or deficiency in B&W's application for renewal of License No. SNM-414, and I have not found in the record of this proceeding any evidence of such omission or deficiency relating to any issue in this proceeding.
- B. Taking into account (1) previous effluents from the Parks Township facility, (2) future effluents under a renewed license, (3) previous and present B&W management, (4) previous and future housekeeping practices under a renewed license, (5) previous transportation of radioactive materials between the Parks Township and Apollo facilities, (6) future transportation of radioactive materials from the Parks Township facility under a renewed license, and (7) the potential for mine subsidence at the SLDF, B&W has demonstrated that it has an excellent record of compliance with NRC requirements, that there is reasonable assurance that such compliance will continue, and that activities under a renewed license will be conducted in a manner consistent with regulatory requirements that protect health and safety and minimize danger to life and property.
- C. The broad area of concern and four subareas of concern accepted as issues in this proceeding are resolved in favor of issuing the renewal of

License No. SNM-414 for the Parks Township facility as requested by Licensee.

## VI. ORDER

The Director of Nuclear Material Safety and Safeguards, upon making findings on all requisite matters not decided in this Initial Decision, is authorized to issue to Babcock & Wilcox the requested renewal of License No. SNM-414 for the Parks Township facility.

This Initial Decision shall become effective immediately unless the Commission directs otherwise. Pursuant to 10 C.F.R. § 2.1251(a), this Decision constitutes the final action of the Commission thirty (30) days after the date of issuance, unless any party petitions for Commission review in accordance with 10 C.F.R. § 2.786 or the Commission takes review of the decision on its own.

In accordance with 10 C.F.R. § 2.786(b), any petition for review must be filed within fifteen (15) days after service of this Decision and must satisfy the requirements of that section. Any other party to the proceeding may file an answer supporting or opposing Commission review within ten (10) days after service of a petition for review.

Ivan W. Smith, Presiding Officer  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
January 3, 1995

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD PANEL**

**Before Chief Administrative Judge**  
**B. Paul Cotter, Jr., Presiding Officer**

**Administrative Judge**  
**Thomas D. Murphy, Special Assistant**

In the Matter of

**Docket No. 40-8968-ML**  
**(ASLBP No. 95-706-01-ML)**

**HYDRO RESOURCES, INC.**  
**(12750 Merit Drive, Suite 1210 LB12,**  
**Dallas, TX 75251)**

**January 9, 1995**

**INTERVENTION: SUBPART L REQUIREMENTS**

Subpart L, by its own language, demands precision from the outset of both the applicant and the petitioners. The initial petition must set forth standing arguments and areas of concern and is extremely important because it shapes the course of the proceeding.

**INTERVENTION: PRESIDING OFFICER'S AUTHORITY**

Under the provisions of 10 C.F.R. § 2.1209 (1994) and in the interest of fairness to all potential parties, the Presiding Officer in a Subpart L informal proceeding established a new schedule for filing amended petitions for hearing and initial answers by the Applicant and the Staff.

**INTERVENTION: NATIVE AMERICANS**

While the NRC has for years recognized a unique relationship with Native American peoples and considered this special status in adjudicative decisions and while that status is not of itself sufficient foundation for ignoring the

Commission's rules, every precaution should be taken to ensure that Native Americans are not excluded from the proceeding simply because of ignorance of the ingredients of a legally complete petition to intervene, citing, *Puget Sound Power and Light Co.* (Skagit Nuclear Power Project, Units 1 and 2), ALAB-552, 10 NRC 1, 10 (1979).

## MEMORANDUM AND ORDER (Setting Schedule for Filings)

### BACKGROUND

On November 14, 1994, the Commission published in the *Federal Register* a "Notice of Availability of Draft Environmental Statement; Notice of Opportunity for Hearing" as part of the evaluation process in the application of Hydro Resources, Inc. ("Applicant"), for a license to conduct in-situ leach uranium mining in the vicinity of Crownpoint and Church Rock, New Mexico. 59 Fed. Reg. 56,557 (Nov. 14, 1994). Within the 30-day time limit imposed by the Commission's regulations, 10 C.F.R. § 2.1205(c), no less than seven individuals or groups petitioned for a hearing on the pending application.<sup>1</sup> Subsequently, the undersigned presiding officer was designated to rule on the petitions for a hearing under the provisions of 10 C.F.R. Subpart L and, if necessary, to serve as the presiding officer to conduct the hearing.

Under the provisions of 10 C.F.R. § 2.1205(f), Applicant's Answer to the hearing petitions was due on December 24, 1994, and the Staff's decision to participate in the hearing, if one is held, was due on December 31, 1994. For separate reasons, neither the Applicant<sup>2</sup> nor the Staff<sup>3</sup> met their filing dates. Accordingly, upon review of the Petitioners' filings in this proceeding and the fact that both the Applicant and the Staff have yet to join the proceeding in a substantive manner, I am directing the potential parties to adhere to a new filing schedule.

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<sup>1</sup> Zuni Mountain Coalition (Dec. 12, 1994); Ms. Bernadine Martin (Dec. 13, 1994); Water Information Network, Dine' CARE, Southwest Research and Information Center, Mr. Mervyn Tilden, and Grace and Marilyn Sam (Dec. 14, 1994).

<sup>2</sup> Telephone conversations with Mr. Mark Pelizza, Environmental Affairs Officer for Hydro Resources, Inc., and Jep Hill, Esquire, Counsel for Hydro Resources, Inc., disclosed that appropriate service was made on Hydro Resources in Dallas in a timely manner. However, the hearing materials were not received by regular mail at Mr. Hill's office until the evening of December 24, Christmas Eve. Compounding this late delivery, Mr. Hill's law office was being moved to a new location over the last week of December. Mr. Hill did not open the package from the Applicant until January 3, 1995.

<sup>3</sup> The Staff requested a delay in filing its answer to the hearing petitions due to the absence of key Staff personnel during the holiday period.



## DISCUSSION

The importance of gaining a fresh start in the proceeding is mandated by several considerations. First, the provisions of 10 C.F.R. § 2.1200 *et seq.* ("Subpart L"), which would control the conduct of any hearing on this matter should it be held, specifically set forth pleading requirements that Petitioners must meet in order to obtain an informal hearing. The two most important requirements are: (1) the recitation of an individual's or organization's legal standing to request a hearing; and (2) the recitation of the areas of concern that the petitioner seeks to litigate if the standing requirements are met.

It is evident from a review of the pleadings that due either to haste or to lack of experience with the provisions of Subpart L, most of the petitions are in some regard deficient. Most do not set forth information or arguments concerning whether the individual petitioner meets the judicial concepts of standing. Standing means that "they must show that the intended action will cause injury in fact to petitioner's interests . . ." which are protected by the Atomic Energy Act or the National Environmental Policy Act. *Umetco Minerals Corp.*, LBP-94-18, 39 NRC 369, 370 (1994). Similarly, some petitioners do not specifically address their interest in the proceeding and how that interest may be affected by the results of the proceeding, among other considerations germane to Subpart L. Since Subpart L by its own language demands precision from the outset of both the Applicant and the Petitioners, the initial petition setting forth standing arguments and areas of concern is extremely important because it shapes the course of the proceeding. This is the only opportunity a petitioner has to explain how the proposed licensing action will adversely affect the petitioner. If those concerns are not articulated, they will not be litigated.

Second, several of the Petitioners are either Native Americans or groups representing the interests of Native Americans. The NRC has for years recognized a unique relationship with Native American peoples and this special status should be considered in adjudicative decisions. *See Puget Sound Power and Light Co.* (Skagit Nuclear Power Project, Units 1 and 2), ALAB-559, 10 NRC 162, 173 (1979). While this special status is not of itself sufficient foundation for ignoring the Commission's rules, "every reasonable precaution should be taken to insure that [Petitioners are] not excluded from this proceeding simply because of ignorance of the ingredients of the demonstration required . . ." *Puget Sound Power and Light Co.* (Skagit Nuclear Power Project, Units 1 and 2), ALAB-552, 10 NRC 1, 10 (1979).

Therefore, under the provisions of 10 C.F.R. § 2.1209 and in the interest of fairness to all potential participants to this proceeding, a new schedule is established below for the filing of amended petitions for hearing and initial answers from the Applicant and the Staff. *See Virginia Electric and Power*

Co. (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631 (1973) (petitioners are usually permitted to amend petitions containing curable defects).

### ORDER

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 9th day of January 1995, ORDERED

1. That Petitioners Zuni Mountain Coalition, Bernadine Martin, Water Information Network, Dine' CARE, Southwest Research and Information Center, Mervyn Tilden, and Grace and Marilyn Sam shall file amended hearing requests with the presiding officer, the Applicant, and the Staff setting forth arguments concerning standing and areas of concern as prescribed by 10 C.F.R. § 2.1205 to be *received* by the other participants no later than close of business on January 25, 1995;

2. That Applicant Hydro Resources, Inc., shall file its answer to Petitioners' hearing requests with the presiding officer and the other participants so that it is *received* by the other participants no later than close of business on February 6, 1995;

3. That, if it chooses to participate, the Staff shall file its answer to Petitioners' hearing requests with the presiding officer and the other participants, so that it is *received* no later than close of business on February 13, 1995.

4. That motions to file responses pursuant to 10 C.F.R. § 2.730(c) and responses to the Applicant's and Staff's filings shall be filed with the presiding officer and the other participants to be *received* by the other participants no later than close of business on February 24, 1995.

B. Paul Cotter, Jr., Presiding Officer  
CHIEF ADMINISTRATIVE JUDGE

Rockville, Maryland  
January 9, 1995

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF STATE PROGRAMS

Richard L. Bangart, Director

In the Matter of

STATE OF UTAH  
(Agreement Pursuant to  
Section 274 of the  
Atomic Energy Act of 1954,  
as Amended)

January 26, 1995

The Director of the Office of State Programs denies the petition submitted pursuant to 10 C.F.R. § 2.206 by US Ecology, Inc. (Petitioner), requesting action with regard to Utah's Agreement State Program.

Petitioner requested NRC to initiate appropriate proceedings, including relevant hearings, to suspend or revoke Utah's Agreement State status under section 274j of the Atomic Energy Act of 1954, as amended (AEA), for Utah's failure to require state or federal government land ownership in regulating the commercial disposal of low-level radioactive waste at the Envirocare of Utah, Inc. The Petitioner's request was denied because the Director did not find that the Petitioner had raised a sufficient issue of Utah's compliance with one or more requirements of section 274 of the AEA or any substantial health and safety issues to warrant the action requested.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

**I. INTRODUCTION**

By a letter dated September 21, 1992, and supplemented in a letter of December 8, 1992, to James M. Taylor, Executive Director for Operations of the U.S. Nuclear Regulatory Commission (NRC or Commission), US Ecology, Inc.

(Petitioner) filed a "Petition of US Ecology, Inc. for Review and Suspension or Revocation of Utah's Agreement State Program for Failure to Require State or Federal Site Ownership at the Envirocare of Utah, Inc. Low-Level Radioactive Waste Facility." Petitioner alleges that —

- (1) Under both Utah's Agreement State program and the federal low-level radioactive waste (LLRW) regulatory program, LLRW may not be disposed of on privately owned land unless the state in which the site is located or the federal government has formally expressed a willingness to accept title to the facility at site closure;
- (2) The Envirocare site is located on privately owned land; and
- (3) Neither Utah nor the U.S. Department of Energy has agreed to or expressed any willingness to accept title to the site.

The Petitioner requested that in view of these allegations the NRC initiate appropriate proceedings, including relevant hearings, to suspend or revoke Utah's Agreement State status under section 274j of the Atomic Energy Act of 1954, as amended (AEA). The receipt of this petition was noticed in the *Federal Register* on November 13, 1992 (57 Fed. Reg. 53,941). For the reasons set forth below, Petitioner's request is denied.

## II. BACKGROUND

Section 274 of the AEA, as amended, provides the statutory basis under which the NRC can relinquish portions of its regulatory authority to the states. This makes it possible for states to license and regulate the possession and use of byproduct material, source material, and special nuclear material in quantities not sufficient to form a critical mass.

The mechanism for the transfer of NRC authority to a state to regulate the radiological health and safety aspects of nuclear materials is an agreement between the governor of the state and the Commission. Before entering into such an agreement, the governor is required to certify that the state has a regulatory program that is adequate to protect the public health and safety. In addition, the Commission, by statute, must perform an independent evaluation and make a finding that the state's radiation control program is compatible with the NRC's, complies with the applicable parts of section 274 of the AEA, and is adequate to protect the public health and safety.

The AEA was amended in 1978 to require, among other things, that the NRC periodically review Agreement State programs to determine the adequacy of the program to protect the public health and safety and compatibility with NRC's regulatory program. Section 274j of the AEA provides that the NRC may suspend or terminate its agreement with a state if the Commission finds that such suspension or termination is necessary to protect the public health

and safety. As mandated by the AEA, NRC conducts periodic, onsite, in-depth reviews of each Agreement State program. The results of these reviews are documented in a report to the state. The report indicates whether the state's program is adequate to protect the public health and safety and also whether the program is compatible with NRC's regulatory program. (In some cases, the state is informed that the findings on adequacy and compatibility are being withheld pending further review by NRC and the resolution of outstanding issues.)

The State of Utah originally became an Agreement State on April 1, 1984. At that time, the State chose not to include authority for commercial LLRW disposal in the Agreement. However, on July 17, 1989, Governor Norman H. Bangerter of Utah requested that the Commission amend the Agreement to provide authority for Utah to regulate commercial LLRW disposal. As part of the amendment process, the Governor certified that the State had a program for control of radiation hazards with respect to LLRW disposal that is adequate to protect the public health and safety. The NRC conducted an independent review of this program and determined that the State met the requirements of section 274 of the AEA and that the State's statutes, regulations, personnel, licensing, inspection, and administrative procedures were compatible with those required by the Commission and were adequate to protect the public health and safety. The amendment to the Utah Agreement became effective on May 9, 1990. 55 Fed. Reg. 22,113 (May 31, 1990).

Part of the State's program involved the adoption of regulations compatible with the NRC regulations for the licensing of land disposal of radioactive waste (10 C.F.R. Part 61), including section 61.59 (Institutional requirements). Section 61.59 states:

(a) *Land ownership.* Disposal of radioactive waste received from other persons may be permitted only on land owned in fee by the Federal or a State government.

As part of its regulation of LLRW, Utah also adopted a provision similar to the exemption provision at 10 C.F.R. § 61.6, which states:

The Commission may, upon application by any interested person, or upon its own initiative, grant any exemption from the requirements of the regulations in this part as it determines is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest.

In September 1990, Envirocare of Utah, Inc. (Envirocare), requested the State to amend its license to authorize receipt of LLRW for disposal. On March 21, 1991, Utah granted the request authorizing LLRW disposal. In granting this authorization, the State extended a previously granted exemption from the State's land ownership requirements for Naturally Occurring Radioactive Material (NORM) and Naturally-Occurring and Accelerator-Produced Radioactive

Material (NARM) disposal to LLRW disposal at the Envirocare facility. (NORM and NARM are outside the NRC's regulatory authority.) Utah issued the exemption pursuant to its regulations, which provide that the State may grant "such exemptions or exceptions from the requirements of these regulations as it determines are authorized by law and will not result in undue hazard to public health and safety or property."

On September 21, 1992, US Ecology, Inc., filed this petition with the NRC requesting that the Commission revoke or suspend the Utah Agreement Program for regulating the commercial disposal of LLRW because of Utah's failure to require state or federal government land ownership. The Petitioner requested the NRC to review the adequacy and compatibility of Utah's Agreement State Program in light of this failure and alleged that the State had not adequately justified the granting of an exemption from the land ownership requirement.<sup>1</sup> In a letter of October 26, 1992, acknowledging receipt of the petition, Mr. Carlton Kammerer, Director, Office of State Programs, informed the Petitioner that the NRC Staff was in the process of reviewing the licensing action of Utah as it related to the granting of the exemption in the course of NRC's periodic review of the Utah Agreement State program pursuant to section 274j of the AEA. Furthermore, the NRC Staff's review of the Utah program would of necessity address the issues raised in the US Ecology petition. As will be set forth in greater detail below, the NRC has determined that the State of Utah's rationale of exercising effective control of the waste disposal site without state or federal ownership is not unreasonable and would not warrant revocation or suspension of the Utah agreement.

### III. DISCUSSION

The NRC Staff has examined the Petitioner's claims in the original petition of September 21, 1992, and the supplement dated December 8, 1992:

Petitioner requests that the NRC begin proceedings to revoke or suspend Utah's Agreement State status under section 274 of the Atomic Energy Act because of alleged flaws in Utah actions on the licensing of Envirocare of Utah, Inc., to receive LLRW for disposal.

Pursuant to section 274 of the AEA, NRC relinquished its regulatory authority over the licensing of LLRW to Utah and therefore has no direct authority over licensing of LLRW facilities in Utah. However, NRC does have authority to terminate or suspend Utah's Agreement State program under section 274j of the AEA. Section 274j states:

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<sup>1</sup> On December 8, 1992, the Petitioner also submitted a supplemental legal analysis in support of the petition.

The Commission, upon its own initiative after reasonable notice and opportunity for hearing to the State with which an agreement under subsection b. [of this section] has become effective, or upon request of the Governor of such State, may terminate or suspend all or part of its agreement with the State and reassert the licensing and regulatory authority vested in it under this Act, if the Commission finds that (1) such termination or suspension is required to protect the public health and safety, or (2) the State has not complied with one or more of the requirements of this section. The Commission shall periodically review such agreements and actions taken by the States under the agreements to insure [sic] compliance with the provisions of this section.<sup>2</sup>

Based upon these periodic reviews, or upon special reviews conducted for cause, the Commission must find that (1) termination or suspension of a state's program is required to protect the public health and safety or (2) that the state has not complied with one or more requirements of section 274 of the AEA (e.g., the requirement for the state program to be compatible with the NRC program).

The revocation of Utah's Agreement State status, as requested by the Petitioner, hinges on whether Utah's regulatory scheme of providing an exemption from state or federal ownership of the site was compatible with NRC's regulatory requirements and whether Utah's action in granting the exemption provided for adequate protection of the public health and safety. The NRC regulations contain an exemption provision in 10 C.F.R. § 61.6 that allows the Commission to grant any exemption from the requirements in Part 61 provided that the exemption is authorized by law, will not endanger the public health and safety or the common defense and security, and is otherwise in the public interest. The land ownership provision in section 61.59 is subject to this exemption provision. Although NRC has not exercised its authority under the exemption provision in Part 61 as Utah has exercised, Utah's regulatory scheme contains an exemption provision similar to the NRC's. Although NRC has not granted (nor has any person requested) any similar exemption, it has not adopted any particular policy or practice precluding this that might be identified to the states as a matter of strict compatibility. In this regard, Utah's regulatory program is not incompatible with the NRC's.

The issue then becomes whether the exercise of the exemption provision poses a sufficient safety problem as to require the NRC to revoke or suspend Utah's Agreement State program. The reasons for the exemption Utah issued for LLRW originally were derived in part from the reasons for the exemption it had issued for NORM and NARM, which the NRC Staff found not to be sufficient. Upon the NRC's request, Utah provided additional explanation of

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<sup>2</sup> As required by this section, the NRC Staff has conducted periodic reviews of the Utah Agreement State program since Utah became an Agreement State in 1984. The purpose of these periodic reviews is to determine the adequacy of the State's program to protect the public health and safety and the compatibility of the State's program with that of the NRC.

the reasons for the exemption with regard to LLRW (described below), and also imposed deed restrictions on Envirocare's title to the site, as explained below. Specifically, the State of Utah provided the following justifications for its concept of providing for a degree of State control of the disposal site that would be equivalent to the control provided by the requirement in the regulations for the disposal site to be located on state or federal land:<sup>3</sup>

- Tooele County has zoned the area that the Envirocare site is in as heavy manufacturing-hazardous (MGH) designation . . . .
- Because of the mixed waste licenses held by Envirocare, Envirocare has recorded in the public records of Tooele County an Affidavit which refers to and incorporates the land use restrictions of 40 CFR 264.117(c) which controls post closure activities at the site.
- Envirocare is required under License Condition 36 to provide "as built" drawings every six months. Because of Envirocare's construction techniques, each generator's waste is segregated from other waste, and site records to be provided after closure will be detailed.
- The transfer of site records is specifically directed by UAC R313-25-33, particularly subparagraph (4).
- To be licensed, radioactive waste disposal facilities must meet siting criteria established in UAC R313-25-3, previously R447-25-3.
- Utah regulations require that after closure there be a 5-year post closure and maintenance period by the licensee until the site is transferred to the site owner for institutional control.
- Utah's regulations require licensees to establish a financial surety in the form of a trust agreement which gives the State exclusive control of the trust fund. The State requires that "financial or surety arrangements shall remain in effect until the closure and stabilization program has been completed . . . and the license has been transferred." Until a transfer of the license occurs, the surety arrangement remains in effect and will continue to be reviewed to determine the amount necessary to protect public health, safety, and property.
- The State and Envirocare entered into an Agreement Establishing Covenants and Restrictions which identifies the site and the purpose of the licensed operations at the site.

The license "Transfer and Termination" sections of the State regulations indicate that the site operator will transfer and/or terminate its license and turn over the site to a governmental agency for the active institutional control period. The exemption in controversy here is an exemption from those sections of

<sup>3</sup> From a letter dated February 12, 1993, from Dianne R. Nielson, Ph.D., Executive Director, Utah Department of Environmental Quality, to Mr. Carlton Kammerer, Director, Office of State Programs, U.S. Nuclear Regulatory Commission.



the regulations. Since Envirocare is the site owner and operator and no governmental agency is or has been authorized to take title to the site, transfer and termination of the Envirocare license would not occur prior to the active institutional control period. Therefore, Envirocare would remain responsible for the site under the license and the institutional control phase would be implemented by Envirocare.

In order to determine the adequacy of the Utah regulatory framework for protecting the public health and safety, the NRC Staff analyzed the control of the disposal site for the three major phases in the life of a low-level waste disposal site (operations, closure, and post-closure observation and maintenance; active institutional control; and passive institutional control). This analysis was conducted to determine which mechanisms, if properly constructed, could provide adequate control in lieu of government ownership of the land. In addition, the NRC Staff considered the special circumstances posed by the Envirocare site.

#### **Operations, Closure, and Post-Closure Observation and Maintenance Period**

Envirocare has title to the land and, therefore, is responsible for all activities on the site. The Licensee has provided a Trust Agreement with the State of Utah that provides funds for closure and the post-closure period and the active institutional control period in the event the Licensee is financially incapable of closing the site or abandons the site. The license limits the accumulation of undisposed waste to a specific amount that can be disposed of through the use of the trust funds.

#### **One Hundred-Year Active Institutional Control Period**

The State proposed that it is exercising control and can continue to exercise control of the site in such a manner that land ownership is not necessary to protect the public health and safety from the material that is being disposed of at the site. In particular, the State points to its control of the trust fund that includes the money for the active institutional control period. If the site owner is not capable of conducting the activities required during the active control period, the State will carry out the activities by using the money in the trust fund. Under the control mechanisms, the State would not need to own the site to carry out these activities.

### Passive Institutional Control Period

The State proposed the use of deed annotation as a method of informing individuals who may wish to use the site in the future that the land was used for waste disposal and should not be disturbed.

The Staff found that the mechanism submitted by the State lacked specificity needed to implement the requisite degree of control because the land annotation did not provide sufficient restrictions on the future use of the site. As a result of this deficiency, the Staff suggested a proposed "restrictive covenant" that the State of Utah could use to implement the requisite degree of control.

In brief, the provisions of the restrictive covenant suggested by the NRC Staff were in addition to any restrictions on the title already recorded in the Tooele County records, and, *inter alia*, proposed to restrict Envirocare and its successors and assigns with respect to the property as follows: (1) No excavation or construction, except as necessary to maintain the premises, shall be allowed after the LLRW is disposed of and the facility is closed; (2) no uses of the property shall be made that may impair its integrity; (3) any change in use of the property following closure of the facility shall require the prior written consent of the Utah Department of Environmental Quality; (4) Envirocare and its successors or assigns, shall erect and continuously maintain monuments and markers, approved by the Department, to warn of the presence of radioactive material at the site; (5) Envirocare shall not convey the property without the prior written approval of the Department, nor shall Envirocare consummate any conveyance of any interest in the property without adequate and complete provision for continued maintenance of the property; and (6) any state or federal governmental agency affected by any violations of these restrictive covenant may enforce them by legal action in the District Court for Tooele County. As the proposed restrictive covenant made clear, the State of Utah will have the power to control the ownership, use, and maintenance of the Envirocare property after closure of the facility to a degree equivalent to ownership of the site. Moreover, both Utah and the NRC, in particular, would have the right to enforce the covenant.

The Commission, after careful consideration, came to the conclusion that the institutional controls, such as the proposed restrictive covenant, could be used in this case to achieve the same safety result as site ownership by state or federal authorities. The Commission's decision was conveyed to the State in a June 28, 1993 letter from Mr. Kammerer to Dr. Nielson. The purpose of the federal or state government land ownership requirement is to provide a higher degree of assurance that through state or federal government ownership of the site, institutional control of the site will continue to exist for longer periods of time than under private ownership. Regarding the similarity between land ownership and a restrictive covenant, in each case there is an entity in existence to take

action to remedy any onsite difficulty. With land ownership, the State can take action with regard to its ownership of the land, and with a restrictive covenant, the State can take action to enforce the restrictive covenant. The State of Utah executed a restrictive covenant with the terms described above with Envirocare on June 29, 1993.

In addition, the NRC is required by law to continue to review the Utah Agreement State program for adequacy and compatibility. If at any time in the future during these reviews the NRC determines that the public health and safety is not being protected, the Commission will begin proceedings for taking necessary action, including, if appropriate, the suspension or termination, of the Utah program.

In summary, the requirement in 10 C.F.R. § 61.59(a) regarding land ownership specifies that disposal of radioactive waste received from others may only be permitted on land owned in fee by the federal or a state government. The State of Utah issued an exemption from its state or federal land ownership requirement pursuant to Utah's regulations, which provides that the State may grant "such exemptions or exceptions from the requirements of these regulations as it determines are authorized by law and will not result in undue hazard to public health and safety or property." This Utah exemption provision is similar to the Commission's exemption in 10 C.F.R. § 61.6. On June 28, 1993, the Commission approved this approach as acceptable, with the proper implementing mechanisms put in place. On the day of the Commission's decision, the State was informed that the Commission decided that the State's rationale of exercising effective control of the waste disposal site without state or federal land ownership was acceptable and was equivalent to the control that would be provided by state or federal land ownership. The letter to the State also attached a suggested restrictive covenant intended to provide sufficient restrictions on the future use of the site. On June 30, 1993, the State of Utah provided the NRC with a recorded copy of the executed restrictive covenant between Envirocare of Utah, Inc., and the Utah Department of Environmental Quality.

A followup review of State actions and documentation was performed by the NRC Staff during a review visit of the Utah Agreement State program on August 30 through September 2, 1993. The question of control of the site after the period of post-closure observation and maintenance was addressed by the State's extension of the license term through the institutional control periods. The authorization to receive and dispose of waste will expire at closure of the disposal facility, but the responsibility of the Licensee to maintain the site will continue through these control periods. As a result, the trust funds required for the license now and in the future will not be released to the Licensee until the Licensee has satisfied the license termination requirements. The amount of surety as of September 30, 1994, was approximately \$4.1 million. The surety is reviewed and adjusted annually. The Commission expects that Utah will require

an amount of funds necessary to ensure protection of the public health and safety through the active control period.

An additional issue identified as part of the NRC Staff review of this petition relates to liability for remediation and corrective measures in the event of an offsite release of radioactive materials from the disposal facility. The NRC Staff requested the State of Utah to identify actions that the State could take to identify and compel a responsible party to perform remediation and necessary corrective measures in the event that no licensee exists and significant offsite releases occur. The State responded that it has the authority to identify and compel responsible parties to perform remediation and, in defined circumstances, the State may perform cleanups. Specific measures identified by the State were:<sup>4</sup>

- The Radiation Control Board has the authority to establish rules and issue orders to enforce laws and rules [Utah Code Annotated (UCA) Section 19-3-104 (9)]. Additionally, the Executive Secretary of the Board is authorized to enforce rules through the issuance of orders [UCA Section 19-3-108(2)(c)(iii)].
- To the extent that the release is of a "hazardous substance (under CERCLA) or hazardous material" as defined in UCA Section 19-6-302, the Executive Director of the Department of Environmental Quality may issue an abatement order if there exists a direct and immediate threat to the public health or the environment and may use environmental mitigation fund monies established by the Utah legislature to investigate and abate the release (UCA Section 109-6-309).
- The Executive Director of the Department of Environmental Quality may issue mitigation orders where conditions exist which create a clear and present hazard to the public health or the environment and which requires immediate action [UCA Section 19-1-202(2)(a)].
- The Attorney General or the county attorney has authority to bring any civil or criminal action requested by the Executive Director of the Department of Environmental Quality or the Utah Radiation Control Board to abate a condition which exists in violation of or for enforcement of laws or standards, orders, and rules of the Department [UCA 19-1-204].
- The Governor is authorized to respond to technological hazards which include radiation incidents under the Disaster Response and Recovery Act [UCA 63-5a-1 to 11].

#### IV. SPECIAL CONSIDERATIONS

The Envirocare LLRW disposal facility (co-located with the NORM disposal facility) is located in Clive, Tooele County, Utah, approximately 85 miles west

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<sup>4</sup> From a letter dated September 6, 1994, from Dianne R. Nielson, Ph.D., Executive Director, Utah Department of Environmental Quality, to Mr. Richard L. Bangart, Director, Office of State Programs, U.S. Nuclear Regulatory Commission.

of Salt Lake City, Utah. This facility is located adjacent to: (1) the U.S. Department of Energy's (DOE) South Clive disposal cell containing uranium mill tailings from the former Vitro South Salt Lake facility that was cleaned up and moved to this site pursuant to the Uranium Mill Tailings Radiation Control Act of 1978; (2) an NRC-licensed facility operated by Envirocare to receive, store, and dispose of uranium and thorium byproduct material (as defined by section 11e(2) of the AEA, as amended); and (3) an Envirocare facility licensed under the State of Utah's authority for disposal of Resource Conservation and Recovery Act (RCRA) material as delegated by the U.S. Environmental Protection Agency (EPA) for those radioactive wastes that have been mixed with, or contain, hazardous material. These facilities are located within the Tooele County Hazardous Waste Zone, approximately 20 miles from any residents. On January 12, 1988, the Tooele County Commission established the West Desert Hazardous Industry Area, which limits the future uses of land in the vicinity of the site by prohibiting residential housing. The facilities are located in the extreme eastern margin of the Great Salt Lake Desert which is part of the Basin and Range Province of North America. The groundwater quality at these disposal sites is extremely poor due to a very low annual precipitation, high evaporation, low infiltration, and an abundance of evaporate materials in the near surface sediments in the Great Salt Lake Desert. According to EPA classifications, the two aquifers beneath the site are considered Class III since they both have a total dissolved solids content in excess of 10,000 mg/L. The NRC Staff has concluded that the groundwater in the disposal site area is of a poor quality and is not suitable for most known uses without significant treatment.

Under these circumstances, it cannot be said that the Utah regulatory program for the Envirocare site, including the control periods, surety provision, restrictive covenant, and Utah remedial action powers fails to provide adequate protection of the public health and safety. Moreover, the NRC's governmental site ownership provision is directed at ensuring control over potential releases over very long periods of time (in excess of 100 years), and the Utah program, especially the restrictive covenant and remedial action powers, should likewise achieve an adequate level of control. NRC Staff recognizes that, under other circumstances, a state's ownership of a site as contrasted with private land ownership of the site might, in theory, carry with it some greater legal or "moral" obligation by the State to take affirmative action to ensure safety. However, given the nearby presence of the RCRA facility, the proximity of two other radioactive waste disposal activities under federal land ownership requirements, and the remoteness of the site, the Commission does not believe private site ownership poses a sufficient real safety issue to warrant revocation or suspension of the Utah regulatory program.

## V. CONCLUSION

The NRC has carefully reviewed the issues raised by the Petitioner in the Staff's review of the Utah program. For the reasons discussed above, I find no need for taking such action. Rather, on the basis of the review efforts by the NRC Staff, I conclude that the Petitioner has not raised a sufficient issue of Utah's compliance with one or more requirements of section 274 of the AEA or any substantial health and safety issues to warrant the action requested. Accordingly, the Petitioner's request to suspend or revoke the Utah Agreement State program for failure to require State or federal site ownership at the Envirocare of Utah, Inc. LLRW disposal site is denied.<sup>5</sup> A copy of this Decision will be placed in the Commission's Public Document Room, Gelman Building, 2120 L Street, NW, Washington, DC 20555. A copy of this Decision will also be filed with the Secretary for the Commission's review as stated in 10 C.F.R. § 2.206(c) of the Commission's regulations. The decision will become the final action of the Commission twenty-five (25) days after issuance unless the Commission on its own motion institutes review of the decision within that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

Richard L. Bangart, Director  
Office of State Programs

Dated at Rockville, Maryland,  
this 26th day of January 1995.

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<sup>5</sup>In a letter of July 8, 1993, to NRC Chairman Ivan Selin, the Petitioner claimed that the Commission's decision of June 28, 1993, denied the Petitioner an opportunity for a hearing on its petition for the revocation of Utah's Agreement State status to argue the policy issues associated with the land ownership exemption. Neither the AEA nor the Commission's regulations provides for a hearing on the evaluation of an Agreement State program. The Commission's review of the Agreement State program incorporated a review of the issues raised in the petition.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William T. Russell, Director

In the Matter of

ALL PRESSURIZED WATER  
REACTORS

January 26, 1995

The Director, Office of Nuclear Reactor Regulation, has denied a petition filed by John Willis on behalf of Greenpeace International requesting that action be taken regarding all pressurized water reactors (PWRs) currently operating in the United States. The Petitioner requested that the NRC immediately and fully inspect all vessel head penetrations in these reactors for cracking, publish the results, shut down affected reactors, and "relicense" reactors that must be closed. As grounds for these requests, the Petitioner alleged that: (1) certain foreign PWRs are cracking; (2) testing in France revealed incipient circumferential cracking of some VHPs, which could lead to a through-wall break in the primary pressure boundary without fulfillment of the leak-before-break criterion; and (3) this could cause ejection of the control rod drive mechanism, with resulting loss of control of the reactor. The reasons for the denial are fully set forth in the Decision.

**NRC: COMMUNICATION WITH LICENSEES**

The NRC Staff conducts meetings periodically with affected owners groups to discuss emerging and existing generic, technical issues rather than meeting with each individual licensee.

**TECHNICAL ISSUE DISCUSSED**

The following technical issue is discussed: primary water stress corrosion cracking in vessel head penetrations.

## DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

### I. INTRODUCTION

On March 24, 1993, Mr. John Willis, on behalf of Greenpeace International (Petitioner), filed a letter with the U.S. Nuclear Regulatory Commission (NRC) requesting that action be taken regarding all of the pressurized water reactors (PWRs) currently operating in the United States. The Petitioner requests immediate, full inspection of all vessel head penetrations (VHPs) in these PWRs for cracking, and publication of the results by the NRC. The letter is being treated as a petition for enforcement action, pursuant to 10 C.F.R. § 2.206, because the Petitioner also requests that the NRC shut down affected reactors, whether the cracking is longitudinal or circumferential. The Petitioner also requests that the NRC Staff "relicense" reactors that must be closed due to VHP cracking, based on the assertion that the repair or mitigation program for such cracks may negatively affect the configuration and effectiveness of safety systems.

The Petitioner seeks relief based on allegations that: (1) some VHPs in PWRs in France, Belgium, Switzerland, and Sweden are cracking; (2) testing in France revealed incipient circumferential cracking of some VHPs, which could lead to a through-wall break in the primary pressure boundary without fulfillment of the leak-before-break criterion; and (3) this phenomenon could cause the ejection of the control rod drive mechanism, with resulting loss of control of the reactor. The Petitioner describes the bases for its request in more detail in "Vessel Head Penetration Cracking in Nuclear Reactors," Greenpeace International and Greenpeace Sweden, March 1993, which is attached to its petition.

As more fully described in a letter from Dr. Thomas E. Murley, then Director of the Office of Nuclear Reactor Regulation (NRR), dated June 7, 1993, acknowledging receipt of the petition, the Petitioner's request for immediate relief was denied. By letter dated January 27, 1994, Dr. Murley further informed the Petitioner that a final decision on its petition would be issued after the Staff had reviewed the findings of the first three inspections at PWRs that were completed by the licensees of those plants.

### II. DISCUSSION

The first instances of primary water stress corrosion (PWSCC) of Alloy 600 in PWRs occurred in the early 1970s in steam generator tubing. In 1990, the NRC Staff identified to the Commission primary water stress corrosion cracking (PWSCC) of Alloy 600 in components other than steam generator tubing as an emerging technical issue after cracking was noted in pressurizer heater sleeve



penetrations at a domestic PWR facility. At that time, the Staff reviewed the safety significance of the cracking as well as the repair and replacement activities at the affected facility. The Staff determined that the safety significance of the cracking was low because the cracks were axial, had a low growth rate, were in a material with an extremely high flaw tolerance (high fracture toughness) and, accordingly, were unlikely to propagate very far. These factors also demonstrate that any cracking would result in a detectable leak before a penetration broke. Nevertheless, the NRC Staff issued Information Notice 90-10, February 23, 1990, to inform the industry of the issue.

In addition, the NRC Staff met with the Combustion Engineering Owners Group (CEOG) in February 1990 to discuss a program initiated by the CEOG in January 1990 to assess the potential for, and the effects of, PWSCC of susceptible Alloy 600 components other than steam generator tubing in the reactor coolant pressure boundary. This meeting was held at the request of the NRC Staff since the Staff had identified this issue as an emerging technical issue.<sup>1</sup>

In December 1991, cracks were found in an Alloy 600 VHP in the reactor head at a French plant; therefore, an action plan was implemented by the NRC Staff to address PWSCC of Alloy 600 VHPs at all U.S. PWRs. As explained more fully below, this action plan included a review of safety assessments by owners groups, the development of VHP mockups by the Electric Power Research Institute (EPRI), the qualification of inspectors on the VHP mockups by EPRI, the review of proposed generic acceptance criteria from the Nuclear Utility Management and Resource Council (NUMARC), and VHP inspections. As part of this action plan, the NRC Staff met with the Westinghouse Owners Group (WOG) on January 7, 1992, the CEOG on March 25, 1992, and the Babcock & Wilcox Owners Group (B&WOG) on May 12, 1992, to discuss their respective programs for investigating PWSCC of Alloy 600 and to assess the possibility of cracking of VHPs in their respective plants since all of the plants have Alloy 600 VHPs.<sup>2</sup> Subsequently, the Staff asked the Nuclear Utility Management and Resources Council (NUMARC) to coordinate future industry actions because the issue was applicable to all PWRs. Meetings were held with NUMARC and PWR owners on the issue on August 18 and November 20, 1992, and March 3, 1993. In addition, the Electric Power Research Institute (EPRI) is engaging in ongoing research on methods for PWSCC mitigation. EPRI also developed a qualification program to ensure that inspections performed on VHPs are highly reliable in detecting and measuring flaws. The qualification

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<sup>1</sup> The NRC Staff conducts meetings periodically with affected owners groups to discuss emerging and existing generic, technical issues rather than meeting with each individual licensee.

<sup>2</sup> Summaries of the meetings are available in the Commission's Public Document Room, 2120 L Street, NW, Washington, DC 20037.

program includes standard, mockup VHPs containing known flaws that are axial, circumferential, off-axis, and clustered (closely spaced) flaws. The inspector is required to identify the location, orientation, and depth of all of the flaws in the EPRI mockup VHPs to be named a qualified inspector. The NRC has been following this program and has reviewed the qualification results for all of the inspectors that have been qualified by EPRI.

CEOG submitted the detailed findings of its Alloy 600 component PWSCC program initiated in 1990 to the Staff in a proprietary report on February 26, 1992. The conclusions of the report, which focused primarily on pressurizer heater sleeves and instrument nozzles, in part, follow:

- (1) Circumferential cracking of the heater sleeves and the instrumentation nozzles is not a credible failure mode.
- (2) Axial cracks 2 inches in length, which are longer than any cracks observed in the field, will not exhibit unstable crack growth. Some PWSCC may continue, which could result in increased gradual leakage with time that can be detected by visual inspection.
- (3) Visual inspection is the best method for detecting a leaking sleeve or nozzle, or for detecting damage to the pressurizer shell as a result of boric acid corrosion, and scheduled detailed visual inspection of the pressurizer lower head should continue at a fixed interval. The inspection interval was determined on the basis of experimental results from the program.

The Staff has reviewed the report, and finds that its results and the recommended inspections, coupled with field experience, provide a sufficient basis to conclude that loss of structural integrity and ejection of components with respect to pressurizers are highly unlikely.

The NRC Staff met with the B&WOG, CEOG, and the WOG to discuss the PWSCC of PWR VHPs on several occasions during 1992 and 1993. Each of the owners groups submitted a safety assessment through NUMARC to the NRC on this issue and the NRC submitted a safety evaluation of the safety assessments to NUMARC on November 16, 1993. After reviewing the industry's safety assessments and examining the overseas inspection findings, the Staff concluded in the safety evaluation sent to NUMARC that VHP cracking is not a significant safety issue at this time. The bases for this conclusion are that if PWSCC occurred at VHPs: (1) the cracks would predominantly be axial in orientation; (2) the cracks would result in detectable leakage before catastrophic failure; and (3) the leakage would be detected during visual examinations performed as part of surveillance walkdowns before significant damage would occur to the reactor vessel head. In addition, the Staff had concerns related to unnecessary occupational radiation exposures associated with eddy current or other forms of nondestructive examinations if done manually. Field experience in foreign countries has shown that occupational radiation exposures could be significantly

reduced if the industry would use remotely controlled or automatic equipment to conduct the inspections. The U.S. nuclear industry has developed such equipment for inspection and possible repairs.

As a followup to the safety assessments, NUMARC submitted proposed generic acceptance criteria for flaws identified during inservice examinations of VHPs to the NRC in July of 1993. The NRC accepted the acceptance criteria for axial flaws above and below the J-groove weld (the weld that holds VHP to the vessel head and is part of the primary pressure boundary), and circumferential flaws below the J-groove weld, but rejected the criteria for circumferential flaws above the J-groove weld. Cracks below the J-groove weld do not violate the reactor vessel pressure boundary even if they are through wall, and axial and circumferential cracks below the J-groove weld were determined to be acceptable by the NRC Staff. Axial cracks above the J-groove weld may result in a leak that would be detected by surveillance walkdowns before significant damage could occur. Circumferential cracks above the J-groove weld could result in the ejection of a control rod drive mechanism resulting in a large-break loss-of-coolant accident. Furthermore, the stress analyses conducted as part of the owners groups safety assessments predicted that it would be very unlikely that circumferential cracks would form due to the stress distributions in the VHPs. For these reasons, the NRC requested that circumferential crack-like indications above the J-groove weld be reported to the NRC for disposition.

Three licensees volunteered to conduct VHP inspections during 1994 as part of the NUMARC program. As stated above, on January 27, 1994, Dr. Murley informed the Petitioner in a letter that a final decision would be issued on its petition after the Staff had reviewed the findings of these three inspections. The eddy current inspection conducted by the Wisconsin Electric Power Company vendor (Westinghouse) at the Point Beach Nuclear Generating Station in April 1994 uncovered no crack-like indications in any of the forty-nine VHPs. The eddy current inspection by the Duke Power Company vendor (Babcock & Wilcox) at the Oconee Nuclear Generating Station in October and November 1994, revealed twenty crack-like indications in one penetration. Ultrasonic testing (UT) could not quantify the depth of these indications because they were shallow. (UT cannot accurately size defects that are less than one mil deep (0.03 mm).) These indications may be associated with the original fabrication and may not grow. Even if they do grow, the analysis conducted on the indications by the licensee indicates that they will not grow such that they exceed the acceptance criteria before the next outage. During the next outage, the affected VHP will be reexamined and analyzed to see if the indications will exceed the acceptance criteria before the next outage. This cycle of reexaminations will continue until no growth occurs for two cycles, or until the indications are projected to exceed the acceptance criteria before the next inspection cycle. In the latter case, the VHP will be repaired or replaced. An examination of the

VHPs by the Indiana & Michigan Electric Company vendor (Westinghouse) at D.C. Cook revealed three clustered crack-like indications in one penetration. The indications were 46 mm, 16 mm, and 6-8 mm in length and the deepest flaw was 6.8 mm deep. The tip of the 46-mm flaw was just below the J-groove weld. The acceptance criteria permits a through-wall, axial crack of any length below the J-groove weld since such a crack does not violate the primary pressure boundary. An analysis by the Indiana & Michigan Electric Company licensee at D.C. Cook indicates that these flaws will not grow to exceed the acceptance criteria before the next outage when a reinspection will occur. During the next outage, the affected VHP will be reexamined and analyzed to see if the indications will exceed the acceptance criteria before the next outage. This cycle of reexaminations will continue until no growth occurs for two cycles, or until the indications are projected to exceed the acceptance criteria before the next inspection cycle. In the latter case, the VHP will be repaired or replaced. These results are consistent with the owners groups' analyses, the NRC Staff safety evaluation sent to the Petitioner on January 27, 1994, and the PWSCC found in the CRDMs in European reactors. The results observed during these three VHP inspections do not pose a threat to safe plant operation.

Based on the owners groups safety assessments, a leak in a VHP would be detected before significant damage could occur to the VHP or the reactor vessel. This would result in the deposition of boric acid crystals on the vessel head and surrounding area that would be detected during surveillance walkdowns. Consequently, the concerns raised by the Petitioner do not raise any immediate safety concerns.

The NRC Staff continues to meet with the Nuclear Energy Institute (NEI) (the former NUMARC) to establish a plan for the inspection of the remaining PWRs. Immediate inspections are not required since there is no immediate safety concern. Furthermore, there is no reason to grant the Petitioner's request that the NRC shut down or "relicense" reactors with VHP cracking because there is adequate protection to the public health and safety as long as the cracking does not violate the acceptance criteria. If VHP cracking violated the acceptance criteria, the NRC would require that the licensee repair or replace the VHP, but neither shutdown nor relicensing of the reactor would be required.

### III. CONCLUSION

The institution of proceedings pursuant to section 2.206 is appropriate only if substantial health and safety issues have been raised. See *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175 (1975); *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 924 (1984). This is the standard that has been

applied to the concerns raised by the Petitioner to determine whether the action requested by the Petitioner is warranted.

With regard to the requests made by the Petitioner, I find no basis for taking such actions. Rather, as explained above, I conclude that no substantial health and safety issues have been raised by the Petitioner. Accordingly, the Petitioner's requests for action pursuant to section 2.206 are denied.

A copy of this Decision will be filed with the Secretary for the Commission's review as provided by 10 C.F.R. § 2.206(c) of the Commission's regulations. The Decision will become the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes review of the Decision in that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

William T. Russell, Director  
Office of Nuclear Reactor  
Regulation

Dated at Rockville, Maryland,  
this 26th day of January 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

Robert M. Bernero, Director

In the Matter of

Docket Nos. 50-313  
50-368  
72-1007

ENTERGY OPERATIONS, INC.  
(Arkansas Nuclear One)

SIERRA NUCLEAR CORPORATION

January 31, 1995

The Director of the Office of Nuclear Material Safety and Safeguards grants in part and denies in part a petition submitted pursuant to 10 C.F.R. § 2.206 by Mr. Dennis Dums, on behalf of the Wisconsin Citizen's Utility Board (Petitioner), requesting action with regard to Arkansas Nuclear One (ANO) operated by Entergy Operations, Inc. (Entergy or the Licensee).

Petitioner requested that the Chairman exercise his authority to: (1) determine the applicability of 10 C.F.R. § 72.48 to 10 C.F.R. Subparts K and L; (2) determine whether Entergy is in violation of any NRC regulations regarding use of section 72.48 to make modifications to the VSC-24 cask for use at ANO; (3) order ANO to cease using section 72.48 until NRC determines whether or not it is applicable; (4) order Sierra Nuclear Corporation to cease construction of VSC-24 casks for use at ANO that are being constructed based on ANO's section 72.48 evaluation.

With regard to the Petitioner's request for NRC to (1) determine the applicability of section 72.48 to 10 C.F.R. Subparts K and L, and (2) determine whether Entergy is in violation of any NRC regulations regarding use of section 72.48, the Director grants the petition in part and determines that section 72.48 is applicable to the general license found in 10 C.F.R. Part 72, Subpart K, of the Commission's regulations and that ANO can make use of this authority as

a Subpart K licensee in accordance with the terms and limitations of section 72.48.

With regard to the Petitioner's request for NRC to (3) order ANO to cease using section 72.48 until NRC determines whether or not it is applicable and (4) order Sierra Nuclear Corporation to cease construction of VSC-24 casks for use at ANO, the Director finds, in accordance with the foregoing determination, that ANO can make use of section 72.48, and accordingly denies those portions of the petition.

## **DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

### **INTRODUCTION**

By petition dated July 5, 1994 (petition), Dennis Dums, on behalf of the Wisconsin Citizen's Utility Board (Petitioner), filed a request pursuant to 10 C.F.R. § 2.206 that the U.S. Nuclear Regulatory Commission (NRC): (1) determine the applicability of 10 C.F.R. § 72.48 to 10 C.F.R. Part 72, Subparts K and L; (2) determine whether Entergy Operations, Inc. (Entergy), is in violation of any NRC regulations regarding use of section 72.48 to make modifications to the VSC-24 cask for use at Arkansas Nuclear One (ANO); (3) order ANO to cease using section 72.48 until NRC determines whether or not it is applicable; (4) order Sierra Nuclear Corporation (SNC) to cease construction of VSC-24 casks for use at ANO that are being constructed based on ANO's section 72.48 evaluation.

By letter to Mr. Dennis Dums, dated August 16, 1994, I acknowledged receipt of the petition. Notice of receipt was published in the *Federal Register* on August 24, 1994 (59 Fed. Reg. 43,594). For the reasons given below, I have now concluded that the Petitioner's request should be granted in part and denied in part.

### **BACKGROUND**

The Petitioner submitted its July 5, 1994 request to NRC in connection with an earlier letter to NRC dated June 2, 1994, from Entergy, an NRC licensee under 10 C.F.R. Part 50, which operates ANO Units 1 and 2 near Russellville, Arkansas. In its June 2 letter, Entergy had briefly described its plans for spent nuclear fuel storage at ANO, involving use of the VSC-24 dry cask, in accordance with the general license of 10 C.F.R. Part 72, Subpart K. Entergy had also stated in the June 2 letter that its use of the VSC-24 would involve minor changes to the cask design. According to Entergy's July 2 letter, the specific

changes involved lengthening the approximately 18-foot VSC-24 by about 11 inches in order to accommodate the slightly longer ANO Unit 2 fuel.

The June 2 letter went on to advise NRC of Entergy's conclusions that section 72.48 of the Commission's regulations applied to the changes Entergy proposed to make to the cask for use at ANO. It was this statement by Entergy regarding the applicability of section 72.48 that apparently prompted the petition that is the subject of this Decision.

Section 72.48 of the Commission's regulations covers "Changes, tests, and experiments" that may be made by the "holder of a license issued under this part" without prior Commission approval.<sup>1</sup> Specifically with regard to its determination to use section 72.48, Entergy's June 2 letter contended that the minor changes proposed for the VSC-24 cask were covered by a "plain reading" of the regulations. It argued that the general license issued under 10 C.F.R. Part 72 was a license "issued under this part," and that the minor changes to the VSC-24 by Entergy, as the license "holder," could therefore be made to address site-specific considerations "as determined necessary" by Entergy. It also contended that its approach was consistent with the regulatory background of the general license, particularly the Commission's objective to provide for "a regulatory framework allowing on-site spent fuel storage 'without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission.' (55 Fed. Reg. 29,181)." Entergy Letter at 2.

It is the foregoing determination by Entergy with which the petition takes issue.

The petition asserts as bases for its requests that: Entergy is currently pursuing spent fuel storage at ANO through use of 10 C.F.R. Subparts K and L; ANO currently intends to utilize the VSC-24 constructed by vendor SNC under an SAR submitted in October 1991, and safety evaluation report (SER), issued by the NRC in April 1993; an NRC response, dated January 31, 1994, to an October 13, 1993 public request for information, stated that Subparts K and L of 10 C.F.R. Part 72 are silent on cask SAR and certificate changes after the final rule; an ANO request for a rule exemption to 10 C.F.R. § 72.234(c) was granted by the NRC to allow for the fabrication of four VSC-24 casks to the longer length prior to NRC approval of SNC's June 14, 1993 submittal of Revision 1 to the 1991 VSC-24 Cask SAR; a February 14, 1994 memorandum

<sup>1</sup> In particular, section 72.48(a)(1) provides in pertinent part as follows:

(a)(1) The holder of a license issued under this part may:

(i) Make changes in the ISFSI [i.e., independent spent fuel storage installation] . . . described in the Safety Analysis Report,

(iii) . . . without prior Commission approval, unless the proposed change . . . involves a change in the license conditions incorporated in the license, an unreviewed safety question, a significant increase in occupational exposure or a significant unreviewed environmental impact.



to NRC Assistant General Counsel Treby requested a legal interpretation of the applicability of section 72.48 to general licenses issued under 10 C.F.R. § 72.210; a May 19, 1994 meeting was held regarding SNC's revisions to the VSC-24 SAR and the applicability of section 72.48 to general license users, as well as a June 3, 1994 memorandum regarding this meeting which stated that "the licensee can make its own interpretation of the regulations"; and a letter, dated June 2, 1994, from Entergy to the NRC which stated that Entergy has directed SNC to fabricate all fourteen planned casks with the increased length and that Entergy plans to continue to conduct evaluations in accordance with section 72.48.

Entergy has not filed any comments with the NRC following publication of the petition.

## DISCUSSION

As the discussion that follows will set forth in detail, we have determined that ANO, as a general licensee under 10 C.F.R. § 72.210, can make use of section 72.48. This determination is based first on the words of section 72.48 itself which are fully consistent with use of the authority in that section by a general licensee. Second, the determination is based on regulatory policy considerations. These include the extensive NRC safety review at the time of cask approval, the limited nature of the subsequent changes permitted under section 72.48, and the fact that NRC regulations in other contexts and over many years have permitted activities such as ANO to make similar types of changes to nuclear facilities that involve safety issues previously reviewed by NRC.

This approach is well suited to the Part 72 general license framework, especially given the congressional purpose underlying the Nuclear Waste Policy Act of 1982 that directed the NRC to establish a licensing framework for spent fuel storage technologies that can be approved by the Commission for use at reactor sites "without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission" (55 Fed. Reg. 29,181). Because section 72.48 permits certain changes by a licensee *without* Commission approval, making it available to general licensees will further this congressional purpose.

### A. The Language of Section 72.48

An analysis of the pertinent NRC regulations regarding use of section 72.48 by a general licensee shows that ANO's use of that authority is covered by the regulations. The relevant regulations and our analysis of them are given below.

Section 72.48(a)(1) provides as follows:

(a)(1) *The holder of a license issued under this part may:*  
(i) *Make changes in the ISFSI . . . described in the Safety Analysis Report.*

(iii) . . . without prior Commission approval, unless the proposed change, test or experiment involves a change in the license conditions incorporated in the license, an unreviewed safety question, a significant increase in occupational exposure or a significant unreviewed environmental impact. [Emphasis added.]

Further section 72.210 provides as follows:

*A general license is hereby issued for the storage of spent fuel in . . . dependent spent fuel storage installation at power reactor sites to persons authorized . . . possess or operate nuclear power reactors under Part 50 of this chapter. [Emphasis added.]*

In order to determine whether section 72.48 can be interpreted to cover the general license in section 72.210, the first question is whether the general licensee is "the holder of a license issued under this part," as required for the application of section 72.48. We think the language of section 72.210 answers this question. The phrase "[a] general license is hereby issued," leaves no doubt the general license is "a license issued under this part." Because a general licensee is "the holder of a license issued under this part," section 72.48(a)(1) therefore applies.

The second question, in order to determine if section 72.48 can be interpreted to apply to a general license, is whether changes to a certified cask by a general licensee can appropriately be termed "changes in the ISFSI . . . described in the Safety Analysis Report," as required for the application of section 72.48. We think the language of section 72.210 also resolves this issue. Specifically, the regulatory language of the general license authorizes "storage . . . in an independent spent fuel storage installation . . . in casks approved under the provisions of this part."<sup>2</sup> (Emphasis added.) The ISFSI under the general license incorporates the NRC-approved casks. Further the NRC's approved casks under the general license are ISFSI components described in a safety analysis report and, specifically, in the cask vendor safety analysis report (SAR).<sup>3</sup> Therefore, changes to an NRC-approved cask, used in an ISFSI, by the general licensee literally are "changes in the ISFSI . . . described in the Safety Analysis Report," and therefore are reasonably covered by the words of section 72.48(a)(1).<sup>4</sup>

<sup>2</sup> See 10 C.F.R. § 72.212(a)(2) ("This general license is limited to storage of spent fuel in casks approved under the provisions of this part.")

<sup>3</sup> See 10 C.F.R. § 72.230(a) ("A safety analysis report describing the proposed cask design and how the cask should be used to store spent fuel safely must be included with the application.")

<sup>4</sup> Commission policy already permits changes to a cask design approved by NRC in a site-specific licensing proceeding; this determination results in similar treatment for designs approved in rulemaking.

## B. Regulatory Policy Considerations

The foregoing analysis of the applicable regulations is fully supported by the policy underlying NRC's program for generic cask approvals. In particular, NRC generic approval of a cask certifies the cask for use under a range of environmental conditions sufficiently broad to encompass most sites within the United States, by using conservative requirements that make safety of an approved cask independent of the effects of site-specific phenomena. During the review of the SAR, NRC considers all credible accidents that could harm the cask. We analyze: drops, tipovers, lightning, floods, high and low temperatures, tornadoes, explosions, and other conditions. Using the safety analyses relied on by the NRC for the generic approval, a general licensee must thereafter establish that the cask is suitable for the environmental conditions of the licensee's site. However, use of the generically approved cask does not require additional NRC site-specific approvals, provided the conditions in the general license and the cask certificate are met.

The NRC's generic approval of a dry cask, without any site-specific approval, fulfills the express intent of the Congress. In the Nuclear Waste Policy Act of 1982, Congress directed the government (NRC and the Department of Energy) to establish a program allowing the NRC to approve spent fuel storage technologies "by rule . . . without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission." 42 U.S.C. § 10198(a). If NRC were to require site-specific Commission approval of *every* change to an approved cask by a general licensee — even changes that did not involve any site-specific unreviewed environmental condition or safety issue — then its action could be viewed as seriously undermining the statutory policy supporting general cask approvals without, *to the maximum extent practicable*, requiring additional NRC site-specific approvals.

Section 72.48 is limited to changes that do not involve "a change in the license conditions incorporated in the license, an unreviewed safety question,<sup>5</sup> a significant increase in occupational exposure or a significant unreviewed environmental impact." If the proposed change involves a generic change to the certificate of compliance or any of the certificate's conditions, then an application must be filed with the Commission for approval for this generic change.

The general licensee must also satisfy other requirements under section 72.48. For example, section 72.48 requires that a licensee must permanently "maintain

<sup>5</sup> Under section 72.48(a)(2), a proposed change involves an unreviewed safety question:

- (i) If the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Safety Analysis Report (SAR) may be increased;
- (ii) If a possibility for an accident or malfunction of a different type than any evaluated previously in the [SAR] may be created; or
- (iii) If the margin of safety as defined in the basis for any technical specification is reduced.

records of changes in the ISFSI" which "include a written safety evaluation that provides the bases for the determination that the change . . . does not involve an unreviewed safety question." The NRC may examine these records during an inspection and take appropriate action if the changes made by the licensee do not comply with the regulations. Additionally, section 72.48 requires that the licensee must annually furnish the NRC a report containing a brief description of the changes.

The decision whether a proposed change involves an unreviewed safety question is made initially by the licensee but can be reviewed by the NRC. If the NRC disagrees with the licensee's decision, the agency may, upon review, take appropriate enforcement action. To facilitate review of a licensee's decision during subsequent inspections, the NRC promulgated the recordkeeping and reporting requirements described above, thus requiring the licensee to maintain records related to the licensee's decision under section 72.48.

There is a similar rule under 10 C.F.R. Part 50 for production and utilization facilities. Section 50.59 allows utilities to make changes to their power plants under circumstances comparable to those circumstances covered by section 72.48. In particular, section 50.59 specifically allows a reactor licensee to modify its facility without prior NRC approval unless the modification involves a change in the technical specifications incorporated in the facility license or involves an unreviewed safety question. The definition and criteria in section 50.59 for identifying whether a proposed change involves an unreviewed safety question are identical to those in section 72.48. If the proposed change does involve either an unreviewed safety question or a change in the technical specifications, then the licensee must apply for an amendment to its license. For decades the NRC has allowed its licensees in the first instance to review proposed changes in their facilities to determine whether changes in technical specifications are involved or unreviewed safety questions are presented. The NRC would not be sensibly allocating its limited resources if the agency itself were to expressly review and approve every single facility change, whether or not it raises an unreviewed safety question. Rather, NRC retains an oversight function for enforcement purposes, supported by requirements for licensees to retain and preserve all records of section 50.59 changes, just as they must retain all records of section 72.48 changes. *See Kelley v. Selin*, No. 93-3613, Slip op. at 11 (6th Cir., Jan. 11, 1995) ("NRC's historical method of regulation . . . has long allowed licensees to make initial determinations about changes to their facilities and has enabled the agency to retain its enforcement power. 10 C.F.R. § 50.59.")

Thus, for all of the foregoing reasons, we have determined that ANO, and any other general licensee under Subpart K, can make use of the authority in section 72.48 to make changes that comply with the requirements of that section. We accordingly have no basis and therefore are declining to take enforcement action

against ANO at this time. However, in our continuing regulatory oversight of ANO and other general licensees, we reserve the right to review any change made under section 72.48 and take appropriate followup action.

### CONCLUSION

Based on a review of the regulations and taking into account the relevant policy considerations, NRC Staff have determined that section 72.48 can be used by all Part 72 licensees. Therefore, the Petitioner's request to (1) determine the applicability of section 72.48 to Part 72, Subparts K and L; and (2) determine whether Entergy is in violation of any NRC regulations regarding use of section 72.48 has been granted. Further, in light of the foregoing determination that Entergy can make use of section 72.48, the Petitioner's request to (3) order ANO to cease using section 72.48 until NRC determines whether or not it is applicable, and (4) order Sierra Nuclear Corporation to cease construction of VSC-24 casks for use at ANO has therefore been denied.

FOR THE NUCLEAR  
REGULATORY COMMISSION

Robert M. Bernero, Director  
Office of Nuclear Material Safety  
and Safeguards

Dated at Rockville, Maryland,  
this 31st day of January 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

**Ivan Selin, Chairman**  
**Kenneth C. Rogers**  
**E. Gail de Planque**

**In the Matter of**

**Docket Nos. 70-00270-MLA  
30-02278-MLA  
(TRUMP-S Project)  
(Byproduct License No. 24-00513-32;  
Special Nuclear Materials License  
No. SNM-247)**

**THE CURATORS OF THE  
UNIVERSITY OF MISSOURI**

**February 28, 1995**

The Commission considers appeals from both the Initial Decision and a Reconsideration Order issued by the Presiding Officer in this Subpart L proceeding involving two materials license amendment applications filed by the University of Missouri. In those two orders, the Presiding Officer concluded that the University's possession and use of the materials at issue were consistent with the public health and safety, did not harm the common defense and security, and therefore satisfied the requirements of the AEA. However, in order to decrease further the risks associated with such possession and use, the Presiding Officer imposed certain additional safety conditions on the Licensee.

The University appealed to the Commission the Presiding Officer's imposition of these additional conditions. The Intervenor appealed the Presiding Officer's rulings that the license amendments satisfied the requirements of the AEA; questioned his authority to issue the order on reconsideration; challenged numerous of his procedural rulings; and appealed his decision to exclude three of their proffered areas of concern.

For the most part, the Commission reaches the same conclusions as the Presiding Officer, but in some instances follows a line of reasoning different from

his. The Commission affirms LBP-91-31, 34 NRC 29 (1991), and LBP-91-34, 34 NRC 159 (1991) with certain modifications, and thereby approves the University's license amendment applications, subject to certain conditions. More specifically, the Commission concludes that the Presiding Officer had jurisdiction to issue his order on reconsideration; affirms his conclusions regarding all procedural issues raised on appeal as well as his decision to exclude three areas of concern; concludes that the risk of dispersion of radioactive material from the TRUMP-S experiments is acceptably small; and both modifies and supplements the fire safety conditions that the Presiding Officer imposed upon the University.

**ADJUDICATORY BOARDS: JURISDICTION (RETENTION)**

**ADMINISTRATIVE TRIBUNALS: JURISDICTION**

**COMMISSION JURISDICTION: APPEAL**

**LICENSING BOARD/PRESIDING OFFICER: JURISDICTION**

**MOTION FOR RECONSIDERATION**

**RULES OF PRACTICE: JURISDICTION (PRESIDING OFFICER);**

**MOTIONS FOR RECONSIDERATION; RECONSIDERATION  
PETITIONS**

A presiding officer has jurisdiction to consider a timely motion for reconsideration filed after the issuance of an initial decision but before the timely filing of appeals.

**ATOMIC ENERGY ACT: SAFETY FINDINGS**

**LICENSE AMENDMENT APPLICATION**

**MATERIALS LICENSE UNDER PART 30: STANDARDS**

**MATERIALS LICENSE UNDER PART 70: STANDARDS**

**NRC: HEALTH AND SAFETY RESPONSIBILITIES;  
RESPONSIBILITIES UNDER AEA**

For the Commission to grant a materials license or license amendment, it must find that (1) the applicant's proposed equipment and facilities are adequate to protect health and minimize danger to life or property; and (2) the applicant is qualified by training and experience to use the material for the purpose requested in such a manner as to protect health and minimize danger to life or property and to comply with the Commission's regulations. The test for the grant or denial

of such a license or amendment is not simply whether there is a deficiency or omission in the application.

**ATOMIC ENERGY ACT: SAFETY FINDINGS**

**LICENSE AMENDMENT APPLICATION**

**MATERIALS LICENSE UNDER PART 30: STANDARDS**

**MATERIALS LICENSE UNDER PART 70: STANDARDS**

**NRC: HEALTH AND SAFETY RESPONSIBILITIES;  
RESPONSIBILITIES UNDER AEA**

A plainly deficient application calls into question an applicant's competence and *bona fides* — matters that certainly pertain to the question whether to approve the application.

**REGULATORY GUIDES: APPLICATION**

NUREGs and Regulatory Guides, by their very nature, serve merely as guidance and cannot prescribe requirements. Although conformance with regulatory guides will likely result in compliance with specific regulatory requirements, nonconformance with such guides does not equate to noncompliance with the regulations.

**LICENSE AMENDMENT APPLICATION**

**MATERIALS LICENSE APPLICATION: NEED TO SUBMIT  
SAFETY PROCEDURES**

The Commission does not require that proposed safety procedures to protect health and minimize danger to life or property be included in a materials license amendment application if they have already been submitted to the Commission in previous applications associated with the same NRC license. Sections 70.21(a)(3) and 30.32(a) of the Commission's regulations expressly permit an applicant to incorporate by reference any information contained in previous applications, statements, or reports filed with the Commission.

**REGULATIONS: RETROACTIVE APPLICATION**

A rule has retroactive effect if an act lawful at the time it was done is rendered unlawful and the actor called to account for a completed, now-condemned deed in the halls of justice. Although the issue of "retroactivity" generally arises in



situations where the government attempts to apply a statute or regulation prior to its enactment date or *promulgation date*, the issue is logically just as relevant to situations in which the government or a party attempts to apply a new regulation to events that transpired prior to the regulation's *effective date*.

**REGULATIONS: RETROACTIVE APPLICATION**

The Commission did not intend for 10 C.F.R. §§ 30.32(i) and 70.22(i) to be applied retroactively so as to require the rejection of previously filed applications that did not contain the newly required emergency plan information.

**REGULATIONS: RETROACTIVE APPLICATION**

A regulation should not be applied retroactively if the agency indicates a contrary intent.

**REGULATIONS: RETROACTIVE APPLICATION**

The rule of statutory construction that a court is to apply the law in effect at the time it renders its decision does not alter the well-settled presumption against application of the class of new statutes that would have genuinely "retroactive" effect.

**COMMISSION PROCEEDING: APPELLATE REVIEW**

**RULES OF PRACTICE: ISSUES ON APPEAL**

The Commission may ignore arguments inadequately briefed on appeal.

**ADMINISTRATIVE TRIBUNALS: AUTHORITY**

**EVIDENCE: AFFIDAVITS**

**LICENSING BOARD/PRESIDING OFFICER: AUTHORITY**

**RULES OF PRACTICE: ADMISSIBILITY OF EVIDENCE;  
EVIDENCE**

The Commission's regulations and practice do not preclude an applicant from submitting post-application affidavits into the record of a materials licensing proceeding. Such affidavits fall within the types of documents that the Presiding Officer has the discretion to allow into the record pursuant to section 2.1233(d), viz., "additional documentary data, informational material, or other written

evidence." The Commission's practice of permitting the licensee to file such supplemental supporting evidence in a Subpart G proceeding applies equally well to a Subpart L proceeding.

**EVIDENCE: AFFIDAVITS**

**MATERIALS LICENSE APPLICATION**

**RULES OF PRACTICE: ADMISSIBILITY OF EVIDENCE;  
EVIDENCE**

Affidavits submitted during a hearing are explanatory material offered to aid in the understanding of the underlying applications; they do not constitute amendments to the applications.

**ADJUDICATORY HEARINGS: EVIDENCE**

**ADMINISTRATIVE TRIBUNALS: AUTHORITY**

**EVIDENCE: REBUTTAL**

**LICENSING BOARD/PRESIDING OFFICER: AUTHORITY TO  
QUESTION PARTIES**

**RULES OF PRACTICE: EVIDENCE (REBUTTAL); REBUTTAL  
EVIDENCE**

The Presiding Officer in a Subpart L proceeding has broad discretion to determine the point at which the intervenors have been accorded sufficient opportunity to respond to all issues of importance raised by the licensee. If the Presiding Officer needs information to compile an adequate record, he may obtain it by posing questions pursuant to section 2.1233(a).

**RULES OF PRACTICE: SUBPART L (INFORMAL HEARING  
PROCEDURES)**

The Commission's intent in promulgating Subpart L was to decrease the cost and delay for the parties and the Commission and to empower presiding officers to manage and control the parties' written submissions.

**RULES OF PRACTICE: SUBPART L (INFORMAL HEARING PROCEDURES)**

**ADMINISTRATIVE TRIBUNALS: AUTHORITY**

**LICENSING BOARD/PRESIDING OFFICER: AUTHORITY TO QUESTION PARTIES; DISCRETION IN MANAGING PROCEEDING; RESPONSIBILITIES (DEVELOPMENT OF RECORD)**

**RULES OF PRACTICE: EVIDENCE (REBUTTAL); REBUTTAL EVIDENCE**

Subpart L does not accord intervenors the right to speak last regarding the issues in a materials license proceeding. Section 2.1233(a) of Subpart L expressly accords the Presiding Officer the discretion both to determine the sequence in which the parties present their arguments, documentary data, informational material, and other supporting written evidence, and to offer individual parties the opportunity to provide further data, material, and evidence in response to the Presiding Officer's questions.

**ADJUDICATORY HEARINGS**

**ATOMIC ENERGY ACT: HEARING REQUIREMENT (MATERIALS LICENSE); HEARING RIGHT**

**NRC: ADJUDICATORY RESPONSIBILITIES**

**RULES OF PRACTICE: HEARING REQUIREMENT (MATERIALS LICENSE)**

A Subpart L proceeding satisfies the Atomic Energy Act's requirement for an agency hearing.

**ADJUDICATORY HEARINGS**

**ADMINISTRATIVE PROCEDURE ACT**

**NRC: ADJUDICATORY RESPONSIBILITIES**

**RULES OF PRACTICE: HEARING REQUIREMENT (MATERIALS LICENSE)**

Section 7(c) of the Administrative Procedure Act does not apply to informal hearings conducted pursuant to Subpart L. Instead, the intervenors are entitled only to some sort of procedures for notice, comment, and a statement of reasons for the agency action.

**DUE PROCESS: OPPORTUNITY FOR RESPONSE**

Generalized health, safety, and environmental concerns do not rise to the level of liberty or property interests that are protected by the due process clause.

**RULES OF PRACTICE: HEARING REQUIREMENT (MATERIALS LICENSE); SUBPART L (INFORMAL HEARING PROCEDURES)**

The parties to a Subpart L proceeding have no right to require a formal hearing. Rather, the Commission alone has the authority to require such a hearing. 10 C.F.R. § 2.1209(k). Under Subpart L's procedures, the Commission will generally exercise this authority only in situations where the Presiding Officer requests permission to conduct a formal adjudication using the rules of Subpart G. However, Subpart L contemplates that a presiding officer would only rarely request permission to conduct a formal adjudication.

**COMMISSION PROCEEDING: APPELLATE REVIEW**

**RULES OF PRACTICE: ISSUES ON APPEAL**

Appeals lie only from unfavorable actions by the Presiding Officer, not from *dictum* in an initial decision with which the party disagrees but which has no operative effect.

**RULES OF PRACTICE: SUBPART L (INFORMAL HEARING PROCEDURES); ORAL PRESENTATIONS**

In promulgating Subpart L, the Commission contemplated that the Presiding Officer would base his decision on a written record. Consequently, the Commission accorded the Presiding Officer wide discretion to decide whether oral presentations are necessary to create an adequate record. 10 C.F.R. § 2.1235(a). The Commission anticipated that, in the vast majority of situations, the Presiding Officer would not allow oral presentations.

**RULES OF PRACTICE: SUBPART L (INFORMAL HEARING PROCEDURES)**

**ADJUDICATORY BOARDS: CONDUCT OF PROCEEDINGS**

**LICENSING BOARD/PRESIDING OFFICER: RESPONSIBILITIES (DEVELOPMENT OF RECORD); RESPONSIBILITIES (EXAMINATION OF WITNESSES)**

**RULES OF PRACTICE: BOARD QUESTIONS; CROSS-EXAMINATION**

Parties have no fundamental right to cross-examination even in a formal Subpart G proceeding. The Commission has made clear that, in a Subpart L proceeding, the responsibility for the examination of all witnesses rests with the Presiding Officer, not with the parties.

**ADJUDICATORY BOARDS: AUTHORITY OVER STAFF ACTION**

**ADMINISTRATIVE TRIBUNALS: AUTHORITY**

**LICENSING BOARD/PRESIDING OFFICER: AUTHORITY; REVIEW OF NRC STAFF'S ACTIONS**

As a general matter, the Commission's licensing boards and presiding officers have no authority to direct the Staff in the performance of its safety reviews.

**ADJUDICATORY BOARDS: AUTHORITY OVER STAFF ACTION**

**LICENSING BOARD/PRESIDING OFFICER: REVIEW OF NRC STAFF'S ACTIONS**

**RULES OF PRACTICE: BURDEN OF PROOF**

Because the licensee rather than the Staff bears the burden of proof in a licensing proceeding, the adequacy of Staff's safety review is, in the final analysis, not determinative of whether the application should be approved. Consequently, it would be pointless for the presiding officer to rule upon the adequacy of Staff's review.

**COMMISSION: AUTHORITY**

**COMMISSION PROCEEDING: APPELLATE REVIEW**

The Commission itself has the authority to vacate licensing actions or ask for further Staff review, and has exercised that authority on appropriate occasions.

**NRC STAFF: NO OBLIGATION TO EXPLAIN DETERMINATIONS;  
NO OBLIGATION TO MAKE FINDINGS OF FACT**

The NRC Staff has no obligation either to provide an explanation of its determination to approve a materials license amendment application or to make findings of fact in support of that determination.

**NRC STAFF: NO OBLIGATION TO PREPARE SAFETY  
EVALUATION REPORT**

**SAFETY EVALUATION REPORT**

The NRC Staff is not required to prepare a safety evaluation report prior to approving a materials license amendment application.

**ENVIRONMENTAL ASSESSMENT: NO OBLIGATION OF STAFF  
TO PREPARE**

**ENVIRONMENTAL IMPACT STATEMENT: NO OBLIGATION OF  
STAFF TO PREPARE**

**NEPA: ENVIRONMENTAL ANALYSIS; ENVIRONMENTAL  
ASSESSMENT; ENVIRONMENTAL IMPACT STATEMENT (NEED)**

**NRC: RESPONSIBILITIES UNDER NEPA**

**NRC STAFF: NO OBLIGATION TO PREPARE ENVIRONMENTAL  
ASSESSMENT OR ENVIRONMENTAL IMPACT STATEMENT**

Although the NRC Staff must prepare an environmental impact statement (EIS) addressing any major action taken by the Commission that may significantly affect the quality of the human environment (42 U.S.C. § 4332(2)(C) (1988); 10 C.F.R. Part 51), neither NEPA nor the Commission's regulations require the Staff to prepare an EIS if the federal action's effect on the environment is not significant.

**NEPA: REQUIREMENT FOR IMPACT STATEMENT**

**REGULATIONS: COLLATERAL ATTACK ON**

**RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS**

Although an argument that a regulatory exemption contravenes NEPA constitutes a prohibited collateral attack on the regulation at issue, a party to a Subpart L proceeding may file a petition for waiver of the bar on collateral attacks against the Commission's regulations (10 C.F.R. § 2.1239(b)).

## **ATOMIC ENERGY ACT: SAFETY FINDINGS**

### **NRC: ADJUDICATORY RESPONSIBILITIES; HEALTH AND SAFETY RESPONSIBILITIES; RESPONSIBILITIES UNDER AEA**

The Commission is not a general fire safety or occupational health agency. Its responsibility is directed to the hazards associated with nuclear materials rather than to all questions of fire safety at licensed facilities.

### **RULES OF PRACTICE: ADMISSIBILITY OF AREAS OF CONCERN; AREAS OF CONCERN (ADMISSIBILITY)**

The Commission's Subpart L procedural regulations impose upon the intervenors the burden of showing that an area of concern is germane to the subject matter of the proceeding (10 C.F.R. § 2.1205(g)), i.e., it must fall within the range of matters that are properly subject to challenge in a proceeding.

## **ATOMIC ENERGY ACT: COMMON DEFENSE AND SECURITY; NON-PROLIFERATION**

### **NUCLEAR PROLIFERATION**

#### **PROLIFERATION**

### **RULES OF PRACTICE: ADMISSIBILITY OF AREAS OF CONCERN; AREAS OF CONCERN (ADMISSIBILITY)**

An intervenor arguing that an activity would be "inimical to the common defense and security" is not limited to arguing that the project would contravene a particular regulatory guidance, regulation, statute, or treaty. An intervenor is not entitled, however, to litigate this area of concern unless the specific "common defense and security" risk asserted is reasonably related to, and would arise as a *direct* result of, the specific license amendments that the applicant asks the Commission to approve.

## **DECOMMISSIONING FUNDING PLAN**

### **FINANCIAL QUALIFICATIONS (DECOMMISSIONING)**

Sections 30.35(a) and 70.25(a) of the Commission's regulations generally require a materials license applicant to submit a decommissioning funding plan if the amount of unsealed byproduct material or unsealed special nuclear material to be licensed exceeds certain levels. However, sections 30.35(c)(2) and 70.25(c)(2) provide specific exceptions to the requirements of sections 30.35(a)

and 70.25(a) for any holder of a license issued on or before July 27, 1990. Such a licensee has a choice of either (1) filing a decommissioning plan on or before July 27, 1990, or (2) filing a Certification of Financial Assurance on or before that date and then filing a decommissioning funding plan in its next license renewal application.

## **DECOMMISSIONING FUNDING PLAN**

### **FINANCIAL QUALIFICATIONS (DECOMMISSIONING)**

If a materials licensee is a governmental entity, then sections 30.35(f)(4) and 70.25(f)(4) dictate the terms of its decommissioning Certification of Financial Assurance. Both of these sections state that financial assurance for decommissioning may be provided, "[i]n the case of . . . State . . . government licensees, [by] a statement of intent containing a cost estimate for decommissioning or an amount based on the Table in paragraph (d) of this section, and indicating that funds for decommissioning will be obtained when necessary." The Commission expressly intended that this provision apply to state universities.

### **TECHNICAL ISSUES DISCUSSED**

The following technical issues are discussed: Accident dose estimates; Americium; Curie content (disclosure of); Emergency plan (sufficiency); Emergency Planning and Community Right-to-Know Act; Emergency procedures; Emergency support operations; Entrainment of radionuclides; Financial qualifications (decommissioning); Fire detection measures; Fire protection measures; Fire suppression measures; Hazardous chemicals; NUREG-1140; NUREG/CR-5055; Occupational radiation exposures; Projected occupational doses; Plutonium; Plutonium processing and fuel fabrication plant; Qualifications of licensee's staff; Radioactive waste storage; Radiological monitoring; Radiological releases; Reactor control room staffing; Regulatory Guide 1.145; Regulatory Guide 10.3; Regulatory Guide 10.5; Regulatory Guide 2.6; Regulatory Guide 3.66; Release of radioactive materials to unrestricted area; Requirement to describe curie content of materials in SNM license amendment application; Requirement to describe weight content of materials in SNM license amendment application; Risk of dispersion of radioactive materials; Safety standards; Waste disposal; "TRU" waste.



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## MEMORANDUM AND ORDER

### Introduction and Summary

On March 19 and April 5, 1990, the Nuclear Regulatory Commission Staff ("NRC Staff") issued two license amendments to the Curators of the University of Missouri ("Licensee" or "the University"). These amendments collectively authorized the Licensee to possess and use certain specified quantities of uranium (depleted in U-235), neptunium-237 (Np-237), americium-241 (Am-241), and plutonium-239/240 (Pu-239/240). The amendments were effective upon issuance and, except for a brief period during the pendency of this proceeding, have remained in effect.

Three organizations and ten individuals filed motions to intervene and requests for hearing.<sup>1</sup> The Intervenor objected to the amendments on the grounds that their issuance would be inconsistent with the public health and safety, would damage the common defense and security of the country, and would therefore violate the requirements of section 182a of the Atomic Energy Act ("AEA"), 42 U.S.C. §§ 2232(a) (1988). In response to the Intervenor's filings, the Commission appointed a Presiding Officer to conduct an informal hearing pursuant to Subpart L of the Commission's procedural regulations in 10 C.F.R. Part 2. The Presiding Officer admitted six of the Intervenor's nine areas of concern and developed a voluminous record — receiving seventy affidavits and declarations into evidence.

On July 10, 1991, the Presiding Officer issued a Final Initial Decision in which he concluded that the University's possession and use of the radioactive elements (as authorized by the amendments) were consistent with the public health and safety, did not harm the common defense and security, and therefore satisfied the requirements of the AEA. However, in order to decrease further the risks associated with such possession and use, the Presiding Officer imposed certain additional safety conditions on the Licensee. LBP-91-31, 34 NRC 29, *clarified*, LBP-91-34, 34 NRC 159 (1991). The University appealed to the Commission the Presiding Officer's imposition of these additional conditions; the Intervenor appealed the Presiding Officer's rulings that the license amendments satisfied the requirements of the AEA, challenged numerous of the Presiding

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<sup>1</sup> The three organizations are the Missouri Coalition for the Environment, the Mid-Missouri Nuclear Weapons Freeze, Inc., and Physicians for Social Responsibility/Mid-Missouri Chapter (collectively "Intervenor Organizations"). The individual Intervenor are Jeff Stack, Richard Smith, Amy Smith, Steve Jacobs, Marion Mace, Therese Folsom, Betty Aulabaugh, Diana Nomad, Clyde Wilson, and Kathleen Morrison (collectively "Individual Intervenor"). We will refer to both groups as "Intervenor," except where it is necessary to distinguish between their positions.

Officer's procedural rulings, and appealed his decision to exclude three of their proffered areas of concern.<sup>2</sup>

This appeal raises numerous and complex issues, some quite technical. The record and pleadings are voluminous. To address the issues raised on appeal, the Commission has found it necessary in some instances to examine not only the Final Initial Decision and the appeal briefs, but also to delve in considerable detail into the underlying administrative record itself and to take official notice of various technical documents (pursuant to 10 C.F.R. § 2.743(i)).<sup>3</sup> For the most part, we have reached the same conclusions as the Presiding Officer, but in some instances have followed a line of reasoning different from his.<sup>4</sup> For the reasons set forth below, we affirm LBP-91-31 and LBP-91-34 with certain modifications, and thereby approve the University's license amendment applications, subject to certain conditions. More specifically, we conclude that the Presiding Officer had jurisdiction to issue his order on reconsideration (LBP-91-34); we affirm his conclusions regarding all procedural issues raised on appeal as well as his decision to exclude three areas of concern; we conclude that the risk of dispersion of radioactive material from the TRUMP-S experiments is acceptably small; and we modify and supplement the fire safety conditions that the Presiding Officer imposed upon the University.

We wish to emphasize at the outset that, although the total amount of material at issue (about 10.7 curies (Ci) and 527 grams) is quite small — particularly when compared to the amounts generally at issue in our power reactor licensing proceedings, we do not consider the TRUMP-S material's potential for harm to be trivial. Both the Presiding Officer and the Intervenors have expressed concern regarding the harm that could occur if these radionuclides were released into the atmosphere. LBP-91-31, 34 NRC at 36 (relying on figures in Intervenors' Exhibit No. 1, Declaration of TRUMP-S Review Panel, dated Oct. 14, 1990, at 10-11, attached to Intervenors' Written Presentation, dated Oct. 15, 1990); II-IB at 53-54. We share the Presiding Officer's and the Intervenors' concern regarding the TRUMP-S materials' potential for harm. The lengthy and detailed analysis in our decision today reflects our careful review of this matter.

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<sup>2</sup> In this order, the Commission will use the following abbreviations for the five appellate briefs: U Mo IB = Licensee's [Initial] Brief on Appeal; U Mo RB = Licensee's Response Brief; IS-IB = [Initial] Brief on Appeal of Intervenor Organizations; II-IB = [Initial] Brief on Appeal of Individual Intervenors; I-RB = Joint [Response] Brief of Intervenors and Individual Intervenors.

<sup>3</sup> See *infra* notes 29 (EPA Report), 31 (HEW Handbook), 36 (DOE Manual), 84 (NRC Staff approval), 97 (NRC Staff Letter approving Emergency Plan), and 130 (SER); and text at p. 108 (license renewal documents) and 157 (Hazards Summary Report).

<sup>4</sup> An appellate administrative forum may affirm a lower forum's ruling for reasons not espoused by the lower forum. See, e.g., *Washington Public Power Supply System (WPPSS Nuclear Project No. 2)*, ALAB-722, 17 NRC 546, 548 (1983).

## Background

### I. THE LICENSE AMENDMENTS

The University filed applications for amendments to two licenses — Special Nuclear Material and Source Material License No. SNM-247 (dated February 20, 1990) and Broad Scope Byproducts License No. 24-00513-32 (dated March 9, 1990). The NRC Staff granted these two applications, issuing Amendment No. 12 to the former license on March 19, 1990, and Amendment No. 74 to the latter license on April 5, 1990.<sup>5</sup>

Collectively, the amendments permit the University to conduct certain basic research on the chemistry of uranium, neptunium, plutonium, and americium in their pure forms. The ultimate objective of this research is to develop inexpensive electrochemical means to reduce the volume of radioactive waste currently required to be stored in high-level nuclear waste disposal facilities, by extracting 99% of the long-lived transuranic elements ("TRU", i.e., americium, neptunium, and plutonium) and uranium from the shorter-lived radioactive elements in spent fuel without generating liquid radioactive waste. After this process, the extracted, highly concentrated TRU would be stored in high-level nuclear waste disposal facilities (just as it is currently stored). However, the remaining low-TRU, high-level radioactive waste (i.e., the vast majority of the original TRU-tainted radioactive wastes) could be stored for long enough to allow the shorter-lived fission products to decay to low levels, and could then be disposed of as low-level waste for substantially less cost than the current expense of disposing of the entire original TRU-tainted wastes in high-level nuclear waste disposal facilities.

The research is part of the Transuranic Management by Pyropartitioning Separation ("TRUMP-S") Project, for which Rockwell International Corporation ("Rockwell") is the principal contractor and the University is a subcontractor. The University is currently conducting the TRUMP-S research in the Alpha Laboratory, located in the basement of the University of Missouri Research Reactor ("MURR") building on its Columbia, Missouri campus. The University constructed this laboratory specifically for the purpose of working with small quantities of alpha-emitting elements (i.e., one gram or less of americium, plutonium, or neptunium in any experiment). These elements, when not in use, are stored in the fuel vault of the MURR facility.

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<sup>5</sup>On July 7, 1993, at the University's request, the Staff terminated License No. SNM-247. On the same date the Staff included the SNM materials in the University's newly issued Broad Scope Materials License No. 24-00513-39. See Board Notification 93-19, submitted by Staff into the record on Aug. 2, 1993. However, with one exception (see p. 108 *infra*), these changes do not affect the merits of the parties' arguments in the instant proceeding.

Prior to the issuance of these two amendments, the two above-cited licenses authorized the University to possess and use

293+ grams of plutonium in sealed sources, 250 kilograms ("kg") of natural uranium in any form, 40 millicuries ("mCi") of Am-241 in any form, 5+ curies ("Ci") of Am-241 in sealed sources, and 5 mCi of Np-237 in any form.

Response of Licensee to Request for Hearing and Stay Pending Hearing, dated May 25, 1990, at 3-4.

Amendment No. '2 to License No. SNM-247 authorized the University to possess and use 500 grams (0.2 mCi) of depleted uranium in any form and 10 grams (710 mCi) of Pu-239/240 in any form. Amendment No. 74 to License No. 24-00513-32 increased the University's authorized quantities of Np-237 in any form to 10 mCi (approximately 14 grams) and its authorized quantity of Am-241 in any form to 25 Ci (approximately 7 grams). Response of Licensee to Request for Hearing and Stay Pending Hearing, dated May 25, 1990, at 3-4, 8-9. However, the University does not anticipate using all of the quantities authorized in the two amendments. Rather, it expects to use in its TRUMP-S project less than 75 grams of depleted uranium (in pure form) and less than 10 grams each of neptunium, plutonium, and americium (all in pure form). Response of Licensee to Request for Hearing and Stay Pending Hearing, dated May 25, 1990, at 4-5. According to the University, the total mass of elements used in any TRUMP-S experiment will not exceed one gram. See Licensee's Exhibit No. 2, Affidavit of Dr. Susan M. Langhorst Regarding NUREG-1140 and Intervenors' Dispersion Concentrations, dated Nov. 13, 1990, at 8-9 ¶¶ 18-19 & nn. 6-7.

## II. HEARING PURSUANT TO SUBPART L AND THE INITIAL DECISIONS

As noted above, ten individuals and three organizations sought, and were granted, Intervenor status in this proceeding. The Presiding Officer admitted six areas of concern raised by the Intervenors. Briefly stated, these admitted areas of concern are (1) inadequacy of fire safety procedures, (2) absence of a buffer zone to protect the public in case of accident, (3) inadequacy of administrative controls for the TRUMP-S project, (4) inadequacy of the University's emergency plan, (5) absence of either an Environmental Assessment ("EA") or an Environmental Impact Statement ("EIS"), and (6) lack of specificity as to the responsibilities of personnel involved in the TRUMP-S project. At the outset of this proceeding, the Presiding Officer rejected three other areas of concern — specifically, the effects of the project upon nuclear proliferation, the alleged inadequacy of the University's nuclear waste disposal plan, and the University's alleged failure



to comply with the Commission's regulations regarding decommissioning. See LBP-90-18, 31 NRC 559, 567-70 (1990), and unpublished Memorandum and Order (Admitting Parties and Deferring Action on a Stay), slip op. at 3-7, issued Aug. 28, 1990.

After an informal hearing, the Presiding Officer issued two Initial Decisions. The First Initial Decision, dated April 15, 1991, imposed the following four conditions upon the University: the installation of an automatic fire sprinkler system in the Alpha Laboratory, the installation of an additional filter in the exhaust system of the argon glove box in the Laboratory, the replacement of the glass window in the Laboratory with a wire glass window, and a reduction in the amount of Am-241 which the University was authorized to possess and use (from 25 to 10 Ci). LBP-91-12, 33 NRC 253, reviewed sua sponte, CLI-91-7, 33 NRC 295 (1991).

The Presiding Officer's Final Initial Decision, issued July 10, 1991, disposed of all remaining issues in this proceeding. In that decision, the Presiding Officer rejected all of the Intervenors' areas of concern on their merits. Specifically, he (1) found that the fire safety procedures were generally safe (34 NRC at 94-96); (2) rejected, on the ground that the Intervenors had failed to demonstrate any inadequacy in the University's fire procedures, the claim that a buffer zone was needed (*id.* at 104); (3) concluded that the Intervenors had failed to show any serious lack of administrative controls (*id.* at 96-100); (4) found that the University's emergency planning was adequate to ensure the safety of the public (*id.* at 100-02); (5) concluded that the Commission's regulations did not require the preparation of either an EA or an EIS (*id.* at 102); and (6) found that the Intervenors had failed to show any problems regarding the responsibilities of personnel involved in the TRUMP-S Project (*id.* at 102-08).

Based on the record, however, the Presiding Officer did impose three conditions on the University to enhance fire safety. First, he required the University to take one of the following alternative actions: (1) Disclose existing procedures (or adopt new procedures) that would ensure certain acceptable levels of fire loading and continuity of burnable material in the basement outside the Alpha Laboratory; (2) Propose procedures for ensuring a new, safer maximum fire loading (and continuity) and demonstrate by analysis or expert testimony that the new maximum fire loading (and continuity) will prevent a credible fire from spreading into the Alpha Laboratory from outside the laboratory; and (3) Install an automatic fire sprinkler system in the rectangular portion of the basement immediately adjacent to the Alpha Laboratory and extending from the laboratory to the hot cell. See *id.* at 90, 130.

Under any of these three alternatives, combustible-fuel vehicles would be banned from the basement while actinides were in use in the laboratory. The Presiding Officer concluded that, once this first requirement was satisfied through the implementation of any of these three options, a major fire in or affecting the

Alpha Laboratory would not be credible and that, consequently, the issuance of the license amendments to the University would be consistent with the Commission's duty to protect health and minimize danger to life or property. *Id.* at 37, 90.

Second, the Presiding Officer required the University to amend its TAM-62 (one of the standard operating procedures for TRUMP-S Actinide Measurements) to eliminate any suggestion that a fire in the glove box is not a safety concern.<sup>6</sup> *Id.*

Third, the Presiding Officer required that the University disclose to Staff the actual amounts of two contaminants (Pu-241 and Am-241) which are contained in the University's 10-gram plutonium sample authorized under License No. SNM-247, and that the Staff then "review the submitted amendment and amend the license to reflect accurately" those amounts as the maximum authorized quantities of those two elements.<sup>7</sup> *Id.*

### III. THE UNIVERSITY'S MOTION FOR PARTIAL RECONSIDERATION

On July 22, 1991, the University sought partial reconsideration of the Final Initial Decision on two grounds. First, the University requested clarification that it was not bound in perpetuity to the particular safety-enhancing option it initially chose to implement, but could instead elect to use any of the three options at any time. Second, the University sought clarification or modification that the requirement regarding combustible-fuel vehicles would be satisfied if a second worker accompanied and monitored the use of such a vehicle (specifically, a forklift) to ensure that its movements did not jeopardize equipment or facilities such as the Alpha Laboratory.

The Intervenor filed a response opposing the University's Motion for Partial Reconsideration. They argued, among other things, that the Presiding Officer lacked authority to consider the University's motion.

On August 5, 1991, in response to the University's motion for reconsideration, the Presiding Officer issued a Memorandum and Order clarifying (and also correcting portions of) his July 10, 1991 Final Initial Decision. LBP-91-34, 34 NRC 159. In the August 5, 1991 order, the Presiding Officer granted the University's first request, on the condition that at least one of the three alternatives

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<sup>6</sup>TAM-62 stated that "[t]he small amounts of materials used in the TRUMP-S experiments eliminate fire as a concern." See TAM-62, Intervenor's Exhibit No. 11, at 1, attached to Intervenor's Written Presentation. Insofar as the Commission can discern from its records, the University has not complied with this requirement. We therefore instruct the University to certify to the Commission, within 30 days of the issuance date of this Order, that it has complied with this portion of the Presiding Officer's Order.

<sup>7</sup>According to the Commission's records, the University has not complied with this requirement.

be in effect at any time. The Presiding Officer considered such a "sequential implementation of relief" to be "entirely reasonable." *Id.* at 161. The Presiding Officer denied the University's second request. He explained that his purpose in excluding the gasoline-powered forklift from the basement was to remove "a source of fire that might exceed the expected fire loading or not be easily controlled by a water sprinkler system." *Id.* at 161-62. Finally, the Presiding Officer rejected the Intervenor's argument that he lacked authority to consider the University's Motion for Reconsideration. *Id.* at 160-61.

#### IV. THE INSTANT APPEALS

The University and the Intervenor filed timely Notices of Appeal on July 24 and 25, 1991, respectively.<sup>8</sup> The University challenged the Presiding Officer's prohibition of the use of combustible-fuel vehicles in the MURR facility basement while actinides were in use in the Laboratory. It also sought from the Commission further revision or clarification of the Presiding Officer's ruling regarding the option of installing a sprinkler system in the rectangular portion of the basement immediately adjacent to the Laboratory.

The Intervenor argued on appeal that the Presiding Officer had erred in failing to recognize that the central issue in this case was whether the applications were deficient, rather than whether the amendments were consistent with the protection of public health and the minimization of danger to life or property; that he had erred in failing to conclude that the University's two applications were deficient in numerous respects; that the Presiding Officer's procedural rulings had deprived the Intervenor of a fair hearing; that he had improperly excluded three areas of concern (decommissioning, waste disposal, and nuclear proliferation); and, finally, that the NRC Staff had failed to review the applications adequately and to make the required findings with regard to the applications.

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<sup>8</sup> Because the parties filed their appeals to the Commission prior to the July 29, 1991 effective date of the regulation replacing "appeals as of right" with "petitions for review" from Licensing Board decisions, we treat this case as an appeal as of right pursuant to the now-rescinded 10 C.F.R. §§ 2.153 and 2.762 (1991). See Final Rule, "Procedures for Direct Commission Review of Decisions of Presiding Officers," 56 Fed. Reg. 29,403 (June 27, 1991); Proposed Rule, "Options and Procedures for Direct Commission Review of Licensing Board Decisions," 55 Fed. Reg. 42,947, 42,948-49 (1990). Compare 10 C.F.R. §§ 2.786, 2.1253 (1994).

## Analysis

### I. THE PRESIDING OFFICER'S JURISDICTION TO ISSUE LBP-91-34

On appeal, the Intervenors contend that their submittal of Notices of Appeal to the Commission on July 25, 1991, had the effect of depriving the Presiding Officer of all jurisdiction over the proceeding as of July 25 and that, consequently, the Presiding Officer lacked jurisdiction to issue LBP-91-34 on August 5, 1991, addressing the University's July 22, 1991 motion for reconsideration. IS-IB at 2. The Presiding Officer addressed this issue in LBP-91-34:

When there is no motion for reconsideration, all the issues have been transferred to the appeal body, which is the only authority with jurisdiction over the pertinent issue. However, the rules expressly provide for an exception to the transfer of jurisdiction by providing for motions for reconsideration. 10 C.F.R. §§ 2.1259, 2.771. Since the rule expressly permits a motion for reconsideration to be filed within 10 days, the licensing board or presiding officer necessarily has jurisdiction to decide such a motion.

34 NRC at 160-61 (footnote omitted). We agree with the Presiding Officer's conclusion that he had jurisdiction to issue LBP-91-34.

Although the Commission's (now-defunct) Atomic Safety and Licensing Appeal Board Panel had addressed somewhat similar questions in several prior cases, neither it nor the Commission has ever directly confronted the precise issue at bar in this proceeding, i.e., whether a presiding officer has jurisdiction to consider a timely motion for reconsideration filed after the issuance of an initial decision but before the timely filing of appeals.

Intervenors claim that two Appeal Board decisions support their contention that the Presiding Officer lost jurisdiction over this proceeding prior to his issuance of LBP-91-34. See Intervenors' Response to Licensee's Motion for Partial Reconsideration of Final Initial Decision, dated Aug. 1, 1991, at 1-2; Intervenors' Response to Licensee's Motion for Extension of Time for Filing Papers, dated July 29, 1991. For the following reasons, we conclude that neither case is apposite.

In the first cited case, *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), ALAB-699, 16 NRC 1324 (1982), the Appeal Board ruled that jurisdiction to address the motion to reopen rests with the Appeal Board rather than the Licensing Board in situations where a post-trial motion to reopen the record is submitted after the filing of exceptions to a final decision of the Licensing Board (the equivalent to the appeals of the Presiding Officer's Final Initial Decision in the instant case). *Id.* at 1327. However, the Appeal Board in *TMI* expressly "le[ft] for another day" the issue whether the Licensing Board

would have had jurisdiction to rule on a motion to reopen filed after the issuance of an initial decision but before the filing of exceptions. *Id.* at 1327 n.6. The issue currently before us involves a post-trial motion that was filed on July 22, 1991 — after the issuance of the July 10, 1991 Final Initial Decision but before the July 24 and 25, 1991 filing of the three appeals. It is therefore analogous to the issue that the Appeal Board left for another day. Consequently, *TMI* provides no guidance on the issue at bar.

Similarly, in the second decision cited by the Intervenor, *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), ALAB-859, 25 NRC 23 (1987), the Appeal Board ruled only that the Licensing Board lacked jurisdiction to impose a license condition based on information submitted by a party subsequent to both the issuance of the Licensing Board's initial decision and the filing of the notice of appeal with the Appeal Board. *Id.* at 27.<sup>9</sup> As in *TMI*, the *Vogtle* Appeal Board was not faced with the instant procedural issue.

However, in a decision not cited by the Intervenor, *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-726, 17 NRC 755 (1983), the Appeal Board addressed an issue quite similar to the one now at bar. Specifically, the Appeal Board was faced with the question of "which adjudicatory body [i.e., the Licensing Board or the Appeal Board] has jurisdiction to rule on a motion to reopen filed at the same time as or after issuance of an initial decision but before an appeal has been taken." *Id.* at 757. The Appeal Board ruled that, "until exceptions to an initial decision have been filed, jurisdiction to rule on a motion to reopen resides with the licensing board" and that the subsequent timely filing of exceptions "do[es] not serve to oust the Licensing Board of jurisdiction over the reopening motion." *Id.* at 757 & n.4.

The Appeal Board in *Limerick* offered two justifications for these rulings, both of which are equally applicable to the instant case. First, the Appeal Board noted that, as a practical matter, the Licensing Board's extensive prior involvement in the case rendered it better suited to make the initial ruling on the merits of a motion that addressed the factual predicate of the Licensing Board's own initial decision. This reasoning is as applicable to a motion for reconsideration as it is to a motion to reopen the record. This is because both pleadings address matters that underlie the Licensing Board's (or presiding officer's) decision and with which the trial-level decisionmaker is therefore far more familiar. Second, the Appeal Board held that, because exceptions had not yet been filed, there was simply no appeal in existence that would trigger the Appeal Board's

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<sup>9</sup>The Appeal Board reached a similar conclusion in *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-823, 22 NRC 773, 775 (1985).

jurisdiction.<sup>10</sup> We conclude that the same is true here: the Presiding Officer retained jurisdiction to decide the timely filed motion to reconsider despite the later-filed appeals.

## II. PRESIDING OFFICER'S RULINGS

### A. The Presiding Officer: Did Not Err in Defining the Central Legal Issue in This Proceeding

In the Final Initial Decision, the Presiding Officer ruled that the central issue raised by the Intervenors is whether the University can provide adequate assurances that its TRUMP-S experiments are safe and will not credibly cause fatalities or illness to the general public in the event of an accident. LBP-91-31, 34 NRC at 36. The Presiding Officer concluded that the answer to this question turns on the answers to the following two subsidiary questions:

- (1) [Are] the applicant's proposed equipment and facilities . . . adequate to protect health and minimize danger to life or property; [and]
- (2) [Is t]he applicant . . . qualified by training and experience to use the material for the purpose requested in such manner as to protect health and minimize danger to life or property [and to comply with the regulations in 10 C.F.R. Part 70].

*Id.* at 42 (footnotes omitted; final set of brackets in original text).

Intervenors disagree with the Presiding Officer's definition of the central legal issue in this proceeding. They contend that, under 10 C.F.R. § 2.1233(c), the parties and the Presiding Officer are limited to addressing whether there is a "deficiency or omission in the license application." The Intervenors complain that the Presiding Officer has instead used this Subpart L proceeding to litigate health and safety issues that Subpart L was never designed to address (IS-IB at 20-25; II-IB at 10) and assert that the University's applications are so deficient as to be "empty application[s]" (IS-IB at 21).

The Presiding Officer's characterization of the central issue accurately reflects the statutory and regulatory findings necessary for the Commission to grant a license or license amendment. By contrast, the Intervenors' characterization confuses these ultimate safety findings with the pleading requirements that an

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<sup>10</sup> *Id.* at 757-58. See also *Commonwealth Edison Co.* (Byron Nuclear Power Station, Units 1 and 2), ALAB-659, 14 NRC 983, 985 (1981) (*dictum* that, pursuant to accepted appellate practice, an appeal period should be tolled while a trial tribunal considers a motion for reconsideration of the appealed decision or order). This reasoning also forms a basis for the Commission's current version of section 2.786(b)(6). That section, which is not applicable to the instant proceeding, provides that "[a] petition for review [in a Subpart G proceeding] will not be granted as to issues raised before the presiding officer on a pending motion for reconsideration." 10 C.F.R. § 2.786(b)(6). Civil practice in the federal courts is essentially the same as ours. See 9 James W. Moore *et al.*, *Moore's Federal Practice* ¶110.08[3] at 59-60 & n.5, ¶204.12[1] at 4-67 to 4-69 (1993).

Intervenor must satisfy in making its initial written presentation in a Subpart L proceeding. Their characterization also overlooks the fact that an application for an NRC materials license or license amendment is not automatically rejected whenever the NRC Staff or an Intervenor finds an omission or error in the application. If such applications were automatically rejected, then there would have been no need for the Commission to require each Intervenor to specify "what relief is sought with respect to each deficiency or omission." 10 C.F.R. § 2.1233(c). We emphasize, however, that in focussing on ultimate safety questions, we by no means sanction the filing of "empty" or "bare-bones" applications. A plainly deficient application calls into question an applicant's competence and *bona fides* — matters that certainly pertain to the question whether to approve the application. But, as explained below, we do not agree with the Intervenor that the University's applications are "empty."

## **B. The Presiding Officer Did Not Err in Making Certain Challenged Procedural Rulings**

The Intervenor raises numerous assertions of procedural error. The most significant are Intervenor's claims that the Presiding Officer erred in sustaining the Staff's acceptance of the University's "bare-bones application[s]," which were too cursory and flawed to inform the Intervenor of the basis for the Licensee's applications; that the University provided the necessary detail and supporting evidence only after the Intervenor had submitted their written presentation challenging the applications; that the Presiding Officer erred in failing to strike this late-filed evidence; and that the Presiding Officer compounded this last error by improperly denying the Intervenor any opportunity to file rebuttal evidence. IS-IB at 12, 24; II-IB at 10; I-RB at 1, 18-19. Intervenor also argue that the Presiding Officer erred in denying their motions for discovery, oral presentation, cross-examination, and a formal hearing, and in refusing to consider the adequacy of the NRC Staff's review of the University's applications. For the reasons set forth below, we affirm each of the Presiding Officer's challenged procedural rulings and agree with him that the University's two applications are not "empty application[s]" as claimed by the Intervenor. We also conclude that he fairly applied the Subpart L procedural rules to this case.

### ***1. The Presiding Officer Did Not Err in Concluding That the Licensee's Applications Were Neither Incomplete Nor Flawed***

The Intervenor asserts that the University's applications were incomplete or flawed in the following four respects: first, the applications were not accompanied by certain supporting documents that, according to the Intervenor,

are required by the Commission; second, the University in its applications failed to demonstrate that its personnel were qualified to conduct the TRUMP-S experiments in a manner consistent with the public health and safety, as required by the Commission's regulations; third, the SNM application failed to include two radionuclides in their lists of licensed materials; and fourth, the SNM application inaccurately described the curie content of certain nuclear materials at issue. IS-IB at 50-68. For the reasons set forth below, we conclude that the University's applications were sufficient to pass regulatory muster. (We also conclude, for the reasons set forth in Section II.B.3 below, that the Presiding Officer gave the Intervenors ample opportunity to respond to the license amendment applications.)

*a. Failure to Provide the Required Supporting Documents*

**i. SAFETY ANALYSIS**

During the hearing, the Intervenors complained that the University's applications were deficient in that they had failed to include a safety analysis or accident analysis, as allegedly called for in Part 3 of Regulatory Guide 10.3, "Guide for the Preparation of Applications for Special Nuclear Material Licenses of Less Than Critical Mass Quantities" (Rev. 1, April 1977). See Intervenors' Written Presentation at 15; Intervenors' Exhibit No. 1, *supra* p. 87, at 15 ¶153. The Presiding Officer rejected this contention on the grounds that Regulatory Guide 10.3 contains no such a requirement, or even a requirement that the applicant certify its belief that there is an adequate assurance of safety for the licensed activity. 34 NRC at 106.

On appeal, the Intervenors reiterate their earlier complaint. IS-IB at 8, 30-31. The only citation that the Intervenors offer on appeal in support of this alleged requirement is page 8 of NUREG-1140, "A Regulatory Analysis on Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licenses" (1988). According to the Intervenors, the absence of a safety analysis (or comparable analysis) precludes the Licensee from making the necessary demonstration that the equipment and facilities provide an adequate assurance of safety.<sup>11</sup>

We reject the Intervenors' argument. The Intervenors are mistaken in their contention that our Regulatory Guides and NUREGs contain provisions indicating the need for a "safety analysis." Part 3 of Regulatory Guide 10.3

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<sup>11</sup> It is unclear whether the Intervenors intend to refer specifically to the absence of a formal "Safety Analysis Report" or are instead alluding to the absence of some more general kind of safety analysis. Their specific reference to a "Safety Analysis Report" in their Written Presentation (at 15) suggests the former, while the general language in the Intervenors' Appeal Brief (at 8 and 30-31) and Written Presentation (at 42) suggests the latter. We note that a Safety Analysis Report is a creature of Part 50 of our regulations (specifically 10 C.F.R. § 50.34(b)), and is consequently irrelevant to the University's license amendment applications, which were submitted under Parts 30 and 70.



merely states that "[a]ll items should be completed in sufficient detail for the NRC to determine that the applicant's equipment, facilities, and radiation protection program are adequate to protect health and minimize danger to life and property." *Id.* at p. 10.3-2. NUREG-1140 contains similarly general language regarding safety, stating only that "[t]he NRC requires applicants to evaluate possible accidents." The record clearly indicates that the University made such an evaluation.<sup>12</sup>

Moreover, it is well established (and in fact acknowledged by the Interveners)<sup>13</sup> that NURFGs and Regulatory Guides, by their very nature, serve merely as guidance and cannot prescribe requirements. *See, e.g., Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant), ALAB-852, 24 NRC 532, 544-45 (1986). *See also* Regulatory Guide 10.3 at 1 n., which states that "Regulatory Guides are not substitutes for regulations, and compliance with them is not required." Although conformance with regulatory guides will likely result in compliance with specific regulatory requirements, nonconformance with such guides does not equate to noncompliance with the regulations. *Petition for Emergency and Remedial Action*, CLI-78-6, 7 NRC 400, 406-07 (1978), *reconsideration denied*, CLI-80-21, 11 NRC 707 (1980). Only statutes, regulations, orders, and license conditions can impose requirements upon applicants and licensees. However, neither the AEA nor the Commission's regulations and orders nor the University's licenses impose any "safety analysis" requirement upon the University.

<sup>12</sup> *See, e.g.,* Licensee's Exhibit No. 1, Affidavit of Daniel J. Osetek Regarding Safety of the TRUMP-S Project, dated Nov. 13, 1990; Licensee's Exhibit No. 3, Affidavit of Dr. J. Steven Morris Regarding Safety Analysis, dated Nov. 13, 1990; Affidavit of Dr. J. Steven Morris Regarding Errors in Petitioners' Analyses, dated June 14, 1990, and the attached "Summary of the TRUMP-S accident analysis at the University of Missouri Research Reactor (MURR)[.] June 5, 1990 Revision," both of which are appended as Attachment A to Licensee's Motion for Leave to File an Answer to "Reply Memorandum of Petitioners in Support of Request for Hearing and Stay Pending Hearing," dated June 15, 1990; document (described as a "guidance draft") styled "Safety Analysis for MURR Alpha Laboratory Operations[.] TRUMP-S," included as pages 463-76 and 424-37 of Interveners' Exhibit No. 19, dated Oct. 15, 1990. *See also* document (described as a "draft revision") styled "Emergency Plan for TRUMP-S at MURR" at 2, included as page 421 of Interveners' Exhibit No. 19, *supra*; Licensee's Written Presentation, dated Nov. 14, 1990, at 43, 46-48, 53-55 (discussing the University's safety analyses).

Moreover, two other organizations (Rockwell and DOE) that are working with the University on the TRUMP-S Project have also conducted or reviewed safety analysis examinations of that project. *See* Letter to Mr. M.J. Gabler, Rockwell International Corp., from Kenneth R. Quitoriano, Nuclear Energy Division, Department of Energy, dated July 20, 1990, at 1 ("A Safety Analysis Report was completed and reviewed"), attached as page A-19 (and labeled "Plaintiff's Exhibit 8") to Interveners' Application for Temporary Stay to Preserve the Status Quo, dated Aug. 20, 1990; "Findings and Observations from the TRUMP-S Readiness Review at MURR," dated April 12, 1990 (in which a review board of personnel from both Rockwell and the University indicated that "[t]he safety analysis for abnormal operating conditions was reviewed[, t]he consequences and prevention/mitigation for abnormal operating conditions were reviewed[, and t]he safety analysis showed that an NRC unusual event will not occur"), included as page 196 of Interveners' Exhibit No. 19, *supra*.

<sup>13</sup> *See* Interveners' Written Presentation at 10.

## ii. SAFETY PROCEDURES

On appeal, the Intervenors reiterate their earlier arguments (which the Presiding Officer did not specifically address) that the University's failure to include proposed safety procedures in its two license amendment applications rendered those applications deficient. IS-IB at 8, 58-59. See also Intervenors' Written Presentation at 21-22; Intervenors' Exhibit No. 1, *supra* p. 87, at 12 ¶42 and 16 ¶54(d); Intervenors' Response to Licensee's Written Presentation, dated Dec. 24, 1990, at 17, 25-26. In support of this contention, the Intervenors cite three authorities (or groups of authority).

First, the Intervenors rely on 10 C.F.R. § 70.22(a)(8), which provides that an application for a Part 70 license shall contain "[p]roposed procedures to protect health and minimize danger to life or property (such as procedures to avoid accidental criticality, procedures for personnel monitoring and waste disposal, post-criticality accident emergency procedures, etc.)" But the Commission does *not* require that "[p]roposed procedures to protect health and minimize danger to life or property" be included in the amendment request *if* they have already been submitted to the Commission in previous applications associated with the same NRC license. In fact, the Commission's regulations expressly permit an applicant to incorporate by reference any information contained in previous applications, statements, or reports filed with the Commission. 10 C.F.R. §§ 70.21(a)(3), 30.32(a). The Commission's regulations thereby avoid both the imposition of needless expense on the applicant and the unnecessary submission of additional copies of documents already in the Commission's possession.

The University submitted just such information when it proffered its *Handbook of Radiological Operations* (April 1988) ("*Handbook*") to the Commission as part of the University's January 16, 1989 application for renewal of License No. SNM-247.<sup>14</sup> This *Handbook* is the University's guide in all matters relating to radiation protection and control. The *Handbook* includes specific procedures (e.g., emergency procedures, procedures with respect to the radioactive waste disposal program, procedures for opening packages containing radioactive material, rules for laboratory practice), as well as the University's commitments to implement certain essential elements of the radiation safety program (e.g., requirements for personnel monitoring, protective apparel, posting of warning signs and notices, leak test of sealed sources).<sup>15</sup> Intervenors do not attack the

<sup>14</sup> NRC Staff submitted the *Handbook* to the Presiding Officer in this proceeding on August 16, 1990. We also note that, according to Intervenors' Exhibit No. 19, *supra* note 12, at page "6" (table of contents), the University made the *Handbook* available to the Intervenors nearly two months earlier -- on June 26, 1990.

<sup>15</sup> Because the limited amount of special nuclear material authorized under License No. SNM-247 is insufficient to create a criticality accident, the University did not need to (and, in fact, did not) include criticality or post-criticality procedures or requirements in the *Handbook*. See 10 C.F.R. § 70.24(a); Regulatory Guide 10.3 at page 10.3.2 § 3.2.

*Handbook* as inadequate to cover the additional materials that are the subject of the University's two materials license amendment applications.

By providing these procedures and commitments to the Commission, the University has satisfied the filing requirements of 10 C.F.R. § 70.22(a)(8). Because the University had already provided this information to the Commission in the January 16, 1989 application for renewal of License No. SNM-247, the University was not also required to attach this same information to the amendment applications contested by the Intervenor.<sup>16</sup>

In addition to the Intervenor's reliance on 10 C.F.R. § 70.22(a)(8) to support their contention regarding safety procedures, they also rely generally on Part 30 of the Commission's regulations. However, Intervenor identify no regulatory section therein requiring a licensee to include safety procedures as part of its license amendment application, and we find no such requirement in that Part of our regulations.<sup>17</sup> Consequently, we conclude that the Intervenor's reliance on Part 30 is misplaced.

Finally, the Intervenor rely on Regulatory Guide 10.3, Regulatory Guide 10.5,<sup>18</sup> and Proposed Revision 2 to Regulatory Guide 10.5. We conclude that the Intervenor's reliance on these documents is misplaced. As explained in the immediately preceding section, Regulatory Guides do not impose requirements upon licensees but instead set forth *one* way in which a licensee or applicant can comply with our regulations. They do not purport to spell out the *only* way (or all permissible ways) in which to comply. For the reasons discussed earlier in this section, we conclude that the University satisfied our regulatory requirements regarding safety procedures notwithstanding that it used an approach (i.e., submittal of its *Handbook*) which was different from the approach set forth in the Regulatory Guides to which the Intervenor point. Consequently, the University's amendment applications cannot be found deficient for failure to

<sup>16</sup> Furthermore, the University and the Intervenor have also submitted to the Commission a number (though not all) of the University's TAMS, Standard Operating Procedures ("SOPs"), and Facility Emergency Procedure ("FEPs") that are relevant to the TRUMP-5 Project and the Alpha Laboratory. See Intervenor's Exhibit No. 19, *supra* note 12, at 387-419 (TAM 80-89, 91), 443-46 (SOP VIII.8 through VIII.8.3), Affidavit of Walter A. Meyer, Jr. Regarding Emergency Planning, dated Oct. 29, 1990, ("Meyer Emergency Planning Affidavit"), Attachment 5 (SOP VIII.8 through VIII.8.3), appended to "Licensee's Submittal in Accordance with Memorandum (Memorandum of Conference Call of October 19, 1990)," dated Oct. 30, 1990, Intervenor's Exhibit No. 11 (TAM-62), *supra* note 6, Intervenor's Exhibit No. 12, accompanying Intervenor's Written Presentation (FEP-3, and FEP-3(a) (draft)), Meyer Emergency Planning Affidavit, *supra*, Attachment 3 (FEP-3(a)), Meyer Emergency Planning Affidavit, *supra*, Attachment 4 (Standing Order 90-8 (regarding FEP-3(a)). In addition, the University has provided the Commission with numerous descriptions of its safety procedures and precautions. See, e.g., Licensee's Exhibit No. 9, Affidavit of Dr. Susan M. Langhorst Regarding Adequacy of Safety Procedures, Administrative Controls and Licensee's Personnel Qualifications ("Langhorst Personnel Qualifications Affidavit"), dated Nov. 13, 1990, at 2-6 ¶¶ 5-22, attached to Licensee's Written Presentation, dated Nov. 14, 1990; Application for Amendment to License No. SNM-247 at 17-21, and Application for Amendment to License No. 24-00513-32 at 17-22 (Staff submitted both of these applications into the record on June 21, 1990.)

<sup>17</sup> Section 30.32(a) does refer to Form 313, which in turn specifies that the applicant should proffer its "radiation safety program." The University did so. See Application for Amendment to License No. SNM-247 at 17-21; Application for Amendment to License No. 24-00513-32 at 17-22.

<sup>18</sup> Regulatory Guide 10.5, "Applications for Type A Licenses of Broad Scope" (Rev. 1, December 1980).

"comply" with Regulatory Guides 10.3 and 10.5, much less with the *proposed* revisions to Regulatory Guide 10.5.

### iii. EMERGENCY PLAN<sup>19</sup>

Throughout the proceeding below, the Intervenors asserted that the University should have filed an emergency plan with its two applications, and that its failure to do so rendered those applications fatally defective. The Intervenors base their argument on the requirements set forth in 10 C.F.R. §§ 30.32(i) and 70.22(i). These regulations establish a screening threshold above which an emergency plan needs to be considered. This threshold is derived from the Protective Action Guides ("PAGs") of the Environmental Protection Agency ("EPA"). The regulations provide that an application to possess the kinds of radioactive materials at issue in this proceeding must contain either (i) an evaluation showing that the maximum dosage for a person offsite will not exceed the threshold limits or (ii) an emergency plan for responding to the release of radioactive material.<sup>20</sup>

In both his Final Initial Decision and an earlier interlocutory order, the Presiding Officer concluded that these two regulations did not apply to applications (such as the University's) which were filed (and approved) prior to the regulations' April 7, 1990 effective date. LBP-91-31, 34 NRC at 43 n.20, 100, 124; LBP-90-45, 32 NRC at 455-56. Although the Presiding Officer acknowledged that the Commission had required certain designated licensees to file emergency plans at the time these two regulations went into effect, he concluded that the University had not been so designated. LBP-91-31, 34 NRC at 124, *referring to* Final Rule, "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 54 Fed. Reg. 14,051 (Apr. 7, 1989).

On appeal, the Intervenors reiterate their earlier argument that the emergency plan was required by sections 30.32(i) and 70.22(i). IS-IB at 50-57; II-IB at 19. In support, the Intervenors contend that the effective date is irrelevant because "[n]ewly adopted regulations control the disposition of pending applications, unless the regulations expressly state the contrary." IS-IB at 52. *See also id.* at 56. The Intervenors rely principally upon four decisions of the United States

<sup>19</sup> In this section of the Order, we address only the procedural issue whether the University's two instant applications are governed by the filing requirements established in our emergency planning regulations. In sections II.C.1 and II.C.4 of this Order, below, we address the Intervenors' substantive arguments regarding the adequacy of the emergency plan that the University prepared (and that the NRC Staff has repeatedly approved) for the entire MURR facility.

<sup>20</sup> We note, but do not rely on the fact, that on April 16, 1993, the NRC Staff completed an evaluation under 10 C.F.R. § 30.32(i)(1)(i), in which Staff concluded that the maximum dosage for a person offsite would not exceed the threshold limits. Staff conducted this evaluation as part of its consideration of the Application for Renewal of the University of Missouri Broad Scope License No. 24-00513-32, dated Feb. 27, 1992, that the Staff approved on July 7, 1993. No intervenors have challenged that approval.

Supreme Court.<sup>21</sup> Although the Intervenor's do not expressly say so, they are in essence asking the Commission to apply the two regulations retroactively to the University.<sup>22</sup> We reject the Intervenor's arguments and affirm the Presiding Officer's conclusion that the University was not required to include an emergency plan in its two applications.

The Presiding Officer is correct that the Commission did not intend for the regulations at issue to be applied retroactively so as to require the rejection of previously filed applications that did not contain the newly required emergency plan information. It is axiomatic that a new law should not be applied with retroactive effect if there is "statutory direction to the contrary." See, e.g., *Bradley*, 416 U.S. at 711, 715 & n.21. This axiom applies not only to statutes but also to regulations. See *Thorpe*, 393 U.S. at 281-82; *Bradley*, 416 U.S. at 715; *Ziffrin*, 318 U.S. at 78. The language of the two regulations in question, together with their effective date, provide the Commission's regulatory equivalent to a "statutory direction to the contrary." The regulations expressly require that the application must contain either an emergency plan or an evaluation of dose effects. The statement of consideration to the final rule specified that these regulations (and therefore their above-described requirement) were not to become effective until April 7, 1990. 54 Fed. Reg. at 14,051, 14,057. It nowhere suggested that pending applications would have to be amended to meet the new rule's requirements. There was, in short, no indication of a Commission intent to act retroactively.<sup>23</sup>

<sup>21</sup> *Bradley v. School Board of City of Richmond*, 416 U.S. 696 (1974); *Thorpe v. Housing Auth. of City of Durham*, 393 U.S. 268 (1969); *Linkletter v. Walker*, 381 U.S. 618 (1965); *Ziffrin, Inc. v. United States*, 318 U.S. 73 (1943). In addition, the Intervenor's cite two Appeal Board decisions. However, because our analysis of Supreme Court precedent is dispositive of the instant issue, we need not address the Appeal Board decisions. Finally, the Intervenor's assert that the emergency plan was also required by three of the Commission's NUREG documents. For the reasons already discussed, NUREGs cannot impose requirements upon licensees.

<sup>22</sup> "A rule has retroactive effect if 'an act lawful at the time it was done' is 'rendered unlawful and the actor called to account for a completed, now-condemned deed in the halls of justice.'" *American Mining Congress v. EPA*, 965 F.2d 759, 769 (9th Cir. 1992) (quoting *Ralis v. RFE/RL, Inc.*, 770 F.2d 1121, 1127 (D.C. Cir. 1985)). Although the issue of "retroactivity" generally arises in situations where the government attempts to apply a statute or regulation prior to its enactment date or promulgation date, the issue is logically just as relevant to situations in which the government or a party attempts to apply a new regulation to events that transpired prior to the regulation's effective date.

<sup>23</sup> We note that the rule of statutory construction articulated in the Supreme Court cases cited by the Intervenor — that "a court is to apply the law in effect at the time it renders its decision" (*Bradley*, 416 U.S. at 711; *Thorpe*, 393 U.S. at 281) — nevertheless "did not alter the well-settled presumption against application of the class of new statutes that would have genuinely 'retroactive' effect." *Landgraf v. US Film Products*, 114 S. Ct. 1483, 1503 (1994) (construing *Bradley*). See also Final Rule, "Revision of License Fee Schedule," 49 Fed. Reg. 21,293, 21,296 (May 21, 1984) ("The concept of impermissible retroactivity applies only to those cases where a new law or rule is applied to transactions completed in the past, prior to the new rule, where the rights and obligations of the parties already have been fixed"). The applicability of this conclusion to the instant proceeding is unaffected by the fact that the two regulations at issue are procedural rather than substantive in nature. As the Supreme Court indicated in *Landgraf*:

[T]he mere fact that a new rule is procedural does not mean that it applies to every pending case. A new rule concerning the filing of complaints would not govern an action in which the complaint had

(Continued)

In sum, we conclude that, although the University was free to submit applications in February and March 1990 which would comply with regulations that became effective only in April 1990, it was not required to do so.

iv. ENVIRONMENTAL REPORT

On appeal, the Intervenors offer two bases for their assertion that the University's applications should have included an environmental report. First, they contend that the University's use of inexperienced students and other personnel working with highly toxic pyrophoric transuranics will result in a significant increase in the potential for radiological accidents and that, under 10 C.F.R. § 51.60(b)(2)(v), an environmental report is therefore required. IS-IB at 61. *See also* Written Presentation of Intervenors at 24. Second, the Intervenors argue that the Alpha Lab is a "plutonium processing plant" as the term is defined in 10 C.F.R. § 70.4 and that the University's applications must therefore include an environmental report. IS-IB at 61. We disagree with both of these contentions.

Regarding the Intervenors' first argument, we note that the regulation on which they rely provides that an applicant must prepare an environmental report for any application for an amendment that would authorize or result in "a significant increase in the potential for . . . radiological accidents." We find no such significant increase in accident potential. The University has submitted record evidence, uncontradicted by the Intervenors, that the students who work on the TRUMP-S Project are trained by experienced authorized users of the subject materials; that their training as to TRUMP-S procedures and their experience in working with radioactive materials are documented; and that such documentation must be reviewed and approved by not only an authorized user but also the Reactor Health Physics Manager and the Isotope Use Subcommittee of the Reactor Advisory Committee. *See* Langhorst Personnel Qualifications Affidavit, *supra* note 16, at 20 ¶142. We agree with the Presiding Officer's conclusion that "it is appropriate to use students in the manner in which the University is using them." LBP-91-31, 34 NRC at 97. Consequently, we conclude that the increased-risk assumption underlying the Intervenors' first argument is incorrect and that the University's omission of an environmental report does not render its application in noncompliance with section 51.60(b)(2)(v).

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already been properly filed under the old regime, and the promulgation of a new rule of evidence would not require an appellate remand for a new trial.  
114 S. Ct. at 1502 n.29. *See also id.* at 1505 n.34 (majority opinion); 1525 (Scalia, J., concurring); 2 J. Sutherland, *Statutes and Statutory Construction* § 41.04 at 349 (1986).

We also cannot accept the Intervenor's second contention, viz., that the Alpha Lab is a "plutonium processing plant" as the term is defined in 10 C.F.R. § 70.4 and that the University's applications must therefore include an environmental report. Although the Intervenor's cite no regulatory authority for this contention, we assume that they intended to rely on 10 C.F.R. § 70.21(f), which provides that an applicant seeking to possess and use special nuclear material must file an environmental report if the material would be used, *inter alia*, for processing and fuel fabrication. In section II.B.5.b.iii below, we consider and reject a similar argument, i.e., that the NRC Staff should have prepared an EA or EIS on the ground that the Alpha Lab is a "fuel fabrication and processing plant" as that term is defined in section 70.4. For the same reasons, we reject the Intervenor's instant contention.

*b. Failure to Describe Fully in the SNM License Amendment Application the Curie Content of the Materials*

The University, in its SNM license amendment application, sought authority to possess and use "10 grams/710 millicurie Plutonium." See Application for Amendment to License No. SNM-247, dated Feb. 20, 1990, at 1. (See p. 111, *infra*, regarding the sample's origin.) The Intervenor's objected that the MURP staff did not know (or concealed) the fact that the 10 grams of plutonium would contain a radiation quantity of far more than the 0.710 Ci specified in the University's application. Specifically, the Intervenor's were referring to record evidence that the activity from Pu-241 and Am-241 will increase the activity of the plutonium material by approximately 1.21 and 0.07 Ci, respectively.<sup>24</sup> See Intervenor's Exhibit No. 20, Declaration of TRUMP-S Review Panel, dated Dec. 24, 1990, at 11-14; Intervenor's Response to Licensee's Written Presentation, dated Dec. 24, 1990, at 10-11.

In his Final Initial Decision, the Presiding Officer concluded that "[i]t would have been preferable" for the University to have listed Am-241 and Pu-241 in its SNM license amendment application and he ordered them to provide the necessary information to enable NRC Staff to amend that license accordingly. He concluded, however, that this omission was not fatal to the application. LBP-91-31, 34 NRC at 98-100. On appeal, the Intervenor's argue that the University's failure to include the activity level of Pu-241 and Am-241 in the SNM license amendment application renders the application itself incomplete. IS-IB at 30. For the reasons set forth below, we agree with the Presiding Officer's conclusion that the omission of these two trace contaminants does not constitute a material defect in the application.

<sup>24</sup>The activity of a radioisotope is the number of nuclear transformations (i.e., decay) occurring in a given quantity of material during a given period of time. The curie is a measurement of a radioisotope's activity.

## I. BACKGROUND

Section 70.22(a)(4) of the Commission's regulations required the University to identify in its applications "[t]he name, amount and specification (including the chemical and physical form and, where applicable, isotopic content) of the special nuclear material the applicant proposes to use or produce." 10 C.F.R. § 70.22(a)(4). The Commission has interpreted this requirement as follows:

The special nuclear material requested should be identified by isotopes; chemical or physical form; activity in curies, millicuries, or microcuries; and mass in grams. Specification of isotope should include *principal isotope* and *significant contaminants*. *Major dose-contributing contaminants* present or expected to build up are of particular interest.

Regulatory Guide 10.3 § 4.3 (emphasis added).

The Commission expects an applicant to disclose the activity of all *principal* radioisotopes present in licensed material. However, for the following reasons, the Commission does not expect an applicant also to disclose trace contaminants and decay products. The transuranic radioisotopes licensed by the Commission are obtained by neutron radiation of heavy elements — a process that generally produces multiple radioisotopes of the same chemical element.<sup>25</sup> Because the production of isotopically pure samples of radioisotopes is virtually impossible, the Commission bases its safety analysis on the principal radioisotopes with the potential of producing the greatest exposures. The Commission, when reviewing applications, does not ignore the trace contaminants and decay products associated with the principal radioisotopes, but rather views the principal isotope in the context of the properties of not only that isotope but also its daughter products and any commonly mingled trace isotopes. Because the safety considerations for the principal isotope will encompass the intermingled trace elements, the Commission's normal licensing practice is not to require licensees and applicants to list trace contaminants on their applications. This is standard Commission practice, well known throughout the industry.<sup>26</sup>

With this background in mind, we turn to the issue whether the University's SNM license amendment application was deficient for failure to list both Pu-241 and Am-241 as "significant contaminants" or "major dose-contributing contaminants" (as those terms are used in Regulatory Guide 10.3).

<sup>25</sup> Radioisotopes of the same chemical element differ only by the number of neutrons in the nucleus of the element.

<sup>26</sup> See Affidavit of John E. Glenn, dated Dec. 4, 1990, at 3-4 ¶¶ 4-6, attached to "NRC Staff Response to Intervenor's Motion for Reconsideration of Memorandum and Order of November 1, 1990 and Emergency Order That Staff Hold in Abeyance Order of November 1," dated Dec. 5, 1990 ("NRC Staff Response"). See also Affidavit of Dr. William J. Adam, dated Dec. 5, 1990, at 3 ¶ 7, attached to NRC Staff Response; Licensee's Exhibit No. 15, Affidavit of Dr. Susan M. Langhorst Regarding Relative Radiological Risk Associated with Trace Americium-241 in Plutonium Standard, dated Nov. 16, 1990, at 8-9 ¶ 15, attached to Licensee's Response to Intervenor's Motion for Reconsideration . . . and Emergency Order . . . Part I, dated Nov. 21, 1990.



## ii. Pu-241

In examining the question whether the SNM license amendment application should have listed 0.012 gram<sup>27</sup> (1.21 Ci) of Pu-241 as a significant contaminant contained in the 10-gram (0.71 Ci) sample of Pu-239/Pu-240, we are faced with the following dilemma. On the one hand, the relatively small weight of Pu-241 (0.012 gram) contained in the 10 grams of Pu-239/Pu-240 might suggest that Pu-241 constitutes merely a trace isotope and therefore need not be listed in the application. On the other hand, because Pu-241 (with a half-life<sup>28</sup> of 14.4 years) decays much faster than Pu-239 or Pu-240 (with half-lives of 24,065 and 6537 years, respectively),<sup>29</sup> the activity per unit gram of Pu-241 is approximately 1671 and 454 times higher than the activity of Pu-239 and Pu-240, respectively. Consequently, even a trace amount (0.012 gram) of Pu-241 can result in an activity (1.21 Ci) higher than that of Pu-239/Pu-240 (here, 0.71 Ci). This line of reasoning might suggest that Pu-241 should have been listed as a "significant contaminant" in the application, based on the comparatively high level of the radioisotope's activity.

To resolve this problem, the Commission will examine the health hazard or dose contribution of Pu-241 as compared to those of Pu-239 and Pu-240. We conclude, for the reasons set forth below, that the comparative contribution of the contaminant Pu-241 is insignificant, that the SNM application's omission of Pu-241 is consistent with the provisions of Regulatory Guide 10.3, and that the omission consequently does not reflect adversely on the qualifications of the University's personnel.

The principal isotopes of Pu-239 and Pu-240 are both strong alpha particle emitters, whereas Pu-241 is primarily a beta particle emitter.<sup>30</sup> The typical energy of the Pu-239/Pu-240 alpha particle is almost 1000 times greater than the average energy of the beta particles emitted in the decay of Pu-241.<sup>31</sup> Once

<sup>27</sup> See Affidavit of Dr. J. Steven Morris Regarding Plutonium Content, dated Oct. 29, 1990 ("Morris Plutonium Affidavit"), at 7, Table 2, attached to Licensee's Submittal in Accordance with "Memorandum (Memorandum of Conference Call of October 19, 1990)," filed Oct. 30, 1990. That table sets forth the isotopic composition (wt %) and curies per 10 grams for New Brunswick Laboratory Certified Reference Material 127 (formerly National Bureau of Standards Standard Reference Material 945) — the source of the University's plutonium sample — based on the 1975 Los Alamos National Laboratory analysis, with the decay corrected to September 1990. For Pu-241, the wt % is given as 0.116, which translates to 0.0116 gram, or a roundoff of 0.012 gram.

<sup>28</sup> The half-life of a radioisotope is the time required for a radioactive substance to lose 50% of its activity by decay. Each radionuclide has a unique half-life.

<sup>29</sup> Federal Guidance Report No. 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," EPA-520/1-88-020, at 113 (EPA Sept. 1988).

<sup>30</sup> The decay of Pu-241 is almost entirely through beta emissions, with only 0.00245% through alpha emissions. See Morris Plutonium Affidavit, *supra* note 27, at 6 ¶ 14.

<sup>31</sup> See U.S. Department of Health, Education, and Welfare, *Radiological Health Handbook* at 372-73 (Rev. ed., January 1970). See also Morris Plutonium Affidavit, *supra* note 27, at 12 ¶ 29; Affidavit of William J. Adam, *supra* note 26, at 3 ¶ 4. Because none of the three plutonium isotopes of interest is a strong emitter of gamma

(Continued)

the plutonium enters the body, the higher-energy alpha particles will cause far more damage to the body tissue than will the beta particles. Therefore, Pu-239 and Pu-240 present a great deal more significant health hazard than does Pu-241.<sup>32</sup> Consequently, to compare meaningfully the relative health hazard or dose contribution of Pu-241 with those of Pu-239 and Pu-240, we must first convert the beta dose of Pu-241 (1.21 Ci) into the equivalent activity level for an alpha-emitter such as Pu-239 and Pu-240.

A comparison of the annual-limits-on-intake ("ALI") values of 0.006 microcurie ( $\mu\text{Ci}$ ) each for Pu-239 and Pu-240 with the 0.3- $\mu\text{Ci}$  limit for Pu-241 reveals that Pu-241 is only 1/50th as hazardous as Pu-239 or Pu-240<sup>33</sup> — a fact the Intervenor acknowledges.<sup>34</sup> Therefore, 1.21 Ci of beta radiation from Pu-241 is equivalent to only 0.024 Ci of alpha radiation from Pu-239/Pu-240 (or 3.0% of the total activity of the sample<sup>35</sup>) in terms of health hazard or dose contribution. This is the same analytical approach that the University used to justify its decision not to list Pu-241 (see Morris Plutonium Affidavit, *supra* note 27, at 12-14 ¶¶ 29-33), and is also similar to NRC Staff's approach (see Affidavit of Dr. William J. Adam, *supra* note 26, at 3 ¶ 4; see generally Affidavit of John E. Glenn, *supra* note 26, at 4-6 ¶¶ 6-9).

Given this low (3%) contribution level of Pu-241 and the very high margin of error in measuring Pu-239/Pu-240,<sup>36</sup> the listing of Pu-241 would provide

particles (which are far more penetrating than alpha or beta particles and which are therefore a more hazardous external source of radiation), the principal health risk from those three isotopes stems from internal exposure (i.e., by inhalation or ingestion) rather than external exposure.

<sup>32</sup> See Affidavit of John E. Glenn, *supra* note 26, at 5 ¶ 8. See also Affidavit of Dr. William J. Adam, *supra* note 26, at 3 ¶ 4; Licensee's Exhibit No. 15, *supra* note 26, at 3-4 ¶ 6.

<sup>33</sup> ALI is the derived permissible limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. The ALI can be found in Table 1 of Federal Guidance Report No. 11, *supra* note 29, at 31 *et seq.* See also NUREG-1140 at 80, Table 13 ("Quantities of Radioactive Materials Requiring Evaluation of the Need for Offsite Emergency Preparedness (Based on 1 rem effective dose equivalent outside the building)"), which lists the Pu-241 content threshold for such evaluation as 100 Ci and, by contrast, lists the Pu-239 and Pu-240 thresholds at 2 Ci — 50 times lower.

<sup>34</sup> See "Intervenor's Motion for Reconsideration of Memorandum and Order of November 1, 1990 (Licensee's Partial Response Concerning Temporary Stay) and Emergency Order that Staff Hold in Abeyance Order of November 1, Part 1," dated Nov. 12, 1990, at 9.

<sup>35</sup> The total dose contribution/health hazard is assigned as follows:

	Equivalent Activity (in mCi)	% of Total Dose Contribution/Health Hazard
Pu-239/Pu-240	0.710	88.3
Pu-241	0.024	3.0
Am-241	0.070	8.7
TOTAL	0.804	100.0

<sup>36</sup> It is quite difficult to assess with any accuracy the internal dose attributable to plutonium intake if the assessments are taken only during a short period of time after the intake. Such assessments have an inherently high margin of error. See U.S. Department of Energy, *Radiological Control Manual* at p. 1-21 ¶ 8 (DOE/EH-0256T, June 1992). In our opinion, the high margin of error associated with the timely assessment of plutonium intake (i.e., Pu-239/Pu-240 + Pu-241) renders the 3% dose contribution of Pu-241 insignificant by comparison.

no helpful knowledge to a dosimetrist attempting to measure, or a doctor seeking to treat, an individual's radiation intake. Moreover, such a list could confuse isotope suppliers by suggesting that a licensee is authorized to receive a radioisotope both as a contaminant and as a principal radioisotope. See Affidavit of John E. Glenn, *supra* note 26, at 2-4 ¶¶3-6. Finally, as explained at p. 105, *supra*, such a listing would not assist the Commission and its Staff in deciding whether to grant an application.

For the reasons set forth above, we conclude both that the University's omission of Pu-241 from its application's list of radionuclides will not compromise any aspect of the applicant's radiological safety program<sup>37</sup> and that the dose contributions associated here with Pu-241 are insignificant when compared with the other dose contributions at issue in the University's SNM license amendment application. Consequently, we cannot accept the Intervenors' argument that the University's SNM license amendment application is deficient due to the University's decision not to list Pu-241 as a "significant contaminant."

### iii. Am-241

We find that the question whether Am-241 should have been listed separately in the University's SNM license amendment application is moot. On Feb. 27, 1992, the University submitted an Application for Renewal of [its] Broad Scope License No. 24-00513-32. In that application (which was never challenged), the University sought permission to combine its then-existing Part 70 SNM License (which did not list Am-241) and its Part 30 Materials License (which did list Am-241) into a new all-inclusive Broad Scope Materials License (which did list Am-241), and then to terminate its SNM License. On July 7, 1993, the Staff included the SNM materials in the University's newly issued Broad Scope Materials License No. 24-00513-39 and simultaneously terminated License No. SNM-247 (see Amendment No. 18 to License No. SNM-247). As a consequence, the byproduct materials license amendment's reference to Am-241 was incorporated into the new Broad Scope Materials License No. 24-00513-39 — the license that currently covers the University's SNM material.

### c. Failure to Demonstrate Adequate Qualifications of Personnel

The Presiding Officer in his Final Initial Decision rejected the Intervenors' argument that the University had failed to satisfy its obligation under sections 30.33(a)(3) and 70.23(a)(2) to demonstrate that its personnel were qualified

<sup>37</sup> Moreover, because Pu-241 cannot be inhaled or ingested by an individual unless Pu-239/Pu-240 has also escaped from the glove box, the safety measures that would prevent the release of the principal isotopes Pu-239/Pu-240 would also prevent the release of Pu-241.

through training and experience to use the material for the requested purpose. LBP-91-31, 34 NRC at 95, 96-97, 99-100, 101, 107. On appeal, the Intervenor challenge the Presiding Officer's conclusion. IS-IB at 59-61. For the reasons set forth below, we affirm the Presiding Officer's conclusion.

#### I. ACCURACY OF THE LICENSEE'S DESCRIPTION OF THE PLUTONIUM SAMPLE'S RADIOISOTOPES AND CURIE CONTENT

As noted above, the University, in its SNM license amendment application, sought authority to possess and use "10 grams/710 millicurie Plutonium." See Application for Amendment to License No. SNM-247, dated Feb. 20, 1990, at 1. The Intervenor asserted that MURR staff did not know (or concealed) the fact that the 10 grams of plutonium would contain a radiation quantity of far more than the 0.710 Ci specified in the University's application. According to the Intervenor, this display of ignorance (or deception) demonstrated the incompetence of the University's personnel. See, e.g., Intervenor's Response to Licensee's Written Presentation, dated Dec. 24, 1990, at 17-18.

In his Final Initial Decision, the Presiding Officer concluded that "it would have been preferable to disclose" in the SNM application the 1.21 Ci of Pu-241, but he nevertheless rejected the Intervenor's argument that this omission was fatal to the application and he accordingly refused to adopt the Intervenor's position regarding the University personnel's qualifications. LBP-91-31, 34 NRC at 98-100. On appeal, the Intervenor contend that the Presiding Officer erred in concluding that the University's omission of this information does not cast doubt on the qualifications of the University's personnel. IS-IB at 59-60. We have examined this issue thoroughly and agree with the Presiding Officer's conclusion.

We reject the Intervenor's suggestion that the University's personnel may have been ignorant of the existence of Pu-241 and Am-241 in the Pu-239/Pu-240 sample. See *id.* at 60.<sup>38</sup> The record in fact demonstrates that the University deliberately decided not to list Pu-241 or Am-241 in its SNM application because it did not consider either radionuclide to be a significant trace contaminant required to be listed under our regulations. See, e.g., Morris Plutonium Affidavit, *supra* note 27, at 4 ¶¶ 8, 9; Licensee's Exhibit No. 15, *supra* note 26, at 4 ¶ 8; Licensee's Submittal in Accordance with "Memorandum (Memorandum of Conference Call of October 19, 1990)," filed Oct. 30, 1990, at 5; Licensee's Response to "Intervenor's Motion for Reconsideration . . . and Emergency

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<sup>38</sup>Nor do we find in the record even the slightest evidence to support the Intervenor's suggestion that the University's personnel may have attempted to "conceal[]" these radionuclides' existence from the Commission. See *id.*

Order . . . Part 1," dated Nov. 21, 1990, at 5 n.2 and 10-11. *See also* U Mo RB at 86.

The University's conclusion in this regard was shared by the NRC Staff. *See* NRC Staff Response, *supra* note 26, at 5; Affidavit of John E. Glenn, *supra* note 26, at 4 ¶¶6, and 6 ¶¶9, 10, and 7 ¶11; Affidavit of Dr. William J. Adam, *supra* note 26, at 3-4 ¶¶6, 7. We agree with the NRC Staff that, consistent with the University's decision not to list Pu-241 or Am-241 and contrary to the Intervenor's understanding, it is not the general practice of the scientific community to identify the activity of all radioisotopes present in licensed material, including trace elements down to microcurie quantities. Affidavit of John E. Glenn, *supra* note 26, at 2 ¶3. Thus, the omission of separate listings of Pu-241 and Am-241 in the University's SNM application does not indicate any lack of qualification of the University's personnel. Nor is there any other record evidence to suggest such a lack of qualification.

To the contrary, we find that the record amply supports the conclusion that the personnel are highly qualified in education, training, and experience to engage in the TRUMP-S Project research. The University has provided extensive information regarding the training and experience of those personnel,<sup>39</sup> and the Intervenor's have chosen not to challenge the accuracy or relevance of that information. We also express our confidence in the training program established by the University for the participants in the TRUMP-S Project. *See* Langhorst Personnel Qualifications Affidavit, *supra* note 16, at 11-12 ¶¶32-33, 35; *id.* at 15-16 ¶39(2)-(8).

#### ii. ACCURACY OF THE DESCRIPTION OF THE PLUTONIUM SAMPLE'S WEIGHT CONTENT

The Intervenor's assert that MURR staff were ignorant of the fact that the content of the plutonium could not possibly be 94.42 wt % Pu-239 and 5.58 wt % Pu-240 (the numbers used in the University's SNM application). According

<sup>39</sup> *See* the resumes of Dr. Gary J. Ehrhardt, Mr. John P. Ernst, Mr. Stephen L. Gunn, Dr. Roland A. Hultsch, Dr. Langhorst, Mr. Walter A. Meyer, Mr. Jeff L. Roy, Mr. Jamieson G. Shotts, Dr. Albert Y. Sun, and Dr. Kurt R. Zinn, all of which are attached as Appendix B to each of the two subject license amendment applications (submitted by Staff into the record on June 21, 1990); Affidavit of Dr. J. Steven Morris at 1-2 ¶¶1-3, attached to "Licensee's Submittal in Accordance with Memorandum (Memorandum of Conference Call of October 19, 1990)," dated Oct. 30, 1990; Affidavit of Mr. Walter A. Meyer, Jr. at 1-3 ¶¶1-7, attached to "Licensee's Submittal in Accordance with Memorandum (Memorandum of Conference Call of October 19, 1990)," dated Oct. 30, 1990; Resume of Mr. Walter A. Meyer, Jr., attached to "Licensee's Submittal in Accordance with Memorandum (Memorandum of Conference Call of October 19, 1990)," dated Oct. 30, 1990; Langhorst Personnel Qualifications Affidavit, *supra* note 16, at 6-20 ¶¶23-43; Licensee's Written Presentation, which includes numerous other affidavits containing background information and resumes for many of the other TRUMP-S personnel. *See also* the "brief resumes" of Dr. T.S. Storvick, Dr. D.G. Retzlaff, Dr. Paul R. Sharp, Dr. Dabir S. Viswanath, found at pp. 8-10 of the "Engineering, Chemistry, and MURR Program Support of the Rockwell International TRUMP-S Project: A Proposal submitted to Rockwell . . . by The Curators of the University of Missouri (January 1990)," submitted into the record as part of Intervenor's Exhibit No. 19, *supra* note 12.

to the Intervenor, this display of ignorance indicates the incompetence of the University's personnel. IS-IB at 59. Earlier in this proceeding, the Intervenor asserted that the University's figures failed to reflect the almost-certain presence of Pu-241, Pu-242, and Am-241 in the plutonium sample. Intervenor's Exhibit No. 1, *supra* p. 87 at 6-9 (especially ¶¶ 23, 25). The Intervenor is apparently proffering on appeal a "condensed" version of this earlier assertion; they believe the presence of these three other radionuclides in the plutonium sample belies the University's conclusion that Pu-239 and Pu-240 together account for 100% of the sample's weight.

The evidence in the record on this issue does not call into question the competence of the MURR staff. The plutonium sample at issue came from the New Brunswick Laboratory Certified Reference Material 127 (formerly National Bureau of Standards Standard Reference Material 945). Morris Plutonium Affidavit, *supra* note 27, at 3 ¶6(3). The New Brunswick Laboratory indicated in its Form DOE-CH393 that it was shipping 4.72 grams of Pu-239 and 0.279 gram of Pu-240 to Rockwell, the TRUMP-S Project's principal contractor. Morris Plutonium Affidavit, *supra* note 27, at 5 ¶12, and Attachment 3 thereto (Shipping Form dated May 12, 1989). A simple mathematical calculation reveals that the Pu-239 constitutes 94.42% of the total plutonium weight and that Pu-240 constitutes the remaining 5.58%.<sup>40</sup>

Moreover, the University has acknowledged that it knew from the outset that there would be some Pu-241, Pu-242, and Am-241 in the sample,<sup>41</sup> but that they were omitted from the application's list of radionuclides because the University did not consider them to be "significant" "dose-contributing contaminants" as those terms are used in section 4.3 of Regulatory Guide 10.3. Morris Plutonium Affidavit, *supra* note 27, at 4 ¶8. See generally Section II.B.1.b, *supra*. Such a conclusion was rational (and indeed has been adopted by the Commission in Section II.B.1.b, *supra*, regarding Pu-241 and Pu-242) and thus cannot be

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40 Pu-239:	$\frac{4.72}{4.72 + 0.279}$	=	$\frac{4.72}{4.99}$	=	0.9442
Pu-240:	$\frac{0.279}{4.72 + 0.279}$	=	$\frac{0.279}{4.99}$	=	0.0558

The Intervenor has submitted no evidence that would contradict the University's conclusions regarding the chemical makeup of its plutonium sample. They have merely offered two tables setting forth the weight percentages of radionuclides in weapons-grade plutonium samples — *not* the sample used by the University. Intervenor's Exhibit No. 1, *supra* p. 87, at 7 ¶17. Because (as the Intervenor themselves state) the chemical "[c]omposition will vary sample to sample" (*id.*), the information in the two tables does not refute the University's conclusion regarding the percentage of Pu-239 and Pu-240 in its own plutonium sample.

<sup>41</sup> The University provided two different sets of calculations yielding the weight percentage of *all five* radionuclides as of September 1990: Pu-239 (94.42% and 94.2%); Pu-240 (5.58% and 5.52%); Pu-241 (<0.1% and 0.116%); Pu-242 (<0.1% and 0.018%); and Am-241 (<0.1%). Morris Plutonium Affidavit, *supra* note 27, at 6-7 ¶¶ 15-16.

considered to reflect adversely on the competence of the University's staff. For all these reasons, we reject the Intervenor's argument.

### iii. OTHER ALLEGED INSTANCES OF LICENSEE'S IGNORANCE

Next, the Intervenor's point to other alleged examples of the University staff's ignorance: (1) the need for sprinklers inside and outside of Alpha Lab; (2) the need for wire glass in the window of the lab; (3) the need for an additional testable-in-place HEPA filter; and (4) the fact that oxygen in the glove box creates danger of fire, especially when a pyrophoric material such as metallic plutonium is in use. IS-IB at 60. According to the Intervenor, these provide further evidence that the University's personnel are not qualified to conduct the activities contemplated in the University's two license applications.

We do not see how these examples have any relevance to the question whether the University's staff "is qualified by training and experience" to experiment with the elements at issue in this proceeding. See 10 C.F.R. §§ 30.33(a)(3), 70.23(a)(3). Intervenor's first and second arguments, reduced to their essence, amount to nothing more than a conclusion that the University staff is unqualified to conduct the TRUMP-S experiments because the University disagrees with the Intervenor and the Presiding Officer on the need for sprinklers and wire glass. Regarding the Intervenor's third assertion, we agree with the Presiding Officer that an additional testable-in-place HEPA filter was not required for safety, and that the absence of such an additional filter did not constitute a design flaw in the laboratory. See LBP-91-31, 34 NRC at 103-04. None of these arguments, in sum, persuades us that the University's personnel are unqualified.

The Intervenor's fourth assertion — that the University was ignorant of the fact that oxygen in the glove box increases the risk of fire — would, if true, call into question the competence of the employees. But the assertion is plainly not true. The University personnel's awareness of the oxygen issue is evidenced by both the University's decision to conduct the TRUMP-S experiments in an inert glove box (in which the oxygen content is typically less than 0.1 part per million (ppm)) and the University's installation of an oxygen detection system that triggers alarms in both the Alpha Laboratory and the reactor control room when the oxygen level reaches 7 ppm. To put this 7-ppm figure in perspective, we note from the record that an oxygen level this low will not permit combustion of ordinary materials; that a level of 10,000 ppm or less will preclude plutonium from either reaching combustion or continuing to burn (absent additional heat);

that a level of 80,000 ppm or less will preclude smoldering; and that a level of 150,000 ppm or less will result in the extinguishing of flames.<sup>42</sup>

On a related matter, we conclude that, notwithstanding the Intervenor's cursory assertions to the contrary (II-IB at 55-56), graduate students may appropriately participate in the TRUMP-S experiments. These students receive the requisite radiation protection training required by 10 C.F.R. Part 19,<sup>43</sup> and will be working under the guidance of authorized users (professors and certified health physicists).<sup>44</sup>

## 2. *The Presiding Officer Did Not Err in Refusing to Strike Certain Affidavits Filed by Licensee*

Intervenor's complain on appeal that the Presiding Officer erred in refusing to strike seven affidavits filed by the University on January 28, 1991.<sup>45</sup> Specifically, Intervenor's complain that the University belatedly submitted these affidavits only after the Intervenor's had submitted their October 15, 1990 written presentation, thereby denying the Intervenor's the opportunity to address those affidavits in that written presentation. On February 12, 1991, the Intervenor's moved to strike the seven affidavits. The Presiding Officer denied the motion to strike. See unpublished Memorandum and Order (Intervenor's Motion for Clarification, etc.), issued March 12, 1991, slip op. at 1. In the Final Initial Decision, the

<sup>42</sup> See Meyer Emergency Planning Affidavit, *supra* note 16, at 9 ¶29; Licensee's Exhibit No. 3, *supra* note 12, at 17 ¶42; Licensee's Exhibit No. 5, Affidavit of Dr. C. Leon Krueger, appended to Licensee's Written Presentation, dated Nov. 13, 1990, at 3 ¶11.

<sup>43</sup> See Application for Amendment to License No. SNM-247 at 20-21; Application for Amendment to License No. 24-00513-32 at 21-22. See generally University of Missouri Central Radiation Safety Committee's Handbook, *supra* p. 99.

<sup>44</sup> See Licensee's Written Presentation at 70-71; Langhorst Personnel Qualifications Affidavit, *supra* note 16, at 19 ¶39(8), and 20 ¶42; Response of Licensee to Request for Hearing and Stay Pending Hearing, dated May 25, 1990, at 21; University of Missouri Central Radiation Safety Committee's Handbook, *supra* p. 99, at 2-5 to 2-6 § 2.2.5.

<sup>45</sup> IS-IB at 13, 21-28, II-IB at 58. Specifically, the Intervenor's refer to the affidavits from

- Robert G. Purington regarding fire protection at the Alpha Laboratory;
- Daniel J. Osetek regarding the appropriate dispersion model;
- Dr. Susan M. Langhorst regarding the appropriate dispersion model;
- William Markgraf, the Fire Chief of Columbia, Missouri, regarding various fire protection issues;
- Veryl G. Eschen regarding the argon glove box exhaust system;
- Dr. J. Steven Morris regarding actinide release fractions, the Alpha Laboratory, the HEPA filters in the glove box exhaust line, maximum credible accident, the isotopic composition of plutonium, epidemiology, and the sufficiency of the documents provided to the Intervenor's; and
- Walter A. Meyer, regarding the MURR facility emergency plan, the facility emergency procedures FEP 3 and FEP 3(a), the fire department's willingness and capability to fight a fire involving radioactive materials, postulated fires in the Alpha Laboratory general basement area, the applicability of National Fire Protection Association ("NFPA") practices to the Alpha Laboratory, the Columbia Fire Department's equipment, and fire protection methods.

See IS-IB at 24. These seven affidavits were denoted as Licensee's Exhibit Nos. 16-22, and accompanied the Licensee's Jan. 28, 1991 Response to Intervenor's Rebuttal.



Presiding Officer also made the following indirect reference to his denial of the Intervenor's motion to strike:

It is general practice at the NRC to permit applicant to amend its application papers to remedy defects that may be disclosed during the pendency of a proceeding . . . .

LBP-91-31, 34 NRC at 110, quoting LBP-90-38, 32 NRC 359, 364 (1990).

On appeal, the Intervenor's take issue with the Presiding Officer's above-quoted language. They contend that the Presiding Officer, in denying their motion to strike the seven affidavits, confused the informal Subpart L proceedings with the formal Subpart G proceedings. According to the Intervenor's, the "general practice" to which the Presiding Officer alluded applies only to Subpart G proceedings, since there is very little experience under Subpart L.

To the extent the Intervenor's intend to argue that our regulations and practice preclude the University from submitting post-application affidavits into the record, we disagree. Such affidavits fall within the types of documents that the Presiding Officer has the discretion to allow into the record pursuant to section 2.1233(d), viz., "additional documentary data, informational material, or other written evidence."<sup>46</sup>

Moreover, we see no reason why the Commission's practice (to which the Presiding Officer was apparently referring) of permitting the licensee to file supplemental supporting evidence in a Subpart G proceeding should not apply equally well to a Subpart L proceeding.<sup>47</sup> The regulations in Subpart L not only provide for the submittal of such information at the discretion of the Presiding Officer but also require the Presiding Officer to consider such information in preparing the Initial Decision.<sup>48</sup>

### 3. *The Presiding Officer Did Not Err in Denying the Intervenor's Motion to Submit Rebuttal Evidence*

On January 30, 1991, the Presiding Officer *sua sponte* gave the Intervenor's permission to seek leave to submit additional evidence to rebut the Licensee's

<sup>46</sup>The Intervenor's themselves acknowledge that "[e]vidence does not 'modify a license application.'" Intervenor's Motion to Strike Irrelevant and Unreliable Matters, dated Nov. 26, 1990, at 2.

<sup>47</sup>As noted earlier, this does not mean that the Commission sanctions the filing of patently deficient or "bare-bones" applications.

<sup>48</sup>The Intervenor's also take issue with what they consider to be the Presiding Officer's characterization of the University's affidavits as "amend[ments]" to the two applications. IS-IB at 25-26. See generally Intervenor's Response to Licensee's Written Presentation, dated Dec. 24, 1990 at 3-5. We believe that the Presiding Officer intended his use of the words "amend its application papers" to refer to *all* papers submitted by the Licensee in support of its application, and that his words did not refer only to the application. In any event, regardless of the Presiding Officer's intended meaning, we view the University's affidavits as explanatory material offered to aid in the understanding of the applications, not as amendments to the applications. (Because the Commission rejects the characterization of the affidavits as "amendments" to the University's application, we need not reach the Intervenor's arguments that are premised upon that characterization. See IS-IB at 25-28.)

January 28, 1991 evidentiary submission (consisting of the seven affidavits discussed above). The Presiding Officer required, however, that any such submittal by the Intervenors

(1) list[, with document and page references, specific facts or arguments *that have appeared for the first time* in "Licensee's Response to Intervenors['] Rebuttal," and (2) for each fact listed, stat[e] what Intervenors desire to show and that they have a witness or a citation to a legal authority or recognized code to support that showing. If Intervenors wish, they may attach affidavits which will be received in the written record only if their motion is granted.

Unpublished Memorandum and Order (Motion to Show Cause), issued Jan. 30, 1991, slip op. at 1-2 (emphasis in original). Intervenors accepted the Presiding Officer's invitation and moved for leave to file rebuttal evidence in response to these seven affidavits. *See* Intervenors' Motion for Leave to Respond to New Facts and Arguments in Licensee's Response to Intervenors' Rebuttal, dated Feb. 12, 1991.

In an unpublished order issued March 12, 1991, the Presiding Officer deferred ruling on the motion to file rebuttal evidence.<sup>49</sup> In the Final Initial Decision, the Presiding Officer denied the Intervenors' motion for leave to file rebuttal evidence. LBP-91-31, 34 NRC at 110, 119. He based this ruling on his interpretation of Subpart L and on his conclusion that the Intervenors had had numerous opportunities to respond concerning all issues of importance. *Id.* at 110, 113. The Presiding Officer also based his ruling on the conclusions that the Intervenors' request for leave to submit rebuttal evidence was too general and that it failed to suggest the nature of the rebuttal evidence that they would proffer. *Id.* at 113. *See generally id.* at 113-19.

On appeal, the Intervenors object to the Presiding Officer's denial of their motion to respond to the University's seven affidavits. According to the Intervenors, the Presiding Officer's ruling enabled the University to circumvent the Intervenors' right to public notice and opportunity for comment. Specifically, the Intervenors assert that the University filed an "empty application" (IS-IB at 21) and only later submitted the affidavits that it should have included as part of its original application, and which the Intervenors had no opportunity to rebut. *Id.* at 21, 23, 24; II-IB at 58-59. The Intervenors complain that the Presiding Officer's ruling consequently denied them their hearing rights under section 189 of the AEA, as well as their alleged rights to file rebuttal evidence under section 556(d) of the Administrative Procedure Act ("APA") and the Due Process Clause

<sup>49</sup> *See* unpublished Memorandum and Order (Intervenors' Motion for Clarification, etc.), issued March 12, 1991, slip op. at 2:

I am not now permitting a further response to Licensee's [filings] by Intervenors, choosing instead to limit the response to answers to my questions. After I receive the answers, I will decide what further action may be appropriate.

of the Fifth Amendment of the United States Constitution. II-IB at 45, 57, 59, 60; IS-IB at 21.<sup>50</sup> In a related argument, the Intervenor's also assert that the Presiding Officer's ruling reversed the burden of proof on the "public health and safety" issues by admitting into evidence the Licensee's affidavits but not permitting Intervenor's the opportunity to respond. IS-IB at 13, 55.

For the reasons set forth below, we conclude that the Presiding Officer's ruling neither violated any right Intervenor's had to rebut the University's submissions nor reversed the burden of proof on the issues of "public health and safety."

To begin with, the Presiding Officer *did* give the Intervenor's every chance to make their case, including the filing of rebuttal evidence. Transcript of Conference held June 27, 1990, at 44. The Intervenor's were given — and took full advantage of — just such an opportunity to rebut the University's written presentation.<sup>51</sup> In addition, the Presiding Officer on his own motion gave the Intervenor's permission to seek leave to submit additional rebuttal evidence to deal with the University's final evidentiary submission of January 28, 1991. Unpublished Memorandum and Order (Motion to Show Cause), issued Jan. 30, 1991, slip op. at 1-2 (quoted at p. 115, above). The Presiding Officer indicated that he would allow such additional rebuttal evidence *if* the Intervenor's satisfied certain conditions (intended principally to ensure that the Intervenor's evidence responded solely to facts or arguments appearing for the first time in the University's January 28 submission). But, as the Presiding Officer reasonably concluded, the Intervenor's subsequent request for leave to submit rebuttal evidence was too general, failed to suggest the nature of the rebuttal evidence that they would proffer, dealt with issues that the Intervenor's had previously had ample opportunity to address, were irrelevant, were unnecessary for an adequate record, and/or suffered from other shortcomings. See LBP-91-31, 34 NRC at 113-19.

To the extent that Intervenor's are contending that the Presiding Officer abused his discretion in denying the Intervenor's motion for leave to file rebuttal evidence, we disagree. We conclude that the Presiding Officer was well within his "broad discretion"<sup>52</sup> to conclude both that the Intervenor's had already been accorded ample opportunity to respond to all issues of importance and that, if he needed any further information to compile an adequate record, he could obtain

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<sup>50</sup> Intervenor's do not, however, argue on appeal that Subpart L is unconstitutional.

<sup>51</sup> See Intervenor's Response to Licensee's Written Presentation, dated Dec. 24, 1990, and accompanying Declarations of Henry Ottinger, Mark Haim, Donald W. Wallace, and the "TRUMP-S Review Panel." See also "Intervenor's Motion to Strike Affidavit of Dr. Susan M. Langhorst, Marked Licensee's Exhibit 15, Filed with Licensee's Response to Intervenor's Motion for Reconsideration . . . and Emergency Order . . . Part I," Dated/November 15, 1990," dated Dec. 12, 1990.

<sup>52</sup> Final Rule, "Informal Hearing Procedures for Materials Licensing Adjudications," 54 Fed. Reg. 8269 (Feb. 28, 1989) ("Final Subpart L Rule").

it by posing questions pursuant to section 2.1233(a).<sup>53</sup> The Intervenor's ample opportunity to address the issues in this case is demonstrated by their numerous and voluminous filings. During this proceeding, the Intervenor has submitted seventy-nine filings and twenty-one evidentiary exhibits. The Presiding Officer's decision denying the Intervenor's request to file additional evidence was fully consistent with the Commission's intent in promulgating Subpart L, i.e., to decrease the cost and delay for the parties and the Commission and to empower presiding officers to manage and control the parties' written submissions.<sup>54</sup>

The Intervenor's argument, when reduced to its essence, is simply that they were unfairly disadvantaged by the manner in which the Presiding Officer exercised his discretion to determine the sequence of filings and to prohibit filings, i.e., that he gave the University the last word. However, Subpart L does not accord Intervenor the right to speak last regarding the issues in a materials license proceeding.<sup>55</sup> Nor do the other statutory or constitutional provisions cited in the Intervenor's briefs. The Intervenor points to section 189a(1) of the AEA, 42 U.S.C. § 2239(a)(1), and to section 7(c) of the APA, 5 U.S.C. § 556(d).<sup>56</sup> But these provisions do not advance the inquiry: this Subpart L proceeding is the agency hearing guaranteed by the AEA, and the APA provision simply does not apply to informal hearings like this one (*see* further discussion at section II.B.4, *infra*).

The Intervenor also errs in claiming a denial of due process under the Fifth Amendment. Neither group of Intervenor has provided any analysis whatever explaining why the Subpart L hearing procedures followed in this case fail to conform to the due process requirements of the Fifth Amendment. They provide merely cursory references to "due process clause of the Fifth Amendment of the United States Constitution" or to portions of that phrase. II-IB at 45, 57, 59, 60.

<sup>53</sup> See LBP-91-31, 34 NRC at 110, 113-19. In fact, the Presiding Officer on three occasions did exercise this authority to pose questions to various parties. See LBP-91-12, 33 NRC 253, 257 (1991); unpublished Memorandum and Order (Questions), dated Feb. 26, 1991; unpublished Memorandum and Order (Question), dated May 22, 1991.

<sup>54</sup> Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8275. Cf. Final Rule, "Informal Hearing Procedures for Nuclear Reactor Operator Licensing Adjudications," 55 Fed. Reg. 36,801, 36,803 (Sept. 7, 1990). Although this case has proved complex and lengthy, the size of the record could have been substantially larger, the costs even greater, and the delay even longer, had the Presiding Officer totally abandoned his case management responsibilities and permitted the parties to submit all the filings they might have wished. See generally *Rockwell International Corp.* (Rocketyne Division), ALAB-925, 30 NRC 709, 718 (1989) ("[B]y informalizing these [Subpart L] adjudications, the Commission did not intend, in our view, to encourage 'free-form' litigation by any of the participants . . . ."), *aff'd*, CLI-90-5, 31 NRC 337 (1990).

<sup>55</sup> Section 2.1233(a) of Subpart L expressly accords the Presiding Officer the discretion both to determine the sequence in which the parties present their "arguments[,] documentary data, informational material, and other supporting written evidence" and to offer individual parties the opportunity to provide further data, material, and evidence in response to the Presiding Officer's questions. 10 C.F.R. § 2.1233(a).

<sup>56</sup> This section of the APA provides that:

A party is entitled to present his case or defense by oral or documentary evidence, to submit rebuttal evidence, and to conduct such cross-examination as may be required for a full and true disclosure of the facts.

More to the point, however, the Intervenor base their argument on an incorrect legal premise. Generalized health, safety and environmental concerns (such as those that the Intervenor assert) simply do not rise to the level of liberty or property interests that are protected by the due process clause.<sup>57</sup> *City of West Chicago v. NRC*, 701 F.2d 632, 645 (7th Cir. 1983); *Sequoyah Fuels Corp.* (Sequoyah UF<sub>6</sub> to UF<sub>4</sub> Facility), CLI-86-17, 24 NRC 489, 495-98 (1986); *Kerr-McGee Corp.* (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232, 256-57 (1982).<sup>58</sup>

#### 4. *The Presiding Officer Did Not Err in Denying the Intervenor's Request for Oral Presentations, Cross-Examination, and Formal Hearing*

Throughout this proceeding, the Intervenor repeatedly requested that the Presiding Officer authorize oral presentations and cross-examination of witnesses — in essence, to conduct a formal evidentiary hearing.<sup>59</sup> The Presiding Officer in his Final Initial Decision concluded that there were insufficient reasons to justify oral presentation or a formal evidentiary hearing. LBP-91-31, 34 NRC at 37, 111-12, 127. On appeal, the Intervenor complain that the Presiding Officer should have sought the Commission's permission under section 2.1209(k) to conduct a formal hearing or, at the very least, should have granted their request for oral presentation and cross-examination on a wide variety of issues (II-IB at 60-70; I-RB at 18), such as the willingness of the Columbia Fire Department

<sup>57</sup> Even if the Intervenor's interests were protected by due process, the Intervenor have nevertheless failed to discuss the remaining two factors that the Supreme Court has held must be analyzed and balanced when presenting such due process arguments:

the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and . . . the Government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirements would entail.

*Mathews v. Eldridge*, 424 U.S. 319, 335 (1976). See also *Sequoyah Fuels Corp.* (Sequoyah UF<sub>6</sub> to UF<sub>4</sub> Facility), CLI-86-17, 24 NRC 489, 495-98 (1986).

<sup>58</sup> In an argument related to their contentions regarding rebuttal evidence, the Intervenor assert that the unfairness of denying further rebuttal was compounded by the fact that discovery is barred in Subpart L proceedings. IS-IB at 12; II-IB at 59; I-RB at 18. Section 2.1231(d) expressly prohibits discovery in a Subpart L proceeding. 10 C.F.R. § 2.1231(d); *Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709, 716 (1989). We see no unfairness in such a result. The right to discovery is not required under the APA even for formal adjudicatory hearings, much less for informal hearings under the AEA. See 5 U.S.C. § 554 (1988); Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8270. Moreover, given the thoroughness with which the Intervenor have participated in this proceeding, we hardly think that this unavailability of discovery has hampered their ability to advance their case.

<sup>59</sup> See, e.g., Intervenor's Motion for Order Recommending Formal Hearing, or in the Alternative Requiring Oral Presentations, dated Nov. 14, 1990; Intervenor's Motion for Reconsideration of Memorandum and Order of November 1, 1990: Part II, dated Nov. 16, 1990, at 9-10; Intervenor's Response to Reply of NRC Staff Affiant [Dr.] Amarendranath Datta to Questions posed in Memorandum and Order of May 22, 1991, dated June 11, 1991, at 22-23; Intervenor's Renewed Motion for Order Recommending Formal Hearing, or in the Alternative Requiring Oral Presentations (Part I), dated June 20, 1991; Intervenor's Renewed Motion for Order Recommending Formal Hearing, or in the Alternative Requiring Oral Presentations (Part II), dated June 27, 1991; Intervenor's Written Presentation at 59-60.

to fight a fire involving the release of radioactivity (II-IB at 60-61, 64); what was "really observed," "really believed," and "really said" by various of the Licensee's expert witnesses (*id.*); the credibility of Dr. Morris (*id.* at 60, 65-66); and the accuracy of Dr. Langhorst's characterization of NUREG-1140 (*id.* at 66). For the reasons set forth below, we disagree with the Intervenor's position regarding each of the three requested procedures.

a. *Formal Hearing*

The formal on-the-record hearing provisions of the APA do not apply to the Commission's informal proceedings such as those addressing materials license amendment applications.<sup>60</sup> The Intervenor is instead entitled only to "some sort of procedure for notice, comment, and a statement of reasons" for the agency action.<sup>61</sup> They have received as much.

Moreover, under our regulations, the parties to a Subpart L proceeding have no right to require a formal hearing. Rather, the Commission alone has the authority to require such a hearing. See 10 C.F.R. § 2.1209(k). Under Subpart L's procedures, the Commission will generally exercise this authority only in situations where the Presiding Officer requests permission to conduct a formal adjudication using the rules of Subpart G.<sup>62</sup> However, Subpart L contemplates that a presiding officer would only rarely request permission to conduct a formal adjudication. Proposed Subpart L Rule, 52 Fed. Reg. at 20,091. For the reasons set forth in our discussions below regarding oral presentations and cross-examination, we find nothing in the record to suggest that the Presiding Officer abused his discretion in declining to seek the Commission's permission to conduct a formal hearing.<sup>63</sup>

<sup>60</sup> *Kerr-McGee Corp.* (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232, 247-256 (1982), *aff'd sub nom. City of West Chicago v. NRC*, 701 F.2d 632, 641-45 (7th Cir. 1983) (in which both the Commission and the United States Court of Appeals for the Seventh Circuit discussed this issue in great detail and concluded that the AEA does not mandate formal, trial-type hearings in materials license proceedings). See generally *Union of Concerned Scientists v. NRC*, 920 F.2d 50, 53 (D.C. Cir. 1990) (the AEA "nowhere describes the content of a hearing or prescribes the manner in which this 'hearing' is to be run"). Moreover, the Commission has itself expressly stated that Subpart L procedures are not subject to the APA's formal hearing requirements. Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8270.

<sup>61</sup> *Independent U.S. Tanker Owners Comm. v. Lewis*, 690 F.2d 908, 922-23 (D.C. Cir. 1982), and authority cited therein. See also Edles and Nelson, *Federal Regulatory Process: Agency Practice and Procedures*, § 5.4 IV at 107 (2d ed. 1992).

<sup>62</sup> See 10 C.F.R. § 2.1209(k). See also *Safety Light Corp.* (Bloomsburg Site Decontamination), CLI-92-13, 36 NRC 79, 87 (1992). Moreover, the Commission does not have to grant the Presiding Officer's request.

<sup>63</sup> In a related argument, Intervenor's take issue with the Presiding Officer's view that "not having seen and heard the witnesses also is advantageous." 34 NRC at 129. Intervenor's argue that the Presiding Officer's statement contravenes the general principle of law that oral evidence is superior to written evidence. II-IB at 66-68. The Intervenor's argument is inappropriately raised on appeal. Appeals lie only from unfavorable actions by the Presiding Officer, not from *dictum* in an initial decision with which the party disagrees but which has no operative effect. *Duke Power Co.* (Cherokee Nuclear Station, Units 1, 2, and 3), ALAB-482, 7 NRC 979, 980 (1978). We therefore need not rule on this argument.

*b. Oral Presentations*

In promulgating Subpart L, the Commission contemplated that the Presiding Officer would base his decision on a written record. *See generally* 10 C.F.R. § 2.1233. *See also* Proposed Subpart L Rule, 52 Fed. Reg. at 20,091. Consequently, the Commission accorded the Presiding Officer wide discretion to decide whether oral presentations are "necessary to create an adequate record." 10 C.F.R. § 2.1235(a). *See also* 10 C.F.R. § 2.1209(i). The Commission anticipated that, in the vast majority of situations, the Presiding Officer would not allow oral presentations.<sup>64</sup> As previously noted, the record in this proceeding is voluminous, and the Intervenors have taken full advantage of their many opportunities to present evidence — filing literally dozens of affidavits and declarations. *See* text following note 53, *supra*. Consequently, we find no reason to conclude that the Presiding Officer abused this discretion in denying the Intervenors' request for oral presentations.

*c. Cross-Examination*

We reach a similar conclusion regarding the Presiding Officer's exercise of his discretion to preclude oral cross-examination. Parties have no fundamental right to cross-examination even in a formal Subpart G licensing proceeding. Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8270; *Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-82-11, 15 NRC 1383, 1384 (1982) ("Cross-examination is not such a 'fundamental right' that any denial constitutes prejudicial error *per se*"). The Commission has made clear that, in a Subpart L proceeding, "the responsibility for the examination of all witnesses rests with the Presiding Officer,"<sup>65</sup> not with the parties.

The Presiding Officer was well within his "broad discretion" (Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8269) to conclude that cross-examination was unnecessary and that he could obtain any further necessary information by posing questions pursuant to section 2.1233(a).<sup>66</sup> We defer to the Presiding Officer's judgment.

<sup>64</sup> Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8274 ("oral presentations should be necessary only in those rare instances in which the written presentations leave unresolved issues that the presiding officer finds can be decided only after having oral presentations").

<sup>65</sup> Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8274. *See also* *Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709, 716 (1989), *aff'd*, CLI-90-5, 31 NRC 337 (1990) (referring to "examination solely by the presiding officer"). Even prior to the promulgation of Subpart L, the Commission generally did not permit "traditional trial-type cross-examination" by the parties in informal proceedings. *See Sequoyah Fuels Corp.* (Sequoyah UF<sub>6</sub> to UF<sub>4</sub> Facility), CLI-86-17, 24 NRC 489, 497 n.5 (1986).

<sup>66</sup> In fact, the Presiding Officer on three occasions did exercise this authority to pose questions to various parties. *See* LBP-91-12, 33 NRC 253, 257 (1991) (posing questions to Intervenors and NRC Staff, unpublished Memorandum and Order (Questions), dated Feb. 26, 1991) (posing questions to Licensee, Intervenors and NRC Staff), unpublished Memorandum and Order (Question), dated May 22, 1991.

5. *The Presiding Officer Did Not Err in Refusing to Consider the Adequacy of the Staff's Review of the University's Two Applications*

Intervenors assert that the NRC Staff's review of the University's license amendment applications constituted nothing more than a rubber-stamp approval, that the Presiding Officer erred in not setting aside the amendments and remanding the applications to Staff for additional review and findings, and that the Commission itself should therefore take the steps that the Presiding Officer avoided. Specifically, the Intervenors claim that Staff failed (1) to make certain required findings of fact and to explain the basis for its approval of the applications; (2) to prepare a safety evaluation report ("SER"); (3) to prepare either an EA or an EIS; and (4) to consider numerous other factors that Intervenors consider relevant. IS-IB at 9, 62-68, referring to LBP-91-31, 34 NRC at 108-09. See also Intervenors' Written Presentation at 27-30. For the following reasons, we reject all of these arguments.

a. *The Presiding Officer Was Not Obligated to Consider the Adequacy of Staff's Safety Review*

As a general matter, the Commission's licensing boards and presiding officers have no authority to direct the Staff in the performance of its safety reviews. *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516 (1980); *Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709, 721-22 (1989), *aff'd*, CLI-90-5, 31 NRC 337 (1990). Moreover, the University rather than the Staff bears the burden of proof in this proceeding. Consequently, the adequacy of Staff's safety review is, in the final analysis, not determinative of whether the application should be approved.<sup>67</sup> Given these facts, it would have been pointless for the Presiding Officer to rule upon the adequacy of Staff's review. *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 56 (1985).

Moreover, even assuming *arguendo* that Staff did conduct an insufficient review, a denial of a meritorious application on that ground would be grossly unfair — punishing the applicant for an error by Staff. The subject of

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<sup>67</sup> See *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Unit 1), ALAB-921, 30 NRC 177, 186 (1989); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 56 (1985); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807, *review declined*, CLI-83-32, 18 NRC 1309 (1983). See generally Final Rule, "Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process," 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989) ("With the exception of NEPA [National Environmental Policy Act] issues, the sole focus of the hearing is on whether the application satisfies NRC regulatory requirements, rather than the adequacy of the NRC Staff performance"). Although the above-cited cases address nuclear power plant licensing applications, the principle for which these cases are cited applies equally to NRC materials licensing amendment proceedings such as this case.



the litigation in this proceeding is the University's entitlement to the license amendments, not the adequacy of Staff's review of those amendments. For these reasons, we reject Intervenor's argument that the Presiding Officer erred in not setting aside the amendments and remanding the applications to the Staff.

*b. The Commission Declines to Exercise Its Authority to Set Aside the Amendments and Remand the Applications to Staff*

The Commission itself has the authority to vacate licensing actions or ask for further Staff review, and has exercised that authority on appropriate occasions. *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516-17 (1980). However, for the second and third reasons stated in the immediately preceding section, as well as the additional reasons set forth below, we decline to take those actions in this proceeding.

**i. THE STAFF HAD NO OBLIGATION EITHER TO PROVIDE AN EXPLANATION OF ITS DETERMINATION TO APPROVE THE LICENSE AMENDMENTS OR TO MAKE FINDINGS OF FACT IN SUPPORT OF THAT DETERMINATION**

Intervenor's are incorrect in concluding that the Staff, in its review of license amendment applications, had an obligation to make specific findings of fact or to explain its approval of those license amendments. Although such findings and explanation might have been helpful to both the Presiding Officer and the parties, they are not required under our orders, policy statements, and regulations. Moreover, such findings and explanation, while useful in the earlier stages of a proceeding, would decrease in importance as the record develops, and would ultimately be completely superseded by the Presiding Officer's (and, later, our own) findings of fact and conclusions of law. In any event, the Staff's approval of the University's two applications implies the conclusion by the Staff that the Licensee's applications satisfied the requirements of the AEA.<sup>68</sup>

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<sup>68</sup> Moreover, the mere fact that the NRC Staff did not prepare a written explanation of its decision to approve the license amendments does not mean that Staff failed to make the findings required under the AEA. Each year, Staff handles approximately 5000 materials license actions (such as applications for license amendments, license renewals, and new licenses) — a responsibility it could not meet were it required to prepare written explanations of each licensing decision.

ii. THE STAFF WAS NOT REQUIRED TO PREPARE A SAFETY EVALUATION REPORT

During the hearing, Intervenors complained that the Staff improperly failed to prepare an SER.<sup>69</sup> The Intervenors argue both that sections 70.23 and 30.33 of our regulations require the Staff to prepare such a document, and that the Staff's standard practice was to prepare an SER, as evidenced by its issuance of such a document when issuing the amendment to Rockwell's TRUMP-S license in an earlier proceeding. Intervenors' Exhibit No. 1, *supra* p. 87, at 12-13, citing "Safety Evaluation Report, License Amendment Application Dated December 22, 1989, Re Use of Plutonium in the TRUMP-S Program," Docket No. 70-25, dated March 9, 1990. The Presiding Officer, in his Final Initial Decision, rejected this line of argument and concluded instead that the "Staff . . . is not required to issue a safety evaluation" report. LBP-91-31, 34 NRC at 106. *See also id.* at 109. On appeal, the Intervenors assert that this ruling was erroneous. IS-IB at 31.

The Presiding Officer is correct. The Intervenors' argument regarding the necessity for an SER is essentially a variation on its more general argument, already rejected above, that the Staff must file specific written findings of fact or explanations for its decisions. We reject the SER contention on the same grounds as we rejected the more general argument. The Commission's orders, policy statements, or regulations, do not impose upon the Staff the duty of preparing an SER in a materials license amendment proceeding. Moreover, Intervenors' reliance upon sections 30.33 and 70.23 of the Commission's regulations is misplaced. Those sections merely provide that the Commission will not approve a special nuclear materials license or a specific byproduct material license unless it first determines that the applicant's qualifications, proposed procedures, equipment, and facilities are adequate "to protect health and minimize danger to life or property." 10 C.F.R. §§ 30.33(a)(2) and (3), 70.23(a)(2), (3), and (4). The Staff impliedly made just such findings by approving the applications. The Presiding Officer has more explicitly made them during this proceeding. And the Commission today expressly makes those findings itself.

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<sup>69</sup> *See, e.g.*, Intervenors' Application for Temporary Stay to Preserve Status Quo, dated Aug. 20, 1990, at 8; Intervenors' Exhibit No. 1, *supra* p. 87, at 12-13; Intervenors' Response to Licensee's Written Presentation, dated Dec. 24, 1990, at 23.

The Staff acknowledges that it prepared no SER. *See* Letter from Colleen Woodhead, Counsel for NRC Staff, to Judges Bloch and Linenberger, dated June 21, 1990.

iii. THE STAFF WAS REQUIRED TO PREPARE NEITHER AN ENVIRONMENTAL IMPACT STATEMENT NOR AN ENVIRONMENTAL ANALYSIS

Pursuant to section 102(2)(C) of NEPA and the Commission's regulations implementing that Act, the Staff must prepare an EIS addressing any major action taken by the Commission that may significantly affect the quality of the human environment. 42 U.S.C. § 4332(2)(C) (1988); 10 C.F.R. Part 51. However, neither the statute nor the regulations require the Staff to prepare an EIS if the federal action's effect on the environment is not "significant." The Commission has excused the Staff from preparing EISs, EAs, or findings of no significant impact ("FONSI") regarding any

category of actions which do not individually or cumulatively have a significant effect on the human environment and which the Commission has found to have no such effect in accordance with the procedures set out in § 51.22, and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.

10 C.F.R. § 51.14(a). Under one such categorical exclusion, the Staff is not required to prepare an EIS or EA for any "amendment . . . of materials licenses . . . authorizing . . . [u]se of radioactive materials for research and development and for educational purposes." 10 C.F.R. § 51.22(c)(14)(v). Dr. William J. Adam, the Staff's Senior License Reviewer responsible for reviewing the University's license applications, stated in an affidavit that the Staff had relied on this categorical exclusion to justify the conclusion that no environmental assessment was necessary. Affidavit of Dr. William J. Adam, dated July 26, 1990, at 2, attached to IS-IB at A-2.

The Intervenor's disagree with Dr. Adam's conclusion and assert instead that the provisions of section 51.22(c)(14)(v) are overridden by those of section 51.20(b)(7). II-IB at 51-55, citing 10 C.F.R. § 51.20(b)(7). See generally IS-IB at 9. The latter section requires the preparation of an EIS prior to the "[i]ssuance of a license to possess and use special nuclear material for processing and fuel fabrication" pursuant to Part 70 of the Commission's regulations. According to the Intervenor's, the experiments at the Alpha Lab involve the possession and use of such materials and the laboratory therefore falls within the definition, in 10 C.F.R. § 70.4, of a "plutonium processing and fuel fabrication plant":

[A] plant in which the following operations or activities are conducted: (1) Operations for manufacture of reactor fuel containing plutonium including any of the following: (i) Preparation of fuel material; (ii) formation of fuel material into desired shapes; (iii) application of protective cladding; (iv) recovery of scrap material; and (v) storage associated with such operations; or (2) Research and development activities involving any of the operations described in paragraph (1) of this definition except for research and development activities utilizing unsubstantial amounts of plutonium.

Intervenors assert that the Alpha Lab's proposed research and development activities would use 10 grams of fuel material plutonium — "a very substantial amount" — and that, consequently, the laboratory does not fall within the exception set forth at the end of the above-quoted definition. II-IB at 52-55. To support their conclusion regarding substantiality, the Intervenors point out that the approximately 2 Ci of plutonium to be used in the laboratory are 1,000,000 times the amount that can cause a significant likelihood of cancer; that this amount equates to approximately 40,000,000 permissible body burdens; that it is 2000 times greater than the threshold requiring decommissioning plans (*citing* section 70.25(a)); and that it is sufficiently high to require emergency planning in addition to that generally required of licensees (*citing* section 70.22(i)). II-IB at 53-54. *See also* Intervenors' Exhibit No. 1, *supra* p. 87, at 10-11.

Intervenors also rely on the following language from the Commission's Statement of Considerations to the final rule promulgating section 70.4: plutonium processing and fuel fabrication plants "typically process kilogram quantities of plutonium." Final Rule, "Plutonium Processing and Fuel Fabrication Plants," 36 Fed. Reg. 17,573, 17,574 (Sept. 2, 1971) (emphasis added). *See also* Proposed Rule, "Plutonium Processing and Fuel Fabrication Plants," 36 Fed. Reg. 9786 (May 28, 1971). According to the Intervenors, the Commission's use of the word "typically" reflects the Commission's recognition that such plants may also process quantities of less than 1 kilogram. II-IB at 54-55. From the above line of argument, the Intervenors conclude that the laboratory qualifies as a "plutonium processing and fuel fabrication plant" as defined in section 70.4, and that the Staff consequently erred in failing to prepare an EIS as required by section 51.20(b)(7).<sup>70</sup>

The Presiding Officer disagreed with the Intervenors' position and instead concluded both that the amount of plutonium (and other actinides) to be used in the TRUMP-S experiments constituted "unsubstantial quantities" for purposes of sections 70.4 and 51.20(b)(7), and that the laboratory would therefore not constitute a "plutonium processing and fuel fabrication plant." LBP-91-31, 34 NRC at 42-43, 102. We agree with the Presiding Officer that the laboratory is not a plutonium processing and fuel fabrication plant, and that Staff therefore was not required to prepare either an EA or an EIS.

We first observe that the University's research and development activities do not appear to involve any of the operations described in part (1) of the above-quoted definition in section 70.4. We also conclude, for the reasons set forth

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<sup>70</sup>The Intervenors also expressed their belief that the regulatory exemption contravenes NEPA. However, they correctly recognized that such a position constitutes a prohibited collateral attack on section 51.22 and that, consequently, they cannot raise that challenge in this proceeding. II-IB at 52. *See American Nuclear Corp. (Revision of Orders to Modify Source Materials Licenses)*, CLI-86-77, 24 NRC 704, 708-10 (1986). Although the Intervenors could have filed a petition for waiver of the bar on collateral attacks against our regulations (*see* 10 C.F.R. § 2.1239(b)), they did not avail themselves of this opportunity.

below, that the amount of material with which the University is experimenting is not sufficiently substantial to qualify the laboratory as a plutonium processing and fuel fabrication plant under sections 70.4 and 51.20(b)(7). The Commission did not further define the phrase "unsubstantial amounts of plutonium" when it adopted section 70.4 in 1971. Nor has the Commission focused on the meaning of the phrase in any subsequent decisions or rulemakings. The Commission's only comment regarding this term appears in the Statements of Consideration to the Proposed Rule and Final Rule, and indicates that the "plants for the conduct of plutonium fuel research and development activities . . . typically process kilogram quantities of plutonium." Final Rule, "Plutonium Processing and Fuel Fabrication Plants," 36 Fed. Reg. 17,573, 17,574 (Sept. 2, 1971); 36 Fed. Reg. 9786 (May 28, 1971) (Proposed Rule, containing identical language).

The Commission, in offering this observation, was simply referring to the fact that most of these plants process a substantial volume of plutonium, i.e., quantities that are measured in kilograms rather than in smaller units of measurement. Our understanding is confirmed by the underlying Staff paper submitted for the Commission's consideration in 1971 regarding the proposed rule on plutonium processing and fuel fabrication plants.<sup>71</sup> (The proposed rule's language on this matter was identical to the language that the Commission adopted in the Final Rule.) When the Commission added the subject definition to section 70.4 and issued the Statement of Considerations, it was contemplating only eleven plants that had not been designed to resist adverse natural phenomena such as tornadoes. See SECY-R 188 at 8, 22-23. Most of these plants were considered "large-scale fabrication plants" with 50-60 kilograms of plutonium in process at any time. *Id.* at 3, 18, 19. The possession limits of the eleven plants ranged from 750 kilograms down to 5 kilograms. See *id.* at 27.

The Commission was in no way suggesting that a laboratory such as the Alpha Lab which conducts experiments using only a small fraction of these amounts should be considered to be a plutonium processing and fuel fabrication plant. As reflected in the Staff paper that accompanied the draft Proposed Rule at issue, the Commission expressly intended to *exclude* from the scope of section 70.4 "smaller-scale plutonium operations such as the fabrication of sources and small thermoelectric batteries, analytical laboratory work, and other types of research activities which involve much smaller quantities of dispersible plutonium in their process." *Id.* at 7 ¶14. The Staff considered such facilities to "have a much more limited risk to health and safety in off-site areas" and therefore concluded

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<sup>71</sup> See SECY-R 188, "Proposed Amendments to Part 70: Pre-Construction Review of Plutonium Processing and Fuel Fabrication Plants," dated March 17, 1971 ("SECY-R 188"), at 8, 22-23. In 1987, the Commission released SECY-R 188 to the public as a result of a Freedom of Information Act request, and the document has subsequently been available in the Commission's public document room. FOIA-THOMAS 87-40-870103 (8707200235).

that it was "not necessary to conduct a detailed analysis of the effects of natural phenomena for currently licensed activities of these types." *Id.* at 21.<sup>72</sup>

**iv. THE STAFF WAS NOT REQUIRED TO CONSIDER VARIOUS OTHER FACTORS**

Finally, the Intervenor's cursorily assert that Staff failed to consider: (1) the public health and safety; (2) adequacy of the equipment; (3) adequacy of the site; (4) adequacy of administrative controls; (5) adequacy of emergency plans; (6) whether Rockwell was controlling the University's actions; and (7) problems regarding Am-241. IS-IB at 9, 62-68. We cannot see how the Intervenor's were harmed by Staff's alleged silence on these issues,<sup>73</sup> especially given the Presiding Officer's thorough examination of all but the sixth factor (a matter irrelevant to this proceeding). As noted above, this litigation concerns the applicant's entitlement to the license amendments, not the adequacy of Staff's review of the amendment applications. The University, not the Staff, bears the burden of proof on the issues listed above. Therefore, the adequacy of Staff's initial review is, in the final analysis, not dispositive of whether the application should be approved. Finally, we reiterate that the Intervenor's have had extensive opportunities to respond to the University's positions regarding all relevant issues in this proceeding.

**C. The Risk of a Dispersion of Radioactive Materials Is Acceptably Small**

Throughout this proceeding, the Intervenor's have asserted that the Alpha Lab does not meet fire safety standards and that a fire in the Lab could result in a serious dispersion of radioactive material. In his Final Initial Decision, the Presiding Officer rejected the Intervenor's arguments. He concluded that, if the University would abide by several safety requirements in addition to those specified in its license amendment applications, then the planning and construction of the Alpha Lab and the procedures for handling the radioactive

<sup>72</sup> Having rejected the Intervenor's argument on the basis of the language and regulatory history of section 70.4 itself, we do not need to go further afield and examine the two allegedly analogous regulations (sections 70.25(a) and 70.22(i)) upon which the Intervenor's also rely. We similarly need not examine the allegedly analogous regulations cited by the University in support of its position that the amount of plutonium at issue is "insubstantial." See, e.g., Letter from Maurice Axelrad (counsel for the University) to Presiding Officer Bloch, dated April 2, 1991 (citing 10 C.F.R. § 140.3(h)); Licensee's Written Presentation at 78-79 (citing 10 C.F.R. §§ 70.22(h)(1), 70.24(a), 73.6(c), 150.11, and Regulatory Guide 10.3 § 1.1).

<sup>73</sup> We note that the NRC Staff was not totally silent on environmental/safety issues during the hearing. For instance, Staff filed an affidavit addressing the necessity of HEPA filtration in the Alpha Lab (Aug. 21, 1990), a brief and two supporting affidavits addressing safety-related issues regarding the trace contaminants in the University's plutonium sample (Dec. 5, 1990); and two briefs and two supporting affidavits addressing fire safety issues (May 17 and June 6, 1991).

elements would together provide an "adequate assurance of [fire] safety." LBP-91-31, 34 NRC at 52, 61. He viewed the probability of a severe fire, leading to offsite dispersion of actinides, as "minuscule" and "not credible." *Id.* at 60; *see also id.* at 36, 53-54, 77, 88-89.

We are not as sure as the Presiding Officer that we can altogether discount the risk of such fires as "minuscule" and "not credible." The Presiding Officer did not examine the likelihood of such a fire starting in any of three possible locations: the glove boxes inside the Alpha Lab, the remainder of the Alpha Lab, and the remainder of the MURR facility basement. Nor did he examine the likelihood of the fire spreading to any of the three locations where the actinides might be located: the MURR facility vaults, the Alpha Lab, and the route between the vaults and the Alpha Lab. Inquiries into these questions would be necessary before ruling out all consideration of such fires.

The Presiding Officer was correct in general, however, in finding that the chances of a severe fire are very small. The scarcity of ignition sources, the MURR staff's ability to curtail the Alpha Lab's oxygen (through ventilation control), the low level of fire loading, the relative lack of fuel continuity, the small heat release rate of the fuel in the Alpha Lab, the fire prevention, detection, and suppression measures employed by the University, and finally the fire barriers present in the Alpha Lab all strongly suggest that the probability of a severe fire is quite small.

We expect that the University will take all steps necessary to protect the licensed materials from a fire, however unlikely, but we have decided that we need not measure the fire risk precisely. This is because, even in a worst-case scenario (i.e., a fire leading to offsite radiation exposures), we find that the risk to the public from a fire affecting the TRUMP-S materials is still acceptably small.

Before discussing the technical issue of offsite dose, we will address in Part C.1 the Intervenor's concerns regarding the MURR Facility Emergency Plan,<sup>74</sup> and will conclude that we may appropriately consider the Emergency Plan in examining the offsite dose issue. In Part C.2, we will turn to the question of the maximum offsite inhalation dose levels that could reasonably be expected at various distances in the aftermath of a fire involving TRUMP-S materials and, in Part C.3, we will address the question whether those dose levels would be less than the levels contemplated by the MURR Emergency Plan. We will conclude that the former dose levels are less than the latter ones. In Part C.4, we will explain how and why two sections of the Emergency Plan require modification

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<sup>74</sup>"Emergency Plan for the University of Missouri Research Reactor Facility," Facility License No. R-103, Docket No. 50-186 (Dec. 8, 1989) (hereinafter "Emergency Plan" or "MURR Emergency Plan"). The University made the MURR Emergency Plan available to the Intervenor on June 26, 1990 (Meyer Emergency Planning Affidavit, *supra* note 16, at 4 n.1), and the NRC Staff submitted the MURR Emergency Plan to the Presiding Officer in this proceeding on August 16, 1990.

in order to ensure that the Plan adequately protects the public from a release of TRUMP-S materials in the event of a fire. Finally, in Part C.5, we will examine the additional fire safety conditions already imposed by the Presiding Officer, and also those requested by the Intervenors.

### *1. Consideration of the MURR Facility Emergency Plan*

The MURR Facility Plan addresses a wide range of emergency situations and focuses principally on those with the potential for causing radiological hazards affecting the health and safety of the MURR staff and the general public. It outlines the objectives to be met by the various emergency procedures (which are more detailed than the Emergency Plan and are established to implement its goals) and defines the authority and responsibilities of the individuals charged with meeting these objectives. It covers all activities within the MURR facility, including the reactor containment and the laboratories within the MURR building. Consequently, it applies to the TRUMP-S experiments being conducted in the Alpha Laboratory. MURR Emergency Plan at 1 § 1.0, 21 § 9.6, 23; Meyer Emergency Planning Affidavit, *supra* note 16, at 4 ¶ 12, 10 ¶ 33.

The MURR Emergency Plan establishes the Facility Emergency Organization (the group of individuals who are to be on site at the time of an emergency) and the Emergency Support Organization (groups that may be called upon for assistance, depending upon the specific type of emergency), and spells out their responsibilities. MURR Emergency Plan at 6; Meyer Emergency Planning Affidavit, *supra* note 16, at 5 ¶¶ 14-15. It provides for the activation of these organizations in an emergency. MURR Emergency Plan at 11 §§ 4.0-4.2. It also provides for a hierarchy of individuals responsible for the direction of the University's response to a radiological emergency, and sets forth those responsibilities as well. MURR Emergency Plan at 4-5 §§ 2.1-2.2; Meyer Emergency Planning Affidavit, *supra* note 16, at 5-6 ¶ 16.

The Emergency Plan describes the different classes of emergency situations, grouping accidents according to the potential severity of offsite radiological consequences. For each of these classes, the Emergency Plan specifies emergency action levels, radiological assessment actions, corrective actions, and protective actions. MURR Emergency Plan at 8-10 §§ 3.0-3.4, 12-15 §§ 5.0-5.3.4, 25-27 (Table I); Meyer Emergency Planning Affidavit, *supra* note 16, at 6 ¶ 17. It also describes each of the emergency facilities and equipment, and indicates how each can assist the University in responding to a radiological emergency. MURR Emergency Plan at 16-18 §§ 6.0-6.6. Finally, the Emergency Plan addresses the issues of recovery from a radiological emergency and the maintenance of emergency preparedness. *Id.* at 18-20 §§ 7.0-8.4.



The Intervenor object to consideration of the MURR Facility Emergency Plan, although the Presiding Officer relied on it to some extent. *See, e.g.*, LBP-91-31, 34 NRC at 54, 101. For the reasons set forth below, we disagree with the Intervenor's objections, decline to reverse the Presiding Officer's decision to rely on the MURR Emergency Plan, and will ourselves take the MURR Emergency Plan into consideration when examining the dose/dispersion issues. However, as discussed in Part C.4 of this Order, we will require that the University (i) modify its MURR Emergency Plan to take into account the activities in the Alpha Lab by revising its emergency classes and action levels and (ii) refrain from conducting any experiments in the Alpha Lab unless the reactor control room is staffed in the manner specified in this Order.

*a. Alleged Need for Two Emergency Plans*

Before discussing the detailed arguments proffered by the Intervenor, we offer an initial observation applicable to their overarching contention that the Commission should require the MURR facility to have two emergency plans — one applicable to the TRUMP-S materials and one applicable to the research reactor. Nothing in our rules requires separate emergency plans for each activity undertaken in a single facility. In this case, one emergency plan for both the MURR reactor and TRUMP-S (and other) materials is sensible. A licensee's procedures to respond to a radiological incident should be as simple, clear, and easy to remember as possible. Requiring two separate emergency response plans for the same building might undermine that important principle and actually increase the chance for human error in responding to a radiological incident.

*b. Alleged Failure to Discuss the Effect of Radioactive Materials Becoming Airborne*

Intervenor asserts that the Meyer Emergency Plan Affidavit fails to address the effect of radioactive materials becoming airborne. II-IB at 22. This omission does not trouble us. The affidavit, which provides a detailed description of the MURR Emergency Plan, can hardly be faulted for failing to discuss a matter that the Emergency Plan itself is not required to address. The Intervenor's argument apparently reflects the Intervenor's misunderstanding of the level of detail that the Commission requires of an Emergency Plan. As stated in Regulatory Guide 2.6,

[I]t is not practicable to develop a completely detailed plan encompassing every conceivable type of emergency situation . . . . The plans should be the expression of the *overall concept* of operation that describes how the elements of advance planning have been considered and the provisions that have been made to cope with emergency situations.

Regulatory Guide 2.6, "Emergency Planning for Research and Test Reactors," at p. 2.6-1 § B (Rev. 1, March 1983) (emphasis added.)

The stated purpose of the MURR Emergency Plan, which fits the above-quoted description well, is to "outline[] the objectives to be met by the emergency procedures and define[] the authority and responsibilities to achieve such objectives." Emergency Plan at 21 § 9.6. *See also* Meyer Emergency Planning Affidavit, *supra* note 16, at 10 ¶ 33 ("The MURR Facility Emergency Plan is written in broad terms to encompass emergency situations that may occur in the course of operating the reactor or in the laboratories within the MURR facility"). The level of detail sought by the Intervenor is instead appropriate for the Emergency Procedures that implement the Emergency Plan, but need not be included in the Plan itself.<sup>75</sup>

Moreover, our examination of the record shows that the MURR staff has seriously considered the effect of radioactive materials becoming airborne. *See* Meyer Emergency Planning Affidavit, *supra* note 16, at 15-16 ¶¶ 50-55. Emergency self-contained breathing apparatuses are available to firefighters and MURR personnel and would protect them from inhaling any radioactive contamination. *See id.* at 8 ¶ 23, 15-16 ¶¶ 50-52; "TRUMP-S Fire Protection Issues" at 7, appended as Attachment A to Licensee's Exhibit No. 22, Affidavit of William Markgraf, Columbia Fire Chief, Responding to Portions of Intervenor's Rebuttal, dated Jan. 28, 1991; Licensee's Exhibit No. 20, Affidavit of Walter A. Meyer, Jr. Responding to Portions of Intervenor's Rebuttal, dated Jan. 28, 1991, at 19 ¶ 48, 20 ¶ 50. Further, the University has implemented a number of procedures for the Alpha Laboratory to alert the reactor operators in the control room, and the firefighters, that radioactive materials could have become airborne.<sup>76</sup>

*c. Alleged Failure to Show How the Released Transuranics Would Be Detected*

Intervenor criticizes the Emergency Plan for failing to specify the means by which transuranic releases will be detected. II-IB at 24. However, this level of detail is appropriate to the University's emergency procedures rather than to its Emergency Plan. Moreover, the University's TAM procedures have set out a number of methods to ensure the detection of any transuranics that may

<sup>75</sup> *See* Regulatory Guide 2.6, *supra*, at p. 2.6-2 § C.5. The adequacy of the Emergency Procedures is not an issue before us in this proceeding.

<sup>76</sup> *See* SOP (Standard Operating Procedure) VIII.8.1 (entire), appended to Meyer Emergency Planning Affidavit, *supra* note 16, as Attachment 5; SOP VIII.8.2 § 4 and SOP VIII.8.3 § 5, both of which are appended to Meyer Emergency Planning Affidavit, *supra* note 16, as Attachment 5. *See also* Meyer Emergency Planning Affidavit, *supra* note 16, at 12 ¶ 35(5), describing TAM-71 ("High Airborne Radioactivity"). SOPs give direction to the control room operators, while TAMs give direction to the laboratory personnel. *See* Licensee's Written Presentation at 41.

leave the glove box.<sup>77</sup> The detection of either a "Loss of Facility Argon Supply" (TAM-61) or "High Oxygen in the Argon Glove Box" (TAM-62) would indicate leaks in the glove box — a situation that could result in possible releases of transuranics. Also, "High Airborne Radioactivity" (TAM-71) would indicate that radioactivity had been detected at either the Alpha Laboratory room monitor or the Alpha Laboratory exhaust monitor.

In a related argument, the Intervenor criticize the Emergency Plan for its failure to demonstrate adequate alpha detection equipment. II-IB at 24. We reject this argument on two grounds. The MURR facility does in fact contain alpha detection equipment.<sup>78</sup> Moreover, the gamma detectors in the facility<sup>79</sup> will supplement the alpha detectors by revealing indirectly any radioactive releases of alpha-emitters. As we have discussed in section II.B.1.b.ii of this Order, the alpha-emitting plutonium sample used in the TRUMP-S experiments contains measurable amounts of the gamma-emitting Am-241. Consequently, the presence of any plutonium that may leave the glove box can be detected indirectly by a gamma detection instrument.<sup>80</sup> Similarly, the samples of Am-241, Np-237, and U-235 (all of which also emit alpha radiation) emit gamma radiation that can be easily detected.

*d. Alleged Failure to Demonstrate the Presence of Smoke Detectors in Some Areas of the Basement*

Intervenor criticize the Emergency Plan for its failure to demonstrate the presence of smoke detectors in "some areas of the basement." II-IB at 24. The Intervenor's failure to specify the areas of the basement with which they are concerned precludes us from responding as specifically as we would prefer.<sup>81</sup> However, to the extent that the Intervenor intended to refer to the Alpha Lab, we cannot accept their position. The University has submitted record evidence that:

<sup>77</sup> These TAM procedures are described in the Meyer Emergency Planning Affidavit, *supra* note 16, at 11-12 ¶ 15.

<sup>78</sup> See Licensee's Exhibit No. 4, Affidavit of Chester B. Edwards, Jr., Regarding the Adequacy of Alpha Laboratory Equipment, Fire-Related Features in the Alpha Laboratory and General Basement Area, and the Storage and Transfer of Actinide and Archived Materials, dated Nov. 13, 1990, at 3 ¶ 13 (listing an Alpha 3 Radiation Air Monitor as part of the equipment in the Alpha Lab). See also University of Missouri Central Radiation Safety Committee's *Handbook*, *supra* p. 99, at 3-3 § 3.2.2 (Survey Procedures); Application for Renewal of the University of Missouri Broad Scope License No. 24-00513-32, dated Feb. 27, 1992, at 61-62 § 9.3.

<sup>79</sup> University of Missouri Central Radiation Safety Committee, *Handbook*, *supra* p. 99, at 3-3 § 3.2.2 ("Survey Procedures").

<sup>80</sup> Intervenor also argue that the Emergency Plan is flawed because it fails to indicate that the University has installed backup emergency monitors that detect alpha particles. II-IB at 24. We reject this argument on the same grounds as stated in the text above.

<sup>81</sup> The Commission would be justified in ignoring this argument on the ground that it was inadequately briefed on appeal. See, e.g., *Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 786-87 (1979).

The Alpha Laboratory is equipped with smoke detectors within the Laboratory and a heat sensor within the argon glove box. Alarms for these sensors are displayed locally at the Alpha Laboratory on a 4 zone fire alarm panel and sounded remotely in the reactor control room.<sup>82</sup>

More specifically, inside the Alpha Laboratory, there are smoke detectors mounted on the ceiling, a smoke detector mounted inside the laboratory exhaust duct, and smoke detectors mounted on the ceiling above the loft area. Activation of any of these detectors will trigger an alarm at a local alarm panel that will in turn activate an alarm in the reactor control room.<sup>83</sup> Finally, we note that City of Columbia Fire Department ("CFD") officials have toured the Alpha Laboratory and concluded that the fire safeguards and precautions are adequate. Meyer Emergency Planning Affidavit, *supra* note 16, at 10 ¶132; Letter from Frank W. Barfield, CFD Fire Marshal, to Chester B. Edwards, Jr., MURR, dated April 13, 1990, appended as Attachment 1 to Licensee's Exhibit No. 25, *supra* note 82.

To the extent that the Intervenor's argument was instead intended to refer to fire detection capability in areas of the basement other than the Alpha Lab, we find nothing in the record on the matter.

#### *e. Involvement of the Fire Department*

The Intervenor's raise three arguments regarding the Emergency Plan's provisions for communication with and involvement of the CFD. They first contend that the University's emergency plan is a sham because the University merely plans to call the CFD to the facility and then discuss what should be done. II-IB at 20-21. Second, the Intervenor's criticize the Emergency Plan for failing to address the possibilities that the radiation levels might be so high that a fire commander would refuse to order his crews to approach the fire (*id.* at 22) or that firefighters would themselves refuse to fight a fire in a facility where scientists had been experimenting with unsealed transuranics (*id.* at 25). Third, the Intervenor's criticize the Emergency Plan for failing to describe a means and commitment to notify the CFD when necessary. *Id.* at 24. We see no merit in any of these three arguments.

<sup>82</sup> Meyer Emergency Planning Affidavit, *supra* note 16, at 9 ¶28. Accord Licensee's Exhibit No. 25, Affidavit of Chester B. Edwards, Jr. Responding to Question III, at 3 ¶6, appended to Licensee's Response to Presiding Officer's Questions, dated March 26, 1991. See also Licensee's Exhibit No. 1, *supra* note 12, at 10 ¶26.6 ("two smoke detectors are present in the laboratory"); Licensee's Exhibit No. 4, *supra* note 78, at 4 ¶14 (regarding the presence of a fusible link heat detector in the glove box); Application for Amendment to License No. 24-00513-32 at 10 and Application for Amendment to License No. SNM-247 at 10, each of which describes the smoke detector and fire alarm for the Alpha Laboratory.

<sup>83</sup> Meyer Emergency Planning Affidavit, *supra* note 16, at 9 ¶28. Licensee's Exhibit No. 4, *supra* note 78, at 4 ¶14 (there is a fusible link heat detector in the glove box that will activate a local alarm and reactor control room alarm if the temperature in the glove box were to exceed 136°F (58°C)).

Based on our review of the record (and, in particular, both the Emergency Plan and the Meyer Emergency Planning Affidavit), we conclude that the Emergency Plan, far from being a sham, provides a strong assurance of safety regarding any fires that might affect the Alpha Lab or the TRUMP-S materials.<sup>84</sup> The Emergency Plan provides for specific fire-safety and fire-suppression actions by the MURR staff and also provides for professional fire suppression activities by the CFD. The Meyer Emergency Planning Affidavit describes these provisions in considerable detail, and our review of the Plan itself confirms the accuracy of the description in that affidavit. In addition to the Emergency Plan, the University has adopted FEP 3, dealing generally with fire procedures for the MURR facility, and also FEP 3(a), Standing Order 90-6, three Standard Operating Procedures, and five TAMs, all of which set forth appropriate responses specifically addressing a fire in the Alpha Lab. See Meyer Emergency Planning Affidavit, *supra* note 16, at 10-12 ¶¶ 33-35, and Attachments 3-5 thereto. Based on our review of the Emergency Plan and these procedures (or the summaries of them<sup>85</sup>), we are convinced that the University has established adequate measures for responding to a fire in the Alpha Lab (e.g., immediate fire suppression measures, contacting the CFD, securing and isolating the lab, shutting down the reactor).

Nor can we agree with the Intervenor's that the CFD would refuse to fight a fire that potentially involved radioactive materials. The Presiding Officer considered Intervenor's argument, reviewed their evidence, and found that the CFD could be relied upon to fight a fire in the Alpha Lab. LBP-91-31, 34 NRC at 90-91, 94. We can find no reason to disturb that finding. The CFD has a longstanding cooperative relationship with the MURR staff,<sup>86</sup> pursuant to which the CFD would respond to *any* fires that may occur at the MURR facility.<sup>87</sup> To this end, the City of Columbia has provided written assurances to the University since 1982 that the CFD "will respond to fires or other emergency situations should they occur at the research reactor."<sup>88</sup> Moreover, CFD Battalion Chief Erman L.

<sup>84</sup> In this respect, we note that the NRC Staff has repeatedly reviewed the MURR Emergency Plan (or changes thereto) and found them to be in full compliance with Part 50 of our regulations. See Meyer Emergency Planning Affidavit, *supra* note 16, at 5 ¶ 13; Letter to Dr. J. Steven Morris, University of Missouri, from Alexander Adams, Jr., NRC, dated Jan. 25, 1990, submitted by Staff to the Presiding Officer on August 16, 1990. We also note that the NRC Staff most recently reapproved changes to the Emergency Plan on May 16, 1994.

<sup>85</sup> Only one of these TAMs (TAM-62) was submitted into the record, despite the fact that the Licensee and the Intervenor had copies (or access to copies) of all five TAMs.

<sup>86</sup> The University consulted with the CFD both when constructing the Alpha Laboratory (Meyer Emergency Planning Affidavit, *supra* note 16, at 7 ¶ 20.3, 10 ¶ 32) and when developing the Emergency Plan and the procedures to implement that Plan (*id.* at 2 ¶ 5).

<sup>87</sup> See "TRUMP-S Fire Protection Issues," *supra* p. 131, at 2.

<sup>88</sup> Letter to Director, University of Missouri Research Reactor (MURR) Facility from Raymond A. Beck (Columbia City Manager), dated Feb. 19, 1990, appended as Attachment 2 to Meyer Emergency Planning Affidavit, *supra* note 16; Letter to Director, University of Missouri Research Reactor Facility from Michael R. Sanford (Columbia Deputy City Manager), dated Aug. 24, 1982, attached as Appendix A to the MURR Facility Emergency Plan. See also Meyer Emergency Planning Affidavit, *supra* note 16, at 6 ¶ 18.

Call has further confirmed the CFD's intentions in this respect by stating under oath that:

According to the [CFD]'s copy of the MURR Emergency Plan, discussions with MURR officials, and on-site exercises which I had participated in[,] . . . the [CFD] v [ill] perform fire duties in response to an alarm at the MURR. These duties would include fighting a fire which could involve radioactive materials at the MURR facility, including the Alpha Lab[.]. Firefighting would be under the direction of the Department's Incident Commander with the advice of the University's Emergency Director. . . . Each attack crew would have a health physics team member assigned to them to advise of radiation dangers and answer questions about the immediate area they were in.

Affidavit of Fire Battalion Chief Erman L. Call, dated Oct. 24, 1990, Exhibit A, appended to "Licensee's Submittal in Accordance with 'Memorandum (Memorandum of Conference Call of Oct. 19, 1990),' " dated Oct. 30, 1990.

To ensure that the CFD can fight such a fire effectively, the MURR staff has provided both radiological and facility familiarization training for CFD personnel and has also included the CFD in the biennial NRC-required emergency response drills.<sup>89</sup> Firefighters are provided protective clothing<sup>90</sup> and self-contained breathing apparatus<sup>91</sup> that give adequate protection from inhaled or ingested radiation from the radioactive materials available for release from a fire in the Alpha Lab. See Meyer Emergency Planning Affidavit, *supra* note 16, at 16 ¶ 52. Consequently, we consider it unlikely that such a firefighter would receive a dose, from inhalation or ingestion, even approaching the 25- to 100-rem limit specified in the Environmental Protection Agency's Protective Action Guides for firefighters.<sup>92</sup>

<sup>89</sup>The University is committed to conduct training sessions for CFD personnel at least biannually. See Emergency Plan at 19 §§ 8.1, 8.2; Meyer Emergency Planning Affidavit, *supra* note 16, at 7 ¶ 20, 12-13 ¶¶ 37-39. Such training would include MURR facility orientation and a review of selected health physics procedures specifically relevant to the MURR facility. See Letter to Director, University of Missouri Research Reactor (MURR) Facility from Raymond A. Beck (Columbia City Manager), dated Feb. 19, 1990, appended as Attachment 2 to Meyer Emergency Planning Affidavit, *supra* note 16. See also Meyer Emergency Planning Affidavit, *supra* note 16, at 7 ¶ 20, 12 ¶ 37, 13 ¶ 39.

<sup>90</sup>Licensee's Exhibit No. 20, *supra* p. 131, at 19-20 ¶¶ 49-50.

<sup>91</sup>See Meyer Emergency Planning Affidavit, *supra* note 16, at 8 ¶ 23, 15 ¶ 50; "TRUMP-S Fire Protection Issues," *supra* p. 131, at 7; Licensee's Exhibit No. 20, *supra* p. 131, at 19 ¶ 48, 20 ¶ 50.

<sup>92</sup>The U.S. Environmental Protection Agency's *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* at p. 2-10, Table 2-2 (EPA 400-R-92-001, Oct. 1991), provides that individuals such as firefighters performing emergency services may receive whole-body doses in excess of 25 rem, as long as the services are performed on a voluntary basis and the firefighter is fully aware of the risks involved. See also U.S. Nuclear Regulatory Commission Response Technical Manual ("RTM-93"), NUREG/BR-0150, Vol. 1, p. L-8 (Rev. 3, November 1993); MURR Emergency Plan at 12 § 5.0.1. Similarly, the NFPA recommends that firefighters be allowed to receive a one-time whole-body dose of no more than 100 rem in life-threatening situations and 25 rem to protect a facility, eliminate the escape of effluents, or control fires. See NFPA, *Fire Protection Handbook* at p. 10-125 (16th ed. 1986), relevant portions appended to Licensee's Exhibit No. 20 (*supra* p. 131) as Attachment B; NFPA 801, "Recommended Fire Protection Practice for Facilities Handling Radioactive Materials," at p. B-5 § 2-3.2(f) (1986), appended as Attachment 2 to Intervenor's Exhibit No. 21, Declaration of Donald W. Wallace, dated

(Continued)

We likewise consider it unlikely that a firefighter would receive more than a very small external dose. The University has correctly pointed out that the only risk of external exposure to the firefighters would come from the gamma radiation. Such exposure would be, at worst, minimal. For instance, 1 gram of the Am-241 sample (the maximum amount that the University would use in any one experiment in the Alpha Lab) in the unshielded glove box would subject a firefighter to a direct gamma-particle dose of less than 100 mrem/hr at a distance of 10 feet.<sup>93</sup> This level hardly constitutes a significant radiological hazard to firefighters. See note 92, *supra*, and associated text.

In sum, given the substantial training and protective equipment given to CFD firefighters, as well as the CFD's longstanding relationship with the MURR, we see no reason to doubt the CFD's cooperation in a fire emergency.

We similarly find no merit in the Intervenors' third assertion — that the Emergency Plan fails to describe a means and commitment to notify the CFD of a fire. Section 6.5 ("Communications Equipment") of the MURR Emergency Plan provides that:

Provisions for communication by public telephone have been made with all Emergency Support Organizations<sup>94</sup>. . . . Emergency notification rosters shall be posted at strategic locations as specified in the Activation of Onsite Emergency Organization Procedure. The rosters shall include telephone numbers for required staff, University Emergency Support Organizations, *Off-site Emergency Support Organization*, and Emergency related State and Federal agencies.

Emergency Plan at 17-18 (emphasis added). In addition, section 8.2 of the Emergency Plan provides that, at least biennially, the University will conduct drills that will test these communication links and notification procedures. *Id.* at 19. The above-cited portions of the Emergency Plan comport with the recommendations of "American National Standard for Emergency Planning for Research Reactors," ANSI/ANS-15.16-1982, at 6. For all of the reasons stated above, we find this language to be a sufficient indication of both the means by which the University would notify the CFD and the University's commitment to do so.

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Dec. 24, 1990. See also NFPA 802, "Recommended Fire Protection Practice for Nuclear Research Reactors," at 802-5 to 802-6 § 2-2.6 (1988), relevant portions appended as Attachment C to Licensee's Exhibit No. 20 (*supra* p. 131). Cf. Licensee's Exhibit No. 23, NFPA 801, "Recommended Fire Protection Practice for Facilities Handling Radioactive Materials," at Appendix B, p. 801-21 § B-3.3(f) (1991) (providing for 75-rem and 25-rem limits), appended to Licensee's Response to Presiding Officer's Questions, dated March 26, 1991.

<sup>93</sup>The gamma dose rate from the trace amounts of Am-241 in the Pu-239/240 sample would be lower by several orders of magnitude.

<sup>94</sup>The Emergency Support Organizations include not only the CFD but also the University's Health Physics Services, the University's Police, the University Hospital and clinics, and the University News Bureau. MURR Emergency Plan at 6 § 2.3, Meyer Emergency Plan Affidavit, *supra* note 16, at 5 ¶ 15.

f. *Alleged Failure to Discuss Mitigation of the Consequences of a Fire*

Intervenors criticize the Emergency Plan for failing to show what would be done to mitigate the consequences of a fire, and for claiming that this is to be decided later. II-IB at 24. Although the Intervenors do not explain the meaning of the phrase "done to mitigate the consequences of a fire," we assume that they intend to refer to the specific actions that the University and the CFD would take to combat a fire.<sup>95</sup> If this is indeed what the Intervenors meant, then their criticism not only reflects a pervasive misunderstanding of the level of detail necessary in an Emergency Plan (*see* discussion in section II.C.1.b, *supra*) but it also is undermined by the record in this proceeding.

As we discussed in the preceding section, the procedures, training, equipment, and cooperative arrangements all are in place to permit the MURR and the CFD to deal effectively with a fire emergency. Moreover, the University and the CFD have conducted frequent drills testing the effectiveness of the MURR Emergency Plan. According to the Meyer Emergency Planning Affidavit, *supra* note 16, at 12 ¶ 38:

There have been five emergency action drills performed under the Emergency Plan that was approved by the NRC in 1984. . . . Approximately once every two years, the drills include representatives of each Emergency Support Organization (both the University of Missouri personnel and the CFD participate). . . . Each of the biennial drills involving the Emergency Support Organizations (including the CFD) has included an exercise on fighting a fire involving radioactive materials.

In short, we find that the degree of advance planning to mitigate fire consequences is entirely adequate.

g. *Alleged Problems with the Separation of Onsite and Offsite Emergency Procedures*

The University has prepared separate procedures to address onsite and offsite consequences of an emergency at the MURR facility. The University addresses the former in its FEPs, TAMs, and SOPs,<sup>96</sup> and the latter in its Site Emergency

<sup>95</sup>The Commission would be justified in ignoring this argument on the ground that it was inadequately briefed on appeal. *See, e.g., Public Service Co. of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 786-87 (1979).

<sup>96</sup>Meyer Emergency Planning Affidavit, *supra* note 16, at 2 ¶ 6. As noted in note 76 above, SOPs give direction to the control room operators, while TAMs give direction to the laboratory personnel. *See* Licensee's Written Presentation at 41.

Although the University made most of its FEPs, SOPs, TAMs, etc., available to the Intervenors, the parties introduced relatively few into the record. *See* Intervenors' Exhibit No. 19, *supra* note 12, at 387-419 (TAM 80-89, 91), 443-46 (SOP VIII.8 through VIII.8.3); Meyer Emergency Planning Affidavit, *supra* note 16, Attachment 5 (SOP VIII.8 through VIII.8.3); Intervenors' Exhibit No. 11, *supra* note 6 (TAM-62); Intervenors' Exhibit No. 12,

(Continued)



Procedures ("SEPs"). Intervenor's assert that the University's separation of these onsite and offsite emergency procedures is "poorly planned and unnecessarily complicated." II-IB at 21.

We agree with the University that the public health and safety are not compromised by the separation of FEPs from the SEPs. As explained in the Meyer Emergency Planning Affidavit, the University developed the SEPs "to handle communicating and coordinating with off-site organizations if a facility emergency is determined to have potential for offsite radiological consequences." Meyer Emergency Planning Affidavit, *supra* note 16, at 2 ¶16. See also U Mo RB at 68. However, the probability of an incident at the MURR facility that would require the implementation of these offsite SEPs (i.e., either a core melt or a large TRUMP-S fire) is extremely low. As a result, practically all radiological incidents that may occur at the MURR could be adequately handled pursuant to the onsite FEPs. Under such circumstances, the Intervenor's proposed merger of the FEPs and SEPs might result in the unnecessary (and wasteful) use of outside emergency response resources in emergencies with no offsite consequences. Certainly, there is no indication in the record — and no argument by the Intervenor (except in the most conclusory of terms) — that a merger of onsite and offsite procedures is necessary to provide adequate protection.

*h. Alleged Failure to Submit the Plan to the Proper Authorities for Approval*

The Intervenor's complain that the University failed to submit the Plan to the proper authorities for approval. Specifically, they argue that the University failed to submit it to the Local Emergency Planning Committee 60 days prior to submitting it to the Commission and, assuming that the plan was anything more than the reactor Emergency Plan, that the University also failed to submit it to the Commission. II-IB at 24. See also Intervenor's Written Presentation at 19, 49, and Intervenor's Exhibit No. 1, *supra* p. 87, at 14 ¶50, 15 ¶54(b), both of which documents cite 10 C.F.R. §§ 70.22(i)(3)(xiii), 30.32(i)(3)(xiii), and the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §§ 11,001-11,050 (1988) ("Right-to-Know Act").

We disagree with the Intervenor's position. Regarding their first argument, the two regulations upon which the Intervenor's rely did not become effective until April 7, 1990, subsequent to the University's filing of the two applications and the NRC Staff's issuance of the two license amendments. See Part II.B.1.a(iii), *supra*. Consequently, the University was not required to comply

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*supra* note 16 (FEP-3, and FEP-3(a) (draft)); Meyer Emergency Planning Affidavit, *supra* note 16, Attachment 3 (FEP-3(a)); Meyer Emergency Planning Affidavit, *supra* note 16, Attachment 4 (Standing Order 90-8, (regarding FEP-3(a)).

with those regulations in connection with the two license amendments at issue in this proceeding.

Moreover, it is unclear whether the Right-to-Know Act pursuant to which these two regulations were promulgated even applies to the University. That statute requires certain facility owners and operators to submit to the appropriate local emergency planning committee a material safety data sheet for each "hazardous chemical" located at the facility, as defined in the Occupational Safety and Health Act of 1970 ("OSHA") and its implementing regulations. 42 U.S.C. § 11,021(a)(1). OSHA requires "employers" to prepare such sheets. Reading the Right-to-Know Act and OSHA together, the former statute seemingly applies only to an owner or operator who is also an "employer" under OSHA. 42 U.S.C. § 11,021(a)(1), (2). The definition of "employer" in OSHA expressly excludes states or their political subdivisions. 29 U.S.C. § 652(5) (1988); 29 C.F.R. § 1910.2(c). The University is a part of the government of the State of Missouri. Mo. Const. of 1945, art. 9, § 9; Mo. Rev. Stat. § 172.020 (1986); *Barish v. Director of Revenue*, 872 S.W.2d 167, 171 (Mo. App. 1994).

In any event, the Right-to-Know Act clearly does not apply to the materials at issue in this proceeding. That statute's definition of "hazardous chemicals" expressly excludes "substance[s] . . . used . . . in a research laboratory . . . under the direct supervision of a technically qualified individual." 42 U.S.C. § 11,021(e)(4). The Alpha Laboratory is obviously a research laboratory and, for the reasons set forth in Part II.B.1.c. *supra*, the Intervenors have failed to show that the personnel associated with that laboratory are not "technically qualified."

Regarding the Intervenors' second argument (i.e., that the University failed to submit its emergency plan to the Commission) the MURR Facility Emergency Plan has been approved six times by the NRC Staff,<sup>97</sup> and "applies to *all activities* within the MURR Facility, which includes both the reactor containment and the *laboratories within the MURR building*."<sup>98</sup> Thus, the agency-approved MURR Emergency Plan already covers the facilities where the TRUMP-S experiments are taking place. And, as we shall explain in Part II.C.3 *infra*, the consequences of a TRUMP-S accident are well within the parameters of the MURR Emergency Plan. Consequently, the MURR Facility Emergency Plan need not be resubmitted to the Commission for approval to encompass the TRUMP-S experiment. Such experiments are already covered under the Plan.

<sup>97</sup> See Licensee's Exhibit No. 20, *supra* p. 131, at 3 ¶6; Letter to Dr. James J. Rhyne, Director, [University of Missouri] Research Reactor Facility, from Alexander Adams, Jr., NRR, dated Feb. 8, 1993.

<sup>98</sup> Meyer Emergency Planning Affidavit, *supra* note 16, at 21 ¶74 (emphases added). See also *id.* at 10 ¶33; Licensee's Exhibit No. 20, *supra* p. 131, at 2 ¶4.1; Emergency Plan at 1.

*i. The Emergency Plan's Alleged Failure to Satisfy the Commission's Regulatory Requirements*

The Intervenor's argue that the Emergency Plan fails to satisfy any of the requirements of 10 C.F.R. §§ 30.32(i)(3) and (4) and 70.22(i). II-IB at 23. In Section II.B.1.a.iii of this Order, the Commission has determined that these new emergency planning regulations — which took effect only after the University had submitted its two instant materials license amendment applications — do not apply to those applications. Consequently, from a procedural perspective, the question whether the MURR Emergency Plan satisfies the requirements of these two regulations is irrelevant to the issues in this proceeding. Nevertheless, despite the procedural adequacy of the University's two applications, we could still impose upon the University a requirement that it satisfy the provisions of the two regulations cited above, if we were to conclude that such action was necessary to protect the public health and safety. As explained elsewhere in this Order, however, we do not reach such a conclusion. Rather we find that, given the conditions imposed by this Order, the University's possession and use of the radionuclide samples at issue pose no undue danger to the public health and safety.

*j. Alleged Failure to Identify and Analyze Types of Accidents*

The Intervenor's contend that the Emergency Plan fails either to identify types of TRUMP-S accidents or to analyze them. II-IB at 23. But, as we have already held, nothing in our regulations required the University to develop a special emergency plan dealing with the TRUMP-S experiment. The University's general plan is sufficient to encompass the TRUMP-S work. As it happens, however, the record does contain ample information and analysis regarding such accidents. The affidavits of Daniel J. Osetek<sup>99</sup> and Dr. J. Steven Morris<sup>100</sup> as well as the Meyer Emergency Planning Affidavit all contain detailed discussions on this subject.

*k. Alleged Failure to Furnish Dimensions to Scale of the Basement, to Show the True Combustibles, and to Identify Clearly the Location and the Firefighting Equipment*

Intervenor's argue that the Emergency Plan failed to furnish to-scale dimensions of the basement, to show the true combustibles, and to identify clearly the

<sup>99</sup> Licensee's Exhibit No. 1, *supra* note 12.

<sup>100</sup> Licensee's Exhibit No. 24, Affidavit of Dr. J. Steven Morris Responding to Question II, dated March 25, 1991, attached to Licensee's Response to Presiding Officer's Questions, dated March 26, 1991.

location of the firefighting equipment. II-IB at 23. The Intervenor again display a misunderstanding of the nature of an Emergency Plan. It simply does not need to include this level of detail.<sup>101</sup> We also note that the University has provided a detailed description of firefighting equipment in the Alpha Laboratory and in the immediate area adjacent to the Alpha Laboratory. See Meyer Emergency Planning Affidavit, *supra* note 16, at 8-10 ¶¶ 27-32.

*l. Alleged Failure to Define Responsibilities*

The Intervenor assert that the Emergency Plan is flawed because it fails to identify the precise responsibilities of various individuals (presumably those on the MURR Emergency Response Team). II-IB at 24. We disagree. Once again, this level of detail is unnecessary in the Emergency Plan. Moreover, the University has conducted repeated drills to ensure that each individual on an emergency response team knows his or her responsibilities during a fire. Between 1984 and 1990, the University has conducted five actual emergency response drills, each of which "has included an exercise on fighting a fire involving radioactive materials." Meyer Emergency Planning Affidavit, *supra* note 16, at 12-13 ¶ 38.

*m. Alleged Failure to Describe Adequate Training to Fight a Fire*

The Intervenor argue that the Emergency Plan is flawed in that it fails to describe adequate training to fight a fire. II-IB at 24. As discussed above, such a description is unnecessary in an Emergency Plan. Moreover, the City of Columbia firefighters have been trained and retrained in the radiation safety measures required to fight a fire at MURR. See Meyer Emergency Planning Affidavit, *supra* note 16, at 12-13 ¶ 38. Finally, because the source term of a MURR accident envelopes that of a TRUMP-S accident, the type of training provided to the firefighters to fight a reactor fire would, except for minor adjustments, also be adequate to fight a TRUMP-S fire.<sup>102</sup>

*n. Alleged Failure to Describe the Kinds of Information to Be Given to Offsite Response Organizations*

The Intervenor criticize the Emergency Plan for failing to describe the types of information to be given to offsite response organizations. II-IB at 24. Again, the Intervenor misunderstand the nature of the Emergency Plan. It is not

<sup>101</sup> At best, the arguments relate to the adequacy of the University's emergency procedures, an issue not before us in this proceeding.

<sup>102</sup> See Section II.C.3. *infra*.

intended to be a detailed road map setting forth all the minutiae of emergency response. Moreover, the University has repeatedly conducted drills to ensure that offsite response organizations have the information necessary to meet their responsibilities effectively.

*o. Other Alleged Omissions*

The Intervenor's criticize the Emergency Plan for its failure to describe how the facility will be restored to safe use after the accident, and also how the University would cope with reentry, avoid radioactive material being tracked out, and dispose of any water that had been contaminated with transuranics. II-IB at 24.

Contrary to the Intervenor's assertion, the Emergency Plan does address "recovery" operations for restoring the facility to safe use. Specifically, section 7.0 of the Plan states:

The Recovery Organization will be the Emergency Organization. The Emergency Director shall assess the potential radiological affects [sic] to onsite and offsite personnel before returning access to portions of the facility that have been evacuated because of the emergency and the Emergency Organization shall determine [that] the radiological conditions within these affected areas are safe before access to them is restored.

During recovery . . . , procedures shall be written and approved for handling significant evolutions before they are performed.

The Commission agrees with the approach taken in the Plan on recovery operations. By far the greater emphasis should be placed on preventing an accident, rather than recovering from an accident. However, in the unlikely event of an accident, recovery operations will depend upon site-specific information such as the extent and location of contamination. Based on this information, the University can then develop procedures directed at the site-specific situation. See Meyer Emergency Planning Affidavit, *supra* note 16, at 16 ¶55; ANSI/ANS-15.16-1982, *supra* p. 136, at 7 ("It is not practicable to plan detailed recovery actions for all conceivable situations").

As for the problem of radioactive material being tracked out of the facility, the University employs a Health Physics Manager who presumably would follow routine health physics procedures (e.g., the issuance of a radiation work permit) to prevent the spread of contamination. See MURR Emergency Plan at 5 § 2.1.

Finally, the MURR facility has a 25,000-gallon contaminated-water collection system. See Licensee's Exhibit No. 20, *supra* p. 131, at 18 ¶44. This system has the capacity to collect for more than 2 hours the full drainage of water from the sprinkler heads in the Alpha Lab. See Letter from Dr. Susan M. Langhorst, Manager, Reactor Health Physics [University of Missouri], to Mr. John Jones,

Region III, NRC, dated July 3, 1991, at 1. Although the University may need to develop special disposal procedures (depending on the contamination level of the water in particular situations), such special procedures need not be included in the Emergency Plan (or even the emergency procedures). Rather, the University should develop such procedures directed at the site-specific situation.

*p. Arguments Addressed Elsewhere in This Order*

Intervenors assert that the Emergency Plan fails to take into account the TRUMP-S Project. II-IB at 23. We address this argument in Section II.C.3 of this Order, *infra*.

Intervenors argue that the "Emergency Classes" and "Action Levels" in the Emergency Plan are inadequate for effective fire department response to a fire involving TRUMP-S materials. *Id.* at 21. The Intervenors also assert that the Emergency Plan is insufficient to protect against a fire in the Alpha Lab because the reactor control room will not be attended at all times. *Id.* at 25-27; I-RB at 16-17. (The Intervenors do not, however, expressly present this second argument as a challenge to the MURR Emergency Plan.) We address these two arguments in Section II.C.4 of this Order, *infra*.

**2. The Maximum Expected Offsite Inhalation Dose Level That Could Result from the Release of TRUMP-S Radionuclides in a Fire**

We will now analyze the potential radiological ramifications of a fire that released into the atmosphere portions of the TRUMP-S samples. The Presiding Officer did not reach this question because of his conclusion that the risk of fire is not credible. Our analysis, however, *assumes* a fire, as we are not as confident as the Presiding Officer that the risk of fire is "minuscule." See p. 128, *supra*. Because we are analyzing a major technical issue unaddressed by the Presiding Officer, we must perforce embark upon a more detailed technical discussion than ordinarily seen in adjudicatory decisions.

We will first set forth the standard that we will apply in determining the maximum expected offsite inhalation dose level.<sup>103</sup> We will then determine what maximum expected offsite inhalation dose level would be expected to result from the release of radionuclides in a fire.

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<sup>103</sup> In the unlikely event of an airborne release of radionuclides into the air (assumed to be in the form of a cloud), an individual member of the general public may receive a dose through inhalation, direct or indirect ingestion, and/or direct radiation exposure (i.e., either from the ground [ground shine] or from the air [immersion]). In such an event, by far the most predominant dose would be attributable to inhalation.

a. *The Standard for Determining the Maximum Expected Offsite Inhalation Dose Level*

Throughout this proceeding, the Intervenors have asserted that the Commission, when calculating the maximum concentration downwind of the MURR facility in the case of a maximum credible accident involving TRUMP-S material, should not rely on NUREG-1140 (discussed below). According to the Intervenors, the NRC Staff prepared NUREG-1140 using assumptions inapplicable to dispersion modelling. II-IB at 43, 46, 48. Instead the Intervenors urge the Commission to use the dispersion model set forth in Regulatory Guide 1.145 for dispersion greater than 100 meters<sup>104</sup> and the Halitsky model for dispersion within a 100-meter radius.<sup>105</sup>

We conclude that NUREG-1140 provides the most appropriate approach to use in determining the maximum expected offsite inhalation dose level in the event of a TRUMP-S accident. The equation set forth in NUREG-1140 to calculate the inhalation dose represents the Commission's standard generic equation for making dose assessments in situations involving releases from facilities of materials licensees (such as the University). NUREG-1140 was issued relatively recently, in 1988, and was subject to extensive peer review. Intervenors' view notwithstanding, there is no reason for the Commission not to employ its own well-considered methodology set forth in NUREG-1140 in assessing offsite dose consequences of hypothetical accidents involving materials licensees such as the University of Missouri.

i. **THE EQUATION IN NUREG-1140 IS A GENERIC EQUATION AND IS BASED ON ASSUMPTIONS APPLICABLE TO DISPERSION MODELLING**

The inhalation dose ( $D(r)$ ) is the dose received by an individual member of the general public who is standing at a distance  $r$  from the point of an accidental release and is inhaling a particular radionuclide. Simply stated, the inhalation dose ( $D(r)$ , in units of rem) is equal to the total amount of radionuclides inhaled (in units of  $\mu\text{Ci}$ ) multiplied by that particular radionuclide's dose conversion factor (in units of  $\text{rem}/\mu\text{Ci}$ ). NUREG-1140 expresses this inhalation dose in an equation that takes into account the time and form of exposure, distance from

<sup>104</sup> II-IB at 46, citing Regulatory Guide 1.145, "Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants" (Rev. 1, November 1982, reissued February 1983).

<sup>105</sup> II-IB at 46; Intervenors' Exhibit No. 20, *supra* p. 104, at 21-22 ¶81, citing James Halitsky, "Gas Diffusion Near Buildings," ASHRAE Trans. 69, #1855, at 464-85 (1963). The Intervenors did not submit this article into the record.

the source, and breathing rate.<sup>106</sup> The differences in the parties' conflicting calculations of  $D(r)$  are attributable to differences in their assumptions when assigning quantities to the various terms in the NUREG-1140 equation — a matter to which we now turn.

ii. THE NUMERICAL VALUES TO BE ASSIGNED TO THE ELEMENTS IN THE NUREG-1140 EQUATION

In examining the four terms used to calculate  $D(r)$  in NUREG-1140's equation (see note 106, *supra*), we observe that both the University and the Intervenor agree upon the numerical values to be assigned to the terms  $B$  (breathing rate) and  $DCF$  (dose conversion factor). Neither the University nor the Intervenor challenge NUREG-1140's quantity of  $2.66 \times 10^{-4}$  m<sup>3</sup>/sec for the breathing rate  $B$ . See NUREG-1140 at 12. See also Licensee's Exhibit No. 16, Affidavit of Susan M. Langhorst Responding to Portions of Intervenor's Rebuttal, dated Jan. 28, 1991, at 7 ¶14 (citing, without criticism, the use of this figure in NUREG-1140), 15 n.22, and Attachment 1. Likewise, both the University and the Intervenor use NUREG-1140's figure of 530 rem/ $\mu$ Ci as the  $DCF$  for Am-241.<sup>107</sup> NUREG-1140 at 80, Table 13. See Licensee's Exhibit No. 16, *supra*, at 15 n.22, and Attachment 1 thereto; Intervenor's Exhibit No. 20, *supra* p. 104, at 12 ¶39.

The differences in the result of  $D(r)$  calculated by the University and the Intervenor are due solely to the differences in the assumptions used for assigning values to  $Q$  and  $\chi/Q$ . We now turn our attention to those two values.

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$$^{106} D(r) = (DCF) \times (B) \times (\chi/Q) \times Q$$

where:  $DCF$  (the dose conversion factor) is a mathematical conversion factor that translates the amount of radioactivity from any particular radionuclide entering the body into the amount of dose received by the body (in rem/Ci inhaled);  $B$  is a normal breathing rate (in cubic meters per second (m<sup>3</sup>/sec));  $\chi/Q$  is the concentration at distance  $r$  per total activity released (in seconds per cubic meter (sec/m<sup>3</sup>));  $Q$  is the total quantity of actinides released during the release period (in units of Ci).

Underlying this equation are two very conservative release and exposure assumptions. See NUREG-1140 at 13; RTM-93, *supra* note 92, at p. H-25. They give no credit for the dose reductions attributable to the many fire detection and suppression measures that are present in the MURR basement (see Section II.C.1.d of this Order, *supra*, and Section II.C.5.a.ii of this Order, *infra*) or to the record evidence that the City of Columbia Fire Department would reach a fire at the MURR facility within 10 minutes. Licensee's Exhibit No. 20, *supra* note 85, at 22 ¶56; Meyer Emergency Planning Affidavit, *supra* note 16, at 14 ¶45. Furthermore, no individual member of the general public would, as a practical matter, stand in the middle of a smoke cloud for one full hour without moving to avoid smoke inhalation.

<sup>107</sup> All parties agree that the dispersion of Am-241 is the limiting case (i.e., the worst-case scenario) for a release of TRUMP-S materials. See, e.g., Licensee's Exhibit No. 16, *supra* p. 145, at 17 ¶24a; Licensee's Exhibit No. 24, *supra* note 100, at 54 ¶51 Table 2; Intervenor's Exhibit No. 20, *supra* p. 104, at 24 ¶92.



(a) Release Quantity ( $Q$ )

The "release quantity" ( $Q$ ) of TRUMP-S materials is the amount of actinides (measured in curies) that would be released into the atmosphere outside of the MURR facility as a result of a fire or other accident<sup>108</sup> and deposited into an unrestricted area<sup>109</sup> to which a member of the general public could have access. However, some of the actinides that would be separated from their source and released into the glove box (i.e., entrained) as a result of a fire would remain in the MURR facility due to natural aerosol removal processes such as diffusion (for plateout) or sedimentation (for settling). See SECY-94-302, "Source Term-Related Technical and Licensing Issues Pertaining to Evolutionary and Passive Light-Water-Reactor Designs," Attachment 1 at 12 (Dec. 19, 1994). Consequently, the release quantity ( $Q$ ) would necessarily be less than the total amount of entrained actinides ( $Q_{total}$ ).

To obtain an accurate estimate of the release quantity ( $Q$ ), the quantity of entrained actinides must be reduced by the quantity of actinides that "plate out" or otherwise fail to escape the facility. This is accomplished by multiplying the amount of entrained actinides (available at the time of release) by a "release fraction" ( $RF$ ) — i.e.,  $Q = Q_{total} \times RF$ .<sup>110</sup> The University and the Intervenor disagree on the values that should be assigned to both  $Q_{total}$  and  $RF$ .

(i) Total quantity ( $Q_{total}$ )

The University proposes that the Commission consider  $Q_{total}$  to be the maximum amount of radioactive material that the University is entitled to use in the Alpha Lab at any one time. The University points out that, although it is authorized under its license to possess up to 10 Ci (approximately 2.9 grams)

<sup>108</sup> See RTM-93, *supra* note 92, at H-55, H-65.

<sup>109</sup> At the time relevant to this proceeding, our regulations defined the term "unrestricted area" as "any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, and any area used for residential quarters" 10 C.F.R. § 20.3(a)(17) (1989) ("old Part 20 regulations"). See also 10 C.F.R. § 20.1003 (1994) ("new Part 20 regulations").

<sup>110</sup> The release fraction is "that portion of materials in inventory likely to be dispersed in a severe real accident." NUREG-0767, "Criteria for Selection of Fuel Cycle and Major Materials Licenses Needing Radiological Contingency Plans," at 5 (March 1981; reprinted April 1987).  $RF$  is expressed mathematically by the equation:

$$RF = (\text{amount of actinides entrained}) \times (1 - f)$$

where ( $f$ ) is the fraction of the total actinides that remains within the MURR facility due to natural aerosol removal processes, and which consequently do not escape the building into the atmosphere.

of Am-241,<sup>111</sup> it has committed to use no more than 1 gram (or 3.43 Ci)<sup>112</sup> of Am-241 for its experiment at any given time.<sup>113</sup> Consequently, the University urges us to assign a value of 1 gram to  $Q_{total}$ . See Licensee's Exhibit No. 2, *supra* p. 89, at 8 ¶18 n.6.

By contrast, the Intervenor's argue that the Commission should consider the entire 10 Ci of licensed radioactive material. II-IB at 34. Intervenor's rely on language in NUREG-1140 indicating that the material being considered in that document could be scattered among as many as 500 locations, with the result that a fire could reach only a small fraction of the quantities licensed and would therefore result in only an insubstantial release. *Id.*, citing NUREG-1140 at 90-93. Intervenor's assert that, contrary to the assumption used in NUREG-1140, all the TRUMP-S material will be located at a single location — in the MURR facility — thereby rendering the entire 10 Ci vulnerable to a fire. II-IB at 34.

We will use the University's proposed amount of 1 gram (or 3.43 Ci) of Am-241 as  $Q_{total}$ . The Intervenor's argument in favor of using the University's full possession limit for Am-241 fails to take into account the reasons underlying the Staff's statement in NUREG-1140 that the "[e]ntire possession limit [is] assumed to be involved" in an emergency. NUREG-1140 at 17. The Staff in NUREG-1140 was attempting to bound all materials licensees that *might* need an emergency plan. However, as Staff lacked site-specific information for those materials licensees, it was constrained to calculate the offsite doses based on the full possession limit of materials licenses. The Staff in NUREG-1140 fully recognized that site-specific information for individual licensees would render Staff's calculation overly conservative *as to those licensees*. *Id.*

We conclude that the University's storage of the bulk of the actinides in a fireproof vault constitutes just such site-specific information. This means that, at any given moment following the University's separation of the samples into

<sup>111</sup> See Licensee's Response to Intervenor's Rebuttal, dated Jan. 28, 1991, at 75-76. See also note 107, *supra* (regarding Am-241 being the worst-case scenario with which we are concerned).

<sup>112</sup> The 3.43-Ci/gram value for the specific activity (SpA) of Am-241 is computed as follows:

$$\text{SpA} = \frac{3.578 \times 10^5}{\text{Half Life} (\text{Atomic Mass})} \quad \text{in units of Ci/g}$$

$$\text{where } \begin{array}{l} \text{Half Life} = 432.2 \text{ years} \\ \text{Atomic Mass} = 241 \end{array}$$

$$\text{SpA} = \frac{3.578 \times 10^5}{432.2 \text{ years} \times 241} = 3.43 \text{ Ci/g}$$

Equation from: HHS, *Radiological Health Handbook* at 103 (Rev. ed., January 1970).

Half-Life from: Federal Guidance Report No. 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors For Inhalation, Submersion, and Ingestion," EPA-520/1-88-020 at 114 (EPA, September 1988).

Atomic Mass from: Knolls Atomic Power Lab., *Chart of the Nuclides* (14th ed., April 1988).

<sup>113</sup> Licensee's Exhibit No. 16, *supra* p. 145, at 16-17 ¶24a.

1-gram units in 1990, no more than 1 gram of actinide would be outside safe storage and susceptible to dispersion by fire. Therefore, based on the site-specific information provided in the record of this proceeding, we conclude that the use of 1 gram as the  $Q_{\text{total}}$  is justified (especially given the University's commitment to use no more than that amount at any one time for the experiment)<sup>114</sup> and is also fully consistent with the methodology and underlying rationale of NUREG-1140.

(ii) Release Fraction (RF)

The University and the Intervenors also disagree on the appropriate value for RF. The University's consultant, Mr. Osetek, indicated that RFs for burning plutonium would fall within the range  $2.8 \times 10^{-8}$  to  $5.3 \times 10^{-4}$ . Licensee's Exhibit No. 1, *supra* note 12, at 7 ¶2. Dr. J. Steven Morris of the University proffered a value of  $10^{-6}$ , which is a product of multiplying the following two factors — the fraction of available actinides that would be entrained ( $10^{-4}$ ) and the fraction of those entrained actinides that would be expected to pass through one HEPA filter ( $10^{-2}$ ).<sup>115</sup> In contrast, the Intervenors' expert, Professor James C. Warf, indicated that RF would fall between  $10^{-4}$  and  $4 \times 10^{-1}$ .<sup>116</sup> Professor Warf also asserted that "[n]o one really knows what actual release fractions would be experienced in a fire." *Id.*

In resolving the RF question, the Commission will use a ground release of Am-241 as the limiting case for its analysis,<sup>117</sup> and will rely on the figure in NUREG-1140. Of all the publications on RF quoted by both the University and the Intervenors, NUREG-1140 is the only technical document that specifically addresses accidental releases at materials facilities (as opposed to power reactors). It is also the only document that has undergone the public notice and comment process<sup>118</sup> as well as technical peer reviews. Moreover, NUREG-1140 has repeatedly referred to the RF studies of Schwendiman and

<sup>114</sup> As a condition for our approval of the instant license amendments, we require the University to use no more than 1 gram of the subject actinides at any one time in TRUMP-S experiments.

<sup>115</sup> Licensee's Exhibit No. 24, *supra* note 100, at 48 ¶35. Dr. Morris assumed that one of the Alpha Lab's four HEPA filters would remain intact during and after a fire.

<sup>116</sup> James Warf, "Comments on the Affidavit of Daniel J. Osetek Regarding Safety of the TRUMP-S Project," dated Dec. 9, 1990, appended as Attachment A to Intervenors' Exhibit No. 20, *supra* note 34. The TRUMP-S Review Panel derived much of its data from experiments on entrainment which, as previously noted, does not equate with RF.

<sup>117</sup> See note 107 *supra*.

<sup>118</sup> NUREG-1140 was the basis for the rulemaking proceeding that resulted in the promulgation of the current versions of 10 C.F.R. §§ 30.32(i) and 70.22(i), discussed earlier in this Order. See Final Rule, "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 54 Fed. Reg. 14,051 (Apr. 7, 1989). In the Statement of Considerations that accompanied that Final Rule, we expressly approved NUREG-1140's method for calculating doses. *Id.* at 14,058.

Mishima — two scientists whose writings were cited repeatedly by both the University and the Intervenor.

NUREG-1140 specifies  $10^{-3}$  as the *RF* for Am-241,<sup>119</sup> and we will therefore use this figure. The  $10^{-2}$  mitigation factor provided by the HEPA filter would be relevant only to a release of actinides through the stack. The Commission declines to give the University similar credit for the HEPA filter in the event of a ground release — the worst-case scenario that we are now considering.<sup>120</sup>

(b) Concentration per Release Rate ( $\chi/Q$ )

The Intervenor and the University also disagreed on the appropriate  $\chi/Q$  values for various distances ( $r$ ) from the release point ( $r = 0$ ). The University argued that NUREG-1140 contains the appropriate dispersion model for determining all  $\chi/Q$  values. See Licensee's Exhibit No. 16, *supra* p. 145, *passim*; Licensee's Exhibit No. 2, *supra* p. 89, *passim*. The Intervenor argued that, for  $r \geq 100$  meters,  $\chi/Q$  must be calculated from NRC Regulatory Guide 1.145 and that, for  $r$  less than 100 meters,  $\chi/Q$  should be calculated using Halitsky's dispersion model. See notes 104 and 105, *supra*. For the reasons set forth below, we again follow NUREG-1140's approach.

(i) Alleged Requirement That the Commission Use the Dispersion Model Set Forth in Regulatory Guide 1.145 for Dispersions Exceeding 100 Meters

The Intervenor first argue that, in estimating offsite dose beyond 100 meters from the MURR facility, the Commission *must* use the dispersion model provided in Regulatory Guide 1.145 to estimate the offsite dose from a release resulting from a fire in the Alpha Laboratory. II-IB at 43, 46. The Commission finds the Intervenor's first argument unpersuasive for the following two reasons.

<sup>119</sup>NUREG-1140 at 80, 93. See also RTM-93, *supra* note 92, Table H-12 at p. H-50 (also using  $10^{-3}$  as the *RF* for Am-241). The *RF* figure of  $10^{-3}$  is highly conservative. The figure is a worst-case release fraction, was determined from experiments designed to maximize releases, and involved the placement of finely powdered material on top of a large amount of combustible material. NUREG-1140 at 17. By contrast, the relatively small quantity of combustible material in the Alpha Lab (along with numerous other factors) renders such a worst-case release highly unlikely. The conservatism of this number is even further highlighted by the fact that the *actual* *RF* for the Rocky Flats fire involving hundreds of kilograms of plutonium (an element to which NUREG-1140 assigns the same estimated *RF* as for Am-241) was verified empirically to be only about  $10^{-8}$ . *Id.* at 44, 69.

<sup>120</sup>This conservative approach is consistent with our pronouncement in Final Rule, "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 54 Fed. Reg. 14,051, 14,057 (Apr. 7, 1989):

In general, credit would not be given for filters because the accidents on which the need for emergency preparedness is based are severe accidents such as large fires, possibly with explosions, in which the filters are assumed to be destroyed or the release is assumed to occur through an unprotected release path, such as a hole burned in the roof of the building.

See also NUREG-1140 at 17 ("[n]o credit is generally given for design or operating features that could reduce releases . . . [e.g.] filter systems during a fire").

First, as we noted earlier in this Order, NUREGs and Regulatory Guides serve merely as guidance and do not prescribe requirements on licensees;<sup>121</sup> they simply are not binding in a legal sense. The Commission and its Staff are not limited therefore to considering only one dispersion model any more than the licensees are required to base their dose/dispersion arguments on only one dispersion model. For the dispersion model in Regulatory Guide 1.145 (or, for that matter, in NUREG-1140) to become a binding rule of law, the Commission would have to promulgate it as a regulation.<sup>122</sup>

Second, Regulatory Guide 1.145 was never intended to address accidents at a materials licensee's facility. As indicated by its title ("Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants"), Regulatory Guide 1.145 was directed instead at accidents at nuclear power plants. Consequently, even if the Regulatory Guide's dispersion model were binding on the Commission in its examination of power plants, the model would not be binding on our examination of materials licenses, which are more appropriately analyzed under the rubric of NUREG-1140.

(iii) *Alleged Appropriateness of Using the Halitsky Model for Dispersions  
Up to 100 Meters*

We disagree with the Intervenor's that the Halitsky model is more appropriate to use than the NUREG-1140 model when estimating dispersion<sup>s</sup> up to 100 meters from the MURR facility. In 1988, the NRC Staff issued a NUREG that proffered a new methodology to assess offsite ground releases from nuclear power reactors for distances close to the release point, where building wake effect becomes important. NUREG/CR-5055, "Atmospheric Diffusion for Control Room Habitability Assessments" (May 1988). This new methodology was based on *empirical data* for ground releases for distances close to the release point (e.g., 10 to 100 meters) and therefore took into consideration building wake effects. These two significant features render this methodology more accurate than the one used in the Halitsky model 25 years earlier (and also the ones used in both Regulatory Guide 1.145 and NUREG-1140). Moreover,

<sup>121</sup> See p. 98 *supra*. Regulatory Guides (such as 1.145) provide one methodology that the Staff would accept as proof that a licensee was complying with a particular NRC requirement. Other methodologies are acceptable, provided that a licensee furnishes sufficient justification.

<sup>122</sup> The Commission has chosen not to codify dispersion models for either nuclear power reactors or nuclear materials. Many models assess public health hazard indicators such as dose, criticality, and radioactivity concentration in the environment. The errors in the final numbers produced by a model are dependent on computational accuracy as well as the errors in the model's fundamental assumptions and input parameters. Each model will have its own strengths and weaknesses, and will describe certain site-specific situations better than others. A generic model, such as the one in Regulatory Guide 1.145, must be extremely conservative if it is to bound all site-specific situations. By contrast, a site-specific model may appropriately include more realistic (i.e., less conservative) parameters. To date, no model can describe all site-specific situations accurately — or even all such situations better than the other models.

a comparison of  $\chi/Q$  values derived using the more accurate NUREG/CR-5055 methodology with those derived using the NUREG-1140 methodology shows that, for distances between 10 and 100 meters, NUREG-1140's  $\chi/Q$  values are the more conservative.

(iii) *Alleged Use of a "Magic Number" in NUREG-1140*

Finally, the Intervenor argue that the Commission should not rely on NUREG-1140 because that NUREG assumed a "magic number" of  $10^{-6}$  as the maximum intercept fraction when calculating the inhalation dose,<sup>123</sup> and because this "magic number" was based on "realistic" rather than conservative assumptions.<sup>124</sup> According to the Intervenor, this "rule of thumb" or "magic number" is less precise than a good dispersion model such as Regulatory Guide 1.145 or the Halitsky model. II-IB at 46-47. *See also* Intervenor's Exhibit No. 20, *supra* p. 104, at 24-25 ¶94. The Intervenor misread NUREG-1140. The "magic number" was not used to calculate the  $\chi/Q$  values provided in NUREG-1140, nor do we use it in calculating the  $\chi/Q$  value in the instant proceeding.

b. *Computation of the Maximum Expected Offsite Inhalation Dose Level*

Once the standard for determining the dose level is established, it is possible to compute the maximum expected offsite inhalation dose level at various distances from the MURR facility.<sup>125</sup> Those dose levels turn out to be extremely

<sup>123</sup>The Intervenor are referring to the Staff's statement in NUREG-1140 at 10-11, that "[t]he intercept fraction for inhalation of  $10^{-6}$  is considered to be about the maximum value likely to be inhaled in an accident" for a person standing at "a distance of 100 meters for the entire duration of the accident. . . . In other words, a person on the plume centerline is assumed to inhale at most about one-millionth of the material released."

<sup>124</sup>*See* NUREG-1140 at 16, where the Staff stated that "[t]he Commission's policy is that, 'Emergency planning should be based on realistic assumptions regarding severe accidents'" (*citing* NUREG-0885, "U.S. Nuclear Regulatory Commission Policy and Planning Guidance - 1985," at 6 (Issue 4, 1985)).

<sup>125</sup>First, the fundamental equations set forth *supra* at note 106 and p. 146:

$$\text{Inhalation Dose } (D(r)) = (DCF) \times (B) \times (\chi/Q) \times (Q)$$

$$\text{Release Quantity } (Q) = (Q_{\text{total}}) \times (RF)$$

are combined to yield the following expression of the dose rate:

$$D(r) = (DCF) \times (B) \times (\chi/Q) \times (Q_{\text{total}}) \times (RF)$$

Next, the five factors on the right side of this equation are replaced by the following numbers that are appropriate to reflect both a release of Am-241 (the limiting case) and the value of  $\chi/Q$  at various distances from the Alpha Lab:

$$(DCF) = 530 \text{ rem}/\mu\text{Ci} \quad (\text{NUREG-1140 at 80, Table 13})$$

$$(B) = 2.66 \times 10^{-4} \text{ m}^3/\text{sec} \quad (\text{NUREG-1140 at 12})$$

$$(Q_{\text{total}}) = 3.43 \text{ Ci} \quad (\text{see note 112 } \textit{supra})$$

$$(RF) = 10^{-3} \quad (\text{NUREG-1140 at 80, Table 13})$$

$$(\chi/Q) = 3.3 \times 10^{-3} \text{ sec}/\text{m}^3 \text{ for } r = 100 \text{ m}$$

$$2.1 \times 10^{-3} \text{ sec}/\text{m}^3 \text{ for } r = 150 \text{ m}$$

$$1.6 \times 10^{-3} \text{ sec}/\text{m}^3 \text{ for } r = 200 \text{ m}$$

$$5.8 \times 10^{-4} \text{ sec}/\text{m}^3 \text{ for } r = 400 \text{ m}$$

(NUREG-1140 at 13 (for meteorology condition F, 1 m/sec, no buoyancy)).

small<sup>126</sup> — in fact, on the order of one-tenth those that might result from a hypothetical reactor accident at the University of Missouri's research reactor. See p. 153, *infra*.

### 3. *A Comparison of the Maximum Expected Offsite Inhalation Dose Levels with the Dose Levels Contemplated by the MURR Emergency Plan*

Now that the expected dose levels at various radii of site have been determined, we turn to the question whether those levels are bounded by (i.e., less than) the dose levels contemplated by the MURR Emergency Plan. In comparing the two, we will also address the question whether the Emergency Plan can properly be considered to encompass the activities of the Alpha Lab (which was constructed after the Emergency Plan was written). The answer to each question is in the affirmative.

During the hearing, the University claimed that "[t]he MURR Facility Emergency Plan applies to all activities within the MURR Facility, which includes . . . the laboratories within the MURR building," and that the TRUMP-S experiments being conducted within the MURR building are consequently covered by the MURR Emergency Plan. Meyer Emergency Planning Affidavit, *supra* note 16, at 21 ¶ 74. The Intervenor disputes this assertion, arguing instead that the Emergency Plan was created before TRUMP-S was even thought of and consequently cannot "relate" to these experiments. II-IB at 23.

The Intervenor is correct in asserting that the University developed its MURR Facility Emergency Plan prior to beginning the TRUMP-S Project. However, this fact alone does not itself discredit the Emergency Plan as inadequate to cover an accident in the Alpha Lab involving TRUMP-S materials.

The Commission concludes that the Emergency Plan is sufficient to cover such an accident. Because the Emergency Plan is adequate to protect the public from a research reactor accident (and the NRC Staff has repeatedly found that it is — see note 84, *supra*), then *a fortiori* the Plan is sufficient to protect the public from a release of TRUMP-S materials. The principal hazards associated with an accident involving TRUMP-S material would stem from the inhalation or ingestion of strong alpha-emitting radionuclides.<sup>127</sup> By contrast, a research

<sup>126</sup> 1.60 rem at 100 meters, 1.02 rem at 150 meters, 0.77 rem at 200 meters, and 0.28 rem at 400 meters from the MURR facility.

<sup>127</sup> Both plutonium and uranium are principally alpha-emitters.

The University has correctly pointed out that the only risk of external exposure to the firefighters would come from the gamma radiation. Such exposure would be, at worst, minimal. For instance, 1 gram of Am-241 (the maximum amount that the University would use in any one experiment in the Alpha Lab) in the unshielded glove box would provide a direct dose to a firefighter of less than 100 mrem/hr at a distance of 10 feet. As noted earlier in this Order, this would hardly constitute a significant radiological hazard to firefighters. See p. 136, *supra*.

reactor release would include not only alpha-emitters but also noble gases, iodines, and other particulates such as cesium (none of which are principally alpha-emitters). Because the activity and diversity of radioactive materials in the research reactor's source term are much higher than the activity and diversity of the radioactive materials used in the TRUMP-S experiments, a release from a worst-case accident involving the MURR research reactor has a greater potential for harm to the public than does a worst-case accident involving TRUMP-S materials.

To demonstrate this point, we compare how two such hypothetical releases would affect a person standing approximately 500 feet from the MURR facility.<sup>128</sup> Under conditions of atmospheric inversion, a leakage from the reactor's containment building would result in a whole-body dose of roughly 10 rad (here, the same as 10 rem)<sup>129</sup> during a one-hour exposure period at a 500-foot radius.<sup>130</sup> By contrast, a release of actinides from the Alpha Lab would result in only a 1.02-rem whole-body dose during the same 1-hour period at approximately the same distance of 150 meters (492 feet). See pp. 151-52 of this Order, *supra*.

Viewed another way, if the University were applying today to add the Alpha Laboratory to a facility that did *not* already have an emergency plan, then the University would be required to submit for Commission approval an emergency plan that, among other things, provided for the evacuation of individuals who could be exposed to one or more rem if they remained in place for an hour after an accidental release. See NUREG-1140 at iv, 14. In the case of the Alpha Lab, this evacuation area would extend out to a radius of approximately 150 meters. However, the University has instead chosen to build the Alpha Lab in the MURR facility — a building with an agency-approved emergency plan that includes an evacuation area considerably larger than the one that would be required for a stand-alone Alpha Lab. Consequently, the MURR Facility Emergency Plan already provides all the protection (and more) that an emergency plan for the Alpha Lab would offer.

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<sup>128</sup> Both the hypothetical reactor release and the hypothetical TRUMP-S release would take place at virtually the identical physical location, i.e., within the MURR facility.

<sup>129</sup> The number of rem equals the number of rad multiplied by a quality factor that reflects the type of radioactive emission. For noble gases (which would be the principal radioactive emission during the first hour of a reactor accident), the quality factor is 1. Consequently, in such an event, the number of rad would be equal to the number of rem.

<sup>130</sup> See "Safety Evaluation by the Test & Power Reactor Safety Branch, Division of Reactor Licensing," dated July 27, 1966, at 17 (the first 2-hour exposure at a radius of 500 feet would result in a person receiving less than a 20-rad whole-body dose). This document is part of the administrative record in AEC Docket No. 50-186, involving the University's July 1, 1965 application for authorization to operate MURR. The Safety Evaluation has been available in the Public Document Room since at least 1974. See "[Notice of] Proposed Issuance of Amendment to Facility License, Curators of the University of Missouri, Docket No. 50-186," 39 Fed. Reg. 19,801 (June 4, 1974).



#### 4. Changes Required in the MURR Facility Emergency Plan

Although the Commission has determined that the MURR Emergency Plan does "relate" to the TRUMP-S experiments and is sufficient to bound effectively the dose levels resulting from an accident involving the materials used in those experiments, we have identified two features of the Emergency Plan that require clarification in order to ensure that the Plan adequately protects the public from a release of TRUMP-S materials in the event of a fire.

##### a. The "Emergency Classes" and "Action Levels" in the Reactor Emergency Plan

Intervenors argue that the "Emergency Classes"<sup>131</sup> and "Action Levels"<sup>132</sup> in the Reactor Emergency Plan are inadequate to ensure an effective fire department response to a fire involving TRUMP-S materials. II-IB at 21. We reject the Intervenors' argument as presented, on the ground that the University's methodology for classifying potential accidents was not intended to provide direction to the CFD on how to fight the fire. See Meyer Emergency Planning Affidavit, *supra* note 16, at 15-16 ¶¶ 51-53. However, for the reasons set forth below, we agree with the premise underlying the Intervenors' argument, i.e., that the University needs to describe its emergency classes and action levels more precisely in order to reflect adequately certain differences between the nature of the fires that might affect the MURR research reactor and nature of the fires that might affect nuclear materials in the MURR laboratories (including fires involving TRUMP-S material). To understand the importance of these

<sup>131</sup> The MURR Emergency Plan defines "Emergency Classes" as "classes of accidents grouped by severity level for which predetermined emergency measures should be taken or considered." Emergency Plan at 21. This definition comports with that in ANSI/ANS-15.16-1982, *supra* p. 136, at 1. For purposes of this Order and proceeding, the terms "Emergency Class" and "Emergency Classification" are synonymous.

Nuclear power reactors have four emergency classes. These are, from the least to the most severe: Class 1 — Notification of Unusual Event; Class 2 — Alert; Class 3 — Site Area Emergency; and Class 4 — General Emergency. See 10 C.F.R. Part 50, Appendix E, § IV.C, and authority cited therein. By contrast, research reactors generally have only the first three of these emergency classes, and materials facilities have only the second and third of these emergency classes. See 10 C.F.R. §§ 30.32(i)(3)(iii), 70.22(i)(3)(iii) (specifying the two emergency classes for materials licenses); 10 C.F.R. §§ 30.4, 70.4 (defining the two emergency classes for materials licenses); RTM-93 at A-32 to A-33 (specifying the two emergency classes for materials licenses); 10 C.F.R. Part 50, Appendix E n.2 at 734 (1994) (referring to Regulatory Guide 2.6, "Emergency Planning for Research and Test Reactors" (Rev. 1, March 1983) which, at 2.6-1, in turn refers to the discussion in ANSI/ANS-15.16-1982, *supra*, at 3, 5, regarding the three emergency classes for most research reactors). Therefore, given that the emergency classes for a research reactor completely encompass the emergency classes for a materials facility, an emergency plan that covers a large research reactor will perforce also cover a materials laboratory located within the reactor facility.

<sup>132</sup> The Emergency Plan defines "Emergency Action Levels" as "specific instrument readings, or observations; radiological dose or dose rates; or specific contamination levels of airborne, waterborne, or surface-deposited radioactive materials that may be used as thresholds for establishing emergency classes and initiating appropriate emergency measures." Emergency Plan at 21. This definition comports with that in ANSI/ANS-15.16-1982, *supra* p. 136, at 1. For purposes of this Order and proceeding, the terms "Emergency Action Levels" and "Action Levels" are synonymous.

differences, one must first understand the reasons why the classifications that the Commission assigns to reactor fires differ from those that we assign to materials fires. To that end, we offer the following background information.

As indicated in note 131 *supra*, the Commission has established four different classes of emergency for reactors — “NOUE,” “Alert,” “Site Area Emergency,” and “General Emergency.” Each of these classes is associated with particular action levels. “[F]acility emergencies, such as prolonged fires” affecting research reactors are classified as “NOUEs” See ANSI/ANS-15.16-1982, *supra* p. 136, at 3.<sup>133</sup> By contrast, the least serious fire in a materials facility such as the Alpha Lab requires the higher classification of “Alert.” This is because the amount of time available to mitigate the effects of a materials facility fire would presumably be shorter than the time available to mitigate the effects of an equally serious fire affecting the reactor.<sup>134</sup> For this reason, materials facilities may not use NOUE as an emergency class for fires, but instead must use either the “Alert” or “Site Area Emergency” classes.

The Commission's Fuel Cycle and Materials Incident Emergency Classification scheme (the scheme applicable to the University's materials licenses), as set forth in the Commission's Response Technical Manual (RTM-93, *supra* note 92), specifies that a “Site Area Emergency” involving a materials facility includes a

*[s]ignificant release possibly approaching EPA PAG levels. Radiation and contamination levels may require restricting areas offsite. Environmental sampling and offsite monitoring required.*

while an “Alert” would include only

*[p]ossible minor releases well below EPA PAG exposure levels. Environmental sampling and some offsite monitoring may be required.*

RTM-93 at A-32 to A-33 (emphasis added).

With this background in mind, we turn to the classification scheme set forth in the MURR Emergency Plan. The Emergency Plan indicates that “[s]ignificant releases of radioactive materials as a result of experiment failures” is one of the situations that would qualify as merely an “Alert” rather than as a “Site Area Emergency.” Emergency Plan at 10 § 3.3 (emphasis added). To the extent that

<sup>133</sup> ANSI/ANS-15.16-1982 is relied upon in Regulatory Guide 2.6, “Emergency Planning for Research and Test Reactors” at 2.6-1 (Rev. 1, March 1983), which in turn is relied upon in 10 C.F.R. Part 50, Appendix E n.2.

<sup>134</sup> Compare Final Rule, “Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees,” 54 Fed. Reg. 14,051, 14,056 (April 7, 1989) (“in many instances, it would not be possible to reduce exposures offsite [due to a fire at a materials facility] because there would not be enough time”), with ANSI/ANS-15.16-1982, *supra* p. 136, at 3 (“There is usually time available to take precautionary and corrective steps to . . . mitigate the consequences” of a reactor accident).

this language applies to a fire involving materials licensed pursuant to 10 C.F.R. Part 30 or 70, the language is inconsistent with the above-quoted definitions from our Response Technical Manual.<sup>135</sup>

The University's classification scheme also describes the following action level as a "NOUE:"

[p]rolonged fire or explosion within the facility that can result in a release of radioactivity that would cause *exposures* of the public or Staff *approaching 1 rem whole body or 5 rem thyroid.*<sup>136</sup>

To the extent that this language applies to a fire involving materials licensed pursuant to 10 C.F.R. Part 30 or 70, the language is inconsistent with the above-quoted definitions from the Response Technical Manual. The "NOUE" action level's reference to "exposures . . . approaching 1 rem" equates to a similar reference in the "Response Technical Manual's definition of "Site Area Emergency," in which the Commission referred to a "release possibly approaching EPA PAG [exposure] levels" — levels that are 1-5 rem. *See* Environmental Protection Agency, *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* at p. 2-6, Table 2-1 (EPA 400-R-92-001, October 1991).

To correct these inconsistencies, we require that the University modify its MURR Emergency Plan in the following two respects. First, the Emergency Plan's classification scheme must clarify that the current "NOUE" action level 5 applies only to a reactor fire, and not to a laboratory fire involving nuclear materials. *Compare* MURR Emergency Plan at 25-26, Table 1, "NOUE" action level 5. Second, the classification scheme must clarify that either a "prolonged fire" affecting nuclear materials or a "significant release possibly approaching EPA PAG levels" of such materials would constitute a "Site Area Emergency." *Compare* MURR Emergency Plan at 25-26, Table 1, "NOUE" action level 5.

*b. Attendance in the Reactor Control Room*

On appeal, the Intervenor's argue that the University's fire response planning is insufficient to protect against a fire in the Alpha Lab because the reactor control room will be understaffed, or even unattended, at certain times. II-IB at 25-27; I-RB at 16-17. The University responds that the safety of the Alpha Lab would be enhanced by the fact that its various smoke, heat, and

<sup>135</sup> We note, however, that the language is perfectly adequate to the extent that it applies to fires affecting the MURR reactor. *See* ANS/ANS-15.16-1982, *supra* p. 136, at 3 ("Situations that may lead to [an "Alert"] class include . . . significant releases of radioactive materials as a result of experimental failures").

<sup>136</sup> MURR Emergency Plan at 25-26, Table 1, "NOUE" action level 5 (emphasis added). We recognize that the University's reference to "5 rem thyroid" would apply only to a reactor release. *See* p. 153, *supra*.

radioactivity alarms would be continuously monitored by three reactor operators in the MURR facility during all modes of operation (including shutdown for maintenance or refueling).<sup>137</sup> We agree with the Intervenor on this point. Two of the University's germane licensing documents indicate that the reactor would, at times, be completely unattended.

The first of these documents is the MURR facility's own *Hazards Summary Report* (July 1, 1965), which the University submitted to the Commission in support of its application for a Class 104 Utilization Facility License.<sup>138</sup> That document indicates that only one operator is required to be in the control room during normal operations of the reactor (with another in the vicinity), that a minimum of two operators is required to be on duty during preoperational checkout, operation, and shutdown procedures, and that the control room is left unattended when the reactor is shut down. *Hazards Summary Report* ¶¶ A.4.3(2), 12.2.6, 11.8.2, and A.4.4(5). The second document is one of the MURR facility's technical specifications, which provides that "[t]here will be two facility staff personnel at the facility during reactor operation. One of these persons must be a licensed reactor operator or senior reactor operator and the second person must be knowledgeable of the facility." License No. R-103, AEC Docket No. 50-186, Technical Specification No. 6.1.i, dated July 9, 1974, at 8 of 8 (emphases added).

Regarding the Intervenor's concerns about understaffing of the control room during TRUMP-S experiments, we consider the probability of accidents occurring simultaneously in the MURR reactor and the Alpha Lab to be too low to justify a requirement that the University add another person to the Control Room staff during the operation of the reactor for the sole purpose of monitoring the Alpha Lab alarms. Such an addition would be contrary to health and safety in that it would increase both the personnel and the potential distractions in the Control Room without contributing to the Control Room's principal purpose — reactor safety.

This concern does not apply, however, to the periods when the Reactor Control Room is not staffed at all. Under those circumstances, we will require that, whenever TRUMP-S experiments are being conducted, the University place at least one TRUMP-S experimenter in the Alpha Lab and also ensure that a second person who is familiar with the MURR facility in general and

<sup>137</sup> U Mo RB at 73 n 40. See also Licensee's Exhibit No. 25, *supra* note 82, at 3 ¶6; Licensee's Exhibit No. 24, *supra* note 100, at 11, 35, 44; Licensee's Exhibit No. 20, *supra* p. 131, at 21 ¶55; Meyer Emergency Planning Affidavit, *supra* note 16, at 9 ¶¶28-29, 14 ¶¶44-45; Licensee's Exhibit No. 1, *supra* note 12, at 10 ¶26.6; Licensee's Written Presentation at 41; Application for Amendment to License No. 24-00513-32 at 10 and Application for Amendment to License No. SNM-247 at 10, each of which describes the smoke detector and fire alarm for the Alpha Laboratory (Staff submitted these two applications into the record on June 21, 1990).

<sup>138</sup> The Intervenor submitted other portions of this same document as Exhibit No. 4 to their Motion for Leave to Submit Evidence Respecting Critical Safety Failures Identified in Site Inspection of May 18, 1991, dated May 22, 1991.

the Control Room and Alpha Lab in particular (such as a Health Physicist or Reactor Operator) is present in the MURR facility. As an alternative, the University may assign this latter individual to the Alpha Lab or the Reactor Control Room (to monitor the Alpha Lab's alarms), and also require that the TRUMP-S experimenter be present in the MURR facility. The presence of these two individuals will ensure that sufficient staff is available to monitor for a fire (either directly by watching the interior of the Alpha Lab or indirectly by observing the Alpha Lab annunciators in the Reactor Control Room), and to react to any such fire (by using the fire extinguisher and calling the onsite and/or offsite emergency response organizations).

Finally, when no TRUMP-S experiments are being conducted and the Reactor Control Room is unstaffed, the University must ensure either that at least one person who is familiar with the MURR facility in general and the Control Room and Alpha Lab in particular is present in the MURR facility or that any actinide sample within the glove box is placed in a fireproof container.<sup>139</sup>

##### 5. *Additional Fire Safety Conditions Imposed by the Presiding Officer or Requested by the Intervenors*

In his Final Initial Decision, the Presiding Officer required the University to take one of the following three actions:

Disclose procedures (or adopt new procedures) that ensure a fire loading and continuity of burnable materials (in the basement outside the Alpha Laboratory) that will assure conditions equivalent to those observed by Mr. Purington; [n.111] [or]

Propose procedures ensuring a new maximum loading (and continuity), higher than observed by Mr. Purington, and demonstrate by analysis or expert testimony that the new maximum loading (and continuity) will prevent a credible fire from spreading into the Alpha Laboratory from outside; or

Install an automatic fire sprinkler system in the rectangular area outside the Alpha Laboratory. [n.112]

- n.111: Vehicles that rely on combustible fuels must, of course, be effectively excluded from the basement during any time actinides are in use in the laboratory.
- n.112: If this is done, further changes in procedures are unnecessary *except* for the effective exclusion of vehicles with combustible fuel from the basement while actinides are in use in the laboratory.

<sup>139</sup>The conditions set forth in the last two paragraphs of this section's text are consistent with the University's existing commitment to staff the MURR control room 24 hours a day, every day of the year, with NRC-licensed reactor operators. See Licensee's Exhibit No. 25, *supra* note 82, at 3 ¶6; Licensee's Exhibit No. 24, *supra* note 100, at 11; Licensee's Exhibit No. 20, *supra* p. 131, at 21 ¶55; Meyer Emergency Planning Affidavit, *supra* note 16, at 9 ¶28, 14 ¶44; Licensee's Written Presentation at 41.

LBP-91-31, 34 NRC at 90 (emphasis and footnotes in original). *Accord id.* at 130. In his Order on Reconsideration, the Presiding Officer offered a clarification of his phrase "while actinides are in use":

"In use" means that actinides are actively being used in some way in the laboratory, such as for an experiment or for cutting into different portions for subsequent experimentation. The phrase was not intended to exclude all gasoline-powered vehicles from the MURR basement during the entire duration of the experimental period. The presence of small amounts of contamination in the glove box and associated filters, due to routine operations, would not require exclusion of the vehicle.

There is, of course, the chance of an unanticipated accident, such as a spill of powdered actinide. In such an event, Licensee would be expected to take appropriate extraordinary precautions, which generally would require exclusion of gasoline-powered vehicles from the vicinity of a large spill. The purpose of excluding a combustible-fuel vehicle is to exclude a source of fire that might exceed the expected fire loading or not be easily controlled by a water sprinkler system.

LBP-91-34, 34 NRC at 161-62.

On appeal, the Intervenor urge the Commission to impose still more conditions upon the University (I-RB at 34-37). Conversely, the University asserts that the Presiding Officer's requirement (especially his restrictions on the use of combustible-fueled vehicles) is too harsh and should be relaxed (U Mo IB, *passim*).

The Commission, of course, is not a general fire safety or occupational health agency. With regard to fire safety, the Commission's role is limited. Our responsibility is directed to the hazards associated with nuclear materials rather than to all questions of fire safety at licensed facilities. It is from this perspective that we examine the fire-safety conditions imposed by the Presiding Officer and evaluate the additional conditions advocated by the Intervenor. In general, we find that the Presiding Officer properly insisted that the University take all reasonable measures to prevent fires affecting the Alpha Lab and the TRUMP-S materials.

*a. Fire Prevention Procedures*

**i. PROHIBITION OF THE OPERATION OF COMBUSTIBLE-FUEL VEHICLES WHILE ACTINIDES ARE IN USE IN THE LABORATORY**

As noted above, in two of the three choices that he offered to the University, the Presiding Officer included a prohibition against combustible-fuel vehicles in the basement while actinides are in use. LBP-91-31, 34 NRC at 90 nn.111-112 and at 130 nn.199-200; LBP-91-34, 34 NRC at 161-62. The University requests that we rescind this condition on the ground that it is unduly burdensome.

U Mo IB at 2, 21-37. For the reasons stated below, we approve the condition, but modify it in one significant respect.

Any heavy self-propelled vehicle operating next to the Alpha Laboratory wall has the potential to breach the wall and degrade it as an effective fire barrier, and also conceivably to damage the sprinkler system (depending upon the location of the sprinkler heads and branch lines). In addition, a self-propelled vehicle using combustible fuel has the potential to supply a flammable liquid fuel and an ignition source to the laboratory area. Based on these two potential consequences, either of which could promote the spread of fire into the Alpha Laboratory, we agree with the Presiding Officer that restrictions on the use of such vehicles are prudent.

We do not think it necessary, however, to ban combustible-fuel vehicles from the entire basement. Rather, we limit this restriction to the rectangular basement area south of the Alpha Laboratory while separation or experimentation with actinides is taking place in the laboratory. We do not require that the University exclude combustible-fuel vehicles from the other areas of the basement during such experimentation or separation. This revision limits the prohibition to the location in which it is needed, i.e., the area adjacent to the Alpha Laboratory.

Because the University expects to use the combustible-fuel forklift primarily (if not exclusively) to conduct activities in portions of the basement remote from the Alpha Laboratory (*id.* at 31-32 & n.31), our requirement does not impose undue burdens on the Alpha Laboratory, the TRUMP-S experiments, or the University.

#### ii. PROHIBITION OF THE ACCUMULATION OF COMBUSTIBLES ANYWHERE IN THE BASEMENT

The Intervenors urge us to prohibit the accumulation of combustibles anywhere in the basement. I-RB at 35. We decline to go so far. For the following reasons, we conclude that the present fire loading<sup>140</sup> in the basement is significantly less than that required to pose a threat to the wall or doors separating the basement from the Alpha Laboratory.

For a basement-area fire sufficiently large both to raise the air temperature in the entire basement to very high temperatures and to sustain that high

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<sup>140</sup>Mr. Purington defines "fire load" as "the amount of fuel available for combustion in any given fire area. Typically this value is given in terms of pounds of combustibles per square foot of floor area (lb/ft<sup>2</sup>). Licensee's Exhibit No. 19. Affidavit of Robert G. Purington Regarding Fire Protection at the Alpha Laboratory, dated Jan. 28, 1991, at 11. Combustible weight is given in equivalent pounds of wood, and is therefore referred to as "equivalent combustible weight."

temperature, we must assume that the *entire* "derated" fire load<sup>141</sup> of the basement (other than the Alpha Laboratory) would become involved in the fire. Applying the appropriate industry standards, we conclude that the basement's derated fire load is insufficient to provide enough fuel for a fire to breach the Alpha Lab's doors or walls.<sup>142</sup>

In addition, the sprinklers outside the laboratory will lower the temperatures in the loft and wall area and will prevent the fire rating from being exceeded.<sup>143</sup> When we consider these facts, together with the installation of sprinkler coverage inside the Alpha Laboratory,<sup>144</sup> the placement of fire extinguishers in the

<sup>141</sup> In the Licensee's fire loading calculation, combustibles contained in metal enclosures were "derated" in accordance with NFPA, *Fire Protection Handbook*, *supra* note 92, at pp. 7-112 to 7-113 (1986). The basis for derating is the fact that ordinary combustibles that are entirely or largely enclosed in steel containers will not burn completely and therefore will not contribute their full heat of combustion to the fire load. *Id.* at p. 7-112. The degree of derating is a function of the ratio of the weight of the enclosed combustibles to the weight of the total combustibles. In the MURR basement, the equivalent combustible weight of enclosed combustibles is 9747.5 lbs (out of a total equivalent combustible weight of 10,474.8 lbs). "Fire Load Calculation" at 2, appended as Attachment A to Licensee's Exhibit No. 20, *supra* p. 131. This results in a combustible ratio of 0.93 (i.e.,  $9747.5 \div 10,474.8$ ). The derating factor for ratios in excess of 0.8 is 0.1. See NFPA, *Fire Protection Handbook*, *supra*, at p. 7-113.

To determine the total derated fire load, the derated and nonderated portions of the fire load are added, and then this sum is divided by the square footage of the MURR basement. The nonderated portion of the fire load equals the total fire load of 10,474.8 lbs less that portion of the total fire load which is subject to derating, i.e., 9747.5 lbs. This difference equals 727.3 lbs. The derated portion of the fireload equals the portion of that total fire load which is subject to derating, i.e., 9747.5 lbs, multiplied by the rating factor of 0.1. This yields a derated load of 974.7 lbs. The addition of the non-derated load of 727.3 lbs and the derated load of 974.7 lbs yields a total derated fire load of 1702 lbs. Finally, this sum is divided by 3424 ft<sup>2</sup> (the square footage of the MURR basement) to compute the fire load per square foot — 0.5 lbs/ft<sup>2</sup>. (Even without derating, the fire load is still quite small —  $3.05 \text{ lbs/ft}^2$  ( $10,474.8 \text{ lbs} \div 3424 \text{ ft}^2$ )).

<sup>142</sup> For ordinary combustibles such as the ones in the MURR basement (see Licensee's Exhibit No. 4, *supra* note 78, at 3-5 ¶¶ 13-15, and 8-9 ¶¶ 35, 37, 38; Licensee's Exhibit No. 5, *supra* note 42, at 3-4 12-13; "Fire Load Calculation," *supra* note 141, at 2), fire load can be related to fire severity as determined by the standard time-temperature curve using tables such as Table 7-9B of the NFPA's *Fire Protection Handbook*, *supra* note 92, at p. 7-111. The smallest fireloading shown in that table is 5 lbs/ft<sup>2</sup>, resulting in a maximum fire severity of 30 minutes. Given that the basement's derated fire loading (0.5 lbs/ft<sup>2</sup>; see note 141, *supra*) is only one-tenth of the level necessary to support (i.e., provide fuel for) the 30-minute fire in Table 7-9B, we conclude that the basement's fire load could not support a fire of sufficient duration to breach the Alpha Lab's doors (rated at 20 minutes; see Licensee's Exhibit No. 4, *supra* note 78, at 6 ¶ 22) or walls (rated at 40 minutes; see "Fire Resistance Calculations for the Alpha Laboratory" at 5, appended as Attachment A to Licensee's Exhibit No. 24, *supra* note 100).

<sup>143</sup> See Letter from T. Lew Pitchford and Dr. Susan M. Langhorst (University of Missouri) to Mr. John Jones (NRC Region III), dated July 3, 1991, at 1; U Mo IB at 38 (providing a brief description of the new automatic sprinkler system). See also Application for Renewal of the University of Missouri Broad Scope License No. 24-00513-32, dated Feb. 27, 1992, at 59 ¶ 9.3 (the Licensee has installed an automatic wet pipe sprinkler system in the Alpha Laboratory, entry airlock, loft area, and adjacent basement area).

<sup>144</sup> See note 143, *supra*.



laboratory and MURR basement,<sup>145</sup> the licensee's fire-related procedures,<sup>146</sup> the routine fire-related housekeeping measures,<sup>147</sup> the installation of smoke/heat/fire detectors,<sup>148</sup> and the routine fire safety patrols,<sup>149</sup> we conclude that the prohibition proposed by the Intervenors is unnecessary.

*b. Fire Detection*

In the event that part or all of the sprinkler system becomes inoperable, the University proposed to take one of the following two compensatory measures: either post a 24-hour fire watch in the location covered by the inoperable portion(s) of the sprinkler system, or adopt new procedures relating to fire loading and continuity (as permitted in the Final Initial Decision). U Mo IB at 38-39, referring to LBP-91-31, 34 NRC at 90, 130. We will require that a fire watch be in effect whenever both of the following two situations exist: (a) experiments or separation are in progress in the Alpha Laboratory and (b) any part of the sprinkler system located in or immediately outside the Alpha Lab is inoperable. However, because the alternative condition regarding the establishment of new procedures is too ill-defined to provide any ascertainable level of protection, we do not approve it.

<sup>145</sup> The laboratory contains two 5-pound halon extinguishers, one dry chemical extinguisher, and one MET-L-X extinguisher (for combustible metals). In addition, four 5-pound CO<sub>2</sub> extinguishers and one dry chemical extinguisher are located in the basement area where the Alpha Laboratory is housed. Meyer Emergency Planning Affidavit, *supra* note 16, at 8-9 ¶¶27, 30; Licensee's Exhibit No. 19, *supra* note 140, at 19 ¶8. We consider these extinguishers to be adequate for the laboratory size, nature of combustibles, and potential ignition sources in the laboratory. See NFPA, *Fire Protection Handbook*, *supra* note 92, at 20-14 to 20-15 (Table 20-2A, providing the characteristics of various types and sizes (weights) of portable fire extinguishers; these characteristics include the range of stream, the duration of discharge, and the UL classification), and p. 20-23 (Table 20-2B, providing basic extinguisher requirements in terms of maximum travel distance to extinguishers and maximum size of area to be protected per extinguisher for Class A hazards (ordinary combustibles)). However, to state the obvious, fire extinguishers qualify as a mitigating factor only when personnel are in the laboratory.

<sup>146</sup> For instance, the University's Emergency Procedures provide for notification of the reactor control room as to nature and location of the fire and also notification of the Columbia Fire Department. See FEP-3(a), Control Room Response to Alpha Laboratory Fire, appended as Attachment 3 to Meyer Emergency Planning Affidavit, *supra* note 16.

<sup>147</sup> See Licensee's Exhibit No. 5, *supra* note 140, at 6 ¶20.

<sup>148</sup> Inside the Alpha Laboratory, there are smoke detectors mounted on the ceiling, a smoke detector mounted inside the laboratory exhaust duct, and smoke detectors mounted on the ceiling above the bus area. In addition, activation of the automatic sprinkler system will trigger an alarm. Each of these will activate an alarm at a local alarm panel that will in turn activate an alarm in the reactor control room. See Meyer Emergency Planning Affidavit, *supra* note 16, at 9 ¶28; Licensee's Exhibit No. 25, *supra* note 82, at 3 ¶6; Licensee's Exhibit No. 1, *supra* note 12, at 10 ¶26.6 ("two smoke detectors are present in the laboratory"), appended to Licensee's Written Presentation; Application for Amendment to License No. 24-00513-32 at 10 and Application for Amendment to License No. SNM-247 at 9, each of which describes the smoke detector and fire alarm for the Alpha Laboratory; Application for Renewal of the University of Missouri Broad Scope License No. 24-00513-32, dated Feb. 27, 1992, at 5 ¶9.3.

<sup>149</sup> See Licensee's Exhibit No. 24, *supra* note 100, at 11; Licensee's Exhibit No. 20, *supra* p. 131, at 21 ¶55, 22 ¶58b.

*c. Fire Suppression*

The Intervenors urge the Commission to require that the University install sprinklers in the entire MURR facility or, at the very least, in the entire basement. I-RB at 34. Given the basement's fire loading as described in the record, we do not believe that the installation of sprinklers in the remaining areas of the basement is necessary.

The installation of a wet-pipe automatic sprinkler system in the laboratory and adjacent rectangular area of the basement<sup>150</sup> undoubtedly has reduced the likelihood of a serious fire affecting the Alpha Laboratory. However, because of the need for a high degree of reliability in the sprinkler system, we will require that the licensee follow the requirements for valve supervision as specified in NFPA 801, "Recommended Fire Protection Practice for Facilities Handling Radioactive Materials," and shall inspect, test, and maintain the system in accordance with NFPA 25, "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems."

**D. The Presiding Officer Did Not Err in Excluding the Intervenors' Other Areas of Concern**

*1. Nuclear Proliferation and the Common Defense and Security*

In an order issued June 15, 1990, the Presiding Officer excluded from consideration the Intervenor Organizations' sixth area of concern, regarding nuclear proliferation (and also waste disposal). LBP-90-18, 31 NRC 559, 569-70 (1990). See also unpublished Memorandum and Order (Motion to Strike Portions of Intervenors' Rebuttal), issued Jan. 23, 1991, slip op. at 3. In an order dated August 28, 1990, he rejected similar arguments proffered by the Individual Intervenors. Unpublished Memorandum and Order (Admitting Parties and Deferring Action on Stay), issued Aug. 28, 1990, slip op. at 5-7. Intervenors had argued to the Presiding Officer that the "public interest" precluded the Commission from approving the University's license applications because the University's project would be "inimical to the common defense and security" and would exacerbate the nation's nuclear waste disposal problems.<sup>151</sup>

More specifically, the Intervenors contended that the University's research project would, if successful, adversely affect efforts to restrain nuclear prolifer-

<sup>150</sup> See documents cited in note 143, *supra*.

<sup>151</sup> Intervenor Organizations' "Reply Memorandum . . . in Support of Request for Hearing and Stay Pending Hearing," dated June 12, 1990, at 14-15, citing AEA § 57, 42 U.S.C. § 2077(c)(2) and 10 C.F.R. § 70.31(d); individual Intervenors' Petitions for Leave to Intervene [and] Request for Stay, dated Aug. 6, 1990, at 4-6, 9; Intervenor Organizations' Request for Hearing and Stay Pending Hearing, dated May 10, 1990, at 5. See also Intervenors' Written Presentation at 53-55; Intervenors' Request for Hearing and Stay Pending Hearing, dated Nov. 2, 1990, at 5.

ation. They reasoned that the project, if it resulted in a useful process, would lead to commerce in large amounts of separated weapons-usable materials. According to the Intervenor, such commerce would carry with it the risk that the nuclear material could be diverted for warheads which could be sold in the black market and/or used by terrorists.<sup>152</sup> The Intervenor further asserted that the extraction of transuranics from the nuclear waste would undermine the government's efforts to obtain international agreement to the renewal of the Non-Proliferation Treaty.<sup>153</sup>

In his June 15 and August 28, 1990 orders, the Presiding Officer rejected this entire line of argument on grounds of relevance. He concluded that it was improper for him to consider the project's effect on nuclear proliferation unless the project would violate a treaty, law, regulation, or Commission guidance, and that the Intervenor had pointed to no such violation. LBP-90-18, 31 NRC at 570 (regarding law or treaty); unpublished Memorandum and Order (Admitting Parties and Deferring Action on a Stay), issued Aug. 28, 1990, slip op. at 6 (regarding regulations or guidance). The Presiding Officer also ruled that the project did not violate the general provisions of either section 57 of the AEA or section 70.31(d) of the Commission's regulations, each of which prohibits issuance of NRC licenses that would be "inimical to the common defense and security." LBP-90-18, 31 NRC at 570 n.9, citing AEA § 57, 42 U.S.C. § 2077(c)(2) (1988), and 10 C.F.R. § 70.31(d). In the Final Initial Decision, the Presiding Officer referred to his earlier ruling in LBP-90-18, but did not discuss the issue further. LBP-91-31, 34 NRC at 34 n.\*, 102 n.145.

On appeal, the Intervenor reiterates many of their earlier arguments. IS-IB at 5, 13-14. Intervenor also challenges the Presiding Officer's ruling that the test for consideration of issues related to common defense and security is whether the licensee would violate a law or treaty, or whether the project is illegal. According to the Intervenor, the test is instead simply whether the project is inimical to the common defense and security. Finally, the Intervenor argues that, contrary to the Presiding Officer's ruling denying the admissibility of this area of concern, the Commission's Subpart L procedural regulations require Intervenor only to describe an area of concern, not to brief it fully. *Id.* at 14, quoting Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8272. For the reasons set forth below, we accept the Intervenor's position as to the proper litmus test for consideration of an argument regarding nuclear proliferation, but

<sup>152</sup> Intervenor Organizations' "Reply Memorandum . . . in Support of Request for Hearing and Stay Pending Hearing," dated June 12, 1990, at A-16 and A-20 ("Declaration of James C. Wart and Daniel O. Hirsch" at 3 and 7); Intervenor Organizations' Request for Hearing and Stay Pending Hearing, dated May 10, 1990, at 5. See also Intervenor's Written Presentation at 53-55; Intervenor's Exhibit No. 16, Declaration of George Bunn, dated Aug. 28, 1990, at 3, attached to Intervenor's Written Presentation.

<sup>153</sup> Individual Intervenor's Petitions for Leave to Intervene [and] Requests for Stay, dated Aug. 6, 1990, at 4. See also Intervenor's Written Presentation at 55; Intervenor's Exhibit No. 16, *supra* note 152, at 3. The Intervenor raised several other related arguments before the Presiding Officer, but did not preserve them on appeal.

nevertheless reject the Intervenor's position that they should have been allowed to litigate this area of concern.

The Commission's Subpart L procedural regulations impose upon the Intervenor the burden of showing that this area of concern is "germane to the subject matter of [this] proceeding." 10 C.F.R. § 2.1205(g) (1992). In other words, it must "fall generally within the range of matters that are properly subject to challenge in [this] proceeding." Final Subpart L Rule, *supra* note 52, 54 Fed. Reg. at 8272. We agree with the Intervenor that they may argue that the TRUMP-S project is "inimical to the common defense and security," and not just that the project would contravene a particular regulatory guidance, regulation, statute, or treaty. The Intervenor is also correct in their view that they may address whether weapons-usable material will be properly protected from theft or diversion. See generally *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 41 (1993) (refusing to read a procedural regulation in such a way that would "have the unintended effect of prohibiting petitioners from raising issues otherwise germane to a proceeding").

Intervenor is not entitled, however, to litigate this area of concern unless the specific "common defense and security" risk asserted by the Intervenor in this proceeding is reasonably related to, and would arise as a *direct* result of, the specific license amendments that the University asks the Commission to approve in this proceeding. See *United States Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412 (1982), *rev'd and remanded per curiam on other grounds sub nom. Natural Resources Defense Council v. NRC*, 695 F.2d 623 (D.C. Cir. 1982), in which the Commission rejected the contention that "going forward with the breeder reactor program would increase the threat of a nuclear war and complicate non-proliferation problems." 16 NRC at 425. In *Clinch River*, the Commission found this argument "irrelevant . . . because the initiation of site preparation activities [the action at issue in that proceeding] [would] not lead *directly* to the production of plutonium or commit the Commission to authorize construction of [the Clinch River Breeder Reactor]." *Id.* (emphasis added). The Commission and the federal courts have applied the same principle in determining whether a party has standing to participate in a proceeding. See, e.g., *Lujan v. Defenders of Wildlife*, \_\_\_ U.S. \_\_\_, 112 S. Ct. 2130, 2136 (1992); *Transnuclear, Inc.* (Ten Applications for Low-Enriched Uranium Exports to EURATOM Member Nations), CLI-77-24, 6 NRC 525, 531 (1977); *Edlow International Co.* (Agent for the Government of India on Application to Export Special Nuclear Material), CLI-76-6, 3 NRC 563, 570 (1976), *rendered moot on appeal, Natural Resources Defense Council v. NRC*, 580 F.2d 698 (D.C. Cir. 1978) (*per curiam*).

Here, the University's proposed research does not lead "directly" to nuclear weapons proliferation. Rather, the research is many steps removed from even the possibility of such proliferation. First, even if the University's initial research

is successful, Congress or DOE may still choose (for policy, economic, or other reasons) not to authorize the additional research necessary to render the process commercially viable. Second, if such a second round of research is authorized, it still may not be successful. Third, if the second round of research is both authorized and successful, the federal government and industry may still choose not to use the process, again due to policy, economic, or other considerations (such as the availability of a more preferable means of nuclear waste disposal). And fourth, if the federal government and industry do choose to use the process, the government can still regulate the use and distribution of the process so as to preclude the nuclear weapons proliferation that the Intervenor's fear. Only at this fifth stage would the Intervenor's concerns about proliferation and safeguards become ripe for concern. We are loath to halt basic research in its tracks on the purely speculative ground that its fruits may someday be put to improper use.

It will be up to future policymakers to decide whether and how to use the results of the University's research. The policymakers' future decision may be the proximate cause of the Intervenor's concerns, but the basic research itself cannot be. The connection is simply too remote and speculative, being premised upon the future third-party activities that are unrelated to the specific activities authorized by the license amendments. Consequently, we conclude both that the Intervenor's "proliferation" area of concern is not a direct consequence of the proposed license amendments (or the Commission's approval thereof), and that the Presiding Officer correctly excluded it from the scope of this proceeding.

## 2. Disposal of TRU and Mixed Wastes

The University in both of its amendment applications indicated that most of the waste to be generated during the TRUMP-S Project will be contamination-control and cleanup waste (such as Kimwipes, gloves, and contaminated clothing) containing either depleted uranium or less than 100 nanocuries of plutonium per gram of waste, and that this waste would be incorporated into the MURR Radwaste Program for disposal through a radioactive waste broker. The University also proposed to package, label, and store separately any TRU wastes,<sup>154</sup> and expected DOE to accept and dispose of these wastes. Finally, the University indicated that all wastes would ultimately be processed so as to be nonhazardous and that, consequently, none would qualify as mixed waste. Application for Amendment to License No. SNM-247, dated Feb. 20, 1990, at 18-19; Application for Amendment to License No. 24-00513-32, dated March 9, 1990, at 19-20.

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<sup>154</sup> Because the TRUMP-S experiments create no new TRU, they will yield no TRU waste *per se*. The term "TRU waste" refers instead to items on which TRU has been deposited (e.g., Kimwipes, gloves, and contaminated clothing) as a result of the TRUMP-S experiments.

The Individual Intervenors, in their Petition for Leave to Intervene, presented as one of their areas of concern the issue of waste disposal. Specifically, they argued that no waste disposal sites are currently licensed to receive the TRU and mixed wastes that the University's TRUMP-S Project will generate, and that the University may therefore be constrained to store such wastes on site at least into the next century — a situation that the University is not equipped to handle. Individual Intervenors' Petitions for Leave to Intervene [and] Requests for Stay, dated Aug. 6, 1990, at 3-4.

The Presiding Officer declined to admit this area of concern. He reasoned that the Individual Intervenors had cited no regulatory authority requiring the Licensee to include its waste disposal plan in its application, and that the Presiding Officer knew of no such authority. Unpublished Memorandum and Order (Admitting Parties and Deferring Action on a Stay), issued Aug. 28, 1990, slip op. at 4. The Presiding Officer also noted that the Licensee had responded to Individual Intervenors' argument by explaining in detail how it plans both to limit the radioactivity of its wastes and to dispose of such wastes. *Id.* at 5, citing Response of Licensee to "Petitions for Leave to Intervene; Requests for Stay," dated Aug. 20, 1990, at 6-14.

On appeal, the Individual Intervenors contend that the Presiding Officer erred in excluding this area of concern. They essentially reiterate their prior arguments — specifically asserting that the project will generate TRU and mixed wastes; that no sites currently exist in which to dispose of either; that the University cannot lawfully ship the transuranic wastes and must therefore store them indefinitely on site; and that it is not equipped to do so. According to the Individual Intervenors, these facts raise questions respecting hazards of accidents such as fire or other exposure, are therefore "germane to the subject matter of the proceeding," and should not have been excluded. II-IB at 8, quoting 10 C.F.R. § 2.1205(g).

Individual Intervenors take particular issue with the Presiding Officer's reasoning, viz., that the Intervenors had not cited any regulatory authority that would require the University to include its waste disposal plan in its application. Individual Intervenors contend that Subpart L contains no provision mandating such a citation of authority, and that the Intervenors should be permitted to raise this area of concern if it relates to the question whether the amendments provide an adequate assurance of safety and minimize danger to life. II-IB at 8.

The Commission affirms the Presiding Officer's decision to exclude the "waste disposal" area of concern. Given DOE's firm commitment to take any TRU and mixed waste,<sup>155</sup> DOE's current possession of the available technology

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<sup>155</sup> See Letter from Kenneth R. Quitoriano, Project Manager, Nuclear Energy Division, Department of Energy, to Mr. M.J. Gabler, Program Manager, Technology Programs, Rocketdyne Division, Rockwell International Corp., dated July 30, 1990, at 1.

to manage at least 67 tons of spent fuel,<sup>156</sup> the small potential amount of such waste at issue here,<sup>157</sup> and the University's experience in handling mixed waste,<sup>158</sup> we cannot conclude that there is any realistic danger in the University keeping such waste on site until DOE is in a position to collect it or that the Presiding Officer erred in excluding the "waste disposal" area of concern.<sup>159</sup>

### 3. Decommissioning

The Presiding Officer in his Final Initial Decision denied the Intervenor's requests to accept their area of concern regarding the decommissioning of the Alpha Lab. LBP-91-31, 34 NRC at 125-26. On appeal, the Intervenor presents two substantive arguments regarding the University's "failure" to file a decommissioning plan. For the reasons set forth below, we disagree with both arguments.<sup>160</sup>

The Intervenor's principal substantive argument on appeal is that the University's failure to file a decommissioning funding plan as part of its two license amendment applications renders them fatally flawed. IS-IB at 15, 16; II-IB at

<sup>156</sup> Waste Confidence Decision Review, 55 Fed. Reg. 38,474, 38,503 (Sept. 18, 1990).

<sup>157</sup> While there is some indication that the University expects that the TRUMP-S project will yield no mixed or TRU waste at all, the record also indicates that the project might yield one barrel of TRU waste per year. Compare Response of Licensee to "Petitions for Leave to Intervene, Requests for Stay," dated Aug. 20, 1990, at 8-9, 11 with Excerpts on TRUMP-S from the Minutes of the February 14, 1990 Meeting of the Isotope Use Subcommittee of the Reactor Advisory Committee at 2, appended as Attachment 3 to Langhorst Personnel Qualifications Affidavit, *supra* note 16 ("Waste estimates for Phase I are . . . 1 barrel of TRU wastes. Continuation of the project should result in 1 additional barrel of TRU/year").

<sup>158</sup> See "Engineering, Chemistry, and MURR Program Support of the Rockwell International TRUMP-S Project: A Proposal Submitted to Rockwell International . . . by The Curators of the University of Missouri . . ." at 19 (January 1990), submitted as Intervenor's Exhibit No. 19, *supra* note 12, at 22.

The University of Missouri-Columbia has in place a mixed waste management program based upon the Joint EPA/NRC "Guidance on the Definition and Identification of Commercial Mixed Low Level Radioactive and Hazardous Wastes" (January 8, 1987, Office of Solid Waste and Emergency Response, EPA Directive Number 9432.00-2). The University established this waste program in early 1988 through the University Office of Environmental Health and Safety to meet the NRC and EPA requirements for managing and disposing of mixed wastes. Procedures have been established to provide for the storage, processing, and disposition of mixed waste in similar form to that expected to be generated by the TRUMP-S project. The experience that the MURR Operations and Health Physics staffs have in handling and shipping low-level waste (including Class B waste shipments of irradiated metal hardware), combined with the mixed waste experience provided by the Office of Environmental Health and Safety, will provide sufficient expertise to safely and effectively manage the mixed waste stream from this project.

<sup>159</sup> Individual Intervenor's also complain that the Presiding Officer's decision to exclude the "waste disposal" area of concern was improperly based upon "an *ex parte* presentation of evidence" by the University regarding its plans to limit the radioactivity of the wastes and to dispose of such wastes. II-IB at 8-9 (alluding to the Presiding Officer's consideration of the Response of Licensee to "Petitions for Leave to Intervene, Requests for Stay," dated Aug. 20, 1990). We cannot find that the Presiding Officer improperly considered or based his ruling upon the University's August 20, 1990 Response. Although it is true that the Presiding Officer alluded to such evidence in his August 28, 1990 unpublished Memorandum and Order, his ruling to exclude the "waste disposal" area of concern was based exclusively upon "the absence of any support in the regulations" for the Intervenor's argument. Unpublished Memorandum and Order (Admitting Parties and Deterring Action on a Stay), dated Aug. 28, 1990, slip op. at 5.

<sup>160</sup> Because of our view on the meaning of our decommissioning regulations, we need not reach the Intervenor's procedural arguments (IS-IB at 15-17, 30; II-IB at 6-7).

3-7; I-RB at 37. More specifically, the Intervenor's assert that the University's requested authorization level of 25 Ci (later reduced to 10 Ci) of Am-241 exceeds the  $10^{-3}$ -Ci minimum level for which such a plan is required under 10 C.F.R. § 30.35(a). Intervenor's argue that the Licensee is not excused from this requirement by the provisions of section 30.35(c) (permitting certain licensees to file a Certification of Financial Assurance in lieu of a decommissioning funding plan). According to the Intervenor's, section 30.35(c) does not apply to byproduct materials license amendment applications which, like the University's application, seek authority to possess and use more than  $10^{-4}$  Ci of unsealed americium. Similarly, Intervenor's argue that Licensee's requested authorization level of 2 Ci of plutonium exceeds the  $10^{-3}$ -Ci minimum level for which a decommissioning funding plan is required under section 70.25(a). II-IB at 3-4.

The Intervenor's are, of course, correct in arguing that sections 30.35(a) and 70.25(a) of our regulations generally require a materials license applicant to submit a decommissioning funding plan if the amount of unsealed byproduct material or unsealed special nuclear material to be licensed exceeds certain levels. They are also correct in arguing that, in the instant proceeding, the amount of materials at issue in this proceeding exceeds the levels specified in sections 30.35(a) and 70.25(a). However, the Intervenor's fail to recognize that sections 30.35(c)(2) and 70.25(c)(2) provide specific exceptions to the requirements of sections 30.35(a) and 70.25(a) for any holder of a license issued on or before July 27, 1990, and that the University falls squarely within this regulatory exception (having received its byproducts materials license, its SNM license, and the two instant amendments to those licenses prior to that date). Such a licensee has a choice of either (1) filing a decommissioning plan on or before July 27, 1990, or (2) filing a Certification of Financial Assurance on or before that date and then filing a decommissioning funding plan in its next license renewal application.

If such a licensee is a governmental entity, then sections 30.35(f)(4) and 70.25(f)(4) dictate the terms of its certification. Both of these sections state that financial assurance for decommissioning may be provided, "[i]n the case of . . . State . . . government licensees, [by] a statement of intent containing a cost estimate for decommissioning or an amount based on the Table in paragraph (d) of this section, and indicating that funds for decommissioning will be obtained when necessary." In the Statement of Considerations to the Final Rule in which these regulations were promulgated, the Commission expressly indicated its intent that this provision apply to state universities. *See* Final Rule, "General Requirements for Decommissioning Nuclear Facilities," 53 Fed. Reg. 24,018, 24,037 (June 27, 1988). *See also* Proposed Rule, "Decommissioning Criteria for Nuclear Facilities," 50 Fed. Reg. 5600, 5607 (Feb. 11, 1985).

By letter dated June 15, 1990, the University provided the Commission with precisely the kind of statement described in sections 30.35(f)(4) and 70.25(f)(4)



— a fact that the Intervenor do not deny. The certification also included all of the contents specified in Regulatory Guide 3.66, viz., it identified the facilities for which the University guaranteed financial assurance, stated the amount of money that the regulations required to be set aside to pay for decommissioning, included the required statement that these “funds will be requested and obtained sufficiently in advance of decommissioning to prevent delay of required activities,” and included evidence of the authority of the University’s Vice President to sign the Certification.<sup>161</sup> Consequently, we conclude that the University complied with the Commission’s filing requirements regarding decommissioning.<sup>162</sup>

The Intervenor’s second substantive argument (or cluster of arguments) is that the University’s certification of financial assurance promises nothing and fails to identify the source of the funding; and that, even assuming that the University could assure the requisite funding through an appropriations vote by the state legislature, such a vote would be *ultra vires* because it would violate article III, section 37 of the Missouri Constitution. II-IB at 4 n.1. The Intervenor are apparently not arguing that the University’s certification failed to comply with the Commission’s relevant regulations (sections 30.35 and 70.25). Instead the Intervenor are, in essence, contending that those regulatory provisions are themselves insufficient to protect the public health and safety. This assertion constitutes an improper collateral attack upon our regulations.<sup>163</sup>

We also read in this second argument a related complaint that the certification does not provide an ironclad guarantee that decommissioning funds will be available when the time comes to decommission the Alpha Lab. The Commission

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<sup>161</sup> Regulatory Guide 3.66 (Task DG-3002), “Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning under 10 CFR Parts 30, 40, 70, and 72,” § 3.2.4 at p. 3-25 and Exhibit No. 3-9 at p. 3-26 (June 1990). See also *id.* § 3.1.2 at p. 3-2.

The Intervenor have conceded that the University’s certification “does fulfill some of the requirements of . . . [R]egulatory [G]uide [3.66].” Intervenor’s Response to Licensee’s Written Presentation, dated Dec. 24, 1990, at 19. Although the Intervenor asserted before the Presiding Officer that the University had failed to satisfy the alleged requirement of Regulatory Guide 3.66 (i.e., that the University notify the Missouri General Assembly of its decommissioning funding responsibilities (*id.*)), the Intervenor have not raised this argument on appeal.

<sup>162</sup> We also note that the University submitted a full decommissioning funding plan as part of its February 28, 1992 Application for Renewal of its Broad Scope License No. 24-00513-32. (The Staff approved the University’s Application on July 7, 1993, and no Intervenor have challenged that approval.) The University’s submittal may well render the Intervenor’s first argument moot.

<sup>163</sup> 10 C.F.R. § 2.1239(a). See also *American Nuclear Corp.* (Revision of Orders to Modify Source Materials Licenses), CLI-86-23, 24 NRC 704, 708-10 (1986). Although the Intervenor could have filed a petition for waiver of the bar on collateral attacks against the regulations (see 10 C.F.R. § 2.1239(b)), they did not avail themselves of this opportunity.

considered such a "guarantee" approach in the proposed rule for establishment of decommissioning criteria,<sup>164</sup> but expressly rejected it in the final rule:

The intention of the proposed rule is that these State and Federal licensees should, early in their facilities' lifetime, be aware of the eventual decommissioning of the facility, specifically its cost, and make their funding bodies aware of those eventual costs. The provisions of the rule requiring naming a guarantor of funds may be subject to misinterpretation. Accordingly, the proposed rule is being modified to indicate that Federal and State licensees should provide a statement of intent that they have an estimate of the cost to decommission their facilities and that they will obtain funds when necessary for decommissioning.

Final Rule, "General Requirements for Decommissioning Nuclear Facilities," 53 Fed. Reg. 24,018, 24,037 (June 27, 1988). See also 10 C.F.R. §§ 30.35(f)(4) and 70.25(f)(4). Consequently, we reject the Intervenors' "guarantee" position as either inconsistent with, or an improper collateral attack upon, the Commission's regulations.

### III. THE PARTIES' AND PRESIDING OFFICER'S OBSERVATIONS REGARDING SUBPART L

In the final section of the Final Initial Decision, the Presiding Officer offered his "Reflections on Subpart L," and invited the parties to provide their own opinions on that subject to the Chief Administrative Judge of the Licensing Board Panel. LBP-91-31, 34 NRC at 128-29. The parties used their appeal briefs as a vehicle to inform Commission directly of their views as to how well (or poorly) Subpart L had worked in this proceeding. See U Mo IB at 39-44; I-RB at 18-21.

Initial Decisions and appeals therefrom are intended to address the parties' real cases and controversies, not more general questions of regulatory philosophy and practice. The parties should instead employ the rulemaking process to address the latter issues.<sup>165</sup> Consequently, we do not consider in this Decision the Presiding Officer's and the parties' reflections on Subpart L.

<sup>164</sup> Proposed Rule, "Decommissioning Criteria for Nuclear Facilities," 50 Fed. Reg. 5600, 5606 (Feb. 11, 1985): Another potential funding method . . . is for a licensee . . . to obtain a guarantee that the local, state, or Federal government will assume financial responsibility for decommissioning the facility. This would most likely be possible when the licensee is a local, State, or Federal agency or a state-affiliated organization such as a university or hospital.

See also *id.* at 5614 and 5622 (text of proposed sections 30.35(e)(4) and 70.25(e)(4)).

<sup>165</sup> See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-8, 29 NRC 399, 416, reconsideration denied, CLI-89-9, 29 NRC 423 (1989).

## Conclusion

1. The Commission affirms in part and modifies in part LBP-91-31 and LBP-91-34, as discussed above.

2. *Conditions.* The Commission grants the University of Missouri's two license amendment applications, subject to the following conditions:

- a. As specified in section II.C.5 of this Order, the University must take the following fire safety measures:
  - i. Combustible-fuel vehicles must not operate in the rectangular basement area south of the Alpha Laboratory while separation or experimentation with actinides is taking place in the laboratory.
  - ii. A fire watch must be in effect whenever both (a) experiments or separation are in progress in the Alpha Laboratory and (b) any part of the sprinkler system located in or immediately outside the Alpha Lab is inoperable.
  - iii. The licensee must follow the requirements for valve supervision as specified in NFPA 801 ("Recommended Fire Protection Practice for Facilities Handling Radioactive Materials") and must inspect, test, and maintain the system in accordance with NFPA 25 ("Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems").

These three requirements replace the first two options in Ordering Paragraph 1 of the Final Initial Decision (LBP-91-31, 34 NRC at 130).

- b. As specified in Section II.C.4.a of this Order, the University must modify the Emergency Classes and Action Levels in its MURR Facility Emergency Plan in the following two respects:
  - i. The Emergency Plan's classification scheme must indicate that the current "NOUE" action level 5 applies only to a reactor fire, and not to a laboratory fire involving nuclear materials.
  - ii. The classification scheme must clarify that either a "prolonged fire" affecting nuclear materials or a "significant release possibly approaching EPA, PAG levels" of such materials would constitute a "Site Area Emergency."
- c. As specified in Section II.C.4.b of this Order: Whenever TRUMP-S experiments are being conducted and the Reactor Control Room is unstaffed, the University must place at least one TRUMP-S experimenter in the Alpha Lab and must also ensure that a second person who is familiar with the MURR facility in general and the Control Room and Alpha Lab in particular (such as a Health Physicist or Reactor Operator) is present in the MURR facility. As an alternative, the University may

assign this latter individual to the Alpha Lab or the Reactor Control Room (to monitor the Alpha Lab's alarms), and also require that a TRUMP-S experimenter be present in the MURR facility.

Moreover, when no TRUMP-S experiment is being conducted and the Reactor Control Room is unstaffed, the University must ensure either that at least one person who is familiar with the MURR facility in general and the Control Room and Alpha Lab in particular is present in the MURR facility or that any actinide sample within the glove box is placed in a fireproof container.

- d. As specified in section II.C.2.a.ii(a)(i) of this Order, the University is permitted to use no more than 1 gram of the subject actinides at any one time in TRUMP-S experiments.

3. To effectuate the conditions set forth in Ordering Paragraph 2 above, NRC Staff is instructed to issue conforming changes to the University's license.

4. *Additional Requirement.* As specified in Part II of the "Background" portion of this Order, the University must certify, within 30 days of the issuance date of this Order, that it has complied with the requirement imposed by the Presiding Officer concerning TAM-62.

5. *Extended Deadline for Petitions for Reconsideration.* Because of the unusual length of this opinion, we exercise our discretion to extend the deadlines for petitions for reconsideration and answers thereto, specified in 10 C.F.R. § 2.1259(b) (*incorporating* 10 C.F.R. § 2.771). Petitions for reconsideration must be filed no later than 30 days after the issuance date of this Decision. Answers in opposition to, or in support of, any such petitions must be filed no later than 32 days thereafter.

6. *Filing Requirements Applicable to Petitions for Reconsideration.* In the event that the Intervenor Organizations and the Individual Intervenors each wish to file a Petition for Reconsideration, they shall file one joint petition. In the event that the Intervenor Organizations and the Individual Intervenors wish to file an answer to a Petition for Reconsideration filed by the University, they shall file one joint answer. Each Petition for Reconsideration or Answer to such petition shall not exceed 30 pages in length.

7. *Effective Date.* If no petition for reconsideration is filed, this Order will take effect upon the expiration of the 30-day period for filing such petitions. If one or more petitions for reconsideration are filed, then this Order takes effect upon the issuance of a Commission decision on reconsideration.

It is so ORDERED.

For the Commission

JOHN C. HOYLE  
Acting Secretary of the  
Commission

Dated at Rockville, Maryland,  
this 28th day of February 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

## OFFICE OF ENFORCEMENT

Joseph R. Gray, Acting Director

In the Matter of

Docket Nos. 50-245  
50-336  
50-423NORTHEAST UTILITIES  
(Millstone Nuclear Power Station)

February 22, 1995

The Acting Director of the Office of Enforcement has denied petitions filed by Carmela V. Marien and Marianne W. Nericcio requesting that accelerated enforcement action be taken against Northeast Utilities (NU). The Petitioners requested that this action be taken against NU for willful violations of the employee protection provisions of 10 C.F.R. § 50.7. As grounds for their request, the Petitioners asserted that they were retaliated against for engaging in protected activities consisting of raising concerns regarding a computer system being used in the execution of NU's fitness-for-duty program. The reasons for the denial are fully set forth in the Decision.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206****I. INTRODUCTION**

On August 21, 1993, Carmela V. Marien and Marianne W. Nericcio (Petitioners) filed separate requests for an immediate investigation and accelerated enforcement action against Northeast Utilities (Licensee) for alleged willful violations of the employee protection provisions of 10 C.F.R. § 50.7. As grounds for these requests, Petitioners assert that they have been retaliated against for engaging in protected activities consisting of raising concerns regarding a computer system being used in the execution of the Licensee's fitness-for-duty program.

## II. DISCUSSION

In April 1993, while employed by Northeast Utilities at the Millstone Nuclear Power Station as an Occupational Health Administrator, Ms. Marien was asked to use a new computer program in the administration of the plant's fitness-for-duty program that is required by NRC regulations in 10 C.F.R. Part 26. In using the program, Ms. Marien observed that there were certain problems with the personnel security aspects of the computer program and reported these problems to her management and, following questioning by an NRC inspector, to the NRC. In her petition, Ms. Marien alleges that, subsequent to her identification of such problems: (1) three of her managers/supervisors would not speak to her at a meeting on the subject on May 12, 1993; (2) a manager made harassing statements to her at a June 8, 1993 meeting among fitness-for-duty staff, and (3) she received a whistle in the interoffice mail.

Ms. Nericcio similarly was asked to use the new computer program and, subsequent to her use of the program, supported Ms. Marien in her identification and pursuit of the concerns about the program. In her petition, Ms. Nericcio alleges that, subsequent to her identification of the problems relating to the computer program used for fitness-for-duty: (1) three of her managers/supervisors would not speak to her at a meeting on the subject on May 12, 1993; (2) at a June 8, 1993 meeting on the subject, one of her managers chastised her for discussing her concerns with the NRC; and (3) she received a whistle in the interoffice mail. Petitioners assert that these actions constitute harassment, intimidation, and retaliation for reporting concerns about the fitness-for-duty computer program.

In June 1993, Ms. Marien and Ms. Nericcio filed complaints with the Department of Labor, stating that the harassing statements that were made to them during the June 8, 1993 meeting constituted retaliation for engaging in activities protected under the Energy Reorganization Act. On June 27, 1994, after conducting a hearing on the matter, a DOL Administrative Law Judge (ALJ) concluded that Petitioners had not established that a violation occurred in that they had not shown that the Licensee had taken any adverse action against them. According to the ALJ, Petitioners had testified that, with the exception of the alleged harassing statements, they had suffered no other form of retaliation such as reassignment, loss of pay, adverse performance evaluation, or denial of a vacation. The ALJ could not determine whether the alleged harassing statements had actually been made and he concluded that the statements themselves, if they actually were made, were not sufficient to constitute adverse action against Petitioners. The ALJ recommended dismissal of the complaints and his recommendation is pending before the Secretary of Labor.

With respect to the Petitioners' receiving whistles in interoffice mail, the ALJ stated that neither of the individuals was able to prove the source of these

whistles or their meaning, that Ms. Marien testified that she thought it was a joke, and that no one came forward to acknowledge having sent the whistles. The ALJ concluded that "two anonymous whistles in the mail are so ambiguous that I cannot draw any conclusion from the mere fact that they were sent to Complainants." I agree with the ALJ's conclusion and, in these instances, can attach no significance to the Petitioners' having received whistles in the interoffice mail.

The NRC Office of Investigations (OI) opened an evaluation of Petitioners' allegations on July 9, 1993, and upgraded the evaluation to a full investigation on February 2, 1994. OI reviewed the administrative and evidentiary records developed in the Department of Labor proceeding and conducted interviews of selected witnesses. Interviewees who were present at the May 12, 1993 meeting did not corroborate that Petitioners were shunned by management at that meeting. Interviewees who were present at the June 8, 1993 meeting did not corroborate Ms. Marien's claim that she was harassed at that meeting or Ms. Nericcio's claim that she was chastised at that meeting for discussing her concerns with NRC. In short, OI was not able to substantiate that Petitioners were subjected to harassment and intimidation for raising concerns about the Licensee's fitness-for-duty computer program. On October 31, 1994, OI issued a report concluding that Petitioners' allegations of retaliation for engaging in protected activities could not be substantiated.

On the basis of the ALJ's decision and OI's findings in these matters, I conclude that the Petitioners' allegations of harassment, intimidation, and discrimination are unfounded. Accordingly, these allegations provide no basis for the NRC to take accelerated action as requested by the Petitioners.

Ms. Marien also stated that she had disagreed with the Licensee's decision to transfer an employee's medical records to the Corporate Medical unit, and asserted that the Licensee's decision not to raise Ms. Marien's concern to the next level of management for review constituted retaliation for participation in protected activities. This matter appears not to have been raised in Ms. Marien's original complaint to the DOL and, therefore, neither the DOL ALJ nor NRC's Office of Investigations considered the issue. However, the Licensee did address it in a letter to the NRC dated December 7, 1993, responding to the petitions and stated that the records were transferred at the request of the individual whose records they were. In these circumstances, I cannot conclude that the decision not to raise Petitioner's concern to the next level of management constituted retaliation.

### III. CONCLUSION

Based on the findings of the Department of Labor Administrative Law Judge and the NRC Office of Investigations, and a review of the Licensee's



December 7, 1993 response to the petitions, I have concluded that the Petitioners' allegations that they were retaliated against for engaging in protected activities were not substantiated. For these reasons, Petitioners' allegations provide no basis for the NRC to take accelerated enforcement action against the Licensees. Therefore, Petitioners' requests for accelerated enforcement action are denied.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c). As provided by that regulation, the Decision will constitute final action of the Commission 25 days after issuance, unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

Joseph R. Gray, Acting Director  
Office of Enforcement

Dated at Rockville, Maryland,  
this 22d day of February 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque

In the Matter of

Docket No. 40-08027-MLA  
(Source Material License)  
No. SUB-1010)

**SEQUOYAH FUELS CORPORATION**

March 9, 1995

The Commission considers the appeal of a licensing board decision, LBP-93-25, 38 NRC 304 (1993), which permitted the Sequoyah Fuels Corporation (SFC) to withdraw its license renewal application, and terminated the administrative proceeding in progress on that application. The Commission concludes that SFC did not require a license renewal to continue limited and previously authorized decommissioning-oriented activities. Accordingly, the Commission denies the appeal and affirms the licensing board's order.

**RULES OF PRACTICE: RENEWAL OF LICENSES**

The Presiding Officer's function in a license renewal proceeding is to decide whether renewal is appropriate and, if so, to determine what activities can continue in the renewal term.

**REGULATIONS: INTERPRETATION (10 C.F.R. § 40.42(e))**

Pursuant to the former 10 C.F.R. § 40.42(e) (1994), a source material license may remain automatically in effect beyond its expiration date to allow a licensee to continue decommissioning and security activities authorized under the license. Section 40.42(e) has been superseded by a new automatic license extension provision, 10 C.F.R. § 40.42(c), which became effective in August 1994.

**REGULATIONS: INTERPRETATION (10 C.F.R. § 40.42(c))**

The automatic license extension provision under 10 C.F.R. § 40.42(c) may extend a license regardless of the nature of the source material remaining on site.

**REGULATIONS: INTERPRETATION (10 C.F.R. § 40.42(c))**

The "necessary" provision (which appears in both the former section 40.42(e) and the new section 40.42(c)) simply means that the limited regulatory license extension comes into play only when decommissioning cannot be completed prior to the license's expiration date.

**REGULATIONS: INTERPRETATION (10 C.F.R. § 40.42(c))**

The automatic license extension provision grants the licensee no sweeping powers, but permits only limited activities related to decommissioning and to control of entry to restricted areas. Such activities also must have been approved under the licensee's license. To implement an activity not previously authorized by license, and thus not previously subject to challenge, the licensee must first obtain a license amendment.

**REGULATIONS: DECOMMISSIONING**

Licensees need only submit the final radiological survey showing that the site or area is suitable for release in accordance with NRC regulations after decommissioning has been completed.

**RULES OF PRACTICE: CONDITIONS**

To make a serious case for conditions, intervenors reasonably can be held to an obligation to offer some indication of their objective. The proponent of litigation bears the burden of explaining which direction the litigation will take.

**MEMORANDUM AND ORDER**

**I. INTRODUCTION**

Pursuant to 10 C.F.R. § 2.786(b), the Native Americans for a Clean Environment and the Cherokee Nation (the Intervenors) filed a petition for review

of the Presiding Officer's Memorandum and Order, LBP-93-25, 38 NRC 304 (1993), which (1) allowed the Sequoyah Fuels Corporation (SFC) to withdraw its application to renew its facility license and (2) terminated the administrative proceeding then in progress on that application. The Commission granted review in CLI-94-4, 39 NRC 187 (1994). SFC and the Nuclear Regulatory Commission Staff (Staff) support the Presiding Officer's decision. The Commission affirms LBP-93-25.

## II. BACKGROUND

SFC's nuclear fuel processing facility, located 2.5 miles southeast of Gore, Oklahoma, was originally licensed in 1970. The initial license authorized the conversion of uranium oxide ( $U_3O_8$ ) into uranium hexafluoride  $UF_6$ . A license amendment in 1987 authorized SFC also to reduce depleted  $UF_6$  to uranium tetrafluoride ( $UF_4$ ). The most recent license renewal, for an additional 5 years, occurred in 1985, after which the license was due to expire in September of 1990. On August 29, 1990, SFC applied for a 10-year license renewal. Under NRC rules, the license remained in effect pending an agency determination on the renewal application. See 10 C.F.R. § 40.43(b) (1994).

The Native Americans for a Clean Environment (NACE), an organization with several members residing within 10 miles of the SFC facility, petitioned the NRC for a hearing on the license renewal application and asked for leave to intervene. A Presiding Officer was designated in October 1990.<sup>1</sup> He ultimately admitted NACE, the State of Oklahoma (Department of Wildlife Conservation), and the Cherokee Nation as parties to the proceeding. The parties agreed to postpone the hearing until the NRC Staff completed safety and environmental reviews.

In a letter dated February 16, 1993, SFC notified the NRC of its intent to terminate all production activities authorized under its license, and requested termination of the license.<sup>2</sup> Along with the letter, SFC submitted a Preliminary Plan for the Completion of Decommissioning (PPCD). SFC indicated that all production operations involving  $UF_6$  had ceased, and that production operations involving  $DUF_4$  would cease by July 31, 1993.

By early July 1993, SFC advised the NRC that production activities at its facility had stopped altogether, and that continuing activities would be limited to decommissioning the site and to controlling entry into restricted areas.<sup>3</sup> Having

<sup>1</sup> See 55 Fed. Reg. 46,744 (Nov. 6, 1990).

<sup>2</sup> See Letter from James J. Sheppard, President, SFC, to Robert Bernero, NRC (Feb. 16, 1993).

<sup>3</sup> See Letter from John H. Ellis, President, SFC, to Robert Bernero, NRC (July 7, 1993). Ongoing activities related to decommissioning include the decontamination of structures, components, and site areas; the offsite shipment

(Continued)

provided that notification, SFC on July 12, 1993, moved to withdraw its license renewal application and to terminate the license renewal proceeding as moot.

In response, NACE and the Cherokee Nation agreed that production-related issues were moot, and therefore did not oppose SFC's motion to the extent that SFC sought to dismiss such issues from the renewal proceeding. However, the Intervenor's opposed dismissal of the proceeding with respect to issues involving continuing nonproduction activities that SFC intended to conduct under the authority of its license. *See supra* note 3. The State of Oklahoma did not object to SFC's motion to withdraw its license renewal application, but requested the imposition of particular conditions on the withdrawal.

In LBP-93-25, the Presiding Officer allowed SFC to withdraw its renewal application without conditions, and terminated the proceeding. Central to the Presiding Officer's opinion was his conclusion that there was no jurisdiction in the license renewal proceeding to address the issues the Intervenor's wished to litigate: the adequacy of SFC's decommissioning funding, groundwater monitoring, and emergency planning; the safety of SFC's program of spreading raffinate on its agricultural lands; and the ability of SFC's management and operations programs to prevent additional contamination. The Presiding Officer characterized these issues as decommissioning-related and therefore beyond his jurisdiction in a license renewal proceeding. In the Presiding Officer's view, to continue the proceeding would improperly compel SFC to litigate the acceptability of decommissioning activities already permitted by its existing license. 38 NRC at 321. The Presiding Officer also reasoned that a license renewal proceeding that included consideration of all decommissioning-related activities would "minimize and perhaps negate" the NRC Staff's regulatory role in approving and overseeing decommissioning activities. *Id.* at 319.

Pursuant to 10 C.F.R. § 2.786(b), NACE and the Cherokee Nation jointly filed a petition for review of LBP-93-25. The State of Oklahoma did not request review. Both SFC and the NRC Staff opposed review. In CLI-94-4, 39 NRC 187 (1994), the Commission granted review and outlined issues for the parties to address.

### III. THE INTERVENORS' ARGUMENTS BEFORE THE COMMISSION

The Intervenor's claim that termination of the license renewal proceeding violated section 189a of the Atomic Energy Act, 42 U.S.C. § 2239(a), under which they allege entitlement to a hearing on SFC's ongoing nonproduction or

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of yellowcake and of "raffinate" sludge (a liquid waste product); and the "dispositioning" of fertilizer, calcium fluoride sludge, low-quality yellowcake, and fluorinated materials. *See* Preliminary Plan for the Completion of Decommissioning, § 3 at 3-1 to 3-2 (Feb. 16, 1993).

decommissioning-related activities.<sup>4</sup> They offer several arguments. First, they challenge the Presiding Officer's conclusion that he did not have jurisdiction to address the issues NACE and the Cherokee Nation seek to litigate. They stress that "[w]hen they were admitted to the license renewal proceeding as Intervenor, Petitioners became entitled to a hearing on *all* issues relevant to the renewal of SFC's license, including the adequacy of license conditions related to nonproduction or decommissioning activities . . . ."<sup>5</sup> Because SFC continues to conduct nonproduction or decommissioning activities that were authorized under SFC's last license renewal, and were to have been addressed in this renewal proceeding, the Intervenor argue that the Presiding Officer should have continued the license renewal proceeding to permit litigation of these nonproduction matters.<sup>6</sup> According to the Intervenor, only those planned decommissioning activities not already authorized by SFC's license, and thus requiring a license amendment prior to implementation, lie outside the Presiding Officer's jurisdiction in the license renewal proceeding.<sup>7</sup>

The Intervenor also argue that once the license renewal application was withdrawn, SFC lacked the regulatory authorization to continue any activities at its facility.<sup>8</sup> They conclude that SFC now "conduct[s] non-production-related operations at the facility, under color of [a] license which expired in 1990."<sup>9</sup> The intervenors acknowledge that pursuant to the former 10 C.F.R. § 40.42(e) (1994), a license may remain automatically in effect beyond its expiration date to allow a licensee to continue decommissioning and security activities authorized under the license.<sup>10</sup> They argue, however, that this automatic license extension provision did not apply to SFC, primarily for three reasons.<sup>11</sup> First, they claim

<sup>4</sup> See generally Native Americans for a Clean Environment's and Cherokee Nation's Initial Brief on Review of LBP-93-25 (Intervenor's Initial Brief) at 1-5, 19-20 (May 6, 1994).

<sup>5</sup> Native Americans for a Clean Environment's and Cherokee Nation's Reply Brief on Review of LBP-93-25 (Intervenor's Reply Brief) at 9.

<sup>6</sup> Intervenor's Initial Brief at 15.

<sup>7</sup> *Id.* at 16; Intervenor's Reply Brief at 9.

<sup>8</sup> See generally Intervenor's Initial Brief at 4-10.

<sup>9</sup> *Id.* at 10.

<sup>10</sup> A new provision, to be codified as 10 C.F.R. § 40.42(c), became effective in August 1994, and supersedes the former section 40.42(e). See Final Rule, Timeliness in Decommissioning of Materials Facilities, 59 Fed. Reg. 36,026 (July 15, 1994) ("Final Rule"). Section 40.42(e), in effect at the time of the Presiding Officer's decision, provided as follows:

(e) Each specific license continues in effect, beyond the expiration date if necessary, with respect to possession of residual source material present as contamination until the Commission notifies the licensee in writing that the license is terminated. During this time, the licensee shall —

- (1) Limit actions involving source material to those related to decommissioning; and
- (2) Continue to control entry to restricted areas until they are suitable for release for unrestricted use and the Commission notifies the licensee in writing that the license is terminated.

The superseding provision, the new 10 C.F.R. § 40.42(c), is very similar to the former section 40.42(e), but with some language changes. The new rule, for example, does not refer to "residual source material present as contamination," but simply to "source material." Final Rule, 59 Fed. Reg. at 36,035.

<sup>11</sup> Intervenor's Initial Brief at 19-20; Intervenor's Reply Brief at 6-8.

that SFC did not meet the former section 40.42(e)'s "necessary" requirement, because the pending license renewal could accomplish the same end as automatic extension, and therefore it was not "necessary" for section 40.42(e) to come into play to extend the effect of the license.<sup>12</sup> Second, they contend that SFC's leftover source material, or yellowcake, was not the sort of "residual . . . contamination" contemplated by the former section 40.42(e).<sup>13</sup> Third, they argue that for the former section 40.42(e) to apply, SFC needed to have satisfied agency notification and reporting requirements under two other regulations, the former 10 C.F.R. § 40.42(b), and the former 10 C.F.R. § 40.42(c).<sup>14</sup> In sum, NACE and the Cherokee Nation submit that "[c]ontrary to the Licensing Board's strained interpretation of the regulations, SFC does not fit within § 40.42(e), . . . and has not satisfied § 40.42(b) or (c)," and therefore should not have been permitted to withdraw its license renewal application.<sup>15</sup>

The Intervenor add that the Presiding Officer mistakenly assumed that he altogether lacked the authority to deny a request for withdrawal of a license application.<sup>16</sup> The Intervenor claim that the Presiding Officer misinterpreted the scope of his authority pursuant to 10 C.F.R. § 2.107, the NRC regulation governing withdrawal of applications, and incorrectly read the regulation to preclude him from denying a request for withdrawal of an application, and to allow him only the discretion to impose conditions on withdrawal of an application.<sup>17</sup>

Lastly, the Intervenor submit that the Presiding Officer failed to address their request that conditions be placed on a withdrawal of SFC's license renewal application.<sup>18</sup> They had requested that the Presiding Officer, if inclined to permit SFC to withdraw its renewal application, first hold a hearing to allow litigation on what conditions needed to be imposed on SFC's withdrawal of the application.<sup>19</sup>

#### IV. DISCUSSION

At the time of the Presiding Officer's decision, the agency's regulations for materials licensees contained no specific provisions dealing with a licensee in SFC's position: one that prematurely and unexpectedly ceases operations, without sufficient time to prepare final decommissioning reports and surveys in

<sup>12</sup> Intervenor's Initial Brief at 20-21.

<sup>13</sup> *Id.* at 21.

<sup>14</sup> *See id.* at 19, 21.

<sup>15</sup> *Id.* at 20.

<sup>16</sup> *Id.* at 11, Intervenor's Reply Brief at 3-4.

<sup>17</sup> Intervenor's Initial Brief at 11.

<sup>18</sup> *Id.* at 18, Intervenor's Reply Brief at 12-13.

<sup>19</sup> *See* Intervenor's Initial Brief at 18.

advance. That is no longer the case. With the intent to clarify the applicable regulations and thereby expedite decommissioning, the NRC in early 1992 initiated a revision of its decommissioning regulations for materials licensees, particularly of those provisions regarding the licensee's (1) obligation to provide notification of its intent to cease operations, and (2) authority and obligation to initiate decommissioning. The new final rule on Timeliness in Decommissioning of Materials Facilities became effective on August 15, 1994, and will be codified under 10 C.F.R. § 40.42 of the 1995 edition of the *Code of Federal Regulations*.

Because the regulations in effect at the time of the Presiding Officer's decision did not explicitly address SFC's situation, the Presiding Officer was forced to apply the existing regulations to SFC in the manner he found most practicable given his understanding of the Commission's intent and practice. We find that he did so reasonably. Like him, we conclude that once SFC halted production activities and withdrew its license renewal request, its license was automatically extended under the former section 40.42(e) to permit limited cleanup activities. However, even if we were persuaded otherwise, there is no practical reason now to restart this proceeding. A provision of our new decommissioning rules, the new section 40.42(c), supersedes the former section 40.42(e) and unambiguously would extend SFC's license for decommissioning purposes without a license renewal. Thus, it would be futile to order reinstatement of the license renewal proceeding under our former regulations.

In declining to disturb the Presiding Officer's decision, we find no reason to decide as a general matter when (if ever) a Presiding Officer (or Licensing Board) may refuse to permit withdrawal of an application. We also see no reason here to second-guess the Presiding Officer's refusal to impose conditions on SFC's withdrawal of its license renewal application.

In sum, we decline to reinstate the SFC license renewal proceeding. The full rationale for our decision follows below.

#### **A. The License Renewal Proceeding**

At issue before the Commission is whether the Presiding Officer erred in terminating the license renewal proceeding. This question hinges mainly upon whether SFC required a license renewal to continue the decommissioning-oriented activities it now conducts at its facility. Although a resolution of this matter centers upon an analysis of our decommissioning regulations, it may be helpful to begin by outlining generally the purpose of the license renewal proceeding.

The Intervenors were admitted as parties to a proceeding for renewal of an NRC license allowing production operations as the Licensee's principal activity. The renewed license would have permitted SFC to conduct 10 more years of production. The Presiding Officer's function in the renewal proceeding was to



decide whether renewal was appropriate and, if so, to determine what activities could continue in the renewal term. Although the license renewal proceeding, had it continued, likely would have addressed nonproduction issues peripheral to SFC's principal operations, these issues would have been ancillary to the central question — i.e., the propriety of continuing production for 10 more years.

Decommissioning and cleanup (and continued monitoring during cleanup) reflect a new and distinct phase for a facility, separate from the operational phase. Production-oriented operations, on the one hand, and decommissioning activities, on the other, generally pose different risks and call for different public safety standards.<sup>20</sup> Because SFC had abandoned production at its facility and had dropped its request for license renewal, the Presiding Officer concluded that continuation of the license renewal proceeding would improperly "construct an artificial forum" compelling SFC to litigate an entirely different matter — decommissioning activities rather than production activities.<sup>21</sup> For the reasons outlined below, we agree that SFC does not need a license renewal to continue the limited decontamination and decommissioning activities now under way.

### **B. SFC's Authority for Ongoing Activities**

At the heart of the Intervenors' claims is the argument that "nothing in the NRC's regulations" acts to extend the effect of SFC's license, a license they submit expired in 1990.<sup>22</sup> SFC, they conclude, currently lacks the authority to continue any manner of activity at the Sequoyah Fuels site.

The Intervenors would like us to keep the license renewal proceeding alive because, although production-related issues are now moot, "it is clear that SFC will continue to have responsibilities under the existing license,"<sup>23</sup> and "dismissal of a license renewal proceeding must be denied where the licensee continues to have responsibilities under the existing license."<sup>24</sup> At bottom, the Intervenors argue that, before SFC can undertake any decontamination activities, the Licensee must renew its license.<sup>25</sup> In their view, in permitting SFC to proceed without a license renewal, the Presiding Officer granted SFC an unlawful *de facto* license renewal.<sup>26</sup>

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<sup>20</sup> We note, for example, that the Intervenors have highlighted concerns raised by a November 17, 1992 accident that resulted in a release of nitrogen dioxide. This incident related to production activities, which SFC no longer conducts.

<sup>21</sup> LBP-93-25, 38 NRC at 324.

<sup>22</sup> Intervenors' Initial Brief at 1.

<sup>23</sup> *Id.* at 14.

<sup>24</sup> *Id.* at 12.

<sup>25</sup> See *id.* at 23; Intervenors' Reply Brief at 9-10.

<sup>26</sup> See Intervenors' Initial Brief at 24.

The Presiding Officer rejected the Intervenor's position largely on the authority of the "automatic extension" provisions in the former 10 C.F.R. § 40.42(e).<sup>27</sup> That rule kept a license in effect past its expiration date, so long as the licensee "[l]imit[ed] actions involving source material to those related to decommissioning." As it read at the time of the Presiding Officer's decision, section 40.42(e) provided as follows:

*Each specific license continues in effect, beyond the expiration date if necessary, with respect to possession of residual source material present as contamination until the Commission notifies the licensee in writing that the license is terminated. During this time, the licensee shall —*

- (1) Limit actions involving source material to those related to decommissioning; and
- (2) Continue to control entry to restricted areas until they are suitable for release for unrestricted use and the Commission notifies the licensee in writing that the license is terminated.

(emphasis added).

On appeal, the Intervenor's argue that the former section 40.42(e) did not apply to SFC.<sup>28</sup> They offer three arguments. They first submit that section 40.42(e), by its own terms, would only extend a license where license extension is "necessary."<sup>29</sup> In their view, "[w]here there is a renewal application pending, it will never be 'necessary' to extend a license,"<sup>30</sup> for the Presiding Officer can simply continue the license renewal proceeding.<sup>31</sup> They next claim that "the jurisdictional basis of section 40.42(e) is limited by its own terms to very specific circumstances, in which cleanup has been completed to a degree that only residual contamination remains."<sup>32</sup> SFC's facility, the Intervenor's submit, has more than merely "residual source material present as contamination" because of the presence of commercially salable source material, such as yellowcake.<sup>33</sup> Lastly, the Intervenor's argue that the former section 40.42(e) only applied to licensees meeting various planning, survey, and notification requirements in the former 10 C.F.R. § 40.42(b).<sup>34</sup> We find these arguments unpersuasive. Our regulations' "necessary" provision (which appears in both the former

<sup>27</sup> Although SFC's license was scheduled to expire in 1990, it did not do so. Under our regulations, SFC's license remained in effect in its entirety once SFC tendered a timely renewal application, pending a final decision on the application. See 10 C.F.R. § 40.43(b) (1994). Under the Commission's newly revised regulations, this "timely renewal" provision is found in section 40.42(a). See Final Rule, 59 Fed. Reg. at 36,035. Once SFC withdrew its license renewal application, of course, it could continue activity under its license only if the "automatic extension" provision in the former section 40.42(e) came into play.

<sup>28</sup> Intervenor's Initial Brief at 20-21; Intervenor's Reply Brief at 6.

<sup>29</sup> Intervenor's Initial Brief at 20.

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* at 20-21; Intervenor's Reply Brief at 6.

<sup>32</sup> Intervenor's Reply Brief at 6.

<sup>33</sup> Intervenor's Initial Brief at 21.

<sup>34</sup> *Id.* The former section 40.42(b) directed licensees to include with their notification to cease activities a completed Form NRC-314 certifying information on the disposition of materials; a radiation survey; and, when

(Continued)

section 40.42(e) and the new section 40.42(c)) simply means that the limited regulatory license extension comes into play only when decommissioning cannot be completed prior to the license's expiration date. Nothing in the regulations suggests that the provision is inapplicable to licensees who previously have applied for renewal of their license. As the Presiding Officer stated, "[n]o reasonable explanation has been forthcoming from Intervenors on why that provision would cover cases where licenses have expired without a renewal application being filed, but not those where a renewal application has been applied for and subsequently withdrawn with a termination notice . . . ."<sup>35</sup>

Nor do we agree with the Intervenors that the former section 40.42(e) applied only to licensees that already substantially had decontaminated their sites and disposed of all source material. The term "residual" contamination reflected not what remained at the end of decommissioning, but what was present at the end of operations and at the beginning of decommissioning. To "decommission" means to begin reducing "residual" radioactivity to a level that permits release of the property for unrestricted use and permits the termination of the license.<sup>36</sup> The NRC will terminate a license when "residual . . . contamination" reasonably has been removed.<sup>37</sup>

The Intervenors point out that the former section 40.42(e) allowed automatic license extension only for "residual source material *present as contamination*," and argue that some of the source material remaining at the SFC facility — bulk, unused yellowcake — cannot be characterized as "contamination." (Emphasis added.) The Intervenors' reading of the former section 40.42(e) is not without force, in a strictly linguistic sense. One could say that unused raw material, even if radioactive, is not "contamination." But we cannot embrace that view, as there is no history or policy to commend it.

Nothing in our Statements of Consideration on materials decommissioning, either for the former section 40.42(e) or for the new section 40.42(c), suggests that leftover (but radioactive) raw material falls outside our automatic license extension rule. Nor do the Intervenors offer an explanation of why the Commission would impose such a limitation. More reasonable, in our view, is the Presiding Officer's (and the NRC Staff's) understanding of the former section 40.42(e) — i.e., "residual source material present as contamination" means *any* radioactive material left over after plant shutdown and requiring removal, whether unused or not.

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called for, a decommissioning plan. The Intervenors claim that SFC submitted a preliminary but not a final decommissioning plan; provided only "available" radiation survey data instead of a final report; and failed to submit a completed Form NRC-314. *Id.*

<sup>35</sup> LBP-93-25, 38 NRC at 318-19.

<sup>36</sup> See 10 C.F.R. § 40.4 (1994).

<sup>37</sup> See the former 10 C.F.R. § 40.42(f)(2), to be codified under the new regulations as section 40.42(j)(2).

In any event, our new decommissioning regulations for materials licensees — which revise and recodify section 40.42 in a number of ways — contain a clarified version of the former section 40.42(e) that clearly leads to the same result that the Presiding Officer reached. The revised provision (the new 10 C.F.R. § 40.42(c)) states simply that licenses remain in effect with respect to the possession of “source material.” See note 10, *supra*. This indisputably would cover SFC’s yellowcake material. Thus, even if the Commission were to agree with the Intervenors’ reading of the former section 40.42(e), the new provision takes away any practical reason to remand this case. Were the Presiding Officer ordered to resume the license renewal proceeding, SFC could again simply seek withdrawal of its license renewal application, and this time could incontrovertibly rely upon section 40.42(c) — which because of clarified phrasing very explicitly would extend SFC’s license to permit limited, previously approved decommissioning activities, regardless of the nature of the source material remaining on site.

We also find that SFC’s failure to submit various final decommissioning reports did not compel continuation of the license renewal proceeding. The applicability of the former section 40.42(e) was not linked to and did not rely upon the submission or contents of decommissioning reports. Neither the language of the former section 40.42(e) nor the Statements of Consideration for the rule intimate any relationship between submission of the decommissioning documents and the automatic license extension granted under section 40.42(e). Moreover, the Presiding Officer properly concluded that it was unreasonable to expect SFC already to have completed final decommissioning surveys and reports at the time that it made a commercial decision to shut down operations. Our newly revised regulations for decommissioning of materials facilities clarify the Commission’s position on this point.<sup>38</sup> Accordingly, the Presiding Officer reasonably found that these final reports are expected only at the completion of decommissioning.<sup>39</sup>

Finally, the Presiding Officer violated nothing in our case law in dismissing this license renewal proceeding. The cases cited by the Intervenors do not establish any obligation on the part of the Presiding Officer to reject the

<sup>38</sup> “The final rule . . . clarifies requirements for radiological surveys performed as part of the license termination process. This rule clarifies that licensees need only submit the final survey showing that the site or area is suitable for release in accordance with NRC requirements after decommissioning has been completed.” Final Rule, 59 Fed. Reg. at 36,027; see also *id.*, 59 Fed. Reg. at 36,036 (§ 40.42(i)(1) and (2)). To eliminate any confusion over how licensees should notify the agency of the intent to terminate activities, the revised regulation on notification drops all reference to surveys, reports, and plans. See *id.*, 59 Fed. Reg. at 36,035-36 (§ 40.42(d)).

<sup>39</sup> See LBP-93-25, 38 NRC at 318. The Intervenors also argue that, for former section 40.42(e) to apply, SFC needed to have complied with the terms of the former 10 C.F.R. § 40.42(c), which covered licensees not seeking license renewal. That provision directed such licensees to submit the final surveys and reports listed in the former section 40.42(b). But the former section 40.42(c) was intended for licensees that would not need an interim period in which to conduct decontamination activities, and instead could accomplish cleanup efforts relatively expeditiously, as in the case of materials licensees with only sealed sources.

withdrawal request, and do not otherwise support the Intervenor's claims. Moreover, the Intervenor's rely primarily upon Licensing Board decisions, which have no precedential effect beyond the immediate proceeding in which they were issued.

For example, the Intervenor's cite *Nuclear Engineering Co.* (Sheffield, Illinois Low-Level Radioactive Waste Disposal Site), Locket No. 27-39, Memorandum and Order Ruling on Motions to Withdraw Application and Dismiss Proceeding (May 3, 1979) (unpublished), *aff'd on other grounds*, ALAB-606, 12 NRC 156 (1980), and claim that it shows that, where any responsibilities remain under a license, a licensing board must deny withdrawal of a license renewal application.<sup>40</sup> In *Sheffield*, however, the licensee sought to walk away entirely from any existing responsibilities for the control, maintenance, and cleanup of a 20-acre byproduct material burial site. Here, by contrast, SFC has not attempted to reject its remaining license obligations, but has proceeded, pursuant to our "automatic license extension" rule, to control entry to restricted areas and to carry out authorized cleanup-stage activities.

The Intervenor's also cite *Pacific Gas and Electric Co.* (Humboldt Bay Power Plant, Unit 3), LBP-86-1, 23 NRC 25 (1986), where the Licensing Board terminated a proceeding only after the submission of a decommissioning plan. Based upon *Humboldt Bay*, the Intervenor's argue that a license renewal proceeding becomes moot only upon submission of a final decommissioning plan.<sup>41</sup> The *Humboldt Bay* opinion, however, must be read within the context of an earlier decision in the same proceeding. The Licensing Board in the earlier decision deferred ruling on the licensee's request to withdraw a license amendment application and to terminate the proceeding because of uncertainty over the licensee's future intentions. See *Pacific Gas and Electric Co.* (Humboldt Bay Power Plant, Unit 3), LBP-81-20, 14 NRC 101 (1981). The Board sought confirmation that the licensee planned either to comply with previously ordered plant remediations or to dispose of materials, and therefore ordered the licensee to submit under oath or affirmation a statement of its intentions. Although the submission of a decommissioning plan satisfied the Board's concerns, in no sense was the submission of a decommissioning plan necessary to render the proceeding moot. As the NRC Staff's brief notes, in terminating the proceeding the Board "made no findings regarding the adequacy of the decommissioning plan, or whether it, in fact, subsumed the issues raised in the amendment proceeding."<sup>42</sup>

<sup>40</sup> See Intervenor's Initial Brief at 12.

<sup>41</sup> See *id.* at 13.

<sup>42</sup> NRC Staff Response in Opposition to Native Americans for a Clean Environment and Cherokee Nation's Petition for Review of LBP-93-25 (NRC Staff Response) at 13 (June 17, 1994).

We hold, in sum, that the Presiding Officer reached the correct result in declining to adjudicate issues surrounding the SFC facility's decommissioning in the context of a now-moot license renewal proceeding. He did not grant SFC a *de facto* license renewal. There remains no practical reason, in any event, to continue litigation on this issue because the NRC's new "automatic extension rule," section 40.42(c), leaves no possible doubt that the rule covers SFC and eliminates any need for license renewal.

Our ruling grants SFC no sweeping powers. The automatic extension provision, now section 40.42(c), permits SFC to conduct only limited activities related to decommissioning and to the control of entry to restricted areas.<sup>43</sup> The Licensee retains neither expansive nor indefinite license authority. Having withdrawn its license renewal application, SFC may no longer conduct the principal activities authorized by its license.<sup>44</sup> Moreover, SFC is not free to perform *all* kinds of decommissioning activity, only those previously approved under its license. To implement an activity not previously authorized by its license, and thus not previously subject to challenge, SFC would first have to obtain a license amendment, an action that would trigger opportunities for hearing.<sup>45</sup>

### C. The Presiding Officer's Discretion under 10 C.F.R. § 2.107(a)

As an additional argument, NACE and the Cherokee Nation submit that the Presiding Officer misinterpreted the scope of his authority pursuant to 10 C.F.R. § 2.107(a), and erroneously concluded that he lacked altogether the discretion to deny a request to withdraw an application.<sup>46</sup> The regulation reads as follows:

The Commission may permit an applicant to withdraw an application prior to the issuance of a notice of hearing on such terms and conditions as it may prescribe, or may, on receiving a request for withdrawal of an application, deny the application or dismiss it with prejudice. Withdrawal of an application after the issuance of a notice of hearing shall be on such terms as the presiding officer may prescribe.

<sup>43</sup> See 10 C.F.R. § 40.42(e)(1) and (2) (1994). See also the newly amended 10 C.F.R. § 40.42(c) in the next issuance of the *Code of Federal Regulations* (1995). See Final Rule, 59 Fed. Reg. at 36,035 (July 15, 1994).

<sup>44</sup> The agency defines "principal activities" as those that are "essential to achieving the purpose(s) for which the license was issued or amended." Decommissioning and decontamination activities are not deemed principal activities. See Final Rule, 59 Fed. Reg. at 36,035 (§ 40.4).

<sup>45</sup> Indeed, SFC recently has sought a license amendment and the Intervenor has been admitted to the amendment proceeding. See *Sequoyah Fuels Corp.* (Source Material License No. SUB-1010), Docket No. 40-8027-MLA-3, Memorandum and Order (Request for Hearing) (Oct. 14, 1994) (admitting NACE and the Cherokee Nation to a hearing on proposed amendment re: organizational changes). SFC plans several decommissioning activities that are not authorized under its license, including construction of an onsite isolation cell; demolition of structures, systems, and components and disposal of rubble in the cell; and cell closure. See Preliminary Plan for Completion of Decommissioning, § 4 at 4-1 (Feb. 16, 1993). These activities would require a license amendment and are subject to the section 189a hearing requirement.

<sup>46</sup> Intervenor's Initial Brief at 11; Intervenor's Reply Brief at 1.

10 C.F.R. § 2.107(a) (1994). Both the NRC Staff and the Licensee argue that a presiding officer does not have the authority to deny a request to withdraw an application, and at most can impose conditions on a withdrawal.<sup>47</sup> The Licensee adds that the presiding officer may deny or dismiss the underlying *application*, but not the request to withdraw the application.<sup>48</sup>

We need not decide today under what circumstances a presiding officer may deny a request to withdraw an application. The Presiding Officer's decision in this case does not rely upon an interpretation of section 2.107(a), but rather upon the conclusion that the license renewal proceeding was an inappropriate forum in which to litigate decommissioning matters. However, we do not foreclose the possibility that in limited instances denial may be appropriate, as, for example, where a licensee seeks to withdraw a license renewal application but in fact continues to conduct some production activity.

#### **D. Request for Conditions**

As a final argument, the Intervenors claim that, although their principal request before the Presiding Officer was for a license renewal hearing, they also had requested, in the alternative, that the Presiding Officer impose conditions on SFC's withdrawal of its license renewal application. This alternative request, Intervenors say, the Presiding Officer did not address.<sup>49</sup>

It is not clear to us whether the Presiding Officer understood that the Intervenors were asking for such alternative relief. However, unlike the State of Oklahoma, which sought specific conditions, NACE and the Cherokee Nation did not provide the Presiding Officer with any — even general — suggested conditions to consider. Instead, they requested that the Presiding Officer hold a prehearing conference to determine what issues “must be litigated for the purpose of imposing conditions.”<sup>50</sup> The only guidance provided on possible conditions to impose are the Intervenors' broadly stated categories of concern: the adequacy of decommissioning funding; the adequacy of emergency planning; the safety of raffinate waste distribution; and the adequacy of management organization.

Although having had numerous opportunities, both before the Presiding Officer and on review before the Commission, to identify any possible deficiency that could be remedied through conditions, the Intervenors instead complain that it was impossible to “present an evidentiary case on the conditions that

<sup>47</sup> See Sequoyah Fuels Corporation Brief in Response to NACE and Cherokee Nation Initial Brief on Review of LBP-93-25 (SFC's Brief) at 3-5 (June 10, 1994); NRC Staff Response at 6-9.

<sup>48</sup> SFC's Brief at 4.

<sup>49</sup> See Intervenors' Initial Brief at 17-18.

<sup>50</sup> NACE and Cherokee Nation's Opposition to SFC's Motion for Withdrawal of Application and Termination of Hearing, and Request for Prehearing Conference at 24 (July 26, 1993).

should be imposed . . . .<sup>51</sup> But the Presiding Officer did not insist upon an "evidentiary case." Nor do we. To make a serious case for conditions, however, the Intervenor reasonably can be held to an obligation to offer some indication of their objective. The proponent of litigation always bears the burden of explaining which direction the litigation will take. We cannot fault the Presiding Officer for not ordering the parties to engage in protracted, ill-defined litigation, based solely upon vague and general areas of concern.

Moreover, for two of the Intervenor's broad categories of concern — decommissioning funding and SFC's management — the Intervenor has been admitted as parties to separate adjudicatory proceedings that will focus on these issues.<sup>52</sup> We also note that no activity SFC now conducts has been conducted without a prior opportunity for hearing. For example, SFC's raffinate fertilizer program was approved in a prior license renewal. The Intervenor has not indicated — as the NRC Staff has stated — any "new or altered procedures or circumstances which call that approval into question."<sup>53</sup>

We are left simply with a request for conditions based on conclusory statements and generalized concerns. This is not enough to justify continuation of an otherwise defunct license renewal proceeding.<sup>54</sup>

## V. CONCLUSION

For the reasons stated in this decision, the Presiding Officer's decision in LBP-93-25 is *affirmed*.

<sup>51</sup> Intervenor's Reply Brief at 13.

<sup>52</sup> See *Sequoyah Fuels Corp.*, Docket No. 40-8027-MLA-3, Memorandum and Order (Request for Hearing) (Oct. 14, 1994) (granting NACE and Cherokee Nation petition for hearing on proposed organizational changes); see also *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decontamination and Funding), CLI-94-12, 40 NRC 64 (1994) (affirming NACE intervention); CLI-94-13, 40 NRC 78 (1994) (affirming Cherokee Nation intervention).

<sup>53</sup> NRC Staff Brief at 2 n.2.

<sup>54</sup> We note that, in support of their request for a hearing on conditions, the Intervenor cite *Sheffield*, *supra* p. 190, a case where the Licensing Board had been provided with a proposed "list of conditions" to be imposed in any order granting the Licensee's motion to withdraw its application or dismiss the proceeding. Intervenor's Reply Brief at 3 n.4; *Sheffield*, slip op. at 4. Here, the Intervenor has not even hinted at possible options for conditions that could redress their concerns.



It is so ORDERED.

For the Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 9th day of March 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges:

Marshall E. Miller, Presiding Officer  
Dr. Harry Foreman, Special Assistant

In the Matter of

Docket No. 30-16055-ML-Ren  
(ASLBP No. 95-707-02-ML-Ren)  
(Source Material License  
No. 34-19089-01)

ADVANCED MEDICAL SYSTEMS, INC.  
(Cleveland, Ohio)

March 13, 1995

MEMORANDUM AND ORDER

I. BACKGROUND

In this proceeding, Advanced Medical Systems, Inc., seeks timely renewal of Material License No. 34-19089-01 for its facility located at 1020 London Road, Cleveland, Ohio. The Licensee seeks continued permission from the NRC to possess various quantities of radioactive materials for use in its manufacture of medically related devices.

As a result of the NRC's pending licensing action, four parties have petitioned for hearings on the renewal request.<sup>1</sup> On January 27, 1995, a single presiding officer was appointed to rule on the hearing petitions and to preside over a hearing if one is to be held. Under the Commission's regulations, any hearing would be conducted under 10 C.F.R. Part 2, Subpart L, informal hearing procedures.

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<sup>1</sup>Under the provisions of 10 C.F.R. § 2.1205(f), the Staff has elected to participate as a party to this proceeding.

## II. REGULATORY STANDARDS

Under the provisions of 10 C.F.R. § 2.1205(a), any person whose interest may be affected by a proceeding for the renewal of a license may file a request for a hearing. A request for a hearing filed by a person other than an applicant must describe in detail (1) the interest of the requestor in the proceeding; (2) how that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing; (3) the requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and (4) the circumstances establishing that the request for a hearing is timely.

In ruling on a request for a hearing, the presiding officer must determine that the specified areas of concern are germane to the subject matter of the proceeding.<sup>2</sup> The issues the requestor wants to raise regarding the licensing action must fall within the range of matters properly subject to challenge in the proceeding,<sup>3</sup> and the statements of concern must be pleaded with enough specificity to allow a presiding officer the ability to ascertain whether what the requestor seeks to litigate is truly relevant to the subject matter of the proceeding.<sup>4</sup>

The presiding officer also must determine that the requestor meets the judicial standards for standing and consider, among other factors, the nature of the requestor's right to be made a party to the proceeding; the nature and extent of the requestor's property, financial or other interests in the proceeding; and the possible effect of any order that may be entered in the proceeding upon the requestor's interest.<sup>5</sup>

To be admitted as a party in an NRC proceeding, a petitioner must allege "a concrete and particularized injury that is fairly traceable to the challenged action."<sup>6</sup> A prospective party must show that it could suffer an "injury in fact" because of the proposed licensing action and that its interest is within the "zone of interests" to be protected by statutes under which the requestor seeks to challenge the licensing action.<sup>7</sup> In this case, a requestor must allege an injury in fact within the zone of interests protected by the Atomic Energy Act of 1954,

<sup>2</sup> 10 C.F.R. § 2.1205(g).

<sup>3</sup> Statement of Considerations, Informal Hearing Procedures for Materials Licensing Adjudications, 54 Fed. Reg. 8269, 8273 (Feb. 28, 1989).

<sup>4</sup> *Sequoyah Fuels Corp.*, LBP-94-39, 40 NRC 314, 315-16 (1994).

<sup>5</sup> 10 C.F.R. § 2.1205(a).

<sup>6</sup> *Babcock and Wilcox Co.* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-4, 39 NRC 47, 49 (1994), citing *Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994).

<sup>7</sup> *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-92-2, 35 NRC 47, 56 (1992); *Babcock and Wilcox* (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-93-4, 37 NRC 72, 80, *appeal dismissed*, CLI-93-9, 37 NRC 190 (1993).

as amended ("AEA"),<sup>8</sup> or the National Environmental Policy Act of 1969, as amended ("NEPA").<sup>9</sup>

There are three components to the "injury in fact" requirement — injury, cause, and remedial benefit. The asserted injury must be "distinct and palpable" and "particular and concrete" as opposed to being "conjectural, hypothetical or abstract." The injury need not already have occurred, but when future harm is asserted, it must be "threatened or certainly impending" and "real and immediate." There must also be a causal nexus between the asserted injury and the challenged action. To establish injury in fact in this case, the requestor bears the burden of establishing that the injuries it alleges will occur to its interests protected by the AEA or the NEPA.<sup>10</sup>

### III. ANALYSIS

Four requestors have petitioned for a hearing on the AMS license renewal application: the Earth Day Coalition, Cleveland, Ohio ("Coalition");<sup>11</sup> the Northeast Ohio Regional Sewer District, Cleveland, Ohio ("District");<sup>12</sup> the City of Cleveland, Ohio ("City");<sup>13</sup> and the Cuyahoga Emergency Management Assistance Center, County of Cuyahoga, Ohio ("CEMAC").<sup>14</sup> AMS has filed answers to each petition.<sup>15</sup>

#### A. Northeast Ohio Regional Sewer District

Requestor District states that the AMS facility is within the service area of the District's wastewater collection and treatment system. Citing past discharges of radioactive wastes from the facility into the District's sewer lines, the District states that it has significant financial interest in the future regulation and control

<sup>8</sup> 42 U.S.C. §§ 2011-2284.

<sup>9</sup> 42 U.S.C. §§ 4321-4347.

<sup>10</sup> *Apollo*, LBP-93-4, 37 NRC at 81, citing *Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1)*, LBP-92-4, 35 NRC 114, 120 (1992).

<sup>11</sup> Earth Day Coalition, Request for Hearing (Dec. 28, 1994).

<sup>12</sup> Northeast Ohio Regional Sewer District, Request for Hearing (Dec. 29, 1994).

<sup>13</sup> City of Cleveland, Ohio, Request for Hearing (Jan. 13, 1995).

<sup>14</sup> Cuyahoga County Local Emergency Planning Committee, Request for a Hearing; Petition to Intervene (Jan. 27, 1995).

<sup>15</sup> Answer of Advanced Medical Systems, Inc. to Request of the Northeast Ohio Regional Sewer District (Jan. 12, 1995); to Request of the City of Cleveland (Jan. 12, 1995); to Request of the Earth Day Coalition (Jan. 27, 1995); to Request of the Cuyahoga Emergency Management Assistance Center (Feb. 27, 1995).

For reasons not fully explained, Counsel for AMS did not have a complete service list for this proceeding until he was informed of this fact by the Senior Attorney for the Atomic Safety and Licensing Board Panel on February 22, 1995. Because of this shortcoming, the Presiding Officer was unable to determine if all entities involved with this proceeding had received the AMS filings. AMS re-served its four answers and by motion asked the Presiding Officer to have its answers considered timely. Motion of Advanced Medical Systems, Inc. as to Time for Service (Feb. 27, 1995).

of radioactive material at the AMS facility.<sup>16</sup> The District also cites a potential for its own facilities to discharge radioactive wastes into the general environment of Lake Erie if its facilities become contaminated from accidental releases from the AMS facility.

The District alleges that, because of the configuration of its sewer system, any radioactive releases from the AMS facility would affect a great portion of its system and its wastewater treatment plants. The District states that its financial interest in this proceeding is at least as great as its property interests. It alleges that it has incurred costs of well over one million dollars as a result of prior AMS discharges and that a sudden large release could be devastating to its operations. Moreover, the District is concerned for the health and safety of the employees who maintain its system.

The District states that its primary concern is the ability of AMS to maintain proper control over its radioactive material in light of the record of past problems at the AMS facility. A second concern involves the lack of an emergency plan for the AMS facility. The District alleges that since radioactive material that may be released in a fire or other disaster would ultimately be washed into the sewer system, there should be a realistic assessment of the potential for releases under various accident scenarios. A third concern involves the adequacy of the amount of financial assurance AMS has posted for decommissioning of the facility. A fourth concern involves the ability of AMS to provide for remediation of offsite releases if such releases occur.

The District's petition for hearing was filed within 30 days of the submission of the AMS license renewal application and is therefore timely under the provisions of 10 C.F.R. § 2.1205. All of the four concerns enumerated by the District appear germane to the subject matter of this proceeding — the renewal of the AMS license to possess radioactive materials at its Geneva, Ohio facility. The District has properly alleged that its sewer system, which services the AMS facility, could be directly impacted by accidental radioactive discharges or during efforts to control accidents at the site. It has also properly alleged that its interests would be threatened by deficiencies in emergency planning and the lack of financial assurance for the site if the license were renewed with deficiencies in those areas. It has standing to become a party to this proceeding.

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<sup>16</sup> By way of background, the District has filed three petitions for enforcement actions against AMS pursuant to 10 C.F.R. § 2.206, two of which are still pending. See 59 Fed. Reg. 47,959 (Sept. 19, 1994) and 58 Fed. Reg. 19,282 (Apr. 13, 1993). Even though these two petitions are pending and raise some of the same issues raised in its hearing petition, the District is not precluded from requesting a hearing with respect to the AMS renewal application. See *Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2)*, LBP-93-5, 37 NRC 96, 98 n.2, *aff'd* CLI-93-26, 38 NRC 25 (1993).

The Northeast Ohio Regional Sewer District's request for a hearing is therefore granted.<sup>17</sup>

## B. The City of Cleveland

Requestor City states that the AMS facility is located within the jurisdiction of the City, and is located adjacent to both residential housing and commercial businesses. The City's primary interest in the proceeding is to ensure the health and safety of the citizens within its jurisdiction. An accidental release of radioactive material could pose a major threat to the health and well-being of those citizens. The City also states that it has an interest in protecting the health and safety of fire, police, emergency medical, and other city personnel who would be called upon to act if there were an accident at the AMS facility. The City is also interested in the economic well-being of the areas surrounding the AMS facility due to alleged past releases of radioactive materials and the condition of the AMS facility itself.

The City asserts that its interests will be affected by the license renewal because, it alleges, the AMS facility is already contaminated and its decontamination or decommissioning will potentially affect Cleveland residents, businesses, and city employees. Any potential releases of radioactivity would affect these groups more than others since they live and work in proximity to the AMS facility. The City also claims both present and future financial interests in the licensing of AMS because the financial burden of planning for an emergency at the facility and providing training for emergency personnel has fallen on the City. It states that it has been forced to form a Task Force of governmental agencies to come up with an adequate emergency response plan for the AMS site. In summation, the City claims that the effect of granting a renewal license without including sufficient terms and conditions to safeguard the City's citizens would leave the City with the "lion's share" of the responsibility for dealing with existing and future problems at AMS.

The City adopts as its areas of concern the nine issues outlined by the NRC Staff's letter to AMS, dated December 22, 1994, which details deficiencies

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<sup>17</sup>The AMS answer to the District's petition, as with its answers to the other three petitions, generally presents arguments that address the merits of the areas of concern raised by the Requestors. However, the areas of concern are not contentions, as contentions are understood in a construction or operating license proceeding, and need not be argued on the merits by an opposing party at the inception of the proceeding, but rather, at the time of its written presentation. See 10 C.F.R. § 2.1233(c) and (d). Subpart L practice requires a petitioner to allege areas of concern merely to demonstrate to the Presiding Officer that the issues it seeks to raise are somehow linked to the licensing action. The threshold for pleading an area of concern is very low — whether it is germane to the subject matter of the proceeding. See Statement of Considerations, Informal Hearing Procedures for Materials Licensing Adjudications, 54 Fed. Reg. 8269 (Feb. 28, 1989); *Sequoyah Fuels Corp.*, 40 NRC 314, 315-16 (1994). None of the AMS answers address whether the areas of concern raised by the Requestors are germane in the context of the license renewal application. Moreover, the AMS answers fail to address whether each Requestor has established the requisite standing to request a hearing.

the Staff found in the AMS renewal application. The City, however, fails to enumerate what these concerns are, with the exception of two.<sup>18</sup> It states that these two — Item Number Seven in the Staff's letter regarding the emergency plan for the AMS facility, and Item Number Eight in the same letter regarding decommissioning funding and financial assurance — are of the most immediate concern. The concerns allege inadequacies involving onsite emergency preparedness and insufficiencies in funding for accidental contamination both on and off site.

The City has included with its petition for hearing the affidavits of two City attorneys attesting to the dates upon which the City received actual notice of the AMS renewal application. The City's request was filed within 30 days of its having received actual notice of the application. Under the provisions of 10 C.F.R. § 2.1205(c), the request is timely. The two concerns enumerated by the City, regarding the inadequacy of the AMS emergency response plan and the insufficiencies in decommissioning funding and financial assurance, are germane to the proceeding. The City has standing to request a hearing because its interest could be directly affected if the license were renewed and there were deficiencies in those areas. The City of Cleveland's request for a hearing is granted.

### **C. Cuyahoga Emergency Management Assistance Center**

The third of the requestors, Cuyahoga County Local Emergency Planning Committee, presents an unusual question. The timely<sup>19</sup> petition was forwarded to the NRC on "Cuyahoga Emergency Management Assistance Center" letterhead, but the text of the petition describes the concerns of the Cuyahoga County Local Emergency Planning Committee ("LEPC"). While the letter states that LEPC is the agency with primary responsibility for emergency planning within Cuyahoga county, it goes on to state that LEPC will be seeking a variance from the Ohio State Emergency Planning Commission to formally add the AMS facility to the list of facilities subject to LEPC jurisdiction. Moreover, the letter states that it is not certain that LEPC can obtain jurisdiction over the AMS facility. Without some link to the AMS facility that serves as a basis for a potential concrete or particularized injury to LEPC, LEPC has failed to establish that it has standing to request a hearing.

<sup>18</sup> The NRC Staff has elected to be a party to this proceeding under the provisions of 10 C.F.R. § 2.1205(f). While the Staff did not expressly list its areas of concern in its Notice of Participation, it implicitly stated its concerns by attaching the December 22, 1994 letter from John A. Grobe, Chief, Nuclear Materials Inspection, Section 2, to Advanced Medical Systems, which detailed nine specific deficiencies in the AMS license renewal application.

<sup>19</sup> The petition states that it was filed within 30 days of LEPC's receiving actual notice of the AMS license renewal request.

However, even if LEPC has failed to demonstrate that it has met the judicial concepts of standing, it can participate in the hearing under the provisions of 10 C.F.R. § 2.1211(b). That provision permits a representative of an interested state, county, municipality, or an agency thereof to participate in a Subpart L proceeding and to make written and oral presentations in accordance with 10 C.F.R. §§ 2.1233 and 2.1235. Therefore, LEPC will be allowed to participate as a representative of an interested county under and to the extent allowed by the provisions of 10 C.F.R. § 2.1211(b) *upon submission to the Presiding Officer (and service upon the parties) of an affidavit of a Cuyahoga County official attesting that LEPC is representing the County's interests in this matter.* Such affidavit shall be served on the Presiding Officer within 30 days of the date of this Order.

#### **D. Earth Day Coalition**

Requestor Earth Day Coalition submitted a one-page letter as its request for hearing listing several concerns related to the pending renewal application. Among those concerns are the present contamination of the AMS facility, the possible contamination of the sewer system servicing the AMS facility, the lack of emergency planning, and the potential for a major accident at the AMS facility. While the concerns listed by the Coalition appear germane to the subject matter of this proceeding, it has failed to set forth the necessary facts to establish that it has standing to intervene as required by the Commission's regulations. The Coalition merely states that it is a "non-profit environmental education and advocacy organization located in Cleveland . . . [whose] interest in this hearing is not commercial or financial . . . [but] strictly in public education and information and environmental issues."

The Coalition fails to allege any injury, concrete, particularized, or otherwise, that may accrue to it as an organization as a result of the license renewal. The Commission has long held that a mere institutional interest in providing information to the public is insufficient to establish standing in its proceedings.<sup>20</sup> The Coalition could have alleged injury to at least one of its members in order to derive standing in its own right. However, the Coalition failed to describe any injury accruing to one of its members, and further failed to provide an affidavit from a member authorizing the organization to represent him or her in the proceeding, which are the two elements necessary for organizational standing on behalf of a member.<sup>21</sup>

The Earth Day Coalition has not established standing to participate as a party to this proceeding. Its hearing request is therefore denied.

<sup>20</sup> *Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994).

<sup>21</sup> See *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-89-30, 30 NRC 311, 314 (1989).



#### IV. ORDER

For all the foregoing reasons and upon consideration of the entire record in this proceeding, it is, this 13th day of March 1995, ORDERED

1. The petition for hearing of the Northeast Ohio Regional Sewer District is *granted*;
2. The petition for hearing of the City of Cleveland is *granted*;
3. The petition for hearing of the Cuyahoga County Local Emergency Planning Committee is *denied* in part. Upon submission to the Presiding Officer (and service upon the parties) of an affidavit of a Cuyahoga County official attesting that LEPC is representing the County's interests in this matter, LEPC will be allowed to participate in the hearing as the representative of an interested county under and to the extent allowed by the provisions of 10 C.F.R. § 2.1211(b). The affidavit must be served on the Presiding Officer within 30 days of the date of this Order;
4. The petition for hearing of Earth Day Coalition is *denied*.

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In accordance with the provisions of 10 C.F.R. § 2.1205(n), the denial of the hearing request of Earth Day Coalition and the partial denial of the hearing request of the Cuyahoga County Local Emergency Planning Committee may be appealed to the Commission within 10 days after this Order is served.

Marshall E. Miller, Presiding Officer  
ADMINISTRATIVE JUDGE

Daytona Beach, Florida  
March 13, 1995

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Peter B. Bloch, Chair  
Dr. Richard F. Cole  
Frederick J. Shon

In the Matter of

Docket Nos. 55-30662-EA  
iA 94-007  
(ASLBP No. 94-694-05-EA)  
(Re: Prohibition of  
Participation in  
Licensed Activities)

KENNETH G. PIERCE  
(Shorewood, Illinois)

March 27, 1995

The Licensing Board vacated a Staff order that had barred the defendant from working as a reactor operator. It held that plant procedures were ambiguous and that a defendant who had made a reasonable interpretation of those procedures should not be found in violation of those procedures. It also held, after reexamining factual evidence in light of its view of procedural ambiguity, that there had been no lying to or concealment of facts from the NRC.

**PLANT PROCEDURES: ENFORCEMENT; AMBIGUITY**

When a violation of ambiguous plant procedures is alleged, it is appropriate to receive evidence from plant operators in order to determine how those procedures were interpreted by them. Likewise, it is appropriate to interpret the procedures in light of company actions in cases of alleged violations of

the same procedures, as reflected in official records. It also is appropriate to examine training given to plant operators in the meaning of the procedures.

It is not appropriate to sustain an enforcement action in which the operator did not act willfully because he reasonably believed he had complied with plant procedures.

**ENFORCEMENT: MISREPRESENTATION; FAILURE TO REMEMBER**

When a person is charged with improperly stating under oath that he had failed to remember facts from a meeting or conversation, it is important to examine precisely what that person was doing at the time and how strong others' memories are before concluding that he had lied.

**ENFORCEMENT: CONSPIRACY TO CONCEAL FACTS**

A person may not be convicted of a conspiracy to conceal facts from the NRC unless he had a duty to reveal those facts or that he entered into an agreement to conceal facts from the NRC. When a station operator reassures trainees that they may keep a certain matter within the control room, it is not appropriate to hold a reactor operator responsible for having agreed to a continuing conspiracy to conceal information just because he remained silent while the reassurance was taking place.

**ENFORCEMENT: CONSPIRACY; ILLEGAL ACT**

Civil conspiracy requires an agreement to perform an illegal act.

**APPEARANCES**

**Colleen Woodhead, Esq.**, Rockville, Maryland, for the Staff of the United States Nuclear Regulatory Commission, complainant.

**Kenneth G. Pierce**, *pro se*, defendant.

**INITIAL DECISION**  
(Vacating Staff Order)

This case involves the validity of an April 21, 1994 Order prohibiting Mr. Kenneth G. Pierce (Mr. Pierce) from involvement in NRC-licensed activities for

3 years, with an additional 2-year reporting period (Order).<sup>1</sup> In support of the Order, the Staff of the United States Nuclear Regulatory Commission (Staff) alleges that Mr. Pierce mispositioned a reactor control rod and then:

- (1) failed to follow the correct abnormal operating procedure by failing to move the rod to position 00 (fully inserted), failing to measure offgas levels, and failing to document this event in the control room log; and
- (2) agreed "to not discuss the incident with anyone else" and lied to an investigator about the event.<sup>2</sup>

Based on these allegations, the Staff prohibited Mr. Pierce from serving as a reactor operator for 3 years and imposed some ancillary provisions.

Mr. Pierce denies the allegations. He states that the Staff incorrectly relies on Dresden Operating Procedure (DOA) 300-12, "Mispositioned Control Rod," Revision 2 (DOA). Mr. Pierce and three other Dresden reactor operators testified that other plant procedures were applicable and that he had not violated those in any way. Indeed, he claims he was complying with plant practice and that he had never been trained in DOA 300-12, which the Staff considers applicable. He also denies having lied about this event or having entered into any agreement concerning keeping this event secret.

## I. POSITIONS CONCERNING THE MISPOSITIONED CONTROL ROD

### A. Staff Argument

The Staff relies on Dresden Operating Abnormal Procedure (DOA) 300-12 ("the DOA"), "Mispositioned Control Rod," Revision 2 (November 1991). The Staff states that the DOA was adopted pursuant to Dresden Technical Specification 6.2.A.1 and Appendix A of Regulatory Guide 1.33, Revision 2 (February 1978).<sup>3</sup>

The DOA says, in section C, "Immediate Operator Actions," step 2:

if a control rod is found or moved more than one even notch from its in-sequence position, then all control rod movement must be discontinued.

<sup>1</sup> A public evidentiary hearing was held November 29-30, 1994, in Joliet, Illinois. On January 23, 1995, the NRC Staff filed "Proposed Findings of Fact and Conclusions of Law Concerning the Order Dated April 21, 1994, Issued to Kenneth G. Pierce" (Staff Proposed Findings). Mr. Pierce filed a letter containing a Summary of the Evidence on December 30, 1994 (Pierce Summary). On February 21, 1994, Mr. Pierce also filed "Proposed Limited Findings of Fact and Conclusions of Law Concerning the Order Dated April 21, 1994, Issued to Kenneth G. Pierce" (Pierce Proposed Findings). Staff then filed its "Rebuttal to the Proposed Findings of Fact and Conclusions of Law Filed by Kenneth G. Pierce" (Staff Rebuttal).

<sup>2</sup> 59 Fed. Reg. 22,693 (May 2, 1994).

<sup>3</sup> *Id.* at 22,693.

In section D, "Subsequent Operator Actions," steps 2.a(1) and 5, require, respectively:

if a single control rod is inserted more than one even notch from its in-sequence position and reactor power was greater than 20%, and if the mispositioning was within the last 10 minutes, then the mispositioned control rod must be continuously inserted to position 00.

[the licensed operator must] . . . compare the current off gas radiation level to the off gas radiation level prior to the suspected time of the mispositioning, and to record data in the Unit log book including the location of the mispositioned rod, time of discovery of the mispositioning, action taken, and any other observation determined to be relevant.<sup>4</sup>

The significance of the reporting requirements may be appreciated by examining Step 6 of the DOA, which requires, "*prior to the resumption of routine control rod movements,*" that:

an upper management representative will conduct an evaluation into the cause of the mispositioning and implement immediate corrective actions . . .<sup>5</sup>

Staff witness Hironori Peterson also testified, at Tr. 64, that a plant procedure, "Unit 2(3), DGP 03-04, Revision 17, 'Control Rod Movements'" (the DGP) does not apply to mispositioned control rods.<sup>6</sup> He looks to DGP § E, "Precautions," at 4 of 14 of the DGP, which states:

1. . . . In the event of a mispositioned control rod, time is usually of the essence. In order to recover from a mispositioned control rod, refer to DOA 300-12, Mispositioned Control Rod.

He testified, at Tr. 63:

And also in this procedure under the precautions it gives a warning, precautions, to the people following these procedure, if you deviate from your planned aspect, go to DOA 300-12.

He also testified, at Tr. 54, that there is a distinct difference between a general operating procedure, such as the DGP, and a procedure governing an abnormal event, such as DOA 300-12. He stated:

Okay, first of all. This, you have to understand, this is [a] . . . general procedure. In this context this talks about, again, the QNE is supposed to be their expert associate at any time there is a sequence, a rod sequence that has to be followed, and that's been approved by licensed individuals and such. If at the point when they are moving those control rods,

<sup>4</sup> *Id.* at 22,693-94.

<sup>5</sup> *Id.* at 22,694.

<sup>6</sup> The DGP is "Exhibit 9," bound in following Tr. 52.

there is something that is unplanned or maybe they have to change it, then you have, the QNE must have the time to review it and approve those changes. But that's in a sense of a general operating procedure not in an abnormal situation. *And that clearly states in the rest of the procedural precaution is that if you have an abnormal situation, i.e. mispositioned control rod, refer to DOA 300-12.* [Emphasis added.]

Staff also relies on DGP 03-04 § E.3, which states:

3. Control rod movement has a direct and dramatic effect on core reactivity. Like all core reactivity changes, it must be performed in a conservative manner *in strict compliance with written procedures.* [Emphasis added by the Staff.]<sup>7</sup>

The Staff investigation in this case was extensive. As the Staff Proposed Findings state:

By letter dated November 25, 1992, Commonwealth Edison Company (CECo) notified NRC Region III that it had discovered information about a September 18, 1992, mispositioned rod at the Dresden Station, which was not logged or reported to senior station management, and which suggested that five individuals had knowledge of the event, but did not report it. Region III appointed an inspection team, who, along with investigators from the Region III Office of Investigations, composed a Task Force which conducted an investigation of this matter beginning November 30, 1992. The findings and forty-six documentary exhibits of the Office of Investigations were compiled in OI Report 3-92-055R issued May 11, 1993, (hereinafter termed "OI Report"). The findings of the technical staff were reported in Inspection Report 50-237-249/92033 issued September 9, 1993, (hereinafter termed "Inspection Report"). The Inspection Report was sent to the five individuals, and an enforcement conference with transcribed interviews (hereinafter termed "E.C. Interviews") of each person was held by Region III with four of the five individuals involved.<sup>8</sup> During the conference with Mr. Pierce, he submitted a written statement with attachments of parts of Dresden procedures. This statement asserted that after he mispositioned a control rod, he followed the directions of the Qualified Nuclear Engineer (QNE), who, according to Mr. Pierce, had authority to approve mispositioned rods by parts of Dresden procedures DOA 300-12, DGP 03-04, DAP 07-02 and 07-29.

Subsequently, the Region III enforcement board reviewed Mr. Pierce's oral and written explanations, and found that his assertions were not supported by the procedures and his denial of wrongdoing was contradicted by the other statements of the four other persons present during the mispositioned rod event.

Accordingly, after consideration of the evidence in the aforementioned Inspection Report, OI Report, the E.C. Interviews, and Mr. Pierce's written submittal, the Staff issued orders dated April 21, 1994, to three of the five individuals involved in the September 1992 event, which restricted their employment in the nuclear industry for three years, with an additional two year reporting period, and a Notice of Violation to CECo.<sup>9</sup>

<sup>7</sup> NRC Staff Proposed Findings of Fact and Conclusions of Law Concerning the Order Dated April 21, 1994, Issued to Kenneth G. Pierce, January 23, 1995, at 21 ¶ 22.

<sup>8</sup> One individual, Mr. Miller, although invited to appear, chose not to attend.

<sup>9</sup> The footnote numbers in the cited text have been changed to be consecutive with our own numbers.

## B. Mr. Pierce's Argument

Mr. Pierce argues that the DOA did not even come into play. He relies on the testimony of four licensed operators — all of whom confirm that it was their practice as licensed operators to permit the QNE to approve unplanned deviations from a control rod sequence, pursuant to the DGP.<sup>10</sup> The purpose of this procedure, set forth on page 2 of 14, is to provide "general instructions for movement of control rods on Units 2 and 3." This procedure has a section directed toward a licensed operator such as Mr. Pierce. The section is Section G, on page 5 of 14. Following the beginning of the procedure is a large "NOTE" that says, in ¶ 2:

A QNE [Qualified Nuclear Engineer] may be present at times during control rod movement to act as an advisor to the NSO and Operations Shift Supervisor, to provide technical guidance, and approve any unplanned deviations from the sequence.

(Emphasis added.) Mr. Pierce argues that this note is unambiguous. It does not contain any limitations on the authority of the QNE to approve unplanned deviations. He further argues that the words of the DGP appear to conflict with the Staff's interpretation of the meaning of a mispositioned rod. In addition, he argues that step 3 in the DOA is to contact a QNE. In Mr. Pierce's opinion this implies that the QNE was not present when the mispositioned rod occurred.<sup>11</sup>

Mr. Pierce also supports his interpretation with two other portions of the DGP. Section E.4 provides:

Control rod movement without approval from a QNE (Qualified Nuclear Engineer) or explicit procedural guidance may lead to fuel over powering, Technical Specification violation or core damage. (W-8) [Emphasis added.]

He argues the procedure is predicated on the assumption that a nuclear operator could rely either on the QNE or on explicit procedural guidance. He advances further support for the controlling role of the QNE in § F.2.:

When performing control rod movements per Control Rod Sequence (DAP 14-14), steps may *NOT* be skipped without approval of a QNE. (W-4).

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<sup>10</sup> We note that, in addition to the four reactor operators, Mr. Pierce's argument is corroborated by Mr. Miller's sworn testimony that the April 10 event, discussed below, involved a "fast rod" and not a "mispositioned rod." OI Report, Exhibit 40 at 43. He is further corroborated by a statement of Mr. Tang Wee that "it was not a mispositioned rod since QNE authorized new instructions to include this rod. Special instructions authorized it." OI Report, Exhibit 20 at 5.

<sup>11</sup> Staff Exhibit 12, Pierce Interview, at 59, lines 17-22.

## II. EVIDENCE CONCERNING PROCEDURE VIOLATION

### A. Staff Inspection Report

On September 9, 1993, the Staff issued a Special Inspection Team Report, "Dresden Control Rod Mispositioning Event, September 18, 1992" (SIT Report).<sup>12</sup> That report is very important to a full understanding of this case. It describes an important similar incident that occurred on April 10, 1992, and it describes the action taken by Commonwealth Edison Company following the alleged mispositioned control rod event. These two sections of the SIT Report helped to persuade us that there was substantial ambiguity in plant procedures concerning mispositioned control rods at the time that Mr. Pierce is accused of having violated them.

We note that the SIT Report is a competent professional document. Nevertheless, we reach a different conclusion than it did concerning whether plant procedures were followed and whether the NSO, Mr. Pierce, exhibited a lack of integrity. Our record contains evidence that the SIT Report did not examine. Because this is a legal proceeding we have heard more in-depth evidence than was obtained during the Staff investigation. In particular, we have heard live testimony from four reactor operators and we have considered, in detail, Mr. Pierce's defense — that he was following the procedures as he knew them.<sup>13</sup>

#### 1. *The April 10, 1992 Incident*

When Commonwealth Edison investigated an April 10, 1992 mispositioned control rod event, it concluded that insufficient corrective action was taken.<sup>14</sup> The failure to take corrective action is consistent with Mr. Pierce's allegation that the custom at the plant was not violated in that event. In particular, Commonwealth Edison showed no concern that DOA 300-12 had not been followed, giving rise to the inference that it was satisfied that the DOA was not called into play in that event.

This point is sufficiently important to cite the entire portion of the SIT Report on this subject:

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<sup>12</sup> Following Tr. 243, Inspection Report Nos. 50-237/92033 (DRP); 50-249/92033 (DRP) (SIT Report).

<sup>13</sup> Staff Proposed Findings at 20 ¶18, takes Mr. Pierce's remarks in Exhibit 12 out of context. Mr. Pierce very clearly stated, at page 39, "I'm sure I did whatever the Nuke told me immediately, which I still would do today." He also has consistently maintained that if a QNE approves a rod movement it is no longer considered a mispositioned control rod. See Staff Exhibit 12 at 40, 55.

<sup>14</sup> Following Tr. 43, SIT Report at 9.



The April 10, 1992 event occurred on Unit 2 during a control rod sequence adjustment to increase the FCL [flow control line].<sup>15</sup> Control Rod M-4 was being inserted from position 16 to position 14, when the rod "triple-notched" and inserted to position 10. Under the QNE's [Qualified Nuclear Engineer's] direction, the NSO [Nuclear Station Operator] continued to insert control rods (rod M-12) and then withdrew Control Rod M-4 from position 10 to position 14. Subsequently, the rod sequence configuration was corrected.

The licensee identified that Control Rod M-4 was mispositioned; however, corrective actions described in Deviation Report (DVR) 12-2-92-64 concentrated on the mechanical problem associated with the root cause of the control rod triple-notch. Although the control rod drive hydraulic (CRDH) drive water pressure was normal (280 psi over reactor pressure), there was a mechanical problem in the insert speed control valve (valve 123) causing drive speed to be too fast. The inspectors concluded the licensee took corrective actions for the mechanical problem; however, the immediate actions and operator response to the mispositioned control rod were not in accordance with approved plant procedures.

The operators did not take the mitigating actions in accordance with DOA 300-12, "Mispositioned Control Rod." Control Rod-4 was mispositioned greater than one even notch, and the procedure required subsequent action to insert the affected rod to position 00. The NSO failed to perform the required action and withdrew the rod to position 14. This was an example of an apparent violation of approved procedure (92033-02a/50-237, 249 (DRP)).

In addition, the QNE directed the NSO to withdraw the mispositioned rod without SRO [Senior Reactor Operator] approval. The SE [Shift Engineer] and/or SCRE [Station Control Room Engineer] were designated to direct licensed activities as required by DAP 07-01, "Operations Department Organization." Directing control rod movement without a senior operating license was an example of an apparent violation of approval procedures (92033-02b/50-237 (DRP)).

From the April 10 event, the licensee identified the abnormal plant condition (mispositioned control rod), *but did not identify the failure to implement required procedural corrective actions.* The licensee concentrated on the mechanical problem with the CRD system, and failed to implement corrective actions to assure response to future mispositioned control rods was in accordance with plant procedures. This was an apparent violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," (92033-01/50-237, 249 (DRP)). [Emphasis added.]

We are particularly concerned about the implications for this proceeding of the last-cited paragraph of the SIT Report. This paragraph appears to us to corroborate Mr. Pierce's argument. The paragraph raises the following question:

- Why did Commonwealth Edison overlook the plant procedure problem?

A possibility is that they were grossly negligent or had some other improper motive. More likely, in our opinion, Licensee did not fault its personnel

<sup>15</sup> "Flow control line" (FCL) is shorthand for the function that relates the rate of coolant flow in a reactor core to the power level. FCL refers to a line on a graph that shows this relationship, which differs when there are changes in the reactivity of the core. Generally, the FCL is decreased by inserting control rods further. However, a sequence of rod movements intended to increase the FCL could include some insertions of rods at the same time that other rods are being withdrawn.

because it considered that they were operating pursuant to the DGP and were following procedures. Hence, we infer that they did not see any inconsistency between the DOA and the DGP. Otherwise, they would have felt duty-bound to correct the inconsistency. We conclude, for purposes of this proceeding,<sup>16</sup> that Commonwealth Edison officials did not understand in April 1992, that it was procedurally necessary to implement the DOA under circumstances when a QNE wrote orders concerning "mispositioning" of rods. In the words of Mr. Ciuffini, Mr. Mosey, and Mr. Pierce, Commonwealth Edison did not think that it entered the DOA when the QNE had approved an unplanned rod movement sequence pursuant to the DGP. Tr. 121, 249, 258, 259-60 (Ciuffini), 274-75 (Mosey) and 314, 352 (Pierce).

## *2. Investigation of September 18, 1992 Event*

When Commonwealth Edison concluded its investigation of the September 18, 1992 event, it found that the individuals' actions were "inappropriate." However, it did not find that the actions were failures to follow existing plant procedures, nor did it find a deliberate failure to follow station procedures or that there was deliberate misconduct of operators in concealing their error.<sup>17</sup> A subsequent event explains further why Commonwealth Edison did not find deliberate misconduct. On December 10, 1992, corrective actions promised by Commonwealth Edison were to "develop a clear interface between the qualified nuclear engineers and licensed operators" and to "evaluate the nuclear engineer training program." SIT Report at 13 ¶3.13. Apparently, until December 10, 1992, Commonwealth Edison did not feel that a clear interface existed or that its training program for nuclear engineers had been adequately evaluated.

One test of the clarity of procedures is whether there has been formal training that spells out their meaning. The Staff gave no testimony about how Mr. Pierce was trained. Here is how Mr. Pierce describes the training he received about the April event:

Yes, I received training on the April event prior to September 18th. The training consisted of Mr. Mosey had a bad rod. The training contained no mention of CECO's dissatisfaction with this failure to follow DOA 300-12 while a QNE was present.<sup>18</sup>

<sup>16</sup> We note that Commonwealth Edison is not a party to this proceeding and has not presented arguments. This finding is with respect to Mr. Pierce and not to Commonwealth Edison.

<sup>17</sup> SIT Report at 11 ¶3.10.

<sup>18</sup> Tr. 11. We note that Mr. Pierce is not a lawyer. His statement was made in opening remarks and was not technically sworn. It was, however, made to a government agency and is subject to penalties for lying to government agencies. There is no contrary evidence in the record.

The record corroborates Mr. Pierce's point of view that he was following existing procedures as best he knew how.

## B. Testimony of Witnesses

### I. Relevance

The interpretation of ambiguous texts is a common legal problem. Providing that a text, such as an agency rule, is ambiguous, then it is proper to determine how those using the rule were interpreting it. For example, in contract law, it is said that

The rule that the surrounding circumstances should be considered in the construction of a contract applies with particular force where the language considered alone is susceptible to more than one meaning.<sup>19</sup>

It also is said that

In the determination of the meaning of an indefinite or ambiguous contract, the construction placed upon the contract by the parties themselves is to be considered by the court.<sup>20</sup>

The general principle that a court is interested in how people have acted in response to particular language also is found in administrative law. In interpreting rules, it is said:

Courts give extra authoritative weight to interpretative rules and practices which embody interpretations made contemporaneously with the enactment of the statute, or which have been consistently followed over a long period.<sup>21</sup>

In this case, we have found that the relationship between the DGP and the DOA is ambiguous. In addition, practice at the Dresden plant seems to have been inconsistent, as judged by the SIT Report's conclusions about two different mispositioned control rod events. Under these circumstances, it is appropriate to hear how licensed operators have interpreted the overall scheme of local plant procedures. Especially when procedures are complex, it is helpful to hear how they are interpreted by the very people who use the procedures day to day. They are the ones to whom the procedures are directed and whose work is affected. What they say about the meaning of those procedures, particularly when several

<sup>19</sup> 17A Am. Jur. 2d 374 § 356.

<sup>20</sup> *Id.* at 375 § 357.

<sup>21</sup> Kenneth Culp Davis, *Administrative Law Treatise* at 65 § 7.14 (2d ed. 1979):

As early as 1827, interpreting a North Carolina statute of 1782, the Supreme Court declared: "In the construction of a doubtful and ambiguous law, the contemporaneous construction of those who were called upon to act under the law, and were appointed to carry its provisions into effect, is entitled to very great respect." *Edwards' Lessee v. Darby*, 25 U.S. (12 Wheat.) 206, 210 (1827).

See also Kenneth Culp Davis, *Administrative Law Treatise* at 324 § 5.06.

of them have no direct stake in the outcome of this case, is entitled to very great weight.

## 2. The Testimony

Testimony in support of Mr. Pierce was given by Mr. Barry Jaicomo (Jaicomo Test.),<sup>22</sup> Mr. Lou Ciuffini (Ciuffini Test.),<sup>23</sup> and Mr. Tom Mosey (Mosey Test.).<sup>24</sup> All three are Licensed Reactor Operators (NSOs): Mr. Jaicomo since May 23, 1974,<sup>25</sup> Mr. Ciuffini since July 25, 1983,<sup>26</sup> and Mr. Mosey since 1990.<sup>27</sup>

All three stated that Mr. Pierce did nothing wrong and that they would have done the same as he did.<sup>28</sup> They said that it was customary at the plant for a QNE to routinely direct control rod movements.<sup>29</sup> The QNE would get "carte blanche on rod movements" from the SRO.<sup>30</sup> They also stated that prior to the September incident they could not recall any training or guidance to follow DOA 300-12 while a QNE is directing rod control movements.<sup>31</sup> They each stated that Mr. Pierce knew procedures verbatim and was a stickler for procedures.<sup>32</sup> Mr. Jaicomo said that Mr. Pierce is an outstanding operator.<sup>33</sup> All three are so supportive of Mr. Pierce that they look to ulterior motives to explain his dismissal.<sup>34</sup>

These reactor operators also testified that important changes were made concerning procedures and training in mispositioned control rod events subsequent to September 1992.<sup>35</sup> When training on DOA 300-12 was integrated into plant simulator training, many months *after* the September incident, the initial simulator run showed that three operators followed DOA 300-12 correctly and that four others made a variety of errors. *See also* Tr. 70-72.

Subsequently they decided that training in DOA 300-12 would be given every 2 years.<sup>36</sup> Mr. Ciuffini testified that the development of training on DOA 300-12

<sup>22</sup> Following Tr. 286.

<sup>23</sup> Following Tr. 115.

<sup>24</sup> Following Tr. 268.

<sup>25</sup> Jaicomo Test. at 1 ¶¶ 2-3.

<sup>26</sup> Ciuffini Test. at 1 ¶¶ 2-3.

<sup>27</sup> Mosey Test. at 1 ¶¶ 2-3.

<sup>28</sup> Jaicomo Test. at 3 ¶¶ 7, 8; Ciuffini Test. at 2 ¶¶ 7, 8; and Mosey Test. at 2 ¶¶ 7, 8.

<sup>29</sup> Jaicomo Test. at 1 ¶ 4b; Ciuffini Test. at 1 ¶ 4b; and Mosey Test. at 1 ¶ 4b.

<sup>30</sup> Jaicomo Test. at 1 ¶ 4d; Ciuffini Test. at 1 ¶ 4d; and Mosey Test. at 1 ¶ 4d.

<sup>31</sup> Jaicomo Test. at 1 ¶ 4a; Ciuffini Test. at 1 ¶ 4a; and Mosey Test. at 1 ¶ 4a. This testimony is corroborated by our analysis, below at p. 214, of deviation reports on mispositioned control rod incidents.

<sup>32</sup> Jaicomo Test. at 3 ¶¶ 9, 10, 14; Ciuffini Test. at 2 ¶¶ 9, 10-13; and Mosey Test. at 3 ¶¶ 9-12, 14.

<sup>33</sup> Jaicomo Test. at 4 ¶ 15.

<sup>34</sup> Ciuffini Test. at 4 ¶¶ 11-13, and at 5 ¶ 15; Jaicomo Test. at 3 ¶¶ 11-14; and Mosey Test. at 3 ¶ 15.

<sup>35</sup> Although it is standard legal doctrine that changes made by a defendant cannot be introduced into evidence to prove liability prior to the changes, the evidence here is not being introduced to show wrongdoing by Commonwealth Edison. Its use is to exculpate an individual from discipline for what he is supposed to have known prior to the changes.

<sup>36</sup> Jaicomo Test. at 2 ¶ 5a.

went through "several iterations" because of its complexity.<sup>37</sup> It is now clear to everyone that individual control rod movements are documented.<sup>38</sup> It also is now clear that the SRO approves all rod movements.<sup>39</sup>

### C. Previous Deviation Reports

Staff Exhibit 14 contains eight reports on previous mispositioned control rod events. First, we find that the existence of eight reported events does not provide any evidence concerning the frequency with which *unreported* mispositioned control rod events may also have occurred.<sup>40</sup> There is no basis in our record for estimating the percentage of reporting. We accept the testimony of Mr. Ciuffini that there was no perceived need to report Mr. Pierce's alleged mispositioned control rod because it had been approved by the QNE and because there was little safety significance of this particular rod movement in a coast-down situation.<sup>41</sup>

Second, we have reviewed these events, which we summarize by their DVR number (last two digits only), in the same sequence provided in the Staff Exhibit:

DVR No.	Was QNE Present at first?	Was DOA 300-12 Entered?
39	Yes	No
97	Immediately notified	No
29	No (QNE notified)	Not mentioned by name. No rod was moved to 00. NSO moves rod before notifying QNE. Off Gas indications checked.
33	No (QNE notified)	Yes, but it may have been misapplied since no rod was moved to 00 and no Off Gas test results are mentioned.
179	No (QNE notified)	No
23	No	Yes
64	Don't Know	No
71	No	Yes, but rod inserted to 00 only after discussions with QNE

<sup>37</sup> Ciuffini Test. at 1 ¶ 5a.

<sup>38</sup> Jaicomo Test. at 2 ¶ 5e.

<sup>39</sup> Jaicomo Test. at 2 ¶ 5c; Ciuffini Test. at 2 ¶ 5b, d; and Mosey Test. at 2 ¶ 5e.

<sup>40</sup> We reject Staff Proposed Findings at 25 ¶¶ 35, 36.

<sup>41</sup> Tr. 258.

Since DOA 300-12 was not entered in four of the eight "mispositioned control rod" events, we conclude that the practice at Dresden concerning DOA 300-12 was that it was as often breached as honored. Even when the procedure was "entered," it appears that its provisions were not well understood.

#### D. Training

On November 14, 1994, we ordered the Staff to file a Special Brief setting forth its view of:

the effect of the "special instruction for rod movement," issued by a Qualified Nuclear Engineer (QNE), on the obligations of Mr. Pierce.<sup>42</sup> The Special Brief shall discuss the facts of this case in relationship to the applicable regulations, technical specifications and procedures. *It also shall discuss the training given to Mr. Pierce and the Staff's evaluation of the efficacy of that training in the situation in which Mr. Pierce found himself. See OI Report, Exhibit 7, page 4 (last sentence of § 6).*

(Emphasis added.) The Staff filed a "Response to Licensing Board's Memorandum and Order of November 14, 1994." In that document the Staff stated, at 2, that its witnesses'

written testimony, in final preparation now, will address these two [Board] questions. The questions are addressed by the two Staff witnesses who are presently and formerly in the operator licensing section in Region III (Mr. Jordan and Mr. Peterson, respectively). *These witnesses are thoroughly knowledgeable about the Commission's regulations governing operator licensing and training. They will be able to answer the Board's questions on these matters at the hearing, scheduled to begin on November 29, 1994, if the written testimony has not already answered the questions to the Board's satisfaction. [Emphasis added.]*

When the time for the hearing arrived, we asked Mr. Peterson about what relevant training Mr. Pierce had received. Surprisingly, Mr. Peterson did not know whether Mr. Pierce had received any relevant training. He testified:

ADMINISTRATIVE JUDGE BLOCH: . . . Do you know whether there was any training in the relationship between the reactor operator and the qualified nuclear engineer?

WITNESS PETERSON: Personally, no. But there's certain areas where they would have to review the procedures.

ADMINISTRATIVE JUDGE BLOCH: I'm sorry. . . . I want to know if you know that there was training in the relationship between the QNE and the operator of the reactor.

WITNESS PETERSON: No, I can't say.

<sup>42</sup>We note that the "Report of Investigation: Dresden Nuclear Power Plant," No. 3-92-055R (May 1, 1993) states, at 21, evidence item #38: "PIERCE understood that the Mispositioned Control Rod Procedure only applies when a nuclear engineer is not present." (Exhibit 41 at 58, 60-61.)

ADMINISTRATIVE JUDGE BLOCH: And do you know what the procedures provided about the relationship between the QNE and the OR?

WITNESS PETERSON: Excuse me? What was that again?

ADMINISTRATIVE JUDGE BLOCH: Was there anything in the procedures of the plant that covered the appropriate relationship between the QNE and the operator?

WITNESS PETERSON: I believe there are set procedures.

ADMINISTRATIVE JUDGE BLOCH: Okay.

WITNESS PETERSON: I can't remember exactly what details they were.

ADMINISTRATIVE JUDGE BLOCH: But could you show us now what the relationship is between those procedures and the matter that we're being asked to consider?

WITNESS PETERSON: I can't do it personally, specifically you know, but I can do it more generally.

ADMINISTRATIVE JUDGE BLOCH: But that's what we need. We need it specifically. We need to know what the relationship is in the procedures between the QNE and the operator, because that's the principal defense before us.

WITNESS PETERSON: Well, particularly the QNE is a person who would have the knowledge aspect of the rod program. They're the individuals who will set up the rod sequencing for starting up the reactor, and also controlling the rod configuration as the plant is operating. They are supposed to be the experts associated with the flux distribution and where the rods should be positioned. And they have specific procedures on that.

Personally, in an aspect of regulations, we do not examine QNE because they are not licensed by the NRC.<sup>43</sup>

Based on this testimony, we conclude that Mr. Pierce never received any relevant training concerning how he should relate to a QNE when a control rod is found or moved more than one even notch from its in-sequence position.

#### **E. Custom Is Not an Excuse for a Violation**

We want to be very clear about our conclusion in this case. We are examining a case in which the application of two plant procedures, viewed side by side, is ambiguous. We have called those procedures the DGP and the DOA. In particular, there is a note in the DGP that supports a reasonable belief that the QNE — if present during an unintended rod movement — may “*approve any unplanned deviations from the sequence.*” (Emphasis added.) This supports Mr. Pierce's view that an unplanned deviation that is approved by a QNE is not a mispositioned control rod.

We note the Staff's argument that the Note does not apply when there is a

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<sup>43</sup> Tr. 30-32.

mispositioned control rod. However, that reading would narrow the italicized language, which apparently would *never* apply. That narrow interpretation of the DGP does not persuade us. We conclude that the terms of the DOA and the DGP are in conflict.

Viewed as a whole, plant procedures concerning mispositioned control rods were ambiguous at the time of the September event. Under that circumstance, we consider it appropriate to examine the practice, at the time, of plant operators to see how they understood and executed those procedures. In this case, testimony by plant operators persuades us that Mr. Pierce's interpretation of the procedures is a reasonable one and that it would be unfair to discipline him for adopting a reasonable view of the procedures.

We are not persuaded that Mr. Pierce's nervousness after this event was any indication that he failed to comply with procedures.<sup>44</sup> His nervousness may have occurred because the Assistant Superintendent of Operations at Dresden had informed Mr. Pierce that disciplinary action would be taken for any mispositioned rod.<sup>45</sup> He may also have been upset because of the work "atmosphere"<sup>46</sup> or because he felt that if he didn't do "everything just right" Dresden might be shut down.<sup>47</sup> He also may have been concerned because his movement of control rod H1 was the only one he had ever unintentionally moved.<sup>48</sup>

We note that the evidence about operator practice is corroborated by two other persuasive pieces of evidence. First, we have discussed the SIT Report's conclusions that Commonwealth Edison investigated both the April precursor event and the September event and that in neither case did it find a violation of procedures. Second, we analyzed deviation reports for mispositioned control rod events, and we found that it was common for operators not to follow the DOA, which is the basis for the Staff's enforcement action.

We are convinced that, in light of ambiguous procedures and a lack of relevant training, Mr. Pierce should not be penalized for his failure to follow the DOA during the September event. Additionally, he is not to be faulted for a failure to document the alleged mispositioned control rod incident because Staff has not provided any persuasive authority that he was unreasonable in his belief that the DOA never was entered and that, therefore, he was not required to report the event that had occurred. In Mr. Pierce's opinion, this event was "cured" by the action of the QNE and did not require a report.

We note that the ambiguous plant procedures were corrected subsequently.

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<sup>44</sup> Staff Proposed Findings at 44-45 ¶121.

<sup>45</sup> Jordan Test. at 7, following Tr. 26. See also Staff Exhibit 12, Pierce Interview, at 53 line 4 to 54 line 14.

<sup>46</sup> Staff Exhibit 12, Pierce Interview, at 62 lines 1-20.

<sup>47</sup> *Id.* at 63, lines 13-23.

<sup>48</sup> *Id.* at 70, lines 2-10.



It is helpful that all control rod movements be documented so that a reviewable record is created. However, we do not consider Mr. Pierce's nonreporting to be a breach of unambiguous procedures at the time it occurred. We do not find him culpable for failure to follow unclear rules.

### III. EVIDENCE CONCERNING CONCEALMENT OR LYING

Even though we already have concluded that Mr. Pierce did not commit a violation by failing to follow the DOA, we still must analyze the charge that he lied during the investigation. We do not, however, need to consider further whether he "agreed" to keep the alleged mispositioned control rod event secret. Since we already have ruled that "there was no clear and unambiguous procedural requirement to report the 'mispositioned control rod' that was approved by the QNE, it was not a violation to agree with others not to report it."<sup>49</sup> So we need not determine whether or not such an agreement actually took place. It is settled law that a person cannot be responsible for a conspiracy to commit an act that is legal.<sup>50</sup>

We do not decide whether the Nuclear Regulatory Commission could discipline a reactor operator for agreeing to conceal information under the mistaken belief that he was procedurally required to report that information. That proposition is not relevant to this case because we have not been persuaded that Mr. Pierce had an obligation to make such a report or believed that he was required to make such a report. Likewise, we do not have to decide whether it is ille-

<sup>49</sup> Our review of the evidence does not persuade us that Mr. Pierce agreed with others to do anything improper. The preponderance of the evidence supports our conclusion that Mr. Tang Wee stated that the event did not have to be discussed further. At that point, Mr. Pierce may or may not have focused on what was said, as he was attending to the instruments. He remained silent, either because he had not heard or because he agreed with what Mr. Tang Wee said.

<sup>50</sup> *Stone v. Williams*, 970 F.2d 1043, cert. denied, 113 S. Ct. 2331, 124 L. Ed. 2d 243 (2d Cir. 1992) (Under Alabama law, a cause of action for conspiracy arises not from conspiracy itself but from wrong alleged to be the object of the conspiracy. The allegation of fraudulent suppression of a material fact requires that there be a duty to disclose that fact because of special circumstances found in the facts of a case); *Robbins v. Clarke*, 946 F.2d 1331 (8th Cir. 1991) (Prison officials did not commit illegal act by declining to reveal identities of prisoners testing positive for human immunodeficiency virus (HIV), cause of AIDS (Acquired Immune Deficiency Syndrome), and, thus, officials did not commit an actionable conspiracy); *Colorado Taxpayers Union, Inc. v. Romer*, 750 F. Supp. 1041, appeal dismissed, 963 F.2d 1394, cert. denied, 113 S. Ct. 1360, 122 L. Ed. 2d 739 (D. Colo. 1990) (Citizens that had sponsored citizen-initiated amendment to State Constitution could not maintain common-law conspiracy claim against governor who had spoken out against initiative, as governor's efforts to defeat amendment were not unlawful, and as citizens failed to present any evidence that governor had used unlawful means to accomplish that goal); *Kiva Construction and Engineering, Inc. v. International Fidelity Insurance Co.*, 749 F. Supp. 753, aff'd, 961 F.2d 213 (W.D.La. 1990) (The actionable element in a civil conspiracy claim under Louisiana law is not the conspiracy itself, but rather the tort that the conspirators agreed to perpetrate and which they actually committed, in whole or in part; however, to recover, plaintiff must be able to prove that an agreement existed between the accused defendants to commit the illegal or tortious act that resulted in plaintiff's injury); and *American Computer Trust Leasing v. Jack Farrell Implement Co.*, 763 F. Supp. 1473, order aff'd and remanded, 967 F.2d 1208, cert. denied, *Boerboom International, Inc. v. American Computer Trust Leasing*, 113 S. Ct. 414, 121 L. Ed. 338 (113 S. Ct. 414, 121 L. Ed. 2d 338) (Mere existence of combination of persons acting in concert is insufficient to establish civil conspiracy; if there is no underlying wrong, there can be no civil conspiracy).

gal to agree to hide information from the Nuclear Regulatory Commission, as we interpret Mr. Tang Wee to have suggested that it was not necessary to file a report about the alleged mispositioned rod, and we do not conclude that he was suggesting — in the broken and imperfect English that he uses — that the trainees and others agree to an oath of silence.<sup>51</sup>

The remaining issue is whether Mr. Pierce lied to investigators concerning the mispositioned control rod event or its aftermath.

#### A. Discussion of Allegations

Staff proposed findings at pp. 53-55 are the bases for its allegation that Mr. Pierce did not provide accurate information to the NRC. In this section of our opinion, we set forth each proposed finding, discuss that finding in light of Mr. Pierce's response, and then reach conclusions with respect to those findings.

1. Staff Finding 136: When asked ten times by the NRC Task Force about the discussion/meeting/agreement of Messrs. Miller, Marotto, Piccard, Tang Wee and Pierce, Mr. Pierce denied all knowledge of the discussion, even when informed that the other four persons all stated he was present at the discussion. Staff Ex. 12, pp. 42, 45-49, 81-82.

This Staff finding relates to a closed investigative interview conducted with Mr. Kenneth G. Pierce, Jr., at the LaSalle County Courthouse on December 30, beginning at 10:20 a.m. The Staff was represented by Richard T. Anderson and Joseph M. Ulie, investigators, and Hironori Peterson, Reactor Engineering Operator Licensing Examiner.

Mr. Pierce denied any memory that Mr. Tang Wee had told him that "anything that had to do with H-1, was not to leave the control room." On page 42 of the transcript of that interview, the following questions and answers are found:

Q Do you remember Mr. Tang Wee coming down and having a discussion with the two trainees at all?

A No.

Q Okay. There was no discussion with them that you can remember?

A Not that I remember.

Q Was there any discussion by Mr. Tang Wee at the five-panel board, where you would have been stationed, about "Mr. Miller calming down, Mr. Miller getting yourself under control, Mr. Miller, let's follow and continue on with the rod movement. We can get this under control."

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<sup>51</sup> See p. 223, below.

Do you remember *anything like that* being said in your presence within the first few minutes at the five-panel board?

A No.

Q Do you remember Mr. Tang Wee coming down to the five-panel board at all?

A No.

Q Okay.

A Like I say, it's three and a half months ago, now. He may have; I don't know.

We have studied this section of the transcript and we have reviewed related transcript sections. In those pages, Mr. Pierce was repeatedly confronted by Mr. Anderson with statements indicating that there was testimony from four individuals that there was a meeting (Tr. 48) and Mr. Pierce kept denying any memory of that meeting.

It is important to note that while Mr. Pierce denied attending a meeting behind the five panel board, he did not deny that there was any meeting. He stated there had been a discussion with the other individuals about the mispositioned rod at Tang Wee's desk. Anderson Testimony at 5, following Tr. 135.

The Staff finding needs modification in one respect. Mr. Pierce did not "deny all knowledge." He said he could not remember.

2. Staff Finding 137: At hearing, Staff witness, Mr. Richard Anderson, chief investigator for the Region III Office of Investigations (OI) which participated in the investigation of the mispositioned rod event, stated that he and a colleague on the investigation team collected the exhibits attached to OI Report No. 3-92-055R, and that he wrote the summary report. Testimony of Richard T. Anderson concerning the Order dated April 21, 1994, issued to Kenneth G. Pierce, ff. Tr. 135, pp. 1-4.<sup>52</sup>

This finding is correct. We note that in the cited statement of Mr. Anderson, he stated that the interview of Mr. Pierce on December 30, 1992, occurred about 27 days after the other interviews were completed. We conclude that there is an inadequate basis for us to determine that Mr. Pierce lied when he said he did not remember. We note, as we discuss below, that others remembered either a discussion or a meeting and were not completely consistent about the contents of these events. The additional time that passed before Mr. Pierce was questioned lends added difficulty to a determination that he may have willfully lied when he said he did not remember.

3. Mr. Anderson explained that the reasons for his conclusion that Mr. Pierce deliberately provided inaccurate information to the NRC Task Force were: the testimony of Messrs.

<sup>52</sup> Mr. Richard T. Anderson, an Investigator in the Region III Office of Investigations, holds a B.S. in Accounting and has 25 years experience in investigatory positions, 4 of which have been with the Commission.

Piccard, Miller, Marotto, and Tang Wee that there was a meeting or discussion about the mispositioned rod which took place behind the control panel and that Mr. Pierce was present; Mr. Miller's testimony that Mr. Pierce replied affirmatively to a statement by Mr. Tang Wee that information about the mispositioned rod was not to leave the control room; Mr. Pierce's statement to CECo that he might have heard someone give advice about keeping the incident within the control room; Mr. Pierce's statement that he remembered saying that the day's rod movements were a nightmare, a comment that Mr. Piccard heard Mr. Pierce say behind the panel; Mr. Pierce's repeated denial of any memory of the agreement of the five persons when repeatedly questioned by the investigation team; and Mr. Pierce's evasion of a direct answer to the interviewers' questions, attempting to focus attention on denial of a formal "meeting." *Id.*, pp. 4-6.

We have reviewed this finding and have decided that we must examine the issue for ourselves. First, we are aware that Mr. Anderson's judgment about misrepresentation was formed in relationship to what we now conclude was an erroneous belief that Mr. Pierce had violated procedures, including failure to file a required report. Second, we give little credence to unsigned statements and to investigatory notes prepared by people who have not appeared before us for cross-examination. We place greater weight on signed or sworn statements. Third, we examined the testimony of the different witnesses to see whether they agreed or disagreed with one another and with Mr. Pierce concerning particular events that occurred after the alleged mispositioned rod incident. We conclude that there is substantial corroboration for Mr. Pierce's testimony and that his failure to remember a meeting or conversation is credible.

For us to find that there has been a misrepresentation, we have to look at precisely what questions were asked and what answers were given by each witness. It is important to examine any inconsistencies that may exist among the stories and to attempt to understand the perspective that each witness brought to the investigative interviews.

We did, in fact, attempt to have the Staff prepare just this kind of analysis for us. However, Staff apparently did not fully understand what we wanted, so it presented a Table of Statements Regarding the Agreement to Keep the Mispositioned Rod Secret from Dresden Management. Staff Findings at 4-16.

We note that Staff did not present any live testimony concerning the alleged meeting or discussion. Instead, Staff sets forth a variety of statements, including unsigned statements and interview notes. We disregard these unsigned statements and notes as insufficiently reliable to support a conclusion that a misrepresentation had occurred. (The notes are, however, generally consistent with the sworn or signed statements in our record.)

Relying, then, on sworn or signed statements, we find that there are substantial differences among witnesses. We also find that the witnesses often were responding to leading questions rather than to general questions that elicited their unaided memories.

How, then, did the witnesses say that the alleged meeting occurred? Mr. Piccard stated, at Tr. 50-51 of his NRC Task Force Interview, that before the meeting started, Mr. Pierce was way back in a back corner of the control room. He began to state what Mr. Pierce was doing back there, but his answer was cut off by a further question.

John Marotto, on the other hand, signed a statement that indicated that he had no recollection of Mr. Pierce being "way back there" before the meeting started. Staff Findings at 6-7. He stated that "George, Sean, and myself (*and I think Ken [Mr. Pierce] also*) [emphasis added] found a spot somewhat away from everyone else in the control room (we were behind the panels) . . . ." So, Mr. Marotto, who stated that Mr. Tang Wee later told everyone to calm down, did not unequivocally state that Mr. Pierce was present when that event occurred.

Later, Mr. Marotto was questioned by the NRC Task Force. Staff Findings at 8. The Task Force apparently assumed that Mr. Pierce was at the meeting and did not initially ask Mr. Marotto whether or not Mr. Pierce was at the meeting, even though he had hedged about that earlier. The Task Force asked Mr. Marotto if Mr. Pierce made any comments about agreeing with a statement Mr. Tang Wee allegedly made. Mr. Marotto said:

*I am sure Ken probably did agree with him. I don't know exactly what Ken said. I don't recall Ken saying a whole lot at that conversation.*

(Emphasis added.) Even though Mr. Marotto later said that Mr. Pierce was present in the meeting, the vagueness of his memories does not lead us to conclude that Mr. Pierce lied when he stated he had no memory of this event. He may well have been nearby and not listening intently.

Subsequently, at his enforcement conference interview, Mr. Marotto stated:

*I remember going back into the panels, to the back panels. We went back there to look at the instrumentation and some of the controls back there to check some things and while we were back there, it was all five of us were back there, I believe, and he . . . [Emphasis added.]*

Staff Findings at 8. We note that, in this testimony, Mr. Marotto finally explained how the "meeting" occurred. This version is entirely consistent with Mr. Pierce's statement that he did not remember a meeting but that all of them may have been back behind the panels doing something. Investigative Interview of Kenneth G. Pierce, Jr., December 30, 1992, at 49.

Mr. Sean Miller signed a handwritten statement that Mr. Pierce met with him behind the back panels on Unit 2. Staff Findings at 9. However, at his NRC Task Force interview, he stated that at first he did not think that Mr. Pierce was present "back there." Staff Findings at 11. Then Mr. Tang Wee and Mr. Pierce

came back. (Note that this is different from Mr. Piccard's statement that Mr. Pierce was back there first.) *Id.*

Mr. David Tang Wee's testimony also casts doubt on whether there was "a meeting." He said, at his NRC Task Force Interview, Staff Findings at 12:

I walked in on them. . . . I so happened to walk into Shawn [sic][.] and his two trainees and Ken were back there.

We note that they were "back there" but Mr. Tang Wee says nothing about Mr. Pierce being at "a meeting" or "a discussion." Indeed, Mr. Tang Wee discusses this incident as if his principal discussion was with the QNE and his assistants and his principal purpose was to calm them down and reassure them. Mr. Tang Wee states that "Ken was doing something on the panel themselves. I am not sure." Staff Findings at 13. Later, in his Enforcement Conference Interview, Mr. Tang Wee said:

the NSO [Mr. Pierce] was doing his work as far as I remember. I remember him down on his knees, stamping the chart. This is in the back panel.

Staff Findings at 13. This testimony helps to explain why Mr. Pierce would not remember a meeting.<sup>53</sup> We conclude that: (1) he was back there doing his job; (2) he did not place his full attention on what was going on with the others; and (3) 3 months later he honestly did not remember any meeting or discussion behind the panels.

4. Staff Finding 139: Mr. Pierce stated that if words concerning keeping the mispositioned rod in the control room had been said in his presence, he would remember it and immediately question it and alert higher authorities; he operated by the rules as he knew them to the best of his ability; he has no recollection of any such statement and doesn't believe it was made in his presence; he remembered Mr. Tang Wee said they were lucky to have special instructions and a nuclear engineer; Mr. Tang Wee meant they were lucky not to go through DOA 300-12 because it would require a lot of meetings which would have been fruitless, because it wasn't something that could be prevented from happening again, whereas they knew the current atmosphere regarding

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<sup>53</sup> We note that Mr. Tang Wee did not testify and that we did not have an opportunity to observe him or assess his demeanor. Nevertheless, we have weighed his testimony. If, instead, we considered his testimony to be inadmissible, then we would have to reach the same result because his testimony is part of the basis offered for the case against Mr. Pierce.

We have not reached the question of whether or not Mr. Pierce entered into an agreement about whether to keep things quiet. That question seems remote since we are not even sure whether Mr. Pierce participated in "the meeting." It seems most likely that he overheard Mr. Tang Wee asserting that an operator could follow the directions of a QNE. Whatever he said, he may have concurred with Mr. Tang Wee that it was unnecessary to go any further with an incident in which a QNE was present, issuing directions. Most likely he overheard Mr. Tang Wee making these remarks and — being busy with the instruments — either said nothing or mumbled some kind of verbal agreement. Since his attention was elsewhere, we believe that he did not remember making an agreement.

control rod mispositionings; he thought he was going to get a day off without pay; he remembers saying "Damn right" but thinks it referred to completion of lengthy control rod movement. Tr. 315-19.

We accept all of this testimony as truthful. Mr. Pierce is an even-minded, thoughtful witness and has represented himself well in these proceedings. We believe him. If he had perceived that Mr. Tang Wee was suggesting something improper, we believe that he would have remembered that and have testified to it. However, all Mr. Tang Wee was doing was reassuring some trainees about the proper interpretation of an event. At the time, Mr. Pierce agreed with the explanation, so he had little reason to remember this discussion. We note that after reflecting on Mr. Pierce's reasons for agreeing with Mr. Tang Wee's reassurances, we have concluded that the procedural interpretation shared by Mr. Tang Wee and Mr. Pierce was reasonable.

We find that Mr. Pierce reasons well, showing an understanding of complex regulatory matters and responding with patience even under highly trying circumstances. In our proceeding, he has asserted what he believed to be the truth, even when NRC Staff witnesses were strongly disagreeing with him.

## **B. Conclusion**

We find the Staff's case unconvincing. By a preponderance of the evidence, we find that Mr. Pierce was telling the truth in his testimony and in his statements to NRC officials. We believe that he did not remember being part of a "meeting" or "discussion" behind the panel. Those who claimed to remember a meeting disagree about many of its details. It seems likely that Mr. Pierce was in the vicinity of a discussion that took place behind the control panels. Most likely he was attending to the instruments and noticed what was happening only at the periphery of his consciousness.

We are not sure how it was that the Staff reached a contrary conclusion in this case. It appears that they began with the assumption that the mispositioned rod had to be reported and that it was illegal to agree not to report it. From that premise, they reached a conclusion that Mr. Pierce could not possibly have failed to remember such a "striking" event as a meeting where such an agreement occurred. Then they overlooked the need to examine each piece of testimony in detail. They never seem to have analyzed precisely what each person said about what happened at the conference or to have considered the significance of different people having different memories of the events. They also seem to have overlooked the possibility that Mr. Pierce did not give full attention to what was happening around him when he was behind the control panel looking at instruments.

#### IV. OVERALL CONCLUSION

We conclude, for reasons stated above, that Mr. Kenneth Pierce did not knowingly violate any plant procedures. The procedures were complex and contained ambiguities. His interpretation of plant procedures at the time of this event was a reasonable interpretation of the words of the procedures and was consistent with plant practice.

By a preponderance of the evidence, we also conclude that Mr. Pierce answered honestly and completely in the enforcement process. The charge of misrepresentation was unfounded.

#### V. ORDER

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 27th day of March 1995, ORDERED, that:

1. Mr. Kenneth Pierce is exonerated of all charges against him and the enforcement order issued to him on April 21, 1994, is vacated.
2. This is a final initial decision and shall become the final action of the Commission forty (40) days after its issuance unless any party petitions for Commission review in accordance with 10 C.F.R. § 2.786 or the Commission takes review sua sponte.

THE ATOMIC SAFETY AND  
LICENSING BOARD

Dr. Richard F. Cole  
ADMINISTRATIVE JUDGE

Frederick J. Shon  
ADMINISTRATIVE JUDGE

Peter B. Bloch, Chair  
ADMINISTRATIVE JUDGE

Rockville, Maryland



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

## OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

Robert M. Bernero, Director

In the Matter of

Docket No. 030-01786  
(License No. 19-00296-10)

NATIONAL INSTITUTES OF HEALTH

March 5, 1995

The Director of the Office of Nuclear Material Safety and Safeguards granted in part, was unable to grant in part, and determined that a petition dated December 2, 1993, and submitted by the North Bethesda Congress of Citizen's Associations (Petitioner), was mooted in part. The petition requested that the Nuclear Regulatory Commission (NRC) take action with regard to the National Institutes of Health (NIH), specifically that the NRC: (1) suspend License Condition 27 (formerly License Condition 24) of the NIH Materials License No. 19-00296-10 (License), which authorizes NIH to dispose of licensed materials by incineration, pending resolution of two regulatory issues — (a) no environmental report or environmental assessment has been completed regarding the incineration of radioactive waste on NIH's Bethesda campus, and (b) there may be less than adequate monitoring to ensure that radioactive effluents are within regulatory limits; (2) provide copies of the NRC environmental assessments and/or safety evaluations that provide the bases for (a) an exception from 10 C.F.R. § 20.303(d) limits regarding radioactive materials discharges into sanitary sewer systems (License Condition 21); and (b) approval of the construction and operation of a low-level waste storage facility at NIH's Poolesville campus (License Condition 28); and (3) forward a copy of future correspondence between NRC and NIH regarding these matters to the Petitioner. The Director determined that because NIH permanently ceased operation of the three incinerators and amended the license to delete License Condition 27, the request to suspend License Condition 27 was moot. Because the NRC was not required to conduct environmental assessments in connection with the NIH applications for authority to incinerate radioactive waste and for authority to discharge radioac-

tive materials into sanitary sewer systems, and because NIH was not required to submit environmental reports in connection with those applications, Petitioner's request for copies of such environmental assessments and reports cannot be granted. The information submitted by NIH in support of its application for authority to construct and operate the Poolesville low-level waste storage facility, however, is the functional equivalent of an environmental report and safety evaluation. The Director supplied the Petitioner with copies of documents submitted by NIH in support of License Conditions 21, 27, and 28. The Director placed Petitioner on the distribution list for all correspondence regarding operation of the NIH incinerators, sewer disposal limits, and interim radioactive waste storage license amendments at the Poolesville facility.

## **DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

### **I. INTRODUCTION**

By letter addressed to the Executive Director for Operations, dated December 2, 1993, Arlene S. Allen, on behalf of the North Bethesda Congress of Citizen's Associations, Inc. (North Bethesda Congress, or Petitioner), requested that NRC take action with respect to the National Institutes of Health (NIH, or the Licensee) in Bethesda, Maryland.

Petitioner requests that the NRC: (1) suspend License Condition 24 of the NIH Materials License No. 19-00296-10 (License), which authorizes NIH to dispose of licensed materials by incineration, pending resolution of two regulatory issues — (a) no environmental report or environmental assessment has been completed regarding the incineration of radioactive waste on NIH's Bethesda campus, and (b) there may be less than adequate monitoring to ensure that radioactive effluents are within regulatory limits; (2) provide copies of the NRC environmental assessments and/or safety evaluations that provide the bases for (a) an exception from 10 C.F.R. § 20.303(d) limits regarding radioactive materials discharges into sanitary sewer systems (License Condition 21); and (b) approval of the construction and operation of a low level waste storage facility at NIH's Poolesville campus (License Condition 28); and (3) forward a copy of future correspondence between NRC and NIH regarding these matters to the North Bethesda Congress.

The Petitioner asserts the following as bases for these requests: (1) NIH has not completed or submitted to the NRC an environmental report regarding radiological releases from incinerators at the Bethesda campus, and the NRC has not issued an environmental assessment or impact statement regarding NIH radiological emissions, as required by the National Environmental Policy Act and

10 C.F.R. §§ 51.21, 51.45, and 51.60(b); (2) licensing the disposal of radioactive waste by incineration is a federal action subject to the NEPA process; (3) because releases from the NIH incinerators are capable of exceeding regulatory limits and will increase over the next few years, and because total radiological emissions from NIH are sufficient to warrant environmental analysis, the continued burning of radioactive waste by NIH without an environmental report and environmental assessment are in noncompliance with NRC environmental regulations; (4) although NRC cited NIH for its failure to adequately monitor radioactive effluents and NIH committed to install instrumentation for continuous monitoring as a corrective action for having exceeded its yearly radioactive effluent release limit to unrestricted areas for 1987, no continuous monitoring for radioactive airborne effluents exists for the NIH incinerator stacks; (5) it is not clear that the box monitoring system installed by NIH adequately detects radioactive waste, and small amounts of iodine continue to be identified in the incinerator ash, indicating that medical waste still gets into the incinerators; and (6) it is unclear that NIH methods to assess radioactive effluent releases at the incinerators satisfy regulatory requirements and provide assurance that Part 20 limits are being met.

The NRC Staff provided a partial response to North Bethesda Congress by letter dated February 24, 1994. The Staff acknowledged receipt of the petition, and denied Petitioner's request to suspend License Condition 24 pending resolution of the petition. The denial of the request to suspend License Condition 24 was based on findings of the then-most-recent NRC Inspection Report, Inspection Report No. 030-01786/92-001, which concluded that emissions from the incinerators at the NIH Bethesda campus were within regulatory limits and that, despite some deficiencies, the incineration operation was under adequate control. The NRC Staff, therefore, determined that there was no immediate risk to public health and safety from continued operation of the incinerators. The February 24, 1994, letter granted Petitioner's request for copies of environmental assessments and/or safety evaluations insofar as such documents exist and could be retrieved. A later search of the active and archived NRC files disclosed no such documents. The February 24, 1994 letter also granted Petitioner's request for copies of all correspondence with the Licensee concerning the matters raised by Petitioner.

As of May 1994, all three incinerators were taken out of service by NIH. In a letter dated August 10, 1994, NIH committed to permanently stop all incineration of low-level radioactive waste at its Bethesda campus, and requested a license amendment to delete License Condition 27 (formerly License Condition 24) from License No. 19-00296-10. This application was granted by NRC on November 3, 1994.

I have completed my evaluation of the matters raised by Petitioner, and have determined that, for the reasons stated below, Petitioner's request to suspend authority to incinerate pursuant to License Condition 24, pending

performance of an environmental assessment and an environmental report with regard to incineration operations, and pending review of incinerator operating procedures, is moot. Petitioner's request for environmental assessments and/or safety evaluations in connection with License Conditions 21 and 28 cannot be granted because the NRC was not required to perform environmental assessments or formal safety evaluations in connection with the low-level radioactivity associated with NIH discharges to the sanitary sewer system and with the low-level waste storage facility at NIH's Poolesville campus, as explained below. Documents constituting the informal equivalent of an environmental review or safety evaluation in connection with License Conditions 21, 24, and 28, will be supplied to Petitioner. Petitioner's request for a copy of all correspondence between NRC and NIH regarding these matters was granted by the NRC Staff letter dated February 24, 1994.

## II. BACKGROUND

The NIH specific license of broad scope, No. 19-00296-10, was issued in December 1956 by the Atomic Energy Commission (AEC). The license is due to expire in May 1995. The license replaced a set of nine licenses that had been issued to different institutes or laboratories of NIH. At the time of issuance of this broad-scope license, short-lived radioactive waste (half-life under 100 days) was allowed to decay in storage and was then disposed of as ordinary waste. Long-lived solid and liquid wastes were incorporated into concrete and shipped for disposal. There was no license condition permitting incineration of licensed material, and sewer disposal of licensed material was limited to 1 Ci/yr, provided other conditions, such as average concentration limits, were met.

Soon after the License was issued, NIH requested authorization to incinerate dead animals used in experiments, and other combustible waste containing tritium (H-3), carbon-14 (C-14), and sulfur-35 (S-35) in the two general-purpose incinerators then in use on campus. This request was granted as License Condition 12 in February 1959. In April 1968, License Condition 21 was approved to extend the incineration authorization to include incineration of any byproduct material, provided the effluent concentration limits specified in the regulations were met for the air effluents from the incinerators, as well as for disposal of the ash resulting from incineration. Byproduct material is defined in NRC regulations as "any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to radiation incident to the process of producing or utilizing special nuclear material." 10 C.F.R. § 20.1003. This, in effect, means any radioactive material produced in a nuclear reactor, other than plutonium, which is considered special nuclear material. H-3, C-14, and S-35 are all byproduct materials. Special nuclear material is any material that has the

potential for use as fuel in a nuclear reactor, including plutonium, uranium-233, and uranium enriched in the isotope 233 or in the isotope 235.

In 1961, NIH requested raising the sewer disposal limit from 1 to 20 Ci/yr. In response to this request, NRC authorized an increase in the sewer disposal limit from 1 Ci/yr to 3 Ci/yr in October 1961, as reflected in License Condition 21. In April 1968, following another request, the sewer disposal limit was raised to 5 Ci/yr, and in April 1969, the License Condition was amended to raise the sewer disposal limit from 5 Ci/yr to its current level of 8 Ci/yr.

License Condition 24, authorizing incineration of byproduct material, and the License Condition 21, authorizing disposal of up to 8 Ci/yr of radioactive material to the sewer, have not changed materially since they were first issued.

The NRC regulations pertaining to incineration and sewage disposal appear in 10 C.F.R. Part 20, "Standards for Protection Against Radiation," first implemented in 1957. The initial 1957 version of 10 C.F.R. Part 20 limited the quantity of licensed and other radioactive material released into the sewerage system to 1 Ci/yr. Limits were also imposed on the average concentrations of radioactive materials in the sewer releases. The regulations in 10 C.F.R. Part 20 were revised in 1982 to raise the disposal limit for discharges to sanitary sewerage systems from 1 Ci/yr to a total of 7 Ci/yr, of which up to 5 Ci/yr may be H-3, up to 1 Ci/yr C-14, and up to 1 Ci/yr all other isotopes combined. Permission to incinerate radioactive waste in the form disposed of at NIH was sought through the mechanism then applicable to permit licensees to apply for approval of a waste disposal method provided in 10 C.F.R. § 20.302, "Method of obtaining approval of proposed disposal procedures."

An application for a license amendment to permit interim storage of low-level radioactive waste at the NIH Animal Center in Poolesville, Maryland, was submitted to the NRC in October 1992. In the same submittal, NIH also requested an increase in its possession limits for carbon-14 from 2 to 3 curies, and for phosphorus-32 from 2 to 4 curies. The increases in possession limits were requested to provide flexibility in waste storage. The stated reason for the request to store waste was partly to allow decay of short-lived activity before disposal, and partly in anticipation of a reduction or elimination of options for permanent disposal of low-level radioactive waste, such as the anticipated closure of the Barnwell, South Carolina waste disposal facility. In January 1993, the NRC authorized use of the Poolesville facility for interim storage of low-level radioactive waste, as reflected in License Condition 28.

### III. DISCUSSION

#### A. Petitioner's Request for Suspension of Incineration Operations Was Mooted by Amendment of the NIH License

As explained above, NIH's authority to incinerate radioactive waste was terminated by the NRC Staff's November 3, 1994 grant of NIH's application for a license amendment to remove License Condition 27. Consequently, Petitioner's request for suspension of NIH incineration operations is moot. Similarly, any past deficiencies in NIH's incineration monitoring program<sup>1</sup> need not be addressed, other than to emphasize that if, in the future, NIH were to request authorization to resume incineration operations, the NRC Staff, as part of its evaluation of such a request, would review the incineration program and operating procedures and require correction of any deficiencies in the monitoring program<sup>2</sup> before granting such a request.

#### B. Request for Environmental Assessments and Environmental Reports

##### 1. Incineration of Radioactive Waste

Petitioner contends that incineration of radioactive wastes and potentially contaminated medical wastes by NIH, without complete environmental reports and environmental assessments, is in violation of NRC regulations and the National Environmental Policy Act (NEPA). Petitioner further states that, in the Statement of Consideration accompanying the newly revised 10 C.F.R. Part 20, NRC retained the requirement for prior approval of incineration on a site-specific basis and that NRC rejected the notion that disposal of radioactive

<sup>1</sup> NIH incinerator effluents were within the 10 C.F.R. Part 20 regulatory limits specified by the license, and the incineration operation was under adequate control. See NIH Inspection Report No. 030-01786/92-001 (Sept. 14, 1992) and NRC Inspection Report No. 030-01786/94-001 (July 8, 1994). Nonetheless, there were some weak areas in the program, as indicated by the possibility that the amount of iodine that was released in effluents may have exceeded ALARA goals. See NRC Inspection Report No. 030-01786/94-01. The Licensee's As Low As Reasonably Achievable (ALARA) commitment, incorporated into License Condition 27 by the July 1986 application for authority to incinerate radioactive materials, obligates the Licensee to have a program with the objective of limiting the average annual concentration of radioactive material in the incinerator stack effluents to 10% of the Appendix B, Table II values. The indications that the incineration effluents may have exceeded this 10% limit in 1993 were inferential, and could not be verified on the basis of available data. The NRC Staff determined that the ash residue data collected by the Licensee was not specific enough to permit a determination whether iodine-125 releases did in fact violate the License Condition 27 requirement to have an ALARA program with the objective of limiting the average annual concentration of radioactive material in the incinerator stack effluent to 10% of the Appendix B, Table II values. The available data, however, indicate that the annual average concentrations of radioactive materials in the incinerator effluents were probably substantially below the Appendix B, Table II limits for the 1990 through 1993 time period reviewed in the May 1994 NRC inspection.

<sup>2</sup> Petitioner also contends that releases from sources other than the incinerators, such as Building 21, did not appear to be routinely considered in conjunction with incinerator radionuclide releases when computing overall facility release totals to unrestricted areas. License Condition 27 imposed limits only upon incinerator radionuclide releases. Effluents from Building 21, and from other buildings on the NIH campus, are limited separately by other license conditions and by the limits imposed by 10 C.F.R. Part 20 on effluents to unrestricted areas.

waste by incineration is simply just another form of general effluent release, and thus approval of incineration is subject to the NEPA process. Petitioner also claims that because radiological releases from the NIH incinerators are capable of exceeding regulatory limits, as discussed in the 1988 NRC Inspection Report No. 030-01786/88-001, NIH total radiological emissions warrant environmental analyses.

The initial authorization to incinerate H-3, C-14, and S-35, as well as the 1968 license amendment extending this authorization to all byproduct materials, predated both the National Environmental Policy Act (NEPA) of 1969, and NRC regulations implementing NEPA (10 C.F.R. Part 51), which became effective in 1974. There was, therefore, no requirement at the time of these amendments to conduct an environmental assessment. A review of NRC records pertaining to the NIH licenses failed to identify any formal environmental assessments or safety evaluations in connection with these license amendments. However, related correspondence between NRC and NIH indicate that authorization to incinerate radioactive wastes was granted on the condition that operations be conducted within the effluent limits imposed by 10 C.F.R. Part 20. The total activity incinerated in any given period was limited indirectly by limiting the maximum allowable concentrations of radioactive materials in the effluents from the incinerator stacks to the levels specified by Appendix B, Table II.

The original authorization to incinerate licensed material was reevaluated in connection with NIH's 1988 license amendment application to add a third incinerator of larger capacity to the two existing smaller incinerators previously authorized for operation. The license amendment application was accompanied by detailed descriptions of the incineration facility and proposed modes of operation and control. The record also shows correspondence from NRC requesting clarifications and additional information, as well as responses from NIH providing the requested information. These documents were incorporated into the License as tie-down conditions, which means that the Licensee must conduct operations as described in its application documents. However, a formal environmental assessment was not prepared. The amendment request was granted on the same condition as the original 1959 amendment authorizing incineration of wastes, which was that effluents from the incinerators must remain within the concentration limits specified by Appendix B, Tables II. Incineration at NIH was authorized only after performance of NRC Staff reviews of the incinerator design and proposed methods of operation and control of effluents, including disposal of the ash resulting from incineration, and consideration of the public doses expected from the operation.

The NRC practice in 1988 was, and still is, to determine on a case-by-case basis whether to perform an environmental assessment in connection with applications for incineration of waste containing radioactive material, provided that the concentration of radioactive materials in the incinerator effluents at the

point of release, and in the ash residues, do not exceed the limits specified by Appendix B, Table II, and also provided that the dose to the highest exposed member of the public that results from the authorized activity is no more than a small fraction of the dose limit for individual members of the public (100 millirem per year) specified by 10 C.F.R. § 20.1301(a)(1). The radiation dose to a member of the public resulting from air effluents depends on the concentration of radioactive materials in the air at the location of that person. Limiting the concentrations of radioactive materials emitted from the stack at the release point to those specified in Appendix B, Table II, ensures that any dose to members of the public will be a small fraction of the applicable public dose limit. This is due to the fact that dispersion of the effluent air from the stack will reduce the average concentration of radioactive materials in the air at the location of an exposed individual to a small fraction of the limits for emissions at the release point, causing the delivered dose to that individual in turn to be a small fraction of the public dose limit. Review of an application to incinerate licensed materials involves, in part, verification that dispersion of the released material during transit, from the stack to the closest exposed individual, will reduce the concentrations sufficiently to ensure a very small dose to members of the public, even under the most conservative assumptions. Since the NIH application proposed limiting airborne incinerator effluents at the release point to Appendix B, Table II limits, the dose to the highest exposed member of the public would be limited to a small fraction of the dose limit for individual members of the public specified by section 20.1301(a)(1).

The NEPA and the Commission's implementing regulations in 10 C.F.R. Part 51 do not require the performance of an environmental assessment in connection with authorization of incineration of radiological wastes at NIH. Under NEPA § 102(2)(c), 42 U.S.C. § 4332(2)(c), and 10 C.F.R. § 51.21, an environmental assessment must be undertaken by the NRC for all licensing and regulatory actions except where the Commission's regulations, *see* 10 C.F.R. § 51.20(b), require the preparation of an environmental impact statement, or the licensing actions are eligible for categorical exclusion from these requirements because the actions do not individually or cumulatively have a significant effect on the human environment. 10 C.F.R. §§ 51.21 and 51.22(a). Any use of source, byproduct, or special nuclear material that involves quantities and forms of these materials similar to those involved in activities eligible for categorical exclusion in 10 C.F.R. § 51.22(c)(14)(i)-(xv), is also eligible for categorical exclusion. 10 C.F.R. § 51.22(c)(14)(xvi). The Commission anticipated that the quantities of radioactive material associated with the fifteen types of activities eligible for categorical exclusion under 10 C.F.R. § 51.22(c)(14)(i)-(xv) would involve effluent releases of between zero and 12% of the limits of 10 C.F.R. Part 20. *Statement of Consideration*, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions and Related Conforming



Amendments," 49 Fed. Reg. 9352, 9376-79 (Mar. 12, 1984). Applicants who propose to limit the concentration of radioactive material in the incinerator stack effluents to less than 12% of the applicable Part 20 limits, therefore, would be eligible for the categorical exclusion pursuant to section 51.22(c)(14)(xvi). Since NIH committed, in its application for authority to incinerate radioactive waste, to have a program with the objective of limiting average annual concentrations of radioactive material in the incinerator stack effluents to 10% of the Appendix B, Table II limits, the NIH application for authority to incinerate was eligible for categorical exclusion pursuant to section 51.22(c)(14)(xvi).

NIH's authority to dispose of contaminated ash residue from incinerator operations was also granted without performance of an environmental assessment, pursuant to the categorical exclusion of section 51.22(c)(14)(xvi), for the same reasons as discussed above. The concentrations of radioactive materials in the ash residue were required by License Condition 24, in the case of NIH, to be below those specified by Appendix B, Table II. Since Part 20 does not specify concentrations limits for ash, the limits specified for water were applied to the incinerator ash.

When the categorical exclusion provisions of 10 C.F.R. Part 51 exempt a license application to incinerate licensed materials from the requirements to prepare an environmental assessment or an environmental impact statement, such as the NIH incineration operations, the Licensee is not required to submit an environmental report for such proposed activity. Although NIH was not required to submit a formal environmental report in connection with its application for authorization of its incineration facility, NIH was required to submit, and did submit, detailed descriptions of the facility and the proposed mode of operation and control to ensure safe operation and compliance with NRC requirements.

In view of the above, the NRC was not required to and did not perform environmental assessments, and the Licensee was not required to and did not submit environmental reports, in connection with authorization of NIH incineration operations or disposal of incinerator ash residue. Petitioner has been provided, however, with copies of documents submitted by the Licensee in support of License Condition 27 and documents associated with the grant of License Condition 27.

## ***2. Radioactive Material Discharges into the Sanitary Sewer Systems (License Condition 21)***

Petitioner requests copies of the NRC environmental assessments and/or safety evaluations that provide the basis for the NRC's grant of an exception from 10 C.F.R. § 20.303(d) limits regarding radioactive material discharges into sanitary sewer systems. License Condition 21 exempts NIH from section 20.303(d), now superseded by 10 C.F.R. § 20.2003(a)(4), which limits the

quantity of licensed and other radioactive material released into the sewerage system to 5 Ci/yr H-3, 1 Ci/yr C-14, and 1 Ci/yr all other isotopes combined. License Condition 21, however, authorizes disposal of up to 8 Ci/yr of all licensed and other radioactive material, with no separate limits on the activities of individual isotopes, provided the provisions in 10 C.F.R. § 20.303(a)-(c), superseded by 10 C.F.R. § 20.2003(a)(1)-(3), are met. These regulations place limits on the monthly average concentrations of radioactive materials in sewer releases.

The license amendment that initially authorized a sewer release limit of 8 Ci/yr was granted in 1969, and predates NRC's Part 51, which implements the National Environmental Policy Act (NEPA) of 1969. There was, therefore, no requirement at the time the license amendment was granted to conduct an environmental assessment in connection with this License Condition 21. No environmental assessments or safety evaluations to support the grant of this amendment were found in a search of NRC records, nor were any references to such documents found.

A review of NRC records pertaining to the NIH license indicates that the grant to NIH of the exemption from section 20.303(d), by raising the annual release limit from the Part 20 limit of 1 Ci/yr to 8 Ci/yr in 1969, and from the Part 20 total activity limit of 7 Ci/yr to 8 Ci/yr after 1982, without separate limits on H-3 and C-14, was based on concentrations of radioactive material in the sewer releases from the facility. The dose to a member of the public, obtaining drinking water from the sewer discharge point for the facility, depends on the concentration of activity in the sewer water, and not on the total amount released during the year.

Section 51.22(c)(14)(xvi) provides that any use of source, byproduct, or special nuclear material that involves quantities and forms of these materials similar to those involved in actions eligible for categorical exclusion from environmental assessments is also eligible for exclusion, pursuant to 10 C.F.R. § 51.22(c)(14)(i)-(xv). NIH releases daily to the sewers a very large amount of water from its various buildings and the Clinical Center. This volume of water, which substantially exceeds one million gallons per day, provides very large dilution factors for radioactive wastes released to the sewers. At the level of 8 Ci/year, the resulting average concentrations of radioactivity in water leaving the NIH campus are a small fraction of the allowable concentrations specified in the 10 C.F.R. Part 20, Appendix B, Table 3, and thus NIH sewer disposal activity is eligible for categorical exclusion pursuant to section 51.22(c)(14)(xvi). See Section III.B.1, *supra*. The corresponding doses are, therefore, also small fractions of the public dose limits, and are of the same order of magnitude, or smaller, than those involved in activities that are eligible for categorical exclusion. It was, therefore, concluded that grant of the NIH application for an 8-Ci/yr sewer disposal limit was eligible for the categorical exclusion.

NRC's review of the NIH amendment application for License Condition 21 also considered the fact that radioactive material in the sewer water released from NIH is further diluted at the Blue Plains Sewage Treatment Plant, to which NIH discharges its sewer water. Further dilution is provided by the Potomac River, to which the effluent from Blue Plains is discharged.

The Part 20 limit on total activity released to the sewers per year from a licensee's facility was imposed to guard against the possibility that more than one licensee may discharge radioactive material to the same sewer lines, thus raising the overall concentrations of radioactive materials in the sewer lines. This was not an important consideration in the case of NIH in view of the high water discharge volume from the facility, which ensures very low concentrations of radioactive materials, even in the presence of possible sewer discharges from other licensees discharging to the same sewer system. A review of the NIH records for sewer discharges in recent years showed that the annual quantities discharged have been less than the 7 Ci/yr limit in Part 20. License condition 21 did not impose separate limits on H-3 and C-14 discharges.

In view of the above, Petitioner's request for environmental assessments and/or safety evaluations providing the basis for authorization of License Condition 21 cannot be granted. Petitioner, however, has been provided with documents submitted by NIH to the NRC in support of the amendment requests to raise the sewer discharge limits.

### ***3. Construction and Operation of the Low-Level Waste Storage Facility at NIH's Poolesville Campus (License Condition 28)***

Petitioner requests copies of the NRC environmental assessments and/or safety evaluations that provide the bases for the NRC grant of the Licensee's license amendment application for construction and operation of a low-level waste storage facility at NIH's Poolesville campus. License Condition 28 of the License currently states that "Radioactive waste generated under this License shall be stored in accordance with the statements, representations, and procedures included with the Licensee's waste storage plan described in the Licensee's application dated October 13, 1992." The conditions under which radioactive waste is stored at the Poolesville facility are described in the Licensee's 1992 application for an amendment to permit such storage, and were incorporated into License Condition 28 as tie-down conditions. They were evaluated by the NRC Staff and found to be adequate to ensure public health and safety and to minimize adverse environmental effects. The Poolesville facility is inspected routinely by NRC's Region I to ensure that the conditions described in the bases for the license amendment are being observed, in addition to observance of good radiological safety practices.

The application documents for the License Condition 28 provide detailed descriptions of the Licensee's Poolesville facility and surrounding environment and demography, storage building construction details, methods of waste storage, waste form and inventory control, and other relevant details. This information was provided in accordance with the instructions in NRC Information Notice IN 90-09, "Extended Interim Storage of Low-Level Waste by Fuel Cycle and Materials Licensees," which describes the information required by the NRC for its review of license amendment requests to authorize extended interim storage of low-level radioactive waste. This review is functionally equivalent to an environmental assessment for such facilities.

In view of the above, Petitioner's request for environmental assessments and/or safety evaluations in connection with authorization of License Condition 28 cannot be granted. Petitioner, however, has been provided with a copy of IN 90-09 and the information submitted by the Licensee in support of its application for authority to construct and operate the Poolesville low-level waste storage facility, which is the functional equivalent of an environmental report and safety evaluation.

**C. Request to Forward a Copy of Future Correspondence Between NRC and NIH to Petitioner**

As requested by Petitioner, North Bethesda Congress of Citizen's Associations will be placed on the distribution list for all correspondence regarding operation of the NIH incinerators, sewer disposal limits, and interim radioactive waste storage license amendments at the Poolesville facility.

**IV. CONCLUSION**

For the reasons discussed above, Petitioner's request to suspend authority for incineration operations by NIH pursuant to Condition 24 of the NIH License, pending a review and improvement of operating procedures for the incinerators, and pending preparation of an environmental assessment and an environmental report, was mooted by removal of that authority from NIH License No. 19-00296-10 in November 1994. Petitioner's request for copies of any NRC environmental assessments and/or safety evaluations that provide the bases for authorization of License Conditions 21 and 28 cannot be granted, as explained in Section III, *supra*. Certain information submitted by the Licensee in connection with its request for authorization of License Conditions 21, 24, and 28, and NRC correspondence in response, however, was provided to Petitioner. Petitioner's request for a copy of all future correspondence between NRC and NIH regarding these matters is granted.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c). As provided by this regulation, this Decision will constitute the final action of the Commission 25 days after issuance, unless the Commission, on its own motion, institutes a review of the decision within that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

Robert M. Bernero, Director  
Office of Nuclear Materials Safety  
and Safeguards

Dated at Rockville, Maryland,  
this 5th day of March 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque

In the Matter of

Docket No. PRM 60-3

U.S. DEPARTMENT OF  
ENERGY

March 15, 1995

The Nuclear Regulatory Commission (NRC) is granting in part and denying in part a petition for rulemaking (PRM-60-3) from the U.S. Department of Energy. The Petitioner requested that the NRC amend its regulations governing the preclosure operations at a geologic repository operations area so as to establish numerical dose criteria for use in identifying the need for engineered safety features and for determining their adequacy. In granting the petition in part, NRC is proposing certain numerical dose criteria that would be applicable to two different categories of design-basis events, namely (1) events reasonably likely to occur regularly, moderately frequently, or one or more times before permanent closure; and (2) events that are considered unlikely, but that are sufficiently credible to warrant consideration. The petition is denied in part insofar as it proposed other numerical dose criteria.

**PARTIAL GRANT AND PARTIAL DENIAL OF  
PETITION FOR RULEMAKING**

The U.S. Department of Energy (DOE) submitted a petition for rulemaking on April 19, 1990. On July 13, 1990 (55 Fed. Reg. 28,771) NRC published a notice of receipt of the petition for rulemaking. The comment period expired on October 11, 1990. The petition requested that the Commission amend

10 C.F.R. Part 60 to prescribe certain numerical accident-dose criteria to be applied at the boundary of a "preclosure control area."

Under DOE's proposal, the definition of "important to safety," in 10 C.F.R. § 60.2, would be changed to apply a reference dose limit at the preclosure-control-area boundary, instead of the present unrestricted-area boundary; further, the definition would be amended to add a statement "All engineered safety features shall be included within the meaning of the term 'important to safety.'" The petition also proposed that performance objectives of 10 C.F.R. § 60.111 would be revised to incorporate an explicit accident dose limit, at the preclosure control area boundary, of 0.05 Sv (5-rem) effective dose equivalent, or 0.5-Sv (50-rem) committed dose equivalent. DOE indicated its intention that this limit would apply to direct irradiation and inhalation pathways, alone, and not to ingestion of contaminated foodstuffs. The phrase "at the times" would be deleted from 10 C.F.R. § 60.111(a), to clarify that the performance objective for the period of operations does not apply to exposure from accidents. Finally, the petition proposed adding new definitions, to 10 C.F.R. § 60.2, for the terms "preclosure control area," "committed dose equivalent," "committed effective dose equivalent," and "effective dose equivalent," to support the application of the accident dose criteria described above.

For a fuller statement of the petition for rulemaking, see the *Federal Register* notice cited above.

In response to NRC's publication of notice of receipt of the petition, comments were received from: DOE; Edison Electric Institute and the Utility Nuclear Waste and Transportation Program (EEI/UWASTE); Intertech Consultants, on behalf of Lincoln County, Nevada, and the City of Caliente, Nevada; and an anonymous "Concerned U.S. Citizen." The Commission, having now considered the petition and comments, grants the petition in part and denies the petition in part, and to that end, the Commission is publishing, concurrently with this notice, a notice of proposed rulemaking.

Under the proposed rule, accident-dose criteria would be applied at the boundary of a newly defined "preclosure controlled area," as recommended by DOE. Further, in response to the petition, the term "important to safety" would be redefined, though not in the form suggested by DOE. The Commission is also proposing to adopt the Petitioner's request that the phrase "at all times" be deleted from the performance objective that applies to preclosure operations. In all other respects, the petition is denied.

The reasons for the action, insofar as it both grants and denies part of the petition, are set out at length in the statement of considerations accompanying the proposed rule.

For the Nuclear Regulatory  
Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated in Rockville, Maryland,  
this 15th day of March 1995.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque

In the Matter of

Docket No. IA 94-011

**DR. JAMES E. BAUER**  
(Order Prohibiting Involvement  
in NRC-Licensed Activities)

April 5, 1995

The Commission denies a petition filed by Dr. James E. Bauer seeking interlocutory Commission review of the Atomic Safety and Licensing Board's December 9, 1994 Memorandum and Order, LBP-94-40, 40 NRC 323 (1994). That order denied Dr. Bauer's request to eliminate certain of the bases upon which the Staff relied in its May 10, 1994 enforcement order imposing several restrictions on Dr. Bauer.

**RULES OF PRACTICE: INTERLOCUTORY REVIEW**

Interlocutory review of Atomic Safety and Licensing Board decisions is disfavored.

**RULES OF PRACTICE: INTERLOCUTORY REVIEW**

The standards set out in 10 C.F.R. § 2.786(g)(1) and (2) — a showing of either "irreparable impact" or a "pervasive or unusual" effect on a proceeding's "basic structure" — reflect the limited circumstances when interlocutory review may be appropriate.

## RULES OF PRACTICE: INTERLOCUTORY REVIEW

A legal error, standing alone, does not alter the basic structure of an ongoing proceeding and therefore does not justify interlocutory review. Such errors can be raised on appeal after a final licensing board decision.

### MEMORANDUM AND ORDER

The Commission has before it a petition filed by Dr. James E. Bauer seeking interlocutory Commission review of the Atomic Safety and Licensing Board's December 9, 1994 Memorandum and Order, LBP-94-40, 40 NRC 323 (1994). That order denied Dr. Bauer's request to eliminate certain of the bases upon which the Staff relied in its May 10, 1994 enforcement order imposing several restrictions on Dr. Bauer, including a prohibition on conducting any NRC-licensed activity for a period of 5 years.

Dr. Bauer argues that the allegations on which the Staff relied cannot, as a matter of law, form the basis for a Staff enforcement order because of their unlitigated, hearsay nature and their lack of connection to other NRC-licensed activities from which Dr. Bauer has been prohibited. The Nuclear Regulatory Commission Staff opposes grant of the petition for interlocutory review. We deny the petition.<sup>1</sup>

As the Commission has repeatedly held, interlocutory review of Licensing Board decisions is disfavored. *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-15, 40 NRC 319 (1994) (*Vogtle*); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-94-2, 39 NRC 91, 93 (1994) (*Rancho Seco*). The standards set out in 10 C.F.R. § 2.786(g)(1) and (2) — a showing of either "irreparable impact" or a "pervasive or unusual" effect on a proceeding's "basic structure" — reflect the limited circumstances when interlocutory review may be appropriate.

Dr. Bauer does not claim "irreparable impact." He argues only that the Board's refusal to dismiss the Staff's enforcement allegations was erroneous as a legal matter and affected the proceeding's "basic structure." But it is not at all clear that the Licensing Board erred in allowing the NRC Staff the opportunity to substantiate its allegations at a hearing. The Commission need not, in any event, step in now to correct the Licensing Board's legal errors, if any. A legal

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<sup>1</sup> Also before us is Dr. Bauer's petition for permission to file a reply to the NRC Staff's response in opposition to granting interlocutory review. Dr. Bauer attached the reply itself to his petition. The NRC Staff opposes grant of this petition. The Staff does not argue, nor do we find, prejudice to the Staff in granting Dr. Bauer's request to file a reply. Nor do we see any other reason to deny the request to reply. We therefore allow the filing of the reply. We have considered it, along with the petition for interlocutory review, in ruling on whether to grant interlocutory review.

error, standing alone, does not alter the basic structure of an ongoing proceeding and therefore does not justify interlocutory Commission review. *See Vogtle*, 40 NRC at 321-22; *Rancho Seco*, 40 NRC at 93-94. Such errors can be raised on appeal after a final Licensing Board decision.<sup>2</sup>

We intimate no definitive judgment on the soundness of the Licensing Board's decision or on the ultimate merits of this case. Our decision today stems from our unwillingness to entertain interlocutory appeals except in extraordinary situations.

### CONCLUSION

For these reasons, Dr. Bauer's petition to file a reply to the Staff's opposition to his petition for review is granted. His petition for interlocutory review is denied.

It is so ORDERED.

For the Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 5th day of April 1995.

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<sup>2</sup>We also note that Dr. Bauer could have challenged the immediate effectiveness of the Staff's enforcement order on the ground that the order is not based on adequate evidence but on mere suspicion, unfounded allegations, or error. *See* 10 C.F.R. § 2.202(c)(2)(i). Had he done so, and had his challenge been successful, he could have been relieved of the prohibitions of which he complains at least until termination of the hearing.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque

In the Matter of

Docket No. 70-364-ML-Ren

**BABCOCK AND WILCOX  
COMPANY**

(Pennsylvania Nuclear Services Operations,  
Parks Township, Pennsylvania)

April 26, 1995

Intervenors filed a Petition for Review of the Presiding Officer's Initial Decision (LBP-95-1, 41 NRC 1 (1995)) addressing the application of Babcock & Wilcox for a renewal of its Special Nuclear Materials License No. SNM-414 for its facility in Parks Township, Pennsylvania. The Commission concludes that the Petition for Review fails to raise any substantial question justifying Commission review as required under the agency's controlling procedural regulations. The Commission therefore denies the Intervenors' Petition for Review.

**ORDER**

The Intervenors (Citizens' Action for a Safe Environment and Kiski Valley Coalition to Save our Children) have filed a Petition for Review of the Presiding Officer's Initial Decision (LBP-95-1, 41 NRC 1 (1995)) addressing the application of Babcock & Wilcox (B&W or Licensee) for a renewal of their Special Nuclear Materials License No. SNM-414 for their facility in Parks Township, Pennsylvania. Staff and B&W oppose the Intervenors' Petition for Review. Upon consideration of these pleadings and the underlying record in this proceeding, the Commission concludes that the Petition for Review fails to raise any substantial question justifying Commission review as required under

10 C.F.R. § 2.786(b)(4), incorporated into Subpart L in 10 C.F.R. § 2.1253. The Commission therefore denies the Intervenor's Petition for Review.

## BACKGROUND

Pursuant to License No. SNM-414, B&W uses radioactive materials in its Parks Township facility. Under this license, B&W's principal activities at the facility are the decontamination, repair, maintenance, and testing of equipment and components contaminated with radioactive materials; the volume reduction of low-level radioactive waste; the decontamination of on-site facilities formerly used for plutonium and uranium processing; and the management of an inactive, onsite burial area.

The Intervenor sought and received a hearing where they opposed B&W's application. The Presiding Officer, in granting their hearing request, accepted one broad area of concern which he also defined to include four subareas of concern.<sup>1</sup> After conducting an informal hearing pursuant to Subpart L of the Commission's procedural regulations, the Presiding Officer issued an Initial Decision (LBP-95-1) in which he considered and rejected all of the Intervenor's arguments regarding B&W's license renewal application. In short, the Presiding Officer found that radioactivity levels at onsite facility measuring points were consistently below even the most conservatively applied maximum permissible concentrations permitted under the Commission's regulations and that no reportable releases in excess of NRC regulatory limits occurred in the period 1976 through 1993. He also found that B&W could be expected to keep exposure rates to members of the general public at very low levels. Based on these findings, he concluded that the licensee is fully qualified to maintain radioactive effluent releases within regulatory limits so that the public health and safety and the environment are not threatened.

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<sup>1</sup> *Broad area of concern:*

Whether there has been, and under a license renewal whether there will be, offsite radiation from the Parks Township facility which threatens the health and safety of the nearby population and threatens radiological contamination of nearby residential, agricultural and business property.

*Included subareas of concern:*

1. Whether the housekeeping practices (drums, containers, etc.) at the Parks Township facility threaten the offsite release of radiation through water, dust, and air pathways.
2. Whether B&W management practices as manifested by the management of the Apollo facility threaten offsite releases of radiation from the Parks Township facility.
3. Whether transportation of wastes between Parks and Apollo has radiologically contaminated offsite properties.
4. Whether the location of the Parks Township facility waste dump over a mined-out area threatens, through subsidence, the integrity of the dump, and whether the mined-out area creates a threat of offsite release of radiation through a water-migration pathway.

LBP-94-12, 39 NRC 215, 222-23 (1994).

## PETITION FOR REVIEW

The Intervenors, in their Petition for Review, raise four contentions.<sup>2</sup> First, they challenge the Presiding Officer's conclusions that "B&W has demonstrated that it has an excellent record of compliance with NRC requirements" and that "taking into account . . . previous effluents from the Parks Township facility, . . . [the] activities under a renewed license will be conducted in a manner consistent with regulatory requirements that protect health and safety and minimize danger to life and property." Petition at 2, quoting LBP-95-1, slip op. at 73 and 72-73 [41 NRC at 36], respectively. Second, they broadly challenge the Presiding Officer's conclusion regarding their failure to demonstrate that "there has been [or] . . . will be . . . offsite radiation from the Parks Township facility which threatens the health and safety of the nearby population and threatens radiological contamination of nearby residential, agricultural and business property" (the "broad area of concern," *supra* note 1).

Third, the Intervenors take issue with the statement in the Initial Decision that "[t]he Assessment of Mine Subsidence . . . concludes that conditions at the SLDF [Shallow Land Disposal Facility — one of the facilities within B&W's Parks Township facility] are not conducive to the development of sinkhole-type subsidence in . . . the . . . long term." Petition at 2, quoting LBP-95-1, slip op. at 62 [41 NRC at 31]. Fourth, the Intervenors assert generally that it would be in the public interest to defer the issuance of the license renewal pending the collection and review of data from an EIS addressing the decommissioning of the SLDF. Petition at 5.

## DISCUSSION

To merit Commission consideration, a Petition for Review must raise at least one of the following kinds of substantial questions justifying Commission review:

- (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
- (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
- (iii) A substantial and important question of law, policy or discretion has been raised
- (iv) The conduct of the proceeding involved a prejudicial procedural error; or

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<sup>2</sup>The Intervenors also proffer numerous subarguments and related questions. However, given the failure of the four principal arguments to satisfy the conditions set forth in 10 C.F.R. § 2.786(b)(4), we need not discuss these subsidiary matters.

- (v) Any other consideration which the Commission may deem to be in the public interest.

10 C.F.R. § 2.786(b)(4), *incorporated into Subpart L in 10 C.F.R. § 2.1253.*

The Intervenor's arguments fall into three of these categories: fact, law, and public interest. We have reviewed the record in this proceeding and are convinced that the Presiding Officer's Initial Decision considered the Intervenor's concerns thoughtfully and fairly. The Presiding Officer referred some of them to the NRC Staff for further technical review under 10 C.F.R. § 2.206. We see no obvious factual error, novel legal question, or important policy issue requiring an adjudicatory review by the Commission.

We find no substantial evidence to support the factual contentions proffered in the Intervenor's Petition for Review. We therefore conclude that those arguments fail to demonstrate any clear error in the Presiding Officer's findings of fact. 10 C.F.R. § 2.786(b)(4)(i).

Similarly, we find no obvious errors in any of the Presiding Officer's legal conclusions challenged by the Intervenor. Consequently, the Intervenor has not raised "a substantial and important question of law" pursuant to 10 C.F.R. § 2.786(b)(4)(iii). Nor are any of his legal conclusions "without governing precedent or . . . a departure from or contrary to established law." Therefore, the Intervenor's arguments do not fall within the parameters of 10 C.F.R. § 2.786(b)(4)(ii).

Finally, we see no public interest to be served by deferring the issuance of the license renewal pending the collection and review of data from an EIS unrelated to the instant proceeding. (The EIS in question involves the decommissioning of the SLDF and is unrelated to the license renewal application.)

For all these reasons, we conclude that the Intervenor has not satisfied their burden to raise questions that are sufficiently substantial to justify Commission review under 10 C.F.R. § 2.786(b)(4).

We note, however, that our denial of review does not preclude all NRC consideration of the arguments presented by the Intervenor in this proceeding. For instance, the Presiding Officer referred thirteen sections of the Intervenor's Written Presentation to the Commission's Executive Director for Operations, for appropriate disposition under 10 C.F.R. § 2.206. LBP-95-1 at 7-11, 63-72. Although the Staff recently concluded that ten of these concerns failed to satisfy the requirements of section 2.206 (i.e., a request must "specify the action requested and set forth the facts that constitute the basis for the request"), the Staff nevertheless agreed to look further into the remaining three

concerns. 60 Fed. Reg. 13,478 (Mar. 13, 1995).<sup>3</sup> Moreover, some of the Intervenor's contentions may be more appropriately decided at a future time in a decommissioning context.

Finally, we note that the Intervenor asserts, for the first time in their Petition for Review, that the "latest readings" of concentration levels of uranium in ash samples taken from the Kiski Valley Water Pollution Control Authority's lagoon "include samples of approx[imately] 460 picocuries per gram." Petition at 1. The Intervenor, however, has provided no evidentiary support for their late-filed assertion regarding the 460-picocurie/gram readings, nor have they shown whether such readings are representative of the samples taken from the lagoon, nor have they shown why they could not have raised this matter earlier in this case. We therefore decline to consider it in the context of this proceeding. However, the Intervenor is free to raise this issue with the NRC Staff, and to provide supporting documentation.

It is so ORDERED.

For the Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 26th day of April 1995.

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<sup>3</sup> Although the Staff's notice in the *Federal Register* identified only twelve areas of concern, the Presiding Officer indicated that one of these also included a thirteenth area of concern. LBP-95-1 at 65. The thirteenth area is one of those which the NRC Staff has not yet addressed.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

James P. Gleason, Chairman  
Jerry R. Kline  
G. Paul Bollwerk, III  
Thomas D. Murphy

In the Matter of

Docket No. 40-8027-EA  
(ASLBP No. 94-684-01-EA)  
(Source Material License  
No. SUE-1010)

SEQUOYAH FUELS CORPORATION  
and GENERAL ATOMICS  
(Gore, Oklahoma Site Decontamination  
and Decommissioning Funding)

April 18, 1995

The Licensing Board grants a motion for a protective order limiting the use of the protected information to those individuals participating in the litigation and for the purposes of the litigation only.

**RULES OF PRACTICE: DISCOVERY (PROTECTIVE ORDERS);  
INTERPRETATION**

The Commission's regulation concerning protective orders is patterned after Rule 26(c) of the Federal Rules of Civil Procedure, and we look to decisions interpreting the federal rule for guidance. *Toledo Edison Co.* (Davis-Besse Nuclear Power Station), ALAB-300, 2 NRC 752, 760 (1975).

#### **RULES OF PRACTICE: DISCOVERY (PROTECTIVE ORDERS)**

"In providing authority to permit discovery of confidential information only in a designated way . . . with few exceptions, the protection granted parties or persons against the disclosure of trade secrets and confidential business information restricts the use of such information to those engaged in the proceeding." Marcus, *Myth and Reality in Protective Order Litigation*, 69 Cornell L. Rev. 72, 73 (1983); see also cases cited, 8 Charles A. Wright and Arthur R. Miller, *Federal Practice and Procedure* § 2043 n.29; as an example of such limitation, see Administrative Conference of the United States, *Manual for Administrative Law Judges* 192 (Form 19-d).

#### **RULES OF PRACTICE: DISCOVERY (PROTECTIVE ORDERS)**

"[E]xceptions recognized for extrajudicial releases of protected information are generally in circumstances where either a statute or an agency's rules and regulations specifically provide for the disclosure of information obtained by it." See, e.g., *Resolution Trust Corp. v. KPMG Peat Marwick*, 779 F. Supp. 2 (D.D.C. 1991).

#### **RULES OF PRACTICE: DISCOVERY (PROTECTIVE ORDERS)**

The availability of management directives in the NRC's Public Document offices does not place those who do business with the NRC on notice of the Agency's policies and practices regarding the use of protected discovery information.

#### **RULES OF PRACTICE: RESPONSIBILITIES OF STAFF**

It cannot be successfully maintained that the Staff, as one litigant in a proceeding, in the absence of statutory or regulatory authority directing otherwise, can perform with different responsibilities than other litigants. It must operate and conform to the same standards as apply to other parties. *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-801, 21 NRC 479, 484 (1985).

#### **RULES OF PRACTICE: RESPONSIBILITIES OF STAFF**

In the absence of regulatory authority or some policy direction by the Commission, the Staff must be bound by the terms of a Board protective order.

**RULES OF PRACTICE: DISCOVERY (PROTECTIVE ORDERS);  
RESPONSIBILITIES OF PARTIES**

It has been stated that the "Commission and its adjudicatory boards have always proceeded on the assumption that the terms of all protective orders will be scrupulously observed by everyone who acquires confidential information under such an order." *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 400 (1979).

**MEMORANDUM AND ORDER  
Ruling on Motion for Protective Order**

On December 2, 1994, the Sequoyah Fuels Corporation (SFC) filed a motion requesting a protective order that, except for a single paragraph concerning the disclosing of confidential information to certain specified offices, is agreeable to all parties.<sup>1</sup> The order contemplates controlling the disclosure and use of confidential business information and records as protected discovery material under 10 C.F.R. § 2.740(c). The controversy over the contested paragraph, numbered 7, relates to the possible disclosure of confidential material by the Staff to NRC offices who are not involved in the development or litigation of this proceeding.<sup>2</sup>

The paragraph proposed by SFC and supported by its parent organization General Atomics (GA) reads as follows:

7. Nothing in this Protective Order shall prevent NRC Staff authorized to receive Protected Discovery Material from using such material as is appropriate in the legitimate exercise of their respective duties, provided that they shall not disclose such materials to any individual not authorized to receive material under this Protective Order without first obtaining either the consent of the party whose Protective Discovery Material is being disclosed or the approval of the Licensing Board.

The paragraph proposed by the Staff, Native Americans for a Clean Environment (NACE), and the Cherokee Nation reads:

7. Nothing in this Protective Order shall prevent NRC Staff authorized to receive Protected Discovery Material from disclosing such to the NRC Executive Director for Operations, the NRC Director of the Office of Investigations, or the NRC Inspector General, or their staff, but such NRC Staff shall inform each of the foregoing to whom Protected Discovery Material is disclosed that the material was obtained from documents covered by this Protective Order. Notwithstanding any other provision contained in this Protective Order,

<sup>1</sup> Motion for Protective Order (Dec. 2, 1994)

<sup>2</sup> *Id.* at 3-4.

the NRC Executive Director for Operations, the NRC Director of the Office of Investigations, or the NRC Inspector General, or their staff may use or refer such Protected Discovery Materials as is appropriate in the legitimate exercise of their respective duties.

## DISCUSSION

As recommended by the foregoing, SFC proposes that protected discovery materials be disclosed only to individuals engaged in the litigation unless the consent of the producing party or the Board is obtained.<sup>3</sup> The Staff contends this limitation impedes the ability of the Staff to provide information to the Executive Director for Operations (EDO), the Agency's senior staff official whose responsibilities include supervising and coordinating the operational activities of all Staff offices, and "could restrict the flow of information" to the Agency's Office of Investigations (OI) and Office of Inspector General (OIG). These offices, it is asserted, have a "vital role" in assuring public health and safety and protection against fraud, abuse, and wrongdoing.

The Staff claims further that the Agency's management directives impose a duty on NRC employees to report allegations of licensee or contractor wrongdoing. The Staff, accordingly, asserts an independent responsibility to report information of any wrongdoing obtained through the materials transmitted in the protective order to the NRC offices indicated, and asserts that it would be inappropriate to obtain the consent of a party, or the Board, prior to the communication of any protected information.<sup>4</sup> The supervisory or investigative functions of these offices are delineated in 10 C.F.R. Part 1, §§ 1.13, 1.31, and 1.36. SFC proposes that if the Staff is concerned about obtaining the contributing party's consent to transmitting any protected information to the offices indicated, it would not object to the Staff proceeding *ex parte* to the Board.<sup>5</sup>

In sum, SFC requests the protection of the Board against a claimed unilateral power in the Staff to independently distribute confidential discovery material to individuals not engaged in the present litigation.<sup>6</sup> And the Staff contends the Board lacks jurisdiction to direct the Staff in the performance of its regulatory responsibilities, or to supervise the manner in which Agency employees refer information to OI or OIG for possible investigation.<sup>7</sup> The Staff argues, with the Board's jurisdiction being limited, it cannot interfere with NRC employees'

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<sup>3</sup> *Id.*

<sup>4</sup> Staff Response to SFC Motion for Protective Order at 3-9 & n.8

<sup>5</sup> SFC Reply to Staff Response to Motion for Protective Order at 3.

<sup>6</sup> SFC concedes that protected material can be provided the EDO in the exercise of his supervisory role on this litigation. See SFC Reply to Staff Response to Motion for Protective Order at 2; see also Tr. 132-33.

<sup>7</sup> Staff Response to SFC Motion for Protective Order at 9.

responsibility to communicate matters involving health, safety, or wrongdoing to the offices indicated.<sup>8</sup>

In oral argument, the Staff acknowledges that a "tension" exists between the Board's responsibilities to control discovery and the Agency's policy "governing the Staff." Tr. 171. However, it contends such tension must be resolved in favor of the Staff whose responsibility "overrides the delegation to the Board . . . to oversee discovery." Tr. 175. SFC argues the Staff is only entitled to confidential information as a party to this proceeding and under 10 C.F.R. § 2.740(c) that information, in NRC's litigative processes, requires the Licensing Board's protection against inappropriate releases. Tr. 165-66.

Since NRC case history reveals no precedents concerning the proposed use of protected information for nonlitigative purposes, the Staff and SFC were questioned during oral argument on whether the matter should be referred to the Commission for policy direction or whether a change in the regulations authorizing the transfer should be sought. Neither the Staff nor parties believes such action necessary, contending the Board has the authority to resolve the issue before us. Tr. 149-53, 190-91.

Questions were also raised by the Board on the standard to be used to evaluate the appropriateness of the Staff submitting protected materials concerning wrongdoing to supervisory or investigative offices, and GA opined the test should be the "reasonableness" of the Staff's justification. Tr. 137-40. NACE expressed a concern over the Board's having to consider an issue of wrongdoing "totally unrelated" to the decommissioning matter before the Board (Tr. 211-12); and the Staff persists that the Board's maintaining jurisdiction over this issue would be tantamount to directing or supervising the work of the Staff.<sup>9</sup> The Staff questions whether time delays could impact an investigation adversely if allegations of wrongdoing had to be presented first for Licensing Board approval. However, assurances of the ability of a Board to respond rapidly in such circumstances did not alter the Staff's basic position that no discretion is permitted on reporting such allegations or wrongdoing activity to supervisory or investigative offices. Tr. 196-97, 209-11.

The parties are further in disagreement concerning provisions dealing with requests for protected discovery information under the Freedom of Information Act (FOIA).<sup>10</sup> The parties diverge on whether the Board has authority to resolve disputes over the exemption of protected information under the provisions of the

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<sup>8</sup> Staff Answers to Board Questions (Mar. 3, 1995).

<sup>9</sup> Staff Response to SFC Motion for Protective Order at 7-9; Tr. 191-92. The Staff indicates a willingness to notify the Board, *ex parte* and *in camera*, that a referral of protective information has been made. See Staff Supplement to Oral Argument Regarding Motion for Protective Order at 3 n.6.

<sup>10</sup> See Stipulated Motion for Protective Order (Feb. 3, 1995); Staff Response to GA's Stipulated Supplemental Motion for Protective Order (Feb. 24, 1995); GA Motion for Leave to Reply (Mar. 2, 1995); Staff Response to GA Motion for Leave to Reply (Mar. 6, 1995).

Act. All parties in the proceeding, except the Staff, support GA's supplemental motion to add a new paragraph 6 to the Protective Order. The motion proposes that employees of NRC's Assistant General Counsel for Administration; the Office of Nuclear Material Safety & Safeguards, Program Management, Policy Development & Analysis Staff; and the Office of Administration, Division of Freedom of Information and Publication Services review protected discovery information for the purpose of determining whether exemptions under the statute apply to requests for protected materials.<sup>11</sup> If determined to be not exempt, the party producing such materials would have the right to apply for a Board determination and to argue before the Board that such materials are not Agency records subject to the Act.<sup>12</sup> The Staff contends the Licensing Board has no jurisdiction to consider FOIA requests of protected discovery information since the Agency has established different procedures for handling such matters.<sup>13</sup>

### DECISION

With the Staff basically alleging an exemption from the controlled information provisions of a protective order, we are confronted here by an issue of first impression.<sup>14</sup> This position is in conflict with the provisions of 10 C.F.R. § 2.740(c) wherein the Licensing Board is authorized to issue orders to protect against discovery disclosures of a party's trade secrets, confidential research, development, or commercial information or to require that disclosures of such information be made in a designated way.

The Commission's regulation concerning protective orders is patterned after Rule 26(c) of the Federal Rules of Civil Procedure, and we look to decisions interpreting the federal rule for guidance.<sup>15</sup> This is useful where, as here, there is a dearth of NRC decisions on the matter before us.<sup>16</sup>

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<sup>11</sup> For purposes of clarity, we have inserted herein several ministerial changes requested by GA to its Stipulated Supplemental Motion for Protective Order of February 3, 1995. Although the Staff objected to a motion by GA for leave to reply to the Staff response to GA's Supplemental Motion, the Board grants the motion in the interest of obtaining full information on the parties' views concerning the applicability of the Freedom of Information Act to this proceeding.

<sup>12</sup> Stipulated Supplemental Motion for Protective Order at 1-2.

<sup>13</sup> The Staff, citing *General Electric Co. v. NRC*, 750 F.2d 1394 (1984), alleges the Agency is free to disclose protected information even if the Board should rule otherwise. The factual setting there, however, is different than the discovery phase in the case before us. See Staff Response to GA's Stipulated Supplemental Motion for Protective Order (Feb. 24, 1995) and GA Motion for Leave to Reply (Mar. 2, 1995).

<sup>14</sup> The Staff submitted evidence of a prior effort to have a protective order amended for the referral of information to NRC investigative offices. However, no guidance is provided herein since the Licensing Board never acted on the motion. See Staff Supplement to Oral Argument Regarding Motion for Protective Order at 2-3.

<sup>15</sup> *Toledo Edison Co.* (Davis-Besse Nuclear Power Station), ALAB-300, 2 NRC 752, 760 (1975).

<sup>16</sup> The Appeal Board approved a protective order restricted to the parties in the proceeding in *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-555, 10 NRC 23, 28-29 (1979). Although the decision sheds some light on the claimed inviolability of the Staff's role in protective orders, the Staff alleges

(Continued)

Discovery procedures contemplate parties in an adjudicative proceeding making full disclosure of all information relevant to the subject matter of a case as a means of eliminating surprise and efficiently expediting the disposition of litigation. The process enables parties to obtain complete knowledge of the issues and facts involved in litigation.<sup>17</sup> It is recognized that the discovery process is not unfettered, however, and has "ultimate and necessary boundaries."<sup>18</sup> One such limitation is the provision for protective orders which highlights the tribunal's authority to control the discovery process and circumscribe the invasion of inquiries into what otherwise are the private and confidential business domains of party litigants.<sup>19</sup>

In providing authority to permit discovery of confidential information only in a designated way, it has been noted that, with few exceptions, the protection granted parties or persons against the disclosure of trade secrets and confidential business information restricts the use of such information to those engaged in the proceeding.<sup>20</sup> Protective order information has been held to be reachable by a grand jury subpoena,<sup>21</sup> but a review of federal court decisions suggests that the exceptions recognized for extrajudicial releases of protected information are generally in circumstances where either a statute or an agency's rules and regulations specifically provide for the disclosure of information obtained by it.<sup>22</sup> A leading case prohibiting other uses of information obtained by protective orders and restricting utilization to the litigation for which it was obtained is *Rhinehart v. Seattle Times*, 98 Wash. 2d 226, 654 P.2d 673 (1982). Upholding a protective order, even though a prior restraint on publishing information obtained in a discovery process, the court noted that by "allowing liberal discovery, with inquiries into matters which would not necessarily be introduced or admissible at trial, [courts] were permitting invasions of a litigant's private domain and were rightly concerned" about protection against abuse of the discovery process.<sup>23</sup> In sustaining the state court's decision, the U.S. Supreme Court referred to the Court's broad discretion to decide the appropriateness of a protective order and

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the decision has little precedential value since it was decided prior to the establishment of the OI, OIG, and the Agency's Management Directives relied upon here. See Staff Supplement to Oral Argument Regarding Motion for Protective Order at 3-4.

<sup>17</sup> 4 James W. Moore et al., *Moore's Federal Practice* ¶ 26.02 (1994).

<sup>18</sup> *Hickman v. Taylor*, 329 U.S. 495, 505-07 (1947).

<sup>19</sup> 8 Charles A. Wright and Arthur R. Miller, *Federal Practice and Procedure* § 2036 (1970).

<sup>20</sup> Marcus, *Myth and Reality in Protective Order Litigation*, 69 *Cornell L. Rev.* 72, 73 (1983); see also cases cited, 8 Charles A. Wright and Arthur R. Miller, *Federal Practice and Procedure* § 2043 n.29 (1970); as an example of such limitation, see Administrative Conference of the United States, *Manual for Administrative Law Judges* 192 (Form 19-d).

<sup>21</sup> *In re Grand Jury Subpoena*, 836 F.2d 1468, 1477 (4th Cir. 1988), cert. denied, 487 U.S. 1240 (1989).

<sup>22</sup> See, e.g., *Resolution Trust Corp. v. KPMG Peat Marwick*, 779 F. Supp. 2 (D.D.C. 1991).

<sup>23</sup> *Rhinehart*, 98 Wash. 2d at 242.

to weigh fairly the interests of the parties affected by discovery.<sup>24</sup> Although a protective order for securing the confidentiality of trade information has issued, the Court always has the discretion to subsequently modify the order, assuming an adequate showing of good cause.<sup>25</sup> As a matter of practice, lawyers and judges assume litigants use material obtained through discovery only for preparation for litigation even where the Court has not entered a protective order. It has been pointed out, in this connection, that discovery is essentially a private affair.<sup>26</sup> And discovery has been denied where the purpose of a discovery request was to gather information for use in proceedings other than a pending suit.<sup>27</sup> It has been pointed out that courts should not sanction and encourage the use of private litigants' devices (i.e., discovery) as reinforcements for federal prosecutors, whether civil or criminal.<sup>28</sup> And it has been recognized that a demand for sensitive documents can be made "not in a sincere effort to gather evidence for use in a lawsuit but in an effort to coerce the adverse party, regardless of the merits of the suit, to settle it in order not to have to disclose sensitive documents."<sup>29</sup>

In the present case, the parties are attempting to resolve future discovery difficulties by an "umbrella" protective order designed to accommodate in advance all requests for confidential information. As noted in the *Manual for Complex Litigation*, such orders "expedite the flow of discovery material while affording protection against unwarranted disclosures."<sup>30</sup> The Staff is not obligated to enter into such a prearranged protective order but its participation is a recognition that its execution will be in the Agency's best interests, as well as other party litigants.<sup>31</sup> Alternatively, it could have opted to wait and challenge denials of requests for confidential information requested in the ordinary course of the discovery process. A prearranged protective order, however, is frequently seen as an efficient method of obtaining the information a case requires since the resolution of disputed confidentiality issues under the good-cause standard in the regulations is frequently a time-consuming process.<sup>32</sup>

<sup>24</sup> *Seattle Times Co. v. Rhinehart*, 467 U.S. 20 (1984). Although the circumstances of this case involved first amendment rights, the decision has general applicability. See also *Harris v. Amoco Production Co.*, 768 F.2d 669 (5th Cir. 1985), cert. denied, 475 U.S. 1011 (1986).

<sup>25</sup> *Public Citizen v. Liggett Group, Inc.*, 858 F.2d 775 (1st Cir. 1988), cert. denied, 488 U.S. 1030 (1989); see also *In re Agent Orange: Product Liability Litigation*, 821 F.2d 139 (2d Cir. 1987), cert. denied, 484 U.S. 953 (1987).

<sup>26</sup> See 8 Charles A. Wright et al., *Federal Practice and Procedure* 2d (1970), 1994 Supplement § 2043; see also Marcus, *The Discovery Confidentiality Controversy*, U. Ill. L. Rev. 457, 458 (1991).

<sup>27</sup> *Oppenheimer Fund, Inc. v. Sanders*, 437 U.S. 340, 352 n.17 (1978).

<sup>28</sup> *GAF Corp. v. Eastman Kodak Co.*, 415 F. Supp. 129, 132 (S.D.N.Y. 1976).

<sup>29</sup> *Murrese v. American Academy of Orthopaedic Surgeons*, 706 F.2d 1488, 1495 (7th Cir. 1983).

<sup>30</sup> *Manual for Complex Litigation* 2d, § 21.431 (1985).

<sup>31</sup> The Staff recognizes that a protective order is "desirable in this case . . ." and will "facilitate the discovery process, . . . conserve time and . . . streamline the process." Staff Response to SFC Motion for Protective Order at 1; and Staff Reply to GA Brief in Support of Motion for Protective Order at 7-8.

<sup>32</sup> Marcus, *Myth and Reality in Protective Order Litigation*, 69 Cornell L. Rev. 1, 23 (1983).



On delineating the respective supervisory, administrative, or investigative responsibilities of the EDO, and the Directors of the OI and OIG offices, the Staff asserts that restricting its ability to communicate wrongdoing through privileged information violates the Commission's policy on the free flow of communications, interferes with the Agency's ability to ensure public health and safety and protect against fraud, abuse, and wrongdoing.<sup>33</sup> This appears to the Board as an exaggerated claim which implicitly argues the basic responsibilities of the NRC offices would be threatened by not having discovery information available to it. In its operations, the agency can make a variety of demands for information from licensees (10 C.F.R. § 2.204), as it has in the past with this Licensee, and the investigatory powers of OI and OIG are extensive enough that they can hardly be considered as hampered by the inability to receive protected discovery information. As has been pointed out, "the government as investigator has awesome powers, not lightly to be enhanced or supplemented by implication."<sup>34</sup> It is our conclusion that if the Staff's position has validity, no basic reason exists for it ever to be a party to a protective agreement.<sup>35</sup> SFC does concede that the EDO's supervisory responsibilities are involved in all NRC litigation and to the extent of any involvement in this proceeding, that office is entitled to the privileged information discussed herein. *See* Tr. 132-33.

A more serious challenge is presented by the Staff's claim that a protective order represents an interference with its responsibilities as directed by the NRC. The management directives claimed by the Staff as obligating it to report all matters of possible wrongdoing, irrespective of their genesis, to OI or the OIG, would, if interpreted any other way than the Staff claims, "be inconsistent with the objective of the Agency's Management Directive."<sup>36</sup> The Staff's position is untenable for several reasons. Management directives are required to be adopted by all federal departments and agencies and as formulated are an internal management system for communicating an agency's "policies, objectives, responsibilities, authorities, requirements, guidance, and information to employees."<sup>37</sup> (Emphasis supplied). Directive 1.1(041) indicates that the directive applies to and must be followed by "all NRC . . . employees." Volume 8 of the 14 volumes of the management directives concerns Licensee Oversight Programs, and 8.8, or Chapter NRC-0517 and Appendices I-III of that volume, which is cited by the Staff as support for its position herein, deals with the

<sup>33</sup> Staff Response to SFC Motion for Protective Order at 37.

<sup>34</sup> *GAF Corp.*, *supra* note 28, 415 F. Supp. at 132.

<sup>35</sup> The Staff argues that a protective order is not necessary to bind the Staff due to the provisions of 10 C.F.R. § 2.790 and 18 U.S.C. § 1905, but it has agreed to be voluntarily subject to a protective order and waive requiring determinations under the regulations in order to conserve time and streamline the process. *See* Staff Reply to GA Brief in Support of Motion for Protective Order at 7-8. *See also* Tr. 171-73.

<sup>36</sup> Staff Answers to Board Questions at 2; *see also* Tr. 171-72.

<sup>37</sup> NRC Management Directives System Directive, Policy 1.1-01.

Management of Allegations and defines "the policy and procedures for the proper receipt, processing, control, and disposition of allegations received for resolution by NRC offices that concern NRC-regulated activities."<sup>38</sup> The chapter cited involves the handling of allegations of wrongdoing by Office Directors and Regional Administrators and the Agency's Office of Investigations. The management directive makes no reference, as the Staff concedes, to allegations of wrongdoing based on protected confidential information solicited through the discovery process and excludes from its definition of allegation "matters being handled by more formal processes such as . . . hearing boards . . ."<sup>39</sup> Although the Staff's conclusion that this exclusion only involves matters "related to the issues in the proceeding" is debatable,<sup>40</sup> the Commission could have stated that the definition of allegations covers information received from whatever source, including protective orders, had it intended to do so.

The issue before us, however, is whether the Agency's Management Directives can be equated with regulatory requirements and thus avoid having to meet the procedural rulemaking requirements of noticing rulemaking in the *Federal Register*, soliciting public comments, and publishing final regulations.<sup>41</sup> We do not believe, and do not concur in, the Staff's judgment that the availability of management directives in the Agency's Public Document offices places those who do business with the NRC on notice of the Agency's policies and practices.<sup>42</sup> Even if a contrary judgment were to be made, a reading of the management directive cited by the Staff (8.8) provides no information that privileged discovery material is embraced within its terms. Although it can be presumed that the Staff's position is based on the supposition that wrongdoing might be deduced from protected discovery information (Tr. 208-11), there is no evidence of wrongdoing in this case, nor hint of how evidence of such derived from protected discovery material transforms itself into allegations, as contemplated by the management directive cited.

Weighing the conflicting interests of the parties in the proposed protective order, it appears to the Board in a final analysis that to permit the Staff to ignore the confidential status of protected information erodes the foundation of protective orders as authorized by the rules. There is nothing in the regulations of this Agency that authorizes the exercise of such a power, and if that authority appears necessary to the responsible functioning of the NRC, the Commission can direct a rule be publicly proposed for adoption. It also needs pointing out that the Staff's proposed version of paragraph 7 goes much

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<sup>38</sup> Staff Answers to Board Questions (Mar. 3, 1995).

<sup>39</sup> NRC-0517-043.

<sup>40</sup> Staff Answers to Board Questions at 3.

<sup>41</sup> See 10 C.F.R. § 2.804.

<sup>42</sup> See Staff Answers to Board Questions at 4 n.3.

beyond the premise of allegations of wrongdoing. By its terms, there is no requirement of any investigatory purpose to trigger the Staff's authority to release protected information. The Staff would be entitled to release any and all protected information to the offices indicated without having to meet any criteria of wrongdoing. With no restraints, such an unbalanced authority provides an opportunity for one litigant in a proceeding to vitiate the protection of confidential information in a way the discovery process never contemplated.

It cannot be successfully maintained that the Staff, as one litigant in a proceeding, in the absence of statutory or regulatory authority directing otherwise, can perform with different responsibilities than other litigants. It must operate and conform to the same standards as apply to other parties.<sup>43</sup> Related to the substance of the Staff's argument here, it has been stated that a protective order should be enforced against a third party, including the (federal) government, and that absent some extraordinary circumstance or compelling need, a protective order should not be vacated or modified merely to accommodate the Government's desire to inspect protected testimony for possible use in a criminal investigation.<sup>44</sup>

Sustaining a lower court's upholding of stipulations of confidentiality for witnesses' testimony against the federal government, the Court of Appeals stated:

These [the government's] arguments ignore a more significant counterbalancing factor — the vital function of a protective order issued under Rule 26(c), F.R. Civ. P., which is to "secure the just, speedy and inexpensive determination" of civil disputes, Rule 1, F.R. Civ. P., by encouraging full disclosure of all evidence that might conceivably be relevant. This objective represents the cornerstone of our administration of civil justice. Unless a valid Rule 26(c) protective order is to be fully and fairly enforceable, witnesses relying upon such orders will be inhibited from giving essential testimony in civil litigation, thus undermining a procedural system that has been successfully developed over the years for disposition of civil differences. In short, witnesses might be expected frequently to refuse to testify pursuant to protective orders if their testimony were to be made available to the government for investigatory purposes in disregard of those orders.<sup>[45]</sup>

In a case<sup>46</sup> involving the U.S. Environmental Protection Agency, and similar in its factual setting to the one before us, the Court affirmed the use of the trial court's discretion restricting the agency's use of protected discovery information for investigative purposes. The decision was based, in part, on the lack of

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<sup>43</sup> *Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3)*, ALAB-801, 21 NRC 479, 484 (1985).

<sup>44</sup> *Martindell v. International Telephone & Telegraph Corp.*, 594 F.2d 291 (1979).

<sup>45</sup> *Id.* at 295-96.

<sup>46</sup> *Harris v. Amoco Production Co.*, 768 F.2d 669 (5th Cir. 1985), *cert. denied*, 475 U.S. 1011 (1986).

statutory authority for the use of discovery information in the conduct of the Agency's investigatory function.

We do not conclude that the uncovering of possible evidence of wrongdoing through the discovery of protected information may not, on occasion, present a problem for the NRC. However, in the absence of regulatory authority or some policy direction by the Commission, the Staff must be bound by the terms of the order contemplated here. It has been stated that the "Commission and its adjudicatory boards have always proceeded on the assumption that the terms of all protective orders will be scrupulously observed by everyone who acquires confidential information under such an order."<sup>47</sup> We do not state, if the Staff (or the Board itself) became aware of information involving immediate threats to health and safety, that an obligation does not exist to report such information to responsible NRC officials, irrespective of the source of such information. This obligation is always present. Here, we emphasize the difference between evidence that may lead to allegations of wrongdoing and information on existing dangers to the public's health or safety.

However, the Staff, having no authority to use protected information for nonlitigative purposes, confronts us with another dilemma inasmuch as the ruling leaves a proposed protective order not consensual and agreeable to all parties. The Board has several options: First, not to grant a protective order in its present form on the basis that an essential element of good cause has not been adequately shown as is otherwise required by the regulations.<sup>48</sup> The parties would then have to proceed *seriatim* pursuant to the regulations governing the obtaining of protected information, 10 C.F.R. §§ 2.740(c) and 2.790. This ruling would, however, further delay this proceeding and leave the parties in a posture they wanted to avoid. And even though that result rests with the parties whose motions are before us, we would not be responsibly conducting our charge to take action to avoid delay.<sup>49</sup> We are concerned about the pace of this adjudication and that that ruling, requiring the observance of good cause and other procedural requirements of the regulations, would consume further argument and unnecessary time.

The second option would be to refer this matter in its entirety to the Commission. However, the Board's role is to decide disputed issues and it is that responsibility we meet by rendering a decision on the disputed issue before us. We are not called upon either to declare some Commission policy askew or to establish some policy matter the Commission should embrace. The Board is called upon to issue a protective order, the terms of which are

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<sup>47</sup> *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 400 (1979).

<sup>48</sup> See 10 C.F.R. § 2.740(c).

<sup>49</sup> See 10 C.F.R. § 2.718.

tailored to prevent possible misuse of proprietary information. This act is well within the jurisdiction of the Board and the parties agree that it is within the Board's competence to settle disputes concerning the terms of the protective order without the intervention of the Commission. Unlike the Staff which has as its function differing roles — administration, enforcement, and regulation — the Board's role is exclusively adjudicatory in nature. At this juncture, a largely undefined Commission policy which the Staff claims places restraints on its ability to abide by the terms of the protective order does not, nor should not, prevent the Board from acting in its narrow adjudicatory role. If the Staff chooses, for reasons it has outlined, to go against the terms of the protective order after it has issued, it can apply to the Commission for such guidance or relief.

The third option, and the one adopted herein, is to determine that support for the protected order, with the paragraph 7 version as requested by GA, has been adequately substantiated. There has been no issue here of the need for a protective order and, except for that paragraph, all parties support it. The material described here, over which SFC expresses a concern about inadvertent releases,<sup>50</sup> is entitled to protection as privileged or confidential information. A formal procedure is included in the proposed order controlling accessibility by those involved in the litigation, and an opportunity for parties to challenge the *bona fides* of protected material is available. A provision is included in the order (paragraph 12) providing for Board review where objections are made to the designation of material as protected discovery material and the Board also reserves herein, *infra*, the right to review the status of protected discovery material introduced into the record prior to the close of this proceeding. And finally, a procedure is provided for assuring the Staff of a Board review, *ex parte* and *in camera*, of that protected material it represents as constituting wrongdoing and requiring the consideration of the offices designated. We do not agree that the Board review constitutes, in any degree, a directing or supervising of the Staff in the conduct of its responsibilities.<sup>51</sup> While there is admittedly tension created by the different roles the Staff and the Board must play, the Board simply is exercising its authority to supervise the discovery procedure, as required by NRC's Rules of Practice in 10 C.F.R. § 2.740(c). To require the Staff to abide by the same rules as other parties may act as a restraint, but the regulations provide the stricture, not the Board. We do agree there should be no requirement in the proposed order for the Staff to request consent from the party producing protected discovery materials and we strike that provision from paragraph 7 of the order. In light of the foregoing, and weighing the respective interests of the parties in this proceeding, we find the case for the protective order requested is

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<sup>50</sup> Tr. 136, 217.

<sup>51</sup> See Staff Response to SFC Motion for Protective Order at 7-9.

adequately supported and SFC's motion, with the amendments hereafter noted, is granted. In the event that the parties desire to pursue additional discussions regarding the provisions of this order, they are of course free to do so and the Board would entertain a motion to modify its provisions if agreeable to all parties.

We have reviewed the positions set forth by GA and the Staff concerning a procedure for handling any future FOIA requests of protected discovery information. GA recommends that the Licensing Board, having authority over the discovery procedures, should be the final arbiter of releases of protected material sought by FOIA requests. The Staff contends that since the Agency has established its own procedure, pursuant to the requirements of the Act itself<sup>52</sup> for considering such requests, the Board has no jurisdiction over the subject matter. It is the Board's judgment that this issue is premature and, accordingly, we issue no pronouncement with respect to it at present. Consideration of this matter requires a thorough review of the Agency's FOIA procedure, a resolution of its applicability to discovered protective materials and determinations on "the responsible office," "agency records," and "exemptions" set forth in 10 C.F.R. Part 9, Subpart A, of the regulations. These issues are not only complex and would require additional argument by the parties, but may not be necessary to decide at all. The Board will make a determination of any such FOIA issues at the time of their appearance and the Staff and other parties are directed to bring any FOIA request to the Board's attention promptly.

There are several additional matters associated with SFC's proposed protective order that require attention and concerning which there appears to be no controversy. First, the changes recommended by the Staff dealing with agency contractors who might have access to protected material are granted, as such persons should be required to execute affidavits of nondisclosure. Accordingly, revisions to paragraphs 3 and 5 in the protective order are made as follows:

*Paragraph 3.* In subparagraph "a," strike out everything after "case" in line 8 and insert the following in a new subparagraph:

- b. Persons, such as accountants, consultants, and economists, who are not regular employees of the NRC, and are assisting in the preparation of this case, or giving testimony in this case, whether the testimony is oral or written for purposes of a deposition, interrogatory or hearing, and have a need to know. These persons are subject to a contractual obligation of non-disclosure with the NRC.

Paragraphs previously designated as b, c, d, and e will be redesignated c, d, e, and f, respectively.

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<sup>52</sup> 5 U.S.C. § 552; see also Executive Order 12,600, 52 Fed. Reg. 23,781 (1987).

*Paragraph 5.* In line 3, substitute the designation "3(f)" for the designation "3(e)."

In addition, in paragraph 10, on page 8, lines 14-15, delete the words "to the Licensing Board or." This makes clear that protected material is to be returned to the party producing it and not the Board at the termination of the proceeding.

In order to ensure the proper handling of protected discovery material and the Board's authority in providing *in camera* treatment for such material, delete the language of paragraph 11 and substitute the following in its place:

11. Use of any Protected Discovery Materials by any party in any written or oral testimony, exhibit, brief, or other submission in this proceeding shall be subject to the following conditions:

a. Absent disclosure consent by the party whose Protected Discovery Material is being used, such Material shall be filed and served in a sealed envelope or other appropriate receptacle labeled to signify it is sealed pursuant to this Protective Order.

b. The Licensing Board, as the final arbiter of the decisionmaking process herein, retains the right to review the status of Protected Material prior to the close of the record in this proceeding. In any such review, the Licensing Board may require the party whose Protected Material is being used to submit information in support of a claim for protection from disclosure, and may afford other parties the opportunity to make submissions supporting or opposing a claim for protection.

c. Absent consent by the party whose Protected Material is being used or any disclosure determination pursuant to 11.b, Protected Discovery Material subject to this paragraph shall be afforded *in camera* treatment in this proceeding.

## ORDER

A. The motion for a protective order submitted by Sequoyah Fuels Corporation, with the amendments indicated herein, is granted.

B. IT IS HEREBY ORDERED that all parties to this proceeding, counsel thereto, and the individuals and entities specified herein, are subject to the following terms and conditions:

1. This Protective Order governs the disclosure and use of the following categories of "discovery material" (documents, answers to interrogatories, and answers to requests for admissions obtained in this proceeding through the discovery provisions of Part 2 of the Commission's Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders, and any information which would reveal protected matters in those documents, answers to interrogatories, and answers to requests for admissions):

a. documents submitted by Sequoyah Fuels Corporation ("SFC") and/or General Atomics ("GA") which the Commission has previously determined or determines should be withheld from public disclosure pursuant to 10 C.F.R. § 2.790;

- b. any discovery material produced in this proceeding and designated by any of the parties as "protected" as described below; and
- c. any discovery material that would reveal protected material referred to in clauses (a) and (b) above.

For purposes of this Protective Order, the foregoing shall be collectively referred to as "Protected Discovery Material."

2. If a party responding to a discovery request believes that any material produced or disclosed in response to such request:

- a. is entitled to protection as privileged or confidential information, or
- b. contains information that constitutes Protected Discovery Material provided by another party or which would reveal Protected Discovery Material, such party shall segregate such material from other portions of the response to the discovery request and shall designate such material as Protected Discovery Material by stamping or otherwise marking it with the legend:

PROTECTED: Subject to Protective Order  
in Docket No. 40-8027-EA

3. Disclosure of Protected Discovery Material shall be made only to the following persons:

- a. NRC Staff counsel and their supervisors, who are subject to and governed by the nondisclosure regulations at 10 C.F.R. § 2.790 and/or 10 C.F.R. §§ 9.17 and 9.25 and are assisting in the preparation of this case; NRC Staff who are subject to and governed by the nondisclosure requirements of 10 C.F.R. § 2.790 and/or 10 C.F.R. §§ 9.17 and 9.25 and are assisting in the preparation of this case;
- b. Persons, such as accountants, consultants, and economists, who are not regular employees of the NRC, and are assisting in the preparation of this case, or giving testimony in this case, whether the testimony is oral or written for purposes of a deposition, interrogatory, or hearing, and have a need to know. These persons are subject to a contractual obligation of nondisclosure with the NRC.
- c. All counsel of record and in-house counsel of GA, SFC, NACE, or the Cherokee Nation, who are assisting in the preparation of this case, and their secretaries and legal assistants who are assisting in the preparation of this case;
- d. Officers and Directors of GA, SFC, NACE, or the Cherokee Nation, who are assisting in the preparation of this case;
- e. Employees of GA, SFC, NACE, or the Cherokee Nation and persons, such as accountants, consultants, and economists, who are assisting in preparation of this case; provided that such employee



or other person has been specifically designated to receive Protected Discovery Material by written agreement of the party that is producing or did produce the Protected Discovery Material or by Order of the Atomic Safety and Licensing Board ("Licensing Board");

f. Any person from whom testimony is taken or to be taken in this matter by GA, SFC, NACE, or the Cherokee Nation, whether the testimony is oral or written, for purposes of a deposition, interrogatory, or hearing; provided that such person has been specifically designated to receive Protected Discovery Material by prior written agreement of the party who is producing or did produce the Protected Discovery Material or by Order of the Licensing Board.

4. Prior to the disclosure of Protected Discovery Material to any person identified in clause 3(a), such person shall be informed by NRC Staff counsel of the terms of this order and reminded of the nondisclosure requirements of 10 C.F.R. § 2.790 and 10 C.F.R. §§ 9.17 and 9.25.

5. Prior to the disclosure of Protected Discovery Material to any person identified in clauses 3(b) through 3(f), such person shall execute an affidavit in the form appended hereto, as Enclosure 1 to this Order, and such affidavit shall be served upon the parties to this proceeding.

6. Any person authorized to receive access to Protected Discovery Material under this Protective Order shall not disclose, orally or in writing, any Protected Discovery Material to any person other than those persons authorized to receive it under this Protective Order. Furthermore, no disclosure shall be made other than for purposes directly related to this proceeding and the hearing to be held in conjunction with this matter.

7. Nothing in this Protective Order shall prevent NRC Staff authorized to receive Protected Discovery Material from using such material as is appropriate in the legitimate exercise of their respective duties, provided that they shall not disclose such materials to any individual not authorized to receive material under this Protective Order without first obtaining the approval of the Licensing Board.

8. The restrictions on dissemination of Protected Discovery Material set forth in this Protective Order shall not apply to any party's nonpublic dissemination at its discretion of documents or materials that contain or would reveal only its own Protected Discovery Material and that neither contain nor would reveal protected material for which another party is entitled to protected status.

9. The restrictions on dissemination of Protected Discovery Material set forth in this Protective Order shall not apply to any party's public dissemination at its discretion of documents or materials that contain or would reveal only its own Protected Discovery Material and that neither contain nor would reveal protected material for which another party is entitled to

protected status. Once a party has publicly disclosed or disseminated its own Protected Discovery Material pursuant to this paragraph, the disclosed or disseminated material shall be deemed disclosed for all parties and for all purposes, and said materials shall no longer be subject to this Protective Order or remain confidential.

10. Parties granted access to Protected Discovery Material under the terms of this Protective Order shall take all necessary and prudent steps, including limiting the numbers of copies made, to prevent disclosure of the Protected Discovery Material, including any documents, notes, compilations, summaries, or other documents incorporating the materials or their content. The Protected Discovery Material cannot be revealed, transmitted, or communicated to any person who is not described in Paragraph 3, above. Each person given access to the Protected Discovery Material shall segregate all such material, keep it secure, refrain from disclosing it in any manner to persons not essential to the preparation and completion of this matter, and shall keep it confidential, and take all steps reasonably required to ensure that persons to whom counsel has permitted access for trial preparation maintain such confidentiality, except as provided for by this Protective Order or other order of the Licensing Board. In addition to limiting the number of copies of protected documents that are made, each party shall maintain a log of each copy of a protected document that is made, identifying the document(s) copied and the person(s) given custodial responsibility for the copied documents. A copy of this log shall be provided to each party at the conclusion of the proceeding, including any reviews or appeals, and at any prior time upon the request of a party. Furthermore, persons granted access to the Protected Discovery Material shall, upon completion of this proceeding, including any reviews or appeals, return all Protected Discovery Materials, other than those that have been made part of the record or have otherwise been relied upon by a party, to counsel for the party producing said material for disposition. All other Protected Discovery Material shall be maintained and secured so as to prevent unauthorized access or disclosure.

11. Use of any Protected Discovery Materials by any party in any written or oral testimony, exhibit, brief, or other submission in this proceeding shall be subject to the following conditions:

a. Absent disclosure consent by the party whose Protected Discovery Material is being used, such Material shall be filed and served in a sealed envelope or other appropriate receptacle labeled to signify it is sealed pursuant to this Protective Order.

b. The Licensing Board, as the final arbiter of the decisionmaking process herein, retains the right to review the status of Protected Material prior to the close of the record in this proceeding. In

any such review, the Licensing Board may require the party whose Protected Material is being used to submit information in support of a claim for protection from disclosure, and may afford other parties the opportunity to make submissions supporting or opposing a claim for protection.

c. Absent consent by the party whose Protected Material is being used or any disclosure determination pursuant to 11.b, Protected Discovery Material subject to this paragraph shall be afforded *in camera* treatment in this proceeding.

12. Any party may object to the designation of material as Protected Discovery Material. Such objections shall be made by a letter to the party claiming protection, which letter shall identify the material to which the objection is addressed and the grounds for the objection. Such correspondence shall be treated as Protected Discovery Material. Prior to any further proceedings, the objecting party shall have the burden of consulting with the party claiming protection. If the dispute is not resolved through consultation, the objecting party may apply to the Board for a ruling that the material sought to be protected is not entitled to such status and protection. In the event of a dispute concerning the designation of Protected Discovery Material, the material designated as protected shall be treated as such under this Protective Order until the Board orders to the contrary.

13. This Order is without prejudice to the right of any party to seek further or additional protection of any discovery material, including an order that certain discovery not be had.

14. Neither the taking of any action in accordance with the provisions of this Order, nor the failure to object thereto, shall be construed as a waiver of any claim or defense in this action. Moreover, the failure to designate material in accordance with the provisions of this Order, or the failure to object to such designation at any given time, shall not preclude the later filing of a motion seeking to obtain such designation or challenging the propriety thereof. The entry of this Protective Order shall not be construed as a waiver of any right to object to the furnishing of information in response to discovery and shall not relieve any party of the obligation of producing information in the course of discovery.

15. The inadvertent production of any privileged or work product material shall not be deemed a waiver or impairment of any claim of privilege or protection, including but not limited to, the attorney-client privilege and the protection afforded to work product materials. Upon receiving notice from the producing party that materials, including copies of summaries thereof, have been inadvertently produced, all such materials shall be returned to the producing party within five (5) days of receipt of such notice.

16. Any allegations of abuse or violation of this Protective Order will be referred to the Licensing Board for any action it deems appropriate.

C. The parties are directed to resume the discovery process on receipt of this Order and the Board's intention is to have the process completed by July 31, 1995.

THE ATOMIC SAFETY AND  
LICENSING BOARD

James P. Gleason, Chariman  
ADMINISTRATIVE JUDGE

Jerry R. Kline  
ADMINISTRATIVE JUDGE

Judge Bollwerk concurs in part and dissents in part in this decision. His separate views follow.

**Bollwerk, J., concurring in part and dissenting in part:**

I find the bulk of the protective order issued by the Board unobjectionable, including the NRC staff-proposed modifications to paragraphs three and five and the Board-initiated changes to paragraphs ten and eleven. I do, however, have two basic disagreements with the majority's determination to accept the Sequoyah Fuels Corporation and General Atomics (SFC/GA) version of paragraph seven of the order. This provision mandates Board review and approval of any determination by staff personnel litigating this proceeding that protected SFC/GA proprietary discovery material should be given to staff investigative or enforcement personnel. My objections to paragraph seven, which are both substantive and procedural, flow from the same source — my concern about the degree to which this provision interposes the Board into investigative and enforcement activities delegated to the staff by the Commission.

My procedural problem is with the majority's decision to act in the first instance to adopt either the SFC/GA or the staff/intervenor version of paragraph seven. Without a doubt, deciding issues properly presented by the parties in an adjudication is one of the paramount duties of a judicial officer. Here, however, choosing between the competing versions of paragraph seven implicates a significant question about the authority of this Board to involve itself in de-

terminations regarding the initiation and prosecution of agency investigations and enforcement actions. Because this provision presents such an important issue regarding the extent of the Board's authority in an area that traditionally has been considered within the delegated purview of the staff and because the Commission is the ultimate repository of both the investigative/enforcement power and the judicial authority that are implicated here, in this instance certification of the parties' dispute to the Commission is warranted. See 10 C.F.R. §§ 2.718(i), 2.786(g); see also *infra* note 4; cf. *RTC v. Thornton*, 798 F. Supp. 1, 4 (D.D.C. 1992) (once agency issued practice guidelines permitting intra-agency sharing of subpoenaed materials, it became entitled to share those materials internally without notice to document supplier). But see *New England Power Co.* (NEP, Units 1 and 2), LBP-78-9, 7 NRC 271, 280 (1978) (denying request to certify question to Commission regarding Licensing Board's authority to suspend staff review of operating license application).

Notwithstanding my preference to place the matter directly into the hands of the Commission without a Board decision, because the majority has chosen to act on paragraph seven, I outline my disagreement with the substance of their determination as well. Fundamentally, my concern is with the Board's incursion into a regulatory area in which it has no authority or expertise.

My disagreement with the majority's position rests on three basic precepts. The first is that the authority given this agency to initiate and pursue investigations and enforcement actions regarding violations of the Atomic Energy Act (AEA) and agency regulations resides with the NRC staff.<sup>1</sup> The executive power to investigate and then undertake an enforcement action regarding licensees and others involved in regulated activities was given by the Congress to the Commission as the agency head. See AEA § 161c, 42 U.S.C. § 2201(c). In turn, this investigative/enforcement authority has been delegated by the Commission (with some oversight constraints) to various staff personnel and offices, in particular the Executive Director for Operations (EDO), the Office of Investigations, and the Office of Enforcement.<sup>2</sup> See 10 C.F.R. §§ 1.31(b), 1.32, 1.36(a). See also AEA § 161n, 42 U.S.C. § 2201(n); NRC Management Directive 8.8, chap. 0517-032 to -035; *id.* app. 0517, pt. III. Thus, the NRC staff has the principal responsibility within the agency for initiating and conducting investigations and enforcement actions.

<sup>1</sup> In using the term "enforcement action," I refer to those proceedings instituted by the staff under 10 C.F.R. Part 2, Subpart B, against a licensee or anyone else subject to the agency's jurisdiction.

<sup>2</sup> NRC "staff personnel" generally are considered to be in those offices reporting to the EDO. See 10 C.F.R. § 1.31(b). The Office of the Inspector General (OIG) does not report to the EDO, see *id.* § 1.12, but does have responsibility for investigating agency programs and employees, see 5 U.S.C. app. § 2(1), which sometimes can involve investigating the activities of licensees and others engaged in licensed activities. In light of OIG's investigative role, my comments regarding the dissemination of information by staff litigators to staff investigative/enforcement personnel apply equally to the disclosure of information to OIG officials.

My second premise is that any staff personnel, including those involved in an agency adjudication,<sup>3</sup> who become aware of evidence indicating that licensees or others involved in regulated activities are contravening statutory or regulatory requirements are under a duty to bring that information to the attention of those particular staff officials who exercise the Commission-delegated responsibility to initiate and carry out agency investigations and enforcement actions regarding wrongdoing. See NRC Management Directive 8.8, chap. 0517-052.<sup>4</sup> See also Pub. L. No. 96-303, 94 Stat. 855 (1980) (federal employees should uphold the Constitution, laws, and regulations of the United States and all governments therein and never be a party to their evasion); 5 C.F.R. § 2635.101(b)(11) (all federal employees shall disclose waste, fraud, abuse, and corruption to appropriate authorities); NRC Management Directive Handbook 7.4(A) (allegations of wrongdoing regarding conduct of NRC employees or contractors should be reported to Office of Inspector General). As a consequence, in reviewing a particular discovery document, if a member of the staff litigating this case comes across information that evidences a violation or potential violation of any statutory or regulatory requirement, that individual is under a duty to disclose that information to appropriate staff investigative or enforcement personnel.

My final premise is that oversight of ongoing staff activities concerning the initiation or prosecution of investigations and enforcement actions generally is not a matter within the Commission-delegated jurisdiction or the expertise of a presiding officer adjudicating a challenge to a completed staff enforcement action. Previously, in overturning an Appeal Board order that required the staff to perform a management capability assessment as part of the staff's future review of a reactor operating license application, the Commission declared that a presiding officer's delegated authority to conduct adjudications does not include the authority to "direct the staff in performance of [its] administrative functions." *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2,

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<sup>3</sup> As members of a Commission-level office, see 10 C.F.R. § 1.23, attorneys with the Office of the General Counsel (OGC) who act as counsel in agency licensing and enforcement adjudications technically are not "staff" personnel. Nonetheless, as staff representatives, for present purposes I consider them within the designation of "staff personnel."

<sup>4</sup> The majority finds this management directive irrelevant because it makes no specific reference to the exact situation now before the Board. Given the subject matter involved it is not wholly apparent to me why this lack of a specific directive is controlling. See *infra* note 5. In any event, given the majority's apparent recognition that the Commission can provide staff litigators with the authority to provide protected materials to staff investigation/enforcement personnel without Board involvement, see Majority Opinion at 262, this concern about a lack of clear Commission direction seemingly supports my suggestion that the paragraph seven matter be certified to the Commission for its consideration and resolution.

The majority also finds this management directive unpersuasive because it is not a regulation. Judicial authority suggests, however, that in determining how an agency allocates responsibility for internal handling of documents produced pursuant to legal process, agency policy guidelines can provide the necessary direction. See *Thornton*, 798 F. Supp. at 4 (issuance of internal practice guidelines entitles agency to share subpoenaed material internally pursuant to guidelines).

3, and 4), CLI-80-12, 11 NRC 514, 516 (1980). See also *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Unit 2), ALAB-553, 10 NRC 12, 13-14 (1978) (Appeal Board would not review staff determination to accord higher priority to recent Three Mile Island accident notwithstanding fact that resulting reduced allocation of manpower to adjudicatory proceeding would delay scheduled staff filing); *Philadelphia Electric Co.* (Fulton Generating Station, Units 1 and 2), LBP-79-23, 10 NRC 220, 223 (1979) (staff license application docketing and review activities are not under supervision of Licensing Board); *New England Power Co.*, LBP-78-9, 7 NRC at 279-80 (denying request that a Licensing Board suspend the staff's review of operating license application).<sup>5</sup> Nothing presented by SFC/GA suggests that the Commission intended that the staff's vital investigative and enforcement responsibilities should be treated differently.<sup>6</sup>

Besides this lack of Board authority, it also seems apparent that the determination SFC/GA paragraph seven requires is one that a Board's experience and expertise makes it ill-equipped to make. To be sure, in exercising the authority granted by the Commission to adjudicate challenges to an enforcement action, the presiding officer must assess the propriety of any staff investigative or enforcement activities to determine whether the bases specified as supporting a contested enforcement action are factually and legally sound and are sufficient to support the remedy sought or the sanction imposed.<sup>7</sup> See *Oncology Services Corp.*, LBP-94-2, 39 NRC 11, 25 (1994). This is not the judgment that SFC/GA paragraph seven involves, however.

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<sup>5</sup> I note that in these Appeal Board and Licensing Board decisions, there is no citation to a particular regulation or internal manual as a source of the staff's administrative authority; it is simply acknowledged that the staff has that prerogative. It is not clear to me why, even in the absence of a specific directive, the duty of any staff member to report suspected wrongdoing to the proper staff investigative/enforcement authorities is not equally apparent.

<sup>6</sup> I am unable to find that the Appeal Board's decision in *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-555, 10 NRC 23 (1979), which is referenced by the majority, is precedent for adopting the SFC/GA version of paragraph seven. In *North Anna*, in granting a protective order for proprietary information, the Appeal Board stated that "[n]o disclosure of the [assertedly] proprietary information described above shall be made outside the United States Nuclear Regulatory Commission or to anyone within the Commission who is not taking an active part in the review of such information." *Id.* at 29. The import of this language for disclosure of discovery material to staff investigative/enforcement personnel is somewhat ambiguous, see Tr. at 192, particularly because the "active review" of such information could involve investigative/enforcement personnel. I would require a much clearer statement of judicial intent to consider this decision a binding precedent here.

<sup>7</sup> As the presiding officer responsible for the conduct of an adjudication, a Board does have authority for overseeing the introduction of investigative/enforcement information into the proceeding, through discovery or otherwise. See *FTC v. Atlantic Richfield Co.*, 567 F.2d 96, 104 (D.C. Cir. 1977) (allowing agency investigative staff to provide information to staff litigators without notice and opportunity to object by other parties would negate authority and responsibility of Administrative Law Judge over adjudicatory process). This instance, however, presents the opposite situation, i.e., what is the authority of the presiding officer to oversee the dissemination of potential investigative/enforcement material to other agency staff operating outside the adjudicatory proceeding.

Under the SFC/GA version of paragraph seven, in determining whether staff litigators may disclose particular proprietary information to agency investigative/enforcement personnel, the Board apparently is to apply a standard of "reasonableness," i.e., is it reasonable to permit staff litigators to turn the information over. *See* Tr. at 137-39. The Board does make "reasonableness" determinations in ruling on other information disclosure requests. For example, in assessing the propriety of a request for an adjudicative subpoena, the Board must make a "reasonableness" judgment about the relevance of the subpoena as measured against the party contentions or staff charges at issue in the proceeding. *See FTC v. Anderson*, 631 F.2d 741, 746 (D.C. Cir. 1979). Its determination under SFC/GA paragraph seven is fundamentally different. Besides requiring that the Board assess whether the information the staff would disclose is reasonably relevant to some purported wrongdoing, if the Board is to fulfill SFC/GA's supposed aim of preventing staff misuse of the material, *see infra* pp. 276-77, the Board necessarily must also judge whether the staff's concern about purported wrongdoing is itself "reasonable." This, in turn, involves the Board in determining whether an agency investigation or enforcement action should be initiated or pursued, an executive judgment wholly outside the range of the adjudicatory experience and expertise of the Board.

In contrast to what I find are these compelling reasons for the Board to keep out of this area of staff responsibility, the principal arguments put forth by SFC/GA in support of Board intervention are wholly unconvincing. First, they assert that the Board's intervention in the staff's investigative/enforcement process will minimize access to their confidential commercial information that, in turn, will minimize the possibility of inadvertent or otherwise improper disclosure. *See* Tr. at 137, 217. This argument carries little weight here, however, given the staff personnel to whom the disclosure would be made. By the very nature of their duties, those in the investigative and enforcement offices in the agency have the most experience in handling "confidential" information. These officials are, in fact, the agency personnel most likely to ensure that it remains confidential. If, as the staff's proposed version of paragraph seven provided, investigative/enforcement personnel are advised of the confidential commercial nature of the information, I have no difficulty in concluding that they have the training and experience to see it is not improperly disseminated.

The other argument of SFC/GA is that the Board's intervention is necessary to ensure the integrity of the adjudicatory process. According to SFC/GA, by invoking their right to challenge the staff's enforcement order in the agency's adjudicatory process, and then complying with the agency's discovery rules by turning over information relevant to this adjudication, they should not be subjected to the possibility that the private commercial information they disclose will be used for a purpose having nothing to do with the proceeding, i.e., as support for some collateral agency investigation or enforcement action. *See*



[SFC] Reply to NRC Staff's Response to Motion for Protective Order (Jan. 6, 1995) at 3 [hereinafter SFC Reply].

Implicit in this SFC/GA assertion is the suggestion that the Board's review of staff information disclosures is necessary to ensure that the staff does not abuse its investigative/enforcement authority.<sup>8</sup> Such speculation about possible staff abuse, however, flies in the face of the usual presumption that government officials will properly discharge their official duties. See *United States v. Chemical Foundation, Inc.*, 272 U.S. 1, 14-15 (1926). Moreover, in asserting that the administrative adjudicatory process under which the information is obtained somehow mandates a limitation on its use in the investigative/enforcement process, SFC/GA fundamentally misconstrue the nature of the regulatory environment in which this proceeding takes place.

As the court noted in *Harris v. Amoco Production Co.*, one of the authorities relied upon by the majority here:

"Unlike courts, which are concerned primarily with the enforcement of private rights although public interests may thereby be implicated, administrative agencies are predominantly concerned with enforcing public rights although private interests may thereby be affected. To no small degree administrative agencies for the enforcement of public rights were established by Congress because more flexible and less traditional procedures were called for than those evolved by the courts."

768 F.2d 669, 671 (5th Cir. 1985) (quoting *FCC v. National Broadcasting Co.*, 319 U.S. 239, 248 (1943) (Frankfurter, J., dissenting)), cert. denied, 475 U.S. 1011 (1986). What this guidance suggests is that one who appears in a court proceeding and one who participates in an agency adjudication should have very different expectations about the extent to which their private interests are to be served in that proceeding.

The *Harris* case makes clear that because the enforcement of private rights predominates in a court proceeding, a private litigant should reasonably expect that protected material disclosed to agency personnel as part of the discovery process will be subject to judicial scrutiny prior to any further disclosure to agency investigators. See *id.* at 684-85. In contrast, a private party in an adjudication before an agency whose cardinal duty in all its proceedings, adjudicatory and otherwise, is to protect the public interest, should not reasonably expect that, in the absence of some relevant claim of privilege,<sup>9</sup>

<sup>8</sup> Consistent with the sort of investigative/enforcement "abuse" protection they apparently seek for their proprietary information, SFC/GA might ask that the Board also protect nonproprietary information from disclosure to staff investigative/enforcement personnel. See Tr. at 217-19. Compare *Anderson*, 631 F.2d at 747-48. Given the generally public nature of nonprivileged discovery information, their failure to do so is understandable as a practical matter.

<sup>9</sup> Although the purported concern of SFC/GA is with the disclosure of propriety information that could cause financial harm, with their version of paragraph seven they seek to protect the information from being used to

(Continued)

it will be able to delay or otherwise impede agency personnel charged with upholding that public interest from informing authorized agency investigation/enforcement personnel about evidence of regulatory wrongdoing.<sup>10</sup> The protection claimed by SFC/GA simply is not appropriate in the context of this regulatory agency proceeding.

Ultimately, the best the Board can do to address the SFC/GA concern about possible staff "misuse" of their proprietary discovery information is to do what has been done in other instances when staff activities with some bearing on an adjudication nevertheless are outside of the presiding officer's sphere of authority — see that the Commission, which is the body with ultimate supervisory responsibility for the staff, is informed of the staff's actions. See *St. Lucie*, ALAB-533, 10 NRC at 14. Accordingly, I would modify paragraph seven to provide that when staff litigators find it necessary to disclose confidential discovery information obtained in this proceeding to staff investigative/enforcement officials, they must simultaneously inform the Commission of their action.<sup>11</sup> The Commission could then take whatever action it deems appropriate to oversee the use of that information in the staff's investigative/enforcement process. I find this approach, which is entirely within the Board's delegated authority as the presiding officer in this adjudication, would provide a suitable accommodation of the competing public and private interests involved here.

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initiate or pursue an investigation or enforcement action relating to wrongdoing. Of course, the usual way to protect incriminating material is to assert a self-incrimination privilege, however, here the corporate nature of the records likely to be involved means that such a privilege probably cannot be invoked by SFC/GA. See 8 John H. Wigmore, *Evidence in Trials at Common Law* § 2259a, at 353 & n.1 (McNaughton rev. 1961) (citing, among others, *Hale v. Henkel*, 201 U.S. 43, 74-75 (1906)). Any attempt by SFC/GA to use paragraph seven to assert an otherwise unavailable privilege clearly is not appropriate.

<sup>10</sup> Because the staff also has the responsibility to use information about wrongdoing to make criminal referrals to the United States Department of Justice (DOJ), as appropriate, see 10 C.F.R. § 1.36(c), also troubling is the degree to which the SFC/GA provision would interpose the Board into staff's relationship with DOJ. Compare *SEC v. Dresser Industries, Inc.*, 628 F.2d 1368, 1384-87 (D.C. Cir.) (en banc), cert. denied, 449 U.S. 993 (1980).

This is not the only question about the extent of appropriate Board interposition that arises with the adoption of SFC/GA paragraph seven. Paragraph seven states that staff litigators are prohibited from disclosing protected discovery materials. Unanswered is the question of the degree to which staff litigators, without turning over the actual documents, are prohibited from informing staff investigative/enforcement personnel about the existence of such materials and their concern that those materials evidence wrongdoing that warrants further investigation. For instance, does the seeming concern about staff "misuse" of the materials go so far as to permit the Board to prohibit staff litigators from giving investigative/enforcement personnel a list of document titles when such a listing would not result in the disclosure of any propriety information? Such a list presumably would aid investigators materially in obtaining the materials by a 10 C.F.R. § 2.204 demand for information or through an administrative subpoena, the alternative document retrieval avenues referenced by the majority. Having started down the proverbial "slippery slope" with the adoption of SFC/GA paragraph seven, it is not apparent to me where the Board's supervision of ongoing staff investigative/enforcement activities ends.

<sup>11</sup> Consistent with the SFC/GA admission that presentations to the Board under their version of paragraph seven could be *in camera* and *ex parte* to avoid prejudicing an investigation, see SFC Reply at 3 n.1, Tr. at 139, I would afford similar confidentiality for staff document dissemination filings with the Commission.

**ENCLOSURE 1**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of

Docket No. 40-8027-EA  
(Source Material License  
No. SUB-1010)

SEQUOYAH FUELS CORPORATION  
and GENERAL ATOMICS  
(Gore, Oklahoma Site Decontamination  
and Decommissioning Funding)

**AFFIDAVIT OF NON-DISCLOSURE**

I, \_\_\_\_\_, give this affidavit in support of my access to the protected discovery material that is subject to the Protective Order issued by the Atomic Safety and Licensing Board ("Licensing Board") on \_\_\_\_\_ in the above-captioned proceeding.

1. I am \_\_\_\_\_. My affiliation is \_\_\_\_\_.
2. I represent to the Licensing Board that I have read the Protective Order issued in this proceeding and will comply in all respects with its terms and conditions with respect to protected material produced in connection therewith. I will not disclose any protected discovery material, either orally or in writing, to any individual other than those individuals admitted under the Protective Order by the Licensing Board.
3. I acknowledge that any violation of the terms of the Protective Order may result in the imposition of sanctions as the Licensing Board deems appropriate, including but not limited to referral of the violation to appropriate bar associations and other disciplinary bodies. I further acknowledge that a party

whose protected discovery material is improperly disclosed shall be entitled to all remedies under law or equity.

\_\_\_\_\_  
(Name)

DISTRICT OF COLUMBIA, ss:

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 199

\_\_\_\_\_  
Notary Public

My Commission expires: \_\_\_\_\_

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Charles Bechhoefer, Chairman  
Dr. Jerry R. Kline  
Dr. Peter S. Lam

In the Matter of

Docket No. 50-160-Ren  
(ASLBP No. 95-704-01-Ren)  
(Renewal of Facility  
License No. R-97)

GEORGIA INSTITUTE OF  
TECHNOLOGY  
(Georgia Tech Research Reactor,  
Atlanta, Georgia)

April 26, 1995

In a proceeding involving the proposed renewal of a facility operating license for a research reactor, an Atomic Safety and Licensing Board determines that a Petitioner for intervention possesses standing and has proffered two acceptable contentions. The Board accordingly grants the Petitioner's petition for leave to intervene and request for a hearing.

**RULES OF PRACTICE: STANDING**

The Commission has long applied contemporary judicial concepts of standing to determine whether a petitioner for intervention has a sufficient interest in a proceeding to be permitted to intervene as a matter of right.

**RULES OF PRACTICE: STANDING (PLEADING REQUIREMENTS)**

To establish standing, a petitioner must show that the subject matter of the hearing will cause him or her injury in fact and that the injury is arguably within the zone of interests protected by the Atomic Energy Act of 1954, as amended, or the National Environmental Policy Act, as amended.

**RULES OF PRACTICE: STANDING (GROUP)**

A group or organization may establish its standing through the interests of its members. To do so, a group must demonstrate that at least one member who personally has standing wishes the group to represent him or her. Signature of a petition by a ranking official who has personal standing is sufficient for standing purposes.

**RULES OF PRACTICE: STANDING (GROUP)**

When a group bases its standing on the membership of an individual, the individual need not have been a member on the date the original petition for leave to intervene was filed but only as of the date the supplemental petition for intervention must be filed. The Rules permit amendment until that date without prior approval of the Licensing Board and there is no definition of the scope or subject matter of such amendments.

**RULES OF PRACTICE: STANDING TO INTERVENE**

In determining standing, a Licensing Board must accept as true all material allegations of an intervention petition and must construe the petition in favor of the petitioner, notwithstanding contrary interpretations by other parties.

**RULES OF PRACTICE: STANDING (INJURY IN FACT)**

Living or working within a specified distance of a site (with variations of distance depending upon the nature of the nuclear facility or activity), or even passing by the entrance to a site twice a week for recreational purposes, is enough to presume injury in fact. Such facts may be sufficient for standing purposes even though they might be insufficient to found a valid contention.

## **OPERATING LICENSE HEARINGS: ISSUES FOR CONSIDERATION**

The adequacy of an applicant's physical security system is a permissible issue in an operating license renewal proceeding.

## **RULES OF PRACTICE: ADJUDICATIONS INVOLVING MILITARY OR FOREIGN AFFAIRS FUNCTIONS**

Although 10 C.F.R. § 50.13 provides that applicants need not provide design features or other measures to protect against attacks or destructive acts, including sabotage, by an enemy of the United States, it does not preclude intervenors from challenging whether security systems satisfy governing security requirements, set forth in 10 C.F.R. Part 73.

## **RULES OF PRACTICE: SECURITY PLANS**

Admission of a contention involving a security plan does not transform the security plan into a public document. Licensing boards may adopt appropriate protective measures to preclude public release of information concerning such a plan.

## **SECURITY PLAN: DESIGN-BASIS THREATS**

The applicable design-basis threats against which an applicant must protect appear in 10 C.F.R. § 73.1, to the extent referenced in sections applicable to particular types of reactors. The design-basis threat for research reactors includes "radiological sabotage."

## **SECURITY PLAN: SPECIAL CIRCUMSTANCES**

The security plan for certain research reactors, insofar as it protects against radiological sabotage, may be modified to account for special circumstances. 10 C.F.R. § 73.60(f).

## **RULES OF PRACTICE: LITIGABILITY OF ISSUES**

Serious violations or other incidents may form the basis for a contention challenging the adequacy of management of a facility.

**RULES OF PRACTICE: CONTENTION, ADMISSIBILITY OF**

Where there is no local public document room in an area near a facility, and where a petitioner for intervention unsuccessfully seeks information from a local NRC office, a licensing board may judge the adequacy of a proposed contention on the basis of available information.

**RULES OF PRACTICE: CONTENTION, ADMISSIBILITY OF**

A petitioner's imprecise reading of a reference document, or typographical errors in that document, cannot serve to generate an issue suitable for litigation.

**RULES OF PRACTICE: CONTENTION, ADMISSIBILITY OF**

NRC's review of regulations governing a particular issue does not serve as a basis for a particular contention concerning that issue. Nor does a petitioner's differing opinion as to what applicable regulations should (but do not) require.

**RULES OF PRACTICE: CONTENTION, ADMISSIBILITY OF**

A petitioner is obligated to provide the analyses and supporting evidence showing why its bases support its contention. A licensing board may not make factual inferences on a petitioner's behalf.

**TECHNICAL ISSUES DISCUSSED**

The following technical issues are discussed: Research reactors, Security plan, Management.

**PREHEARING CONFERENCE ORDER**

**(Ruling on Standing and Contentions)**

This proceeding concerns the proposed renewal of the facility operating license for the Georgia Tech Research Reactor (GTRR), located on the campus of the Georgia Institute of Technology in Atlanta, Georgia. Pending before us is the petition for leave to intervene filed by Georgians Against Nuclear Energy (GANE). The petition is opposed by the Georgia Institute of Technology (Applicant) and by the NRC Staff.

The background for this proceeding is set forth in our Memorandum and Order (Intervention Petition), dated November 23, 1994 (unpublished) (hereinafter



11/23/94 M&O). In that order, we provided for GANE to file an amended petition for leave to intervene (as authorized by section 2.714(a)(3) of the Rules of Practice) by December 30, 1994. GANE did so.

In examining GANE's amended petition, which delineated the basis for GANE's standing and also set forth GANE's proposed contentions, we noticed what appeared to be a technical or ministerial mistake in GANE's statement of standing. Specifically, GANE attached the affidavits of forty-four individuals who stated that they wished to be represented by GANE, set forth the addresses of each of them, including the distance from the reactor site, and in some cases how they believed operation of the reactor would affect them. None of the affidavits indicated, however, whether the individual was a member of GANE. Because the basis for standing being relied upon by GANE was the standing of individual members (a permissible method for an organization to establish its standing), we instituted a telephone conference call to determine whether any of the forty-four listed individuals were in fact GANE members.

During the telephone call, GANE identified several of the listed individuals as members of GANE. We authorized GANE to file a supplemental amended petition by Friday, January 13, 1995, to permit it to identify at least one of the listed individuals who was a member of GANE. We also extended the time within which the Applicant and Staff might respond to GANE's amended supplemental petition. Finally, we scheduled the initial prehearing conference for January 31–February 2, 1995, in Atlanta, Georgia. Memorandum and Order (Telephone Conference Call, 1/10/95), dated January 11, 1995 (unpublished).<sup>1</sup> On January 13, 1995, GANE timely filed a supplemental amended petition setting forth the name of one of the forty-four individuals identified in the December 30, 1994 amended petition (Mr. Robert Johnson) who was a member of GANE.

On January 25, 1995, both the Applicant and the NRC Staff filed responses to GANE's amended petition, each opposing intervention on the bases of both lack of standing and lack of an admissible contention.<sup>2</sup> We considered GANE's standing and each of its contentions at the prehearing conference held on January 31, 1995–February 2, 1995.<sup>3</sup>

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<sup>1</sup> On January 12, 1995, we issued a Notice of Prehearing Conference, published at 60 Fed. Reg. 3885 (Jan. 19, 1995). That Notice provided for oral limited appearance statements to be heard on Wednesday morning, February 1, 1995. The Board heard such statements at that time.

<sup>2</sup> Georgia Institute of Technology's Opposition to Petition for Leave to Intervene Filed by Georgians Against Nuclear Energy, dated January 25, 1995 [Applicant's Response]; NRC Staff's Response to Amended Petition for Leave to Intervene and Supplement Thereto Filed by Georgians Against Nuclear Energy, dated January 25, 1995 [NRC Staff Response].

<sup>3</sup> Transcript references to the prehearing conference (pp. 1-419) will be set forth as Tr. \_\_\_\_ Limited appearance statements are separately numbered (LA Tr. 1-76).

For reasons set forth below, we find both that GANE has established its standing to participate and has set forth two admissible contentions. We are thus admitting GANE as a party and issuing a Notice of Hearing.

#### A. Standing

The Commission has long applied "contemporary judicial concepts" of standing to determine whether a petitioner for intervention has "a sufficient interest in a proceeding to be permitted to intervene as a matter of right." *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989). As we observed in our 11/23/94 M&O (at 3-4), to establish standing a petitioner must show that "the subject matter of the proceeding will cause an 'injury in fact' to the petitioner and that the injury is arguably within the 'zone of interests' protected by the Atomic Energy Act of 1954, as amended, or the National Environmental Policy Act, as amended." We also observed that a group or organization such as GANE may, *inter alia*, establish its standing through the interests of its members. See *Warth v. Seldin*, 422 U.S. 490, 511 (1975); *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 646-47 (1979). GANE here seeks to establish its standing in that manner.

Furthermore, in determining standing, we must "accept as true all material allegations of the [petition], and must construe the [petition] in favor of the [petitioner]." *Warth v. Seldin*, *supra*, 422 U.S. at 501; *Kelley v. Selin*, 42 F.3d 1501, 1507-08 (6th Cir. 1995). As set forth above, GANE on January 13, 1995, submitted the affidavit of Robert Johnson, who stated that he is a member in good standing of GANE and that he desires GANE to represent him and his interests in the proceeding. His earlier affidavit submitted with the December 30, 1994 amended petition stated that he worked "about one-half mile" from the reactor, that he believed his "life and health" were jeopardized by continuing operation of the reactor, and that in the event of a release of radiation from the facility his "personal health would suffer serious consequences." He also stated that he had read GANE's initial petition and that, if GANE's petition were upheld, "there is a reduced likelihood of serious accident" at the reactor, that the "reactor will be safer" and that "I am less likely to suffer injury from it."

To establish standing through the interests of its members, a group must demonstrate that at least one of its members who wishes the group to represent him or her personally has standing to intervene. The Applicant and Staff advance widely disparate reasons why, in their view, GANE should not be permitted to base its standing on the standing of Mr. Johnson. None of those reasons appears to us to be well founded.

To start with the Applicant, it takes the position that the GTRR is "inherently safe" and that even the worst credible accident would have no effects beyond a small radius on the Georgia Tech campus (Applicant's Response at 2-3). It recognizes that Mr. Johnson resides more than 4 miles from the GTRR site (based on his GANE membership form, which accompanied GANE's January 13, 1995 filing) and that he works about one-half mile from the site (the basis upon which GANE relies for standing). The Applicant first "denies" that an office location (as distinguished from a residence) can serve as a foundation for standing (*id.* at 5) although at the prehearing conference it withdrew that claim (Tr. 13-14).<sup>4</sup>

As for whether a person working at a distance one-half mile from the facility could be affected, the Applicant claims that, based on its Safety Analysis Report (SAR), no "dangerous emissions" from GTRR would extend more than 100 meters from the facility (Tr. 14). It would preclude standing based on presumptive effects similar to those underlying the 50-mile presumption for power reactors.

However, it appears that Argon-41 would be released through the reactor stack during routine operations (Tr. 16, 20-21, 260) and, even though permitted under applicable regulations, could extend at least one-half mile from the site. In addition, other noble gases could be dispersed under accident scenarios (Tr. 20-23). Those effects are enough for standing purposes, even though they might be insufficient to found a valid contention. *Consumers Power Co.* (Palisades Nuclear Plant), LBP-79-20, 10 NRC 108, 115 (1979); *Kelley v. Selin*, *supra*, 42 F.3d at 1509 (petitioners who own land in "close proximity" to proposed site for dry-cask spent fuel storage have asserted a "personal stake in the outcome of the litigation by virtue of their ownership and use of their property for residential and leisure pursuits"). For these reasons, we conclude that Mr. Johnson works close enough to the GTRR to be presumed to be affected by operation of the facility.

The Staff focuses its opposition to GANE's standing on its belief that Mr. Johnson did not become a member of GANE in sufficient time for GANE to found its standing on his membership. This belief is premised upon a membership card for Mr. Johnson submitted along with his affidavit of membership and dated December 21, 1994. The Staff takes the position that, when an organization bases its standing on representation of a member, the individual must have been a member at the time the original petition was filed — here, October 26, 1994 — absent a showing of good cause for late filing. See *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), LBP-

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<sup>4</sup> Given holdings that merely passing by the entrance to a site twice a week for recreational purposes is enough to provide injury in fact, see *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-90-3, 31 NRC 40 (1990), the Applicant's initial position was clearly erroneous.

79-7, 9 NRC 330, 335 (1979). There is, however, authority to the contrary. See *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 649 (1979).

We believe that membership on the date of the amended petition is sufficient for establishing standing. The Rules permit amendment of a petition to intervene until that date "without prior approval" of the Board, and there is no definition of the scope or subject matter of such amendments. Supplying the name of an affected member is a permissible amendment. Contrary to the Staff's position (Tr. 31-32), the Notice of Opportunity for Hearing does no more than recite the ultimate standing requirements. It does not specify when that standing must be perfected.

We need not, however, base our standing conclusion solely on the scope of amendments to a petition for leave to intervene that are permissible under the Rules. For, at the prehearing conference, GANE stressed that Mr. Johnson had become a member long before the December 21, 1994 date on his certificate submitted with his membership affidavit. We (as well as the parties) examined GANE's bylaws, which indicate that a person can be a member by accepting the organization's stated goals and participating in its activities, including voting at meetings. He or she need not file a formal registration.

GANE submitted meeting minutes (ff. Tr. 196) which indicated that Mr. Johnson attended and participated in meetings on November 3 and December 1, 1994; GANE advised that Mr. Johnson voted on various matters at those meetings (Tr. 196, 201). GANE further noted that Mr. Johnson in 1992 had participated in a GANE lobbying effort, that he received the GANE newsletter from 1992 to mid-1994 (although because of job demands was unable to participate in other GANE activities), that on August 4, 1994, he participated in a GANE activity, including a major letter-writing campaign, and that he attended a GANE public forum on September 18, 1994, and stated that at that time he committed himself to GANE and considered himself a GANE member. GANE further advised that Mr. Johnson had attempted to attend a meeting in early October 1994, but was prevented by logistical reasons from doing so. Tr. 197-98.

The Staff and Applicant attempt to characterize Mr. Johnson's activities prior to November as mere support for the organization and not membership (Tr. 11, 198-200). Given the deference we must accord to a petitioner's representations concerning its standing, we regard GANE's own description of its membership, and the circumstance that it regarded Mr. Johnson a GANE member as of September 17, 1994, as more persuasive. We find that Mr. Johnson was a GANE member prior to October 26, 1994, and that, whether the initial filing

date or the date of the amended petition is controlling, his membership provides a proper foundation for GANE's representational standing in this proceeding.<sup>5</sup>

In sum, we agree with the Appeal Board's conclusion that "[i]t is neither Congressional nor Commission policy to exclude parties because the niceties of pleading were imperfectly observed. Sounder practice is to decide issues on their merits, not to avoid them on technicalities." *South Texas*, ALAB-549, *supra*, 9 NRC at 649. We accordingly find that GANE has standing and proceed to consider the issues it seeks to raise.

## B. Contentions

We will first consider the two contentions that we find admissible and then turn to the others.

### 1. Contention 5: Security

#### a. General Description

GANE's fifth contention challenges the physical security of the reactor, in particular during the period of the Olympic Games scheduled for Atlanta during the summer of 1996. It claims that reactor security is "grossly inadequate" inasmuch as the reactor building "may be accessed directly from the outside," no personnel are "assigned to the building outside of normal business hours," and that essentially the entire system "consists of a chain-link fence with some barbed wire on top." GANE claims that wire cutters would be "sufficient to breach the fence." It goes on to assert that the roof is "nothing but 7/16" thick steel sheet-metal" (based on the SAR) that would "easily be breached by a rocket-launcher or hand-thrown grenade."

GANE next delineates the planned 1996 Olympic Games in Atlanta as a "specific situation which has historically attracted terrorist activity and threats." It poses the potential refueling of the reactor with "bomb-grade" uranium fuel during this period of time as a "tempting target for terrorists." It elaborates upon the threat as not only a tempting target for theft of "bomb-grade or hazardous materials" but as a "target for a World Trade Center-type bombing which would not only injure residents and visitors to Atlanta but also create an international

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<sup>5</sup> In addition, we note that GANE's standing could also be founded on Ms. Glenn Carroll's standing. Ms. Carroll has been an officer and member of GANE prior to her filing of GANE's petition on October 26. She stated that she routinely passes by the reactor "a couple of times a day" (Tr. 35), thus affording her personal standing to intervene. It is "enough for standing purposes that the petition had been signed by a ranking official of the organization who [herself] had the requisite personal interest to support an intervention petition." *Duke Power Co. (Amendment to Materials License SNM-1773 — Transportation of Spent Fuel from Oconee Nuclear Station for Storage at McGuire Nuclear Station)*, ALAB-528, 9 NRC 146, 151 (1979). On this basis as well, GANE has demonstrated its standing.

diplomatic disaster for the United States." At the prehearing conference, it cited the example of the UCLA research reactor that was voluntarily shut down during the 1984 Olympic Games that were held in Los Angeles (Tr. 176).<sup>6</sup>

*b. Applicant and Staff Positions*

The Applicant opposes this contention essentially because it believes, based on 10 C.F.R. § 50.13, that reactor security is not a proper subject for a licensing proceeding. It states that the security system has been approved by NRC and that preventing terrorism is the responsibility of the United States Government, working with appropriate local authorities. It concludes that it would be "grossly inappropriate to disclose the security plan for the GTRR to the public in this proceeding." (Applicant's Response at 16, emphasis supplied).

The Staff also views this contention as an issue inappropriate for litigation. It states that in challenging the sufficiency of Georgia Tech's security plan, it was incumbent upon GANE to indicate that the facility fails to comply with applicable regulations. Nor, according to the Staff, has GANE sought to address the sufficiency of the security plan. (The Staff recognizes that the security plan is not available for public inspection but comments that at no time did GANE seek access to that plan.) Further, the Staff faults GANE for failing to indicate whether its concern over terrorists and rocket or grenade attacks are threats that the Applicant is required to consider.

*c. Request for Additional Information*

Following the prehearing conference, we requested the Staff (and, alternatively, GANE) to provide us a copy of a letter from a former Georgia Tech officer (Dr. Robert M. Boyd) to NRC, dated December 3, 1993, that had been referenced by a person in an oral limited appearance statement. Memorandum and Order (Request for Additional Information on Security Contention), dated March 3, 1995 (unpublished). From its description during the limited appearance presentation (LA Tr. 47), the letter appeared relevant to GANE's proposed security contention and called for upgraded security at the GTRR during the 1996 Olympic Games. Both the Staff and GANE sent us (and other parties) copies of this letter, which had been submitted to NRC in response to a notice of proposed rulemaking concerning reactor security (but not applicable to research reactors). In addition, we requested the comments of all parties on 10 C.F.R.

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<sup>6</sup> A letter from UCLA to the Licensing Board in its renewal proceeding (Docket No. 50-142), dated March 20, 1984, indicated that the reactor was currently shut down for repairs and was to remain shut down until after the summer Olympic Games. The letter also stated that UCLA's plans for security also included the placing of barricades to restrict vehicle access to the reactor building and the posting of armed guards at the facility during the period of the Games. Such measures were not required by the NRC.

§ 73.60(f) and whether that section would permit enhanced security during the period of the Olympic Games. All parties responded.

In its March 20, 1995 response, the Applicant focused only on this case and opined that nothing in the Commission's rules or case law (including 10 C.F.R. § 73.60(f)) suggests that Contention 5 should be admitted in this proceeding. It noted that the section was adopted only 2 years ago and produced no case law and garnered no comment when proposed. It pointed out that the Commission, in the preamble to its adoption of this section, indicated that some nonpower licensees had already implemented additional measures against sabotage. It stated that Georgia Tech was one of those licensees that had taken these voluntary steps. It offered to permit the Licensing Board to peruse the security plan at its request to demonstrate that it is sufficient to meet NRC regulations. But it went on to opine that, since the plan already included the voluntary measures mentioned above, and because other federal law-enforcement agencies (such as the FBI) are responsible for security at the Olympic Games, it would be inappropriate under 10 C.F.R. § 50.13 to permit consideration of terrorism in its security plan.

The Staff recognizes that 10 C.F.R. § 73.60(f) on its face would permit modification or enhancement of a security plan to take account of changed circumstances or particular events at a particular site involving radiological sabotage, to the extent that the Commission, and this Board as its delegee, deemed such action appropriate. The Staff does not believe that the 1996 Olympic Games constitute a changed circumstance or event that would warrant "alternate or additional" security measures at GTRR to protect against radiological sabotage, or that GANE has presented additional information, through its Contention 5 as supplemented by Dr. Boyd's views, to warrant consideration of enhancement of the security plan.<sup>7</sup>

GANE, of course, takes a contrary view. It believes that security requirements for a reactor must be considered on a "case-by-case, or site-specific" basis. It also maintains that "attaining a secure facility" is the criterion that must be met. GANE 3/20/95 Response.

#### *d. Board Evaluation*

(i) We begin our evaluation by putting to rest the Applicant's claim (based on 10 C.F.R. § 50.13) that security is an inappropriate subject for a licensing hearing but rather is the responsibility of governmental authority. That section was promulgated in 1967 and indicates that applicants need not provide design

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<sup>7</sup>The Staff opines that, were we to admit Contention 5, it could only be as a *sua sponte* issue, subject to requirements for such issues. Staff's 3/20/95 Response at 5 n.4. We disagree. GANE presented this issue, and we are admitting it as a GANE issue.

features or other measures to protect against attacks or destructive acts, including sabotage, by an "enemy of the United States." Specifically, it was intended to exempt reactors from having to be constructed to withstand a missile attack from Cuba. 59 Fed. Reg. 38,889, 38,993 (Aug. 1, 1994).

Although that may once have precluded intervenors from raising security issues, as early as 1973 the Commission took steps to establish physical protection requirements of plants and materials that licensees would have to meet. 38 Fed. Reg. 30,537 (Nov. 6, 1973); *see also* 42 Fed. Reg. 10,836 (Feb. 24, 1977). Intervenors are permitted to raise questions as to whether an applicant satisfies governing security requirements, set forth in 10 C.F.R. Part 73. Indeed, in past cases, the Commission has explicitly recognized that intervenors may play a role in assessing the effectiveness of reactor security systems. *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-80-24, 11 NRC 775, 777 (1980); *Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-74-23, 7 AEC 947, 949 (1974).

Section 50.13 of 10 C.F.R. is still on the books, but it only applies insofar as precluding intervenors from raising potential threats that exceed the design-basis threats against which the Commission obligates licensees to protect. 10 C.F.R. § 73.1(a). As the Commission has observed, "[t]here is a significant difference in the practicality of defending against a missile attack and constructing [a particular type of barrier]." 59 Fed. Reg. 38,889, 38,893 (Aug. 1, 1994).

Beyond that, we reject the Applicant's claim that admission of this contention would transform the security plan into a public document. According to the Applicant, that plan is currently classified at an "L" or "Confidential" level (Tr. 213). In admitting this contention, we are requiring GANE to identify those of its representatives whom it desires to advance this contention and, subject to Board approval, have access to the security plan. Those persons will have to obtain security clearance or access authorization. Further appropriate protective provisions will govern all aspects of the hearing process. *See* 10 C.F.R. § 2.900 *et seq.*

(ii) As acknowledged by the Staff (Tr. 171), the applicable design-basis threats against which the Applicant must protect appear in 10 C.F.R. § 73.1, but only to the extent that they are referenced in sections applicable to particular types of reactors — for research reactors, 10 C.F.R. §§ 73.60, 73.67, and Part 73, Appendix C. This design basis is written in terms of power reactors but does not exclude research reactors, except to the extent specifically provided (e.g., vehicle barriers). The design-basis threat includes "radiological sabotage," of the type GANE seeks to consider under this contention. 10 C.F.R. § 73.1(a)(1).



referenced in 10 C.F.R. §§ 73.60(e) and (f) and Part 73, Appendix C.<sup>8</sup> Of the threats posed by GANE's contention, several are clearly encompassed by the governing regulatory design basis. Specifically, wire-cutters and hand-thrown grenades are clearly covered. Contrary to the Applicant's claim, a "terrorist" is defined as "an advocate or practioner of terror as a means of coercion"<sup>9</sup> and is thus not necessarily an "enemy of the United States," or similar person, within the meaning of 10 C.F.R. § 50.13.

Of the threats set forth by GANE, the "World Trade Center-type bombing" is clearly excluded to the extent it envisions a vehicular bomb threat, by virtue of the specific exemption of that type of threat from the design basis for research reactors, set forth at 10 C.F.R. §§ 73.1(a), 73.1(a)(1)(i)(E) and 73.1(a)(1)(iii). (To the extent the World Trade Center reference may envision a hand-held explosive threat to the reactor, that would be within the design basis.) In addition, the theft or diversion of special nuclear material (SNM), as asserted by GANE, is also not within the design basis, as only "formula quantities" would be included. 10 C.F.R. §§ 73.1(a)(2) and 73.2. GTRR does not appear to possess formula quantities of SNM. SAR, Table 2.1, at 7.

(iii) Turning to the activities covered by the contention itself, both the Applicant and Staff misperceive their major thrust. Although GANE to some extent questions the adequacy of ongoing security, its major assertion is that security is not adequate for the period in which the Olympic Games are to be held in Atlanta — indeed, on the Georgia Tech campus. In other words, GANE is not asserting (at least primarily) that the security plan currently does not comply with regulations. It is asserting that, because of defined special circumstances, the plan should be enhanced for a designated period of time. For that reason, GANE's failure to set forth examples of how the existing plan fails to comply with regulations, as the Staff would require, is of no moment. It is not even relevant.

At the prehearing conference, the Board pointedly inquired whether there was regulatory authority to modify a security plan to account for special circumstances. The Staff, in particular, indicated there was no such authority (*see, e.g.*, Tr. 180, 182, 185). The regulations, however, provide otherwise. *See* 10 C.F.R. § 73.60(f), which reads:

(f) In addition to the fixed-site requirements set forth in this section and in § 73.67, the Commission may require, depending on the individual facility and site conditions, any alternate or additional measures deemed necessary to protect against radiological sabotage at nonpower reactors licensed to operate at or above a power level of 2 megawatts thermal.

<sup>8</sup> The explicit exclusion of research reactors from specified portions of the design-basis threat suggests that the remainder of the threat is applicable to research reactors. The manner in which research reactors must meet the threat differs from the manner that power reactors must meet the threat.

<sup>9</sup> *Webster's Third New International Dictionary* 2361 (1986).

The regulations also include performance objectives, the performance capabilities that sites must meet and fixed site physical protection systems which sites must utilize to satisfy the objectives and capabilities. For power reactors, these requirements appear in 10 C.F.R. §§ 73.20, 73.45, and 73.46 and include such measures as armed guards and various barriers. Requirements for protection against radiological sabotage appear in 10 C.F.R. § 73.55. Those measures are not required, however, for research reactors. *See also* 10 C.F.R. § 73.6.

(iv) As set forth earlier, subsequent to the prehearing conference, we obtained the parties' views of the effect of 10 C.F.R. § 73.60(f). At the same time, both the NRC Staff and GANE provided us a copy of a letter from Dr. Robert M. Boyd, former Radiological Safety Officer at Georgia Tech, concerning potential security problems at GTRR during the Olympic Games.

Dr. Boyd's opinion appears to lend some credence to GANE's perception of security deficiencies for the Olympic Games. However, several years ago, the Commission made a statement that appears not to have endorsed his views. As emphasized by both the Applicant and Staff, in response to Dr. Boyd's letter (which was transmitted to NRC with respect to a rulemaking applicable to power reactors but not research reactors) the Commission stated:

*Comment.* One comment [from Dr. Boyd] recommended that, in light of the upcoming 1996 Olympics, all reactor fuel, heavy water, and kilocuries of Cc and Cs be removed immediately from the Georgia Tech campus.

*Response.* While research reactors do not fall within the scope of this rulemaking, the Commission notes that its threat assessment activities are performed on a continuing basis, in close liaison with the intelligence community. Should the level of domestic threat change at any time, appropriate action will be taken by the NRC. Specifically, the Atlanta Field Office of the FBI has established liaison with all Federal agencies in Georgia, including the NRC, relative to the Olympics. The FBI is the lead law enforcement agency in charge of the Olympics and, to date, has not indicated that there is any threat to NRC-licensed facilities or materials relative to the Olympics.

Protection Against Malevolent Use of Vehicles at Nuclear Power Plants, 59 Fed. Reg. 38,889, 38,896 (Aug. 1, 1994).

(v) We conclude that GANE has advanced a sufficient basis to meet the pleading requirements of 10 C.F.R. § 2.714 and to cause us to determine that the 1996 Olympic Games constitutes a special circumstance that would bring 10 C.F.R. § 73.60(f) into play. Its reliance in effect on the terror incident that in fact occurred at the 1972 Munich Olympic Games, together with references to UCLA's experience at the 1984 Olympic Games, constitutes "facts" which support the contention, within the meaning of 10 C.F.R. § 2.714(b)(2)(ii). Coupled with the opinion of Dr. Boyd, they are sufficient to support an admissible contention. The Commission's previously expressed view on Dr. Boyd's observation was in a context that suggests that we are not precluded

from determining the 1996 Olympics to be a special circumstance, given an adequate basis for such an inference. In that connection, we take official notice (*see* 10 C.F.R. § 2.743(i)) of the recent occurrence of other random terrorist incidents directed at public facilities that buttress this conclusion. *See National Surety Corp. v. First National Bank in Indiana*, 106 F. Supp. 302, 304 (W.D. Pa. 1952); *Rank v. Krug*, 90 F. Supp. 773, 781 (S.D. Cal. 1950).

In evaluating the adequacy of GANE's basis, we also recognize that GANE has had no access to the security plan, because of its security classification. Contrary to the Staff's position, GANE also could not obtain such access prior to being admitted as a party and asserting a contention such as this one — for it would have to have a "need to know" prior to being granted any security clearance that would enable it to peruse the plan. *See, e.g.*, 10 C.F.R. §§ 25.15(b), 25.17(a), 25.35. Thus, GANE's assertion, *inter alia*, that there are no guards present on a 24-hour basis must not only be presumed to be accurate but also to suggest an option (armed guards) that represents what actually was voluntarily followed by UCLA at the 1984 Olympic Games. Shutdown of the reactor during the Olympic Games, as also occurred at UCLA in 1984 and as sought by GANE here, may also be an available option, given what actually took place at UCLA (even though not at the behest of NRC). Thus, GANE has presented information that demonstrates a genuine dispute with the Applicant, within the meaning of 10 C.F.R. § 2.714(b)(iii).

In sum, we are basing our conclusion accepting this contention on GANE's having provided as adequate a basis as might be expected, given security classification requirements. For contention purposes, it has set forth a special circumstance that permits us to consider the need for enhanced measures under 10 C.F.R. § 73.60(f). (Dr. Kline dissents from our admission of this contention. His opinion appears at pp. 309-12, *supra*.)

## **2. Contention 9: Management Problems**

GANE's ninth contention asserts that management problems at the GTRR are so great that public safety cannot be ensured. GANE states that safety concerns at the reactor are the "sole responsibility" of the Director (citing the SAR). GANE claims that this Director was the one who withheld information from the NRC about a serious 1987 accident, that the NRC was advised of this accident by the safety officer at the time, who was later demoted and left the GTRR operation claiming harassment. GANE Amended Petition at 10. (In a communication dated March 14, 1995, supplying us and the parties a copy of the same letter as the Staff provided in conjunction with Contention 5, *supra*, at 13, GANE identified the former radiation safety officer as Dr. Robert M. Boyd.)

GANE alleges that, since that incident, management was restructured to give the Director increased authority, including increased authority over the Manager

of the Office of Radiation Safety. Although conceding that the safety officer "has a line to higher-ups than the director," GANE claims that he/she works for the Director on a day-to-day basis and the threat of reprisal would be a "huge incentive" against defying the Director. GANE Amended Petition at 10.

GANE adds that the Nuclear Safety Committee has theoretical oversight of GTRR operations but is flawed in having "no concern with health issues." Citing the SAR, GANE claims that the Office of Radiation Safety Manager is sought for knowledge of law more than health physics. *Id.*

The Applicant asserts that the charge that safety concerns are the "sole responsibility" of the Director is without merit. It claims there is an emergency organization in place and a Nuclear Safeguards Committee comprised of twelve independent experts who review and approve all safety matters. The Applicant states that the 1987 incident referenced by GANE was investigated by the NRC, considered thoroughly in Federal Court, and is a closed matter. It adds that the current organizational structure for the GTRR has been approved by the NRC. Applicant's Response at 18-19.

The Staff notes that, as GANE concedes, other individuals and safety organizations and committees associated with the facility have the ability to report safety problems to persons with higher authority than the Director. It adds that GANE has not shown any reason to believe that the Director was responsible for reprisals against the individual who reported the 1987 incident, that other safety problems have not been reported, or that the Licensee's safety organizations and committees would fail to take appropriate action in the event a safety problem were discovered. The Staff concludes that the contention lacks the requisite foundation. Staff Response at 28.

At the prehearing conference, GANE clarified its response by indicating that its sources of information concerning the 1987 incident were both newspaper articles (Tr. 339) and various NRC reports — Enforcement Action 88-32, Inspection Report 50-160/87-08, and Office of Investigations Report 2-88-003 (Tr. 365). Those reports indicate the existence of severe management problems during 1987-88, reflected by the involuntary dismissal of two GTRR employees for reporting safety information to NRC. (Those employees were apparently later reinstated by the University, but to positions outside the GTRR. OI Report 2-88-003.) The reports also ascribe certain of the problems to the then-Director of the GTRR, who also serves as the current Director. Further, the SAR (cited by GANE) indicates that the Director will have significant operational public health and safety responsibilities under a renewed license. SAR Fig. 6.1 at 157.

In evaluating GANE's arguments, the Board agrees that the other officers or committees referenced by the Applicant and Staff appear to exercise oversight or audit-type functions, as claimed by GANE (Tr. 349), rather than day-to-day operational functions. The SAR upon which GANE relies appears to place the

most significant of the operational responsibilities, if not the "sole" responsibility as alleged by GANE, on the Director.

The Staff, in particular, acknowledges the seriousness of the 1987-88 incident (Tr. 374, 377, 378, 384-85) but maintains that GANE has not demonstrated any recent managerial deficiencies. The Staff claims that the earlier managerial problems have been corrected, at least to its satisfaction, more than 6 years ago (Tr. 373). It asserts that, although some minor deficiencies may have been uncovered, nothing approaching the seriousness of the 1987-88 incident has occurred since that time (Tr. 377-78). The Applicant claims that "the problem has been fixed, and there's no allegation that the problem has either not been fixed satisfactorily or that it has recurred" (Tr. 382). Absent demonstration of more recent managerial deficiencies — a pattern of conduct, or at least an event in recent history giving reason to believe that the GTRR is not being operated safely or that it would not be operated safely in the future — the Staff finds insufficient foundation for the contention (Tr. 373-74, 377).

A series of violations or other incidents, even where they rise to a level no higher than a level IV, has been recognized as sufficient to form the basis for a contention challenging the implementation of a reactor's maintenance and surveillance program and, through that vehicle, the managerial sufficiency of various corporate officers and officials. *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5, 19-20 (1993). Here, the 1987-88 incident relied on by GANE is a severity level III (Tr. 378) — more serious than those advanced in *Diablo Canyon*. Furthermore, GANE has never previously had an opportunity to contest in an adjudicative proceeding the acceptance by the Staff of the current Director. As for other, more recent incidents, GANE took steps to obtain that information but was unsuccessful.

Had GANE had more information available to it, it may well have been able to buttress this contention in greater detail. One of the premises emphasized by the Commission in its rule change in 1989 (which raised the threshold for the admission of contentions) was the Commission's expressed desire to require petitioners to become familiar with, and read, the documents relevant to the proceeding that were available prior to seeking intervention. Underlying that premise was the assumption that documents concerning the proceeding would be readily available locally. As stated by the Commission in the Statement of Considerations for the revised intervention rule:

Several months before contentions are filed, the applicant will have filed an application with the Commission, accompanied by multi-volume safety and environmental reports. These documents are available for public inspection and copying in the Commission's headquarters and local public document rooms.

. . . the license application *should include sufficient information* to form a basis for contentions . . . .

54 Fed. Reg. 33,168, 33,170-71 (Aug. 11, 1989) [emphasis supplied].

Reflecting the lack of any local public document room (LPDR) in or near Atlanta, the NRC in its notices concerning the availability of information for this proceeding referred only to the NRC public document room in Washington, D.C. It is unreasonable, however, to expect a *pro se* petitioner such as GANE to travel to Washington, D.C., to obtain adequate information to formulate a successful contention.

As an alternative, GANE contacted the NRC Region II Atlanta office to request copies of reports from 1987 to the present. GANE was provided only one document — that referencing the 1987-88 incident (Tr. 330, 334, 368, 372) upon which GANE relies in its contention. (It does not appear that Region II intentionally withheld documents, but it undoubtedly interpreted very narrowly the description of the reports requested — i.e., accidents or investigations. Tr. 330, 379, 386.) What GANE should have sought were Inspection Reports for the period in question (1988-94) — such as the 1994 report (IR 50-160/94-01) supplied by the Staff in another context, upon which GANE now seeks to rely (Tr. 329, 336, 338). If there had been a LPDR in the Atlanta area, GANE would have been able to peruse the chronological GTRR file (which in any event is part of NRC's NUDOCS system, that also is not present for public access in the Atlanta area but is present in most, if not all, LPDRs).<sup>10</sup>

It turned out from the prehearing conference that Georgia Tech itself maintains complete files on campus that are available for public examination, as long as formal requests are filed (Tr. 39-44, 332-34). Those files, however, were not referenced in NRC's Notice of Opportunity for Hearing — undoubtedly because NRC does not maintain them or, indeed, even supervise their completeness or availability. That being so, and given the premise of NRC's procedural rules as being based on the availability of adequate information, we find that GANE lacked sufficient local access to information to formulate its contention in greater detail beyond the information it has supplied concerning the 1987-88 incident.<sup>11</sup>

As detailed later, however, that information is a sufficient basis for a contention in this proceeding.

<sup>10</sup> Upon inquiry from the Board, the Staff asserted that LPDRs are established for power reactors but not generally for research reactors (Tr. 48). The Board notes, however, that an LPDR was established in 1980 for the renewal of the license for the UCLA Research Reactor, at a library in Los Angeles, California, and that it was kept open until February 11, 1994. 59 Fed. Reg. 4121 (Jan. 28, 1994).

<sup>11</sup> GANE has been put on the distribution list of the Office of Nuclear Reactor Regulation (NRR) in Region II (Tr. 41), but that Office does not generate the inspection reports that would support this kind of contention. GANE also examined the SAR as a predicate for its contentions, including this one, but much of the information bearing upon a contention such as this was not and would not be included in the SAR.

We note the seriousness of the 1987-88 incident and its implications with respect to current management — based on the identical person being Director both then and now. That the Staff is satisfied with the resolution of the incident and has closed it does not preclude another party from taking issue with the adequacy of management at the GTRR, when this appears to be the first occasion where an interested member of the public could have sought to adjudicate this matter. We find that, in these circumstances, GANE has presented an adequate basis to admit this contention, and we are accordingly doing so.

We note, however, that in order to prevail, GANE will have to demonstrate that, *inter alia*, substantial management deficiencies persist.<sup>12</sup> We assume that GANE will utilize discovery to attain examples of recent incidents, if any, that bear on management capability and also may utilize experts with managerial experience.

### 3. *Contention 1: General Safety Deficiencies*

Turning next to the proposed contentions that we find do not meet the Commission's contention requirements, GANE's first contention states that "the GTRR is generally unsafe." As its basis, GANE first contrasts a statement on page 1 of the SAR to the effect that "no safety problems have been encountered" with examples of four alleged incidents that assertedly have occurred throughout the operating life of the reactor, from 1972 to 1987. (The latest of these incidents is the 1987-88 incident discussed under Contention 9, the others occurred earlier.) GANE also incorporates from another contention asserted deficiencies in environmental monitoring. Finally, it cites certain alleged deficiencies in the SAR, both by way of asserted omissions and incorrect statements. Amended Petition at 3.

GANE interprets the SAR claim of "no safety problems" to be inconsistent with the facts and as supporting evidence for its view that the entire SAR is unreliable. Tr. 58. As further basis for that view, GANE asserts that the SAR fails to state the core inventory of radionuclides and fails to discuss core melt scenarios that involve breach of containment. Additionally, GANE asserts that the SAR states an incorrect half-life for I-131 and considers Xe-137 and Kr-90 but erroneously ignores their respective daughter products, Cs-137 and Sr-90.

The Applicant and Staff each oppose admission of Contention 1. The Applicant bases its opposition in large part upon factual rebuttal of GANE's assertions. However, consideration of the factual merits of the contention is premature at this stage. The Staff opposes admission on grounds that GANE

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<sup>12</sup> It is not clear from our record whether Dr. Boyd was one of the two persons dismissed in 1987 — we have not been provided their names — or whether the alleged demotion and later resignation of Dr. Boyd constitutes another instance of potential mismanagement.

has not stated an adequate basis for its contention or that it otherwise has not presented issues suitable for litigation.

The Board concludes that the four events involving radiological contamination cited by GANE are not a sufficient basis to support an assertion that the reactor operation might be unsafe during the future licensing period being sought by Georgia Tech. The events cited by GANE occurred during the period from 1972 to 1987. GANE has neither presented recent safety information nor a technical basis or expert opinion suggesting how these old incidents relate to current safety or the safety of future operation. (We note, however, that we are permitting the 1987-88 incident — apparently the most serious of those cited, as well as the most recent — to be examined under Contention 9, which we are admitting.)

We also reject for lack of basis GANE's assertion that the four incidents demonstrate that Georgia Tech made an inconsistent claim in the SAR, at i. In context, it is clear the cited SAR statement refers specifically to fuel performance and engineered safety systems and not generally to all past incidents associated with reactor operation. No basis is presented for showing that the statement is false with respect to the functions cited. A petitioner's imprecise reading of a reference document cannot serve to generate an issue suitable for litigation.

Petitioners have not proffered a basis or expert opinion supporting their assertion that the SAR is deficient because of data omissions or errors in the text. GANE's opinion is that topics such as core inventory of radionuclides, an additional core melt scenario, and accident dose analyses that specifically cite Cs-137 and Sr-90 should have been discussed in the SAR, but it presents no expert opinion or analysis of why that is so. GANE's desires cannot be admitted for litigation, however, without some threshold technical basis showing safety significance or some other reason why these topics must be included in the SAR.

Similarly, typographical errors in the SAR of the type cited by GANE for the half life of Iodine 137 (1.93 hours instead of 193 hours) may be well founded but are unsuitable for litigation absent some demonstration of a dispute with the Applicant or a showing suggesting that the erroneous number was improperly relied upon in an essential analysis. Indeed, the Applicant states that it has issued a revised version of the SAR with the typographical errors corrected. Tr. 64-65.<sup>13</sup>

For all of the foregoing reasons, the Board finds GANE Contention 1 not admissible in this proceeding.

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<sup>13</sup> The Board has not received or examined the revised version of the SAR. In response to our inquiry, however, the Board was advised that no substantive changes were made but only typographical corrections (Tr. 64-65).



#### 4. *Contention 2: Containment Integrity*

GANE contends that the GTRR containment shell is unable to prevent the escape of radioactive material to the environment. It cites numerous assertions as bases for its contention:

1. The containment shell is designed to leak  $1/2$  percent per day while the SAR describes the shell as relatively leak tight.
2. State of Georgia measurements show a dose rate of 700 mr per year around the reactor site.
3. A criticality accident followed by fuel melt and a steam explosion could occur leading to release of millions of curies of radiation, grave health threats to nearby persons, and billions of dollars worth of property damage.
4. In an accident the reactor building would leak 10,000 curies per day because of its design basis leak rate even if it were not breached by a steam explosion.
5. The containment building can be breached in a steam explosion because the top of the building consists only of a  $7/16$ " steel roof. Moreover a rocket or grenade launched from outside containment would breach the building.
6. The containment building has many doors, electrical penetrations, ventilators, a smoke stack, and a pipe tunnel beneath the reactor, all of which could serve as pathways for escape of radiation in an accident. High doses would be encountered in the pipe tunnel which would endanger emergency workers who enter.

GANE contends that Georgia Tech's refusal to consider a core melt scenario with steam explosion and release of millions of curies of radiation to the environment demonstrates that it has a deficient understanding of reactor operation. Other alleged inaccurate scenarios in the SAR are said to include a radiological dispersion analysis that fails to consider the effects of thunderstorms and tornados and skin dose analyses that fail to consider the simultaneous inhalation dose. GANE asserts that rapid withdrawal or hang up of control rods or flow blockage are unanalyzed scenarios that could lead to a criticality accident.

Finally, GANE asserts that 400,000 curies of Cobalt-60 stored in a pool shielded by 18 feet of water could become unshielded if a steam explosion in the reactor breached the pool. This event is said to yield 480 million Roentgen per hour exposure to emergency personnel.

Both the Applicant and the NRC Staff oppose admission of this contention. The Applicant responded that the issues raised by GANE have been comprehensively addressed in the SAR. Much of the Applicant's response addresses the merits of GANE's contention prematurely and we are unable to consider it at this stage. According to the Applicant, the steam explosion scenario is considered not credible. The 700 mrem/year measured at the site boundary emanated from a storage facility on site that is under State license and is not part of this

renewal application. Similarly, the Cobalt-60 stored under water on site is under State license and also is not a part of this application for license renewal.

The NRC Staff opposes admission of this contention because it assertedly does not comply with 10 C.F.R. § 2.714(b)(2)(ii) and (iii). These sections require that GANE provide a statement of facts or expert opinion that support the contention and sufficient information to demonstrate the existence of a genuine dispute with the Applicant on a material issue of law or fact. GANE assertedly has not done so but instead provides only its own unsupported opinions. The Staff believes that GANE's concerns about the 700 mrem/yr dose measurement by the Georgia Environmental Protection Division (EPD) lacks specificity with respect to time and place and present-day radiation levels. The Staff further states that GANE asserts that the Applicant's dose projections for design-basis accidents constitute unacceptable risk but does not cite any violation of NRC regulations. According to the Staff, GANE's concern for rocket or grenade penetration of the  $\frac{7}{16}$ -inch steel roof of the reactor building fails to take account of the protective function of the concrete biological shield around the reactor inside containment. Finally, the Staff claims that GANE's concern for workers entering the pipe tunnel for cooling water hookup in an emergency does not take account of information in the SAR that discloses that there is shielding in the pipe tunnel and that the emergency water hookup is not located in the tunnel but in a lab building outside containment.

The Board rejects this contention for the following reasons. GANE is primarily concerned that the Applicant omitted an important accident scenario from the SAR wherein the fuel melts, a steam explosion and breach of containment occur, and millions of curies of radiation are released to the environment with consequent widespread health effects and property damage. The Board finds no technical basis in references or expert opinion supporting GANE's view that this is a possible accident scenario. The Board was unable to elicit such basis from GANE at the prehearing conference (Tr. 81-85). The Board finds that the accident scenario proffered by GANE lacks the technical basis necessary for the admission of a contention as specified in 10 C.F.R. § 2.714(b)(2). Accordingly, we deny admission of GANE's accident scenario, together with all of the alleged consequences of such a scenario.

GANE's assertion that the containment building will leak 10,000 curies per day in the wake of an accident where containment is not breached is similarly lacking in basis. Although GANE cites the SAR accurately for the maximum design-basis leak rate of containment, it cites an inaccessible person of unknown credentials to support the assertion of 10,000 curies per day leakage (Tr. 90-93). This is an inadequate basis for a contention.

GANE's assertion that State of Georgia dose measurements in the vicinity of the reactor were 700 mrem/yr lacks sufficient specificity for admission as a contention. GANE provides no information establishing whether the reactor

is the source of the radiation, whether the source is under jurisdiction of the State or the NRC, whether the dose currently exists, or whether there has been a violation of NRC regulations. Additionally, there is no dispute of material fact because neither the Applicant nor the Staff contests the existence or accuracy of the cited dose rate.

GANE's concerns for exposure of reactor personnel to radiation from 400,000 curies of Co-60 is derived from its accident scenario involving a steam explosion and breach of containment, which we earlier found inadmissible for lack of technical basis. In this case, a steam explosion is postulated to breach the storage pool causing a loss of water which shields the Co-60. Because it is dependent on a postulated steam explosion, this concern suffers from the same deficiency of technical basis as the excluded accident scenario. Moreover, the Co-60 is regulated by the State of Georgia under its authority as an agreement State and is not under the jurisdiction of the NRC. The Co-60 has no role in GTRR operations and is not a part of the renewal application. We could consider the Co-60 in this proceeding if there were a sufficient basis to suggest an effect on reactor safety; however we find no such basis here.

The Board finds that Contention 2 lacks the technical basis required by 10 C.F.R. § 2.714(b)(2) and it is not admitted.

#### **5. Contention 3: Contamination of Sewer System**

GANE contends that the GTRR is contaminating the City of Atlanta sewer system, by releasing radioactive material to the sewers of Atlanta. As basis for this allegation, it cites sewer contamination it says occurred in Albuquerque, New Mexico, and Cleveland, Ohio. It also asserts that NRC has revised its regulations governing sewage disposal of radionuclides because of its discovery of radionuclide accumulation in sewers, and that NRC ordered Georgia Tech to perform a study of radiation levels in the sewer serving the reactor which was never done.

The Applicant and the Staff oppose admission of this contention. The Applicant relies prematurely on factual rebuttal while the Staff asserts that GANE has provided inadequate basis for the contention.

The Board concludes that GANE has not provided a sufficient technical or legal basis for its contention. It does not assert a violation by GTRR of any NRC regulation governing sewage disposal of radioactive material. Nor does it cite any basis in documents or expert opinion for its belief that GTRR has discharged insoluble radioactivity that is accumulating in the sewers. A finding of radiation in the sewers of other cities has no bearing on events occurring in Atlanta. Nor is NRC's review of its regulations governing discharge of radioactivity to the sewers an adequate basis for this contention. *See, e.g., Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-813, 22 NRC*

59, 85-86 (1985); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), ALAB-655, 14 NRC 799, 816 (1981). Finally, GANE has presented an inadequate basis for its assertion that the NRC ordered GTRR to perform a study of the sewers which was never done.<sup>14</sup> For all of the foregoing reasons, Contention 3 is not admitted.

#### 6. *Contention 4: Unstable Geologic Conditions*

GANE contends that the GTRR site is unsafe because it suffers from unstable geologic conditions. GANE asserts that an underground water flume directly below the reactor could create a sinkhole that would undermine the reactor foundation. Danger to the reactor foundation is also said to arise from the possible collapse of an old 6-foot pipe tunnel that runs beneath the reactor. GANE alleges that the reactor foundation is sited atop the Wahoo Creek formation which it says is not solid bedrock, contrary to the assumption of reactor management. It further alleges that the reactor building has visible water damage and cracking caused by structural stress from a shifting foundation, that the SAR gives an inadequate description of the underlying geologic structures, that the local water table is only 11 feet beneath the surface in some places, and that the reactor building and parking lot are in a low-lying area that experiences regular flooding and dampness.

GANE advances as bases for its concerns that a sinkhole appeared adjacent to the reactor building 20 years ago; a sewer line collapsed  $\frac{1}{4}$  mile from the reactor building killing two persons in 1993; and that the reactor foundation is a slabby, viscous, muddy, medium-grained muscovite plagioclase gneiss which tends to break across oblique planes. It cites *Alternatives 9/93* (later shown to be 1/94), a Geologic Survey Bulletin, and the SAR as bases for its concerns for the geologic foundation.

The Applicant opposes admission of this contention on the grounds that it is without merit. The NRC Staff opposes admission on the ground that the contention is comprised of GANE's personal opinion but that GANE has not met its burden to make a showing by analysis or expert opinion that a genuine dispute with the Applicant exists on these matters.

The Board concludes that the Staff's analysis is correct. There is no evidence presented showing that there has been a sinkhole adjacent to the reactor and it cannot now be determined on this record that such an event occurred. No analysis or expert opinion is provided to suggest that there is a threat to public health and safety arising from a pipe tunnel under the reactor or from the

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<sup>14</sup> GANE cited *Alternatives 9/93* as basis for its assertion of NRC-ordered studies. Upon inquiry, the cited article did not appear to support the assertion. Tr. 139-42. Later it was revealed that the correct reference was *Alternatives 1/94*. Tr. 160-62.

geologic foundation of the reactor. The collapse of a sewer tunnel elsewhere in Atlanta is not an adequate basis for inferring that a threat to public health and safety exists at the reactor. The materiality to public health and safety of a groundwater table 11 feet below the surface or flooding in the reactor parking lot has not been provided and is not self-evident. GANE would have us infer a public health threat from the existence and description of these structures and circumstances. However, it is the petitioner who is obligated to provide the analyses and expert opinion showing why its bases support its contention. It has not done so and the Board may not make factual inferences on petitioner's behalf. *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149 (1991). For all of the foregoing reasons, this contention is not admitted.

#### **7. Contention 6: Adequacy of Monitoring**

GANE contends that the GTRR is unsafe to the public because it has not been and is not now being monitored adequately. GANE asserts as basis for its contention that Georgia's EPD has responsibility for monitoring around the GTRR. It asserts that EPD has performed no air monitoring; many isotopes are unmonitored; there has been no offsite monitoring; EPD has exercised diminishing oversight over the years; it has failed to publish annual reports since 1989; water monitoring has not been performed since 1980; and all TLD data from 1979 to 1985 were erroneous and had to be corrected. Strontium-90 and Cs-137 are assertedly not monitored. The regulatory authority is not clear to the regulators themselves and leaves a regulatory void with serious harm to the public. Finally, Petitioners assert that the Georgia EPD has a conflict of interest as a regulator, arising from the fact that EPD is a customer of GTRR.

The Board rejects all of the foregoing assertions at the outset because they allege performance deficiencies by an agency of the State of Georgia that are beyond our jurisdiction to consider. The State of Georgia conducts environmental monitoring in the vicinity of the GTRR in coordination with Georgia Tech. However, the Applicant is required to conduct its own monitoring (SAR at 97-102; ER ¶4.7) and nothing in the record of which we are aware would indicate that it does not do so. Grant of the proposed GTRR license is not dependent upon the monitoring performance of an agency of the State.

GANE further asserts that students monitor Ar-41 in air only once per year in the vicinity of GTRR. GANE's opinion is that the following statements in the SAR are untrue: that gas is monitored as it leaves the building; AR-41 is the only notable isotope emitted and this is validated by environmental monitoring; there have been 10 years of safe operation of the reactor; and long-term effects of license renewal on the environment will be insignificant. Finally, GANE is concerned that long-term contamination has already occurred in the environment.

The Applicant and the Staff oppose this contention on the grounds that GANE has not provided bases for its assertions.

The Board finds that: GANE's assertion about student monitoring is not in dispute, is immaterial to license renewal, and is the result of imprecise reading of the SAR by GANE (Tr. 259-62). Grant of the proposed license is not dependent upon radiological monitoring done by students. The Board finds that GANE has supplied nothing whatever as bases for its claim that statements about environmental monitoring by the Applicant in the SAR are untrue. For all of the foregoing reasons, Contention 6 is not admitted.

#### **8. Contention 7: Emergency Response Plan**

GANE contends that the GTRR is not safe because it does not have an adequate emergency response plan. It asserts that: the emergency response plan is uncoordinated and unknown to local and state authorities; that Georgia Tech has never held a campus-wide evacuation drill; that the emergency command center would be unworkable in the event of a core-melt accident because of its location inside the facility; that 10,000 curies per day would escape to the environment due to core melt; that radiation releases would range further than 100 meters of the EPZ; and that Georgia Tech is negligent in not planning for a large release.

Both the Applicant and the Staff oppose admission of this contention. The Staff asserts that GANE has provided no technical support for its bases or that it asserts matters that are not required by regulations.

The Board finds that Contention 7 must be rejected for failure to provide bases; failure to provide statement of alleged fact or expert opinion in support of the contention; and for failure to show that a genuine dispute exists with the applicant on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(i), (ii), and (iii). GANE's assertions represent only its own unsupported opinion as to credible accident scenarios and consequences of accidents and its differing opinion of what the applicable regulations should require. Its opinion that local and state authorities are uninformed about emergency responses at GTRR is founded on a report of a misdirected telephone call by a person not acting for GANE (Tr. 269, 271-74, 278-79).

#### **9. Contention 8: Reservoir Contamination**

In this contention, GANE asserts that the Hemphill reservoir, located within a mile of the GTRR, is vulnerable to extensive contamination if there is an accidental release from the reactor. GANE further asserts that the contamination would exacerbate the chronic water shortage in the Atlanta region caused by the

rapidly growing population and deteriorating infrastructure. Amended Petition at 8-9.

The Applicant and the Staff oppose admission of this contention. The Applicant asserts that no credible accident has been postulated and the reservoir is located upwind from the prevailing winds at the reactor. The Staff maintains that GANE fails to provide any supporting fact or expert opinion as it is required to do under Commission regulations.

This contention about an accidental release contaminating the Hemphill reservoir is merely an expression of GANE's opinion. No basis is provided for any of these assertions. The Commission's regulations require, *inter alia*, that GANE provide a concise statement of the alleged facts or expert opinion to support the contention, and sufficient information to show that a genuine dispute exists with the Applicant. 10 C.F.R. § 2.714(b)(ii) and (iii). GANE has not met these requirements.

Specifically, GANE has not provided a concise statement of the alleged facts relating to how an accidental release would occur and how such a release would contaminate the reservoir, nor what expert opinion GANE intends to rely upon to prove the contention. Neither does GANE make any references to any specific sources or documents upon which it intends to rely to prove the contention. Without these showings GANE has not provided sufficient information to demonstrate that a genuine dispute exists with the Applicant regarding the postulated accidental release from the reactor and any subsequent contamination of the reservoir. Based on these considerations, the Board finds this contention inadmissible.

#### **10. Contention 10: Financial Liability**

GANE claims in this contention that the GTRR is a financial liability to taxpayers of the State of Georgia and to the University. Specifically, GANE asserts that over half of the operating cost of the research reactor is paid by Georgia taxpayers, amounting to about half a million dollars per year; and it is questionable whether the other half of the costs can be generated by contract work because of lack of use of the GTRR. GANE believes that the University's request for a waiver of the annual \$60,000 fee from the Commission further underscores the fact that the reactor is a burden to the University. GANE further asserts that the decommissioning of the reactor "holds yet a stiff fee for Georgia taxpayers" due to uncertain cost estimates as a result of the lack of "real decommissioning" and the "failure of nuclear waste policy in this country to date." Finally, GANE states that it "envision[s] a noble role for Georgia Tech, if they will but accept it, to treat the nuclear waste and decommissioning aspects of the reactor seriously, and immediately, and make the needed discoveries

for humanity on the thorny issues of nuclear waste and decommissioning." Amended Petition at 10-11.

Both the Applicant and the Staff oppose admission of this contention. The Applicant states that it finds no merit in the contention because the reactor is being used for education, research, and public service. The Staff argues that the benefits and alternative use of the reactor are not appropriate issues for litigation in this proceeding; and GANE has not provided sufficient basis to dispute the Applicant's cost estimate of decommissioning.

As set forth, the issue of the research reactor being a financial burden to the taxpayers of Georgia or to the University is outside the scope of this proceeding and hence is beyond our jurisdiction. For this license renewal application, the Commission's regulations do not require a showing by the Applicant of lack of financial burden either to the taxpayers of Georgia or the University.

Although the Commission's rules may allow litigation of an alleged failure of an applicant's environmental report to provide an adequate cost-benefit analysis, GANE's contention is not framed this way at all. GANE has neither stated that there is a lack of cost-benefit analysis in the Applicant's environmental report nor asserted that it even wished to litigate this issue. Tr. 295-96.

The argument that the request for a waiver of the annual \$60,000 fee further underscores the financial burden to the University is moot because currently no fee is required. 10 C.F.R. § 170.11; Tr. 300-01. As to the decommissioning cost, by merely questioning the Applicant's cost estimate, GANE has not provided any facts or expert opinion to support its view. No factual or legal basis was provided by GANE to show that the Applicant has not met the requirements of 10 C.F.R. § 50.75, or any other Commission regulation.

GANE's statement regarding its envisioning a noble role for Georgia Tech to address the issues of nuclear waste and decommissioning is an expression of its opinion. It is not relevant to a proper issue in this proceeding.

Based on the above considerations, GANE in its contention has not met the requirements of 10 C.F.R. § 2.714(b)(ii) and (iii) in providing any basis of a genuine dispute with the Applicant on an issue of law or fact material to this proceeding. Therefore, the Board finds this contention inadmissible.

### C. Order

For the reasons stated, and in light of the entire record of this proceeding, it is, this 26th day of April 1995, ORDERED:

1. The request for a hearing and petition for leave to intervene of Georgians Against Nuclear Energy (GANE) is hereby *granted*.
2. GANE Contentions 5 and 9 are hereby *admitted*.
3. GANE Contentions 1, 2, 3, 4, 6, 7, 8, and 10 are hereby *denied*.



4. The Licensing Board will conduct a telephone conference call in the near future, at a time to be identified by the Licensing Board following consultation with parties' representatives, to establish the mechanics of GANE's obtaining access to security information, as well as schedules for discovery, summary disposition motions (if sought by any party), and potential hearing schedules.

5. This Order is subject to appeal to the Commission in accordance with the requirements of 10 C.F.R. § 2.714a. Any such appeal must be filed within ten (10) days after service of this Order. Under 10 C.F.R. § 2.714a(c), this Order may be appealed only by the Applicant or the NRC Staff.

6. Notwithstanding the pendency of any appeals, the parties shall proceed to prosecute their cases before us with due diligence.

THE ATOMIC SAFETY AND  
LICENSING BOARD

Charles Bechhoefer, Chairman  
ADMINISTRATIVE JUDGE

Dr. Jerry R. Kline  
ADMINISTRATIVE JUDGE

Dr. Peter S. Lam  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
April 26, 1995

Judge Kline joins in this Order in all respects except for the acceptance of Contention 5. Judge Kline's dissenting opinion with respect to that contention follows.

**Dissenting Opinion of Judge Kline on Contention 5:**

My colleagues would admit parts of Contention 5 that assert special hazards to GTRR because the City of Atlanta will shortly host the Olympic Games. They would treat the Olympic Games as causing an individual facility or site condition justifying alternate or additional security measures within the meaning of 10 C.F.R. § 73.60(f). However, I find that GANE's pleading has fallen short of providing acceptable bases for this contention under section 2.714(b)(2) and

it must be rejected before reaching the threshold for consideration of alternative provisions under section 73.60(f). GANE has provided no facts or expert opinion that support the contention.

GANE asserts that the Olympics have historically attracted terrorist activity and that the bomb-grade nuclear fuel at GTRR would be a tempting target for terrorists. GANE appears to be concerned about theft of special nuclear material (SNM) and radiological sabotage. Contention 5 could be viewed as expressing concern either that: (1) an attack on the GTRR is more likely during the Olympic Games or (2) that an attack on GTRR during the Games might be of a character that is more likely to succeed in causing radiological sabotage or a diplomatic disaster.

Petitioner's general concern that the reactor might be specially targeted for attack by terrorists during the Olympics lacks both factual and regulatory bases. GANE provides no authority showing that any reactor anywhere has been attacked by terrorists and there is no basis provided for its opinion that GTRR might be a tempting target for terrorists. Neither does GANE provide any authority supporting its view that the Licensee is required by regulations to consider and respond to subjectively perceived changes in risk of attack during special events such as the Olympics. My reading of sections 73.60 and 73.67 which specify security requirements for nonpower reactors did not reveal any such requirements.

GANE asserts several factual bases in support of Contention 5, including: (1) close proximity of Olympic housing to the reactor, (2) a terrorism incident at a previous Olympic event, and (3) a letter expressing security concerns that was written to the Commission by a previous employee of GTRR.<sup>15</sup> In each case the asserted basis invites an inference that there might be generally increased likelihood of attack on GTRR during the Olympic Games. The bases are inadequate under the provisions of 10 C.F.R. § 2.714(b)(2)(i), (ii), and (iii) and for the reasons stated above. Even if the bases are true, and no party has disputed them, no violation of NRC regulations is cited and they fail to state a dispute of material fact with the Applicant. All assertions of increased risk are generic; no concrete basis suggesting the existence of a specific plan to target GTRR has been provided.

Section 73.67(a)-(d) requires licensees that possess or use special nuclear material of moderate or low strategic significance to take specific steps to control, mitigate, or otherwise abate threats of theft or diversion of special nuclear material. Additionally, the performance requirements found in section 73.40 require generally that the licensee protect against radiological sabotage

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<sup>15</sup> GANE asserted, as additional basis, at the prehearing conference that the nonpower reactor at UCLA was shut down during the Olympic Games in Los Angeles. No basis for this assertion was presented, nor is its relevance to this case evident. Tr. 176-77.

in accordance with security plans approved by the Commission. Section 73.60 provides additional security requirements, including protection against radiological sabotage, for nonpower reactors that possess in excess of formula quantities of special nuclear material. The SAR appears to show that GTRR possesses less than a formula quantity of SNM, however, and that section may not be applicable if there is no other inventory of SNM on site.

No basis has been provided suggesting that the Applicant has failed to comply with applicable regulations or that actions required by regulation would be less effective in preventing radiological sabotage or diversion of special nuclear material during the Olympics than at any other time. The Board may not make an inference of increased likelihood of attack or of successful theft or sabotage during special events such as the Olympic Games in the absence of bases provided by petitioners. *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). I disagree with my colleagues' view that compliance with regulations is irrelevant to the question before us. Clearly some basis needs to be provided showing that compliance with applicable regulations would be inadequate to cope with the risk before the special provisions of section 73.60(f) are invoked.

The hypothetical use of grenades or rocket launchers against the reactor is inadequate basis for the contention because there is no citation of a requirement to repel such threats that is applicable to nonpower reactors. These weapons may be within the scope of the design-basis threats set forth in section 73.1(a)(1); however, the Staff appears to believe that the design-basis threat for radiological sabotage is not applicable to this reactor. Tr. 171-75. In its brief to the Board, the Staff cited section 73.1 in support of its view that GANE had not alleged that the licensee is obligated to consider rocket or grenade attacks on the reactor.<sup>16</sup>

Section 73.1(a) provides: "The following design basis threats *where referenced in ensuing sections of this part*, shall be used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft of special nuclear material" (emphasis added). Neither section 73.60 nor section 73.67 specifically references the design-basis threats in section 73.1(a)(1). Nor does NRC guidance to licensees for the format and content of physical security plans refer to the design-basis threats of section 73.1(a)(1).<sup>17</sup> I conclude that section 73.1(a)(1) does not apply to the GTRR and that the bases for Contention 5 that appear to rely on design-basis threats must be rejected.

<sup>16</sup> NRC Staff Response at 24 n.33; NRC Staff's Response to Licensing Board's Memorandum and Order of March 3, 1995, dated March 20, 1995, at 5 n.4.

<sup>17</sup> Standard Format and Content for a Licensee Physical Security Plan for the Protection of Special Nuclear Material of Moderate or Low Strategic Significance, Regulatory Guide 5.59 Rev. 1, February 1983. I find no reference to design basis threats in this guide. While regulatory guides do not substitute for regulations, it is inconceivable that an NRC guide could be issued with so gross an error as to overlook a design-basis threat that the Commission intends should apply.

I find that GANE was not unfairly handicapped in preparation of Contention 5 by lack of access to the GTRR security plan. Security vulnerabilities at GTRR could, if they exist, be adequately identified, for example, by expert perusal of the SAR, by direct inspection of the reactor, by interview of knowledgeable experts, or by reference to authoritative writings on industrial security. Petitioners provided nothing suggesting they have undertaken any effort beyond formulating their personal opinion in support of this contention.

GANE's concerns are so general as to be applicable in substantially equal measure to all of Atlanta and to any public event. In this case, Petitioner has provided no basis suggesting that there is a particular threat focused on GTRR. Nor has it shown any regulatory basis suggesting that GTRR is required to respond to generic assertions of increased risk associated with special events such as the Olympic Games. Contention 5 should be rejected.

Dr. Jerry R. Kline  
ADMINISTRATIVE JUDGE

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William T. Russell, Director

In the Matter of

Docket Nos. 50 361

50-362

SOUTHERN CALIFORNIA EDISON  
COMPANY, *et al.*  
(San Onofre Nuclear Generating  
Station, Units 2 and 3)

April 27, 1995

The Director, Office of Nuclear Reactor Regulation, denies a petition filed on August 10, 1994, by Mr. Ted Dougherty requesting a shutdown of the San Onofre Nuclear Generating Station. The request was based on concerns regarding the vulnerability of SONGS to earthquakes because of the existence of nearby fault lines, and concerns regarding the defensibility of SONGS to a terrorist threat.

**SEISMIC AND GEOLOGIC CRITERIA: PLANT DESIGN**

Appendix A (Criterion 2) to 10 C.F.R. Part 50 states that the design basis for the nuclear power plant should reflect the most severe of the natural phenomena that have been historically reported for the site and surrounding area, the combinations of the effects of normal and accident conditions with the effects of the natural phenomena, and the importance of the safety functions to be performed.

**SEISMIC AND GEOLOGIC CRITERIA: PLANT DESIGN**

Appendix A to 10 C.F.R. Part 100, "Seismic and Geologic Siting Criteria for Nuclear Power Plants," Section III(c), requires that the nuclear power plant's design bases for earthquakes be determined through evaluation of the geologic and seismic history of the nuclear power plant site and surrounding region.

## **TECHNICAL ISSUES DISCUSSED: PHYSICAL PROTECTION OF NUCLEAR PLANTS**

The design-basis threat for radiological sabotage has been modified by an amendment to 10 C.F.R. Part 73 to include use of a land vehicle by adversaries for transporting personnel and their hand-carried equipment to the proximity of vital areas and to include a land-vehicle bomb.

### **DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

#### **I. INTRODUCTION**

On August 10, 1994, Mr. Ted Dougherty (the Petitioner) submitted a letter to the Nuclear Regulatory Commission (the Commission or NRC) requesting a shutdown of the San Onofre Nuclear Generating Station (SONGS). The Commission determined to act on this request pursuant to 10 C.F.R. § 2.206. The request was based on concerns regarding the vulnerability of SONGS to earthquakes because of the existence of nearby fault lines, and concerns regarding the defensibility of SONGS to a terrorist threat.

On September 22, 1994, I informed the Petitioner that the petition had been referred to this Office for action pursuant to section 2.206 of the Commission's regulations. I also informed the Petitioner that the NRC would take appropriate action within a reasonable time regarding the Petitioner's request.

My Decision in this matter follows.

#### **II. BACKGROUND**

The Petitioner provided as basis for the request (1) a letter to the Governor of California wherein the Petitioner expressed concerns regarding the vulnerability of SONGS to earthquakes and (2) a *Los Angeles Times* article concerning the threat of vehicle bombs and the Commission's recent rule requiring nuclear generating plants to install antiterrorist barriers within 18 months.

#### **III. DISCUSSION**

##### **A. Vulnerability of SONGS to Earthquakes**

The Petitioner asserts that SONGS is vulnerable to a deep ocean quake as well as a magnitude 8 earthquake (or greater) on the Newport-Inglewood fault. He asserts that human error following an earthquake of this magnitude could result

in failure of the plant's safety systems to protect the plant, thereby resulting in a meltdown.

Before licensing SONGS (and all nuclear plants), the NRC reviewed the design of the facility including its ability to withstand the effects of natural phenomena such as earthquakes, tornadoes, and hurricanes without loss of capability to perform the safety functions. Appendix A (Criterion 2) to 10 C.F.R. Part 50 states that the design basis for the nuclear power plant should reflect the most severe of the natural phenomena that have been historically reported for the site and surrounding area, the combinations of the effects of normal and accident conditions with the effects of the natural phenomena, and the importance of the safety functions to be performed. Appendix A to 10 C.F.R. Part 100, "Seismic and Geologic Siting Criteria for Nuclear Power Plants," section III(C), requires that the nuclear power plant's design bases for earthquakes be determined through evaluation of the geologic and seismic history of the nuclear power plant site and surrounding region. The purpose of this determination is to estimate the magnitude of the strongest earthquake that might affect the site of a nuclear power plant during its operating lifetime. The earthquake postulated for the seismic design of a plant, called the Safe Shutdown Earthquake (SSE), defines the maximum ground motion for which certain nuclear power plant structures, systems, and components necessary for safe operation and shutdown are designed to remain functional (e.g., for decay heat removal after the reactor is shut down).

The San Onofre Nuclear Generating Station (SONGS) site had undergone geologic and seismic investigations and reviews prior to issuance of the construction permits, including surveys performed by the Applicant, the United States Geological Survey, the California Division of Mines and Geology, and the National Oceanic and Atmospheric Administration. The findings of these investigations were reviewed extensively by the Staff and were litigated extensively in proceedings concerning the issuance of the construction permits<sup>1</sup> and operating licenses<sup>2</sup> for SONGS Units 2 and 3.

The Petitioner asserts that SONGS is vulnerable to a deep ocean quake. There are a number of offshore faults in the coastal waters off Southern California. Of greatest concern to the San Onofre site is an offshore structure beginning with the Newport-Inglewood Zone of Deformation near Long Beach, passing the site about 8 kilometers offshore and extending south to the San Diego area as the Rose Canyon Fault Zone.<sup>3</sup> This entire structure is known as the Offshore Zone

<sup>1</sup> See LBP-73-36, 6 AEC 929 (1973); ALAB-248, 8 AEC 957 (1974).

<sup>2</sup> See LBP-82-3, 15 NRC 61 (1982); ALAB-673, 15 NRC 688 (1982); ALAB-717, 17 NRC 346 (1983); and see *Carstens v. NRC*, 742 F.2d 1546 (D.C. Cir. 1984), *cert. denied*, 471 U.S. 1136 (1985) (the Court of Appeals affirmed the Commission's granting of the operating licenses for SONGS Units 2 and 3, noting the voluminous record and substantial evidence supporting the seismic review).

<sup>3</sup> See LBP-82-3, *supra*, 15 NRC at 68.

of Deformation (OZD).<sup>4</sup> The Atomic Safety and Licensing Board determined, during the 1982 operating license proceeding, that, based on historic earthquake data, the distinctive geology of the area, and prevailing stresses in the earth's crust, the controlling feature for San Onofre is the OZD.<sup>5</sup>

The Petitioner asserts that SONGS is vulnerable to a magnitude 8 or greater earthquake on the Newport-Inglewood Fault. The largest earthquake known to have occurred on that fault is the 1933 Long Beach earthquake which was a magnitude 6.3.<sup>6</sup> Testimony presented during the operating license proceeding concluded that the features of the OZD, its geologic strain rate, regional tectonic setting, and absence of extensive and/or through-going fault ruptures in near-surface strata along much of the OZD, all support earthquakes of less than about a magnitude 7.<sup>7</sup> In addition, the NRC Staff concluded, based on an evaluation of historical seismicity of the OZD and an evaluation of the fault parameters, that a maximum magnitude of 7.0 is based upon a reasonable and conservative interpretation of all available geological and seismological information.<sup>8</sup> The Atomic Safety and Licensing Board<sup>9</sup> as well as the Atomic Safety and Licensing Appeal Board<sup>10</sup> concluded that a magnitude 7 earthquake on the OZD is appropriately conservative.<sup>11</sup> The Petitioner has not provided any basis to support the likelihood of a magnitude 8 or greater earthquake on the Newport-Inglewood Fault or call into question the conclusion of the Atomic Safety and Licensing Board and the Atomic Safety and Licensing Appeal Board.

The Petitioner expresses concern that panic caused by an earthquake could result in a meltdown due to human error. The ability of a nuclear power plant to resist the forces generated by the ground motion during an earthquake is incorporated in the design and construction of the plant. Industry codes and practices that govern the design and construction of nuclear power plant structures and components are far more stringent than those used for residential and commercial buildings. As a result, nuclear power plants are able to resist earthquake ground motions well beyond their design bases and well beyond the ground motion that would result in damage to commercial buildings.

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<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 69.

<sup>6</sup> *Id.* at 104.

<sup>7</sup> ALAB-673, *supra*, 15 NRC at 709 n.40.

<sup>8</sup> NUREG-0712, "Safety Evaluation Report Related to the Operation of San Onofre Nuclear Generating Station, Units 2 and 3," § 2.5.2.3.4 (February 1981).

<sup>9</sup> See LBP-82-3, *supra*, 15 NRC at 86.

<sup>10</sup> ALAB-717, *supra*, 17 NRC at 364-65.

<sup>11</sup> The Petitioner also provided a scenario of the effects on the Los Angeles area of a magnitude 6 earthquake on the Newport-Inglewood Fault followed by a magnitude 8 earthquake. The Petitioner has failed to provide any basis to support this scenario. The Staff reviewed this scenario and determined that, based on the investigations and reviews discussed above, it has no basis in scientific theory or physical possibility.



As a safety requirement, nuclear power plants have strong-ground-motion seismic instruments in and near the sites. If the ground motion at a site exceeds a specified level, which is one-half or less of the Safe Shutdown Earthquake, the plant is required to shut down (10 C.F.R. Part 100, Appendix A, V(a)(2)). As a defense-in-depth design feature, SONGS has an automatic seismic scram system to shut down the reactors when the ground motion exceeds a conservatively selected threshold value.<sup>12</sup> Prior to resuming operations following plant shutdown as the result of an earthquake, the licensee is required to demonstrate to the Commission that no functional damage has occurred to those plant features necessary for continued safe operation.

In summary, based on exhaustive seismic and geologic investigations performed for the SONGS site, which has been subjected to extensive litigation, the seismic design basis for the plant is reasonably conservative.

The Petitioner has failed to provide an adequate basis for his concern regarding the seismic adequacy of SONGS and, accordingly, has not raised any substantial health or safety issue that would call into question the safe operation of SONGS.

## **B. Threat of Vehicle Bombs**

The Petitioner asserts that SONGS is not defensible from terrorists. The Petitioner bases this assertion on a newspaper article (*Los Angeles Times*, Aug. 4, 1994) concerning the threat of vehicle bombs at nuclear plants and the Commission's recent rule requiring nuclear plants to install antiterrorist barriers within 18 months.

The Commission's regulations regarding physical protection of nuclear plants are set forth in 10 C.F.R. Part 73. The regulations require a physical protection system designed to protect against acts of radiological sabotage or theft of special nuclear material based on certain design-basis threats. The design-basis threats for radiological sabotage defined in 10 C.F.R. § 73.1(a)(1) include "a determined, violent, external assault." The potential threat posed by malevolent use of vehicles as part of a violent external assault and the need to protect against it, were the subject of detailed analysis before the NRC published its regulations on design-basis threat. However, the use of a land-vehicle bomb was not initially included in the design-basis threat for radiological sabotage.

The newspaper article cited by the Petitioner describes two events that occurred in February 1993: a forced vehicle entry into the protected area at Three Mile Island (TMI), Unit 1, and a van bomb which was detonated in a

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<sup>12</sup> NUREG-0741, "Technical Specifications San Onofre Nuclear Generating Station Unit 2," Table 3.3.1 (February 1982); and NUREG-0952, "Technical Specifications San Onofre Nuclear Generating Station Unit 3," Table 3.3.1 (November 1982).

public underground parking garage at the World Trade Center in New York City. As a result of these events, the Commission directed the NRC Staff to reevaluate and, if necessary, update the design-basis threat for vehicle intrusions and the use of vehicle bombs.

In its subsequent review of the threat environment, the NRC Staff concluded that there is no indication of an actual vehicle threat against the domestic commercial nuclear industry (59 Fed. Reg. 38,889 (Aug. 1, 1994)). Nonetheless, in light of the above recent events, the NRC Staff concluded that a vehicle intrusion or bomb threat to a nuclear power plant could develop without warning in the future. Therefore, on August 1, 1994, the Commission published in the *Federal Register* (59 Fed. Reg. 38,889), a final regulation to amend its physical protection regulation for operating nuclear power reactors. The amendments modified the design-basis threat for radiological sabotage to include use of a land vehicle by adversaries for transporting personnel and their hand-carried equipment to the proximity of vital areas and to include a land-vehicle bomb (see 10 C.F.R. § 73.1(a)(1)(i)(E) and (iii)).

All operating commercial nuclear power plants, including SONGS Units 2 and 3, must comply with the modified design-basis threat. This amended rule requires reactor licensees to install vehicle control measures, including vehicle barrier systems, to protect against the malevolent use of a land vehicle, by February 29, 1996 (see 10 C.F.R. § 73.55(c)(9)). A description of the proposed vehicle control measures for all operating commercial power reactors was required to be submitted to the Commission by February 28, 1995, for review. The Licensee for SONGS submitted its proposed measures on February 24, 1995, and they are currently being reviewed by the NRC Staff.

The security program at SONGS has consistently demonstrated superior performance and continues to exceed regulatory requirements. In addition to the normal NRC inspection activities of the SONGS security program, an Operational Safeguards Response Evaluation (OSRE) was conducted with the assistance of members of the U.S. Army Special Forces. One objective of the OSRE is to evaluate the Licensee's abilities to respond to an external threat. The OSRE team concluded that SONGS had an excellent contingency response capability.

The Petitioner has failed to provide an adequate basis for asserting that the plant is not defensible. The Petitioner cited a newspaper article as basis for his allegation. The article does not provide any information that is new or different from that already considered by the Commission. The Staff has concluded that the Petitioner has not raised a significant health or safety issue.

#### IV. CONCLUSION

The NRC Staff has reviewed the basis and justification stated to support the Petitioner's request that the NRC take appropriate actions to cause the shutdown and dismantling of SONGS. This review did not reveal any substantial safety issues that would call into question the continued safe operation of SONGS.

The institution of proceedings in response to a request pursuant to section 2.206 is appropriate only when substantial health and safety issues have been raised. See *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 176 (1975), and *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). This standard has been applied to determine whether any action in response to the Petition is warranted. For the reasons discussed above, no basis exists for taking any action in response to the Petition as no substantial health or safety issues have been raised by the Petition. Accordingly, no action pursuant to section 2.206 is being taken in this matter.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c). As provided by this regulation, the Decision will constitute the final action of the Commission 25 days after issuance, unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

William T. Russell, Director  
Office of Nuclear Reactor  
Regulation

Dated at Rockville, Maryland,  
this 27th day of April 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque  
Shirley A. Jackson

In the Matter of

Docket Nos. 50-321  
50-366  
50-424  
50-425  
(10 C.F.R. § 2.206)

GEORGIA POWER COMPANY, *et al.*  
(Hatch Nuclear Plant, Units 1 and 2;  
Vogtle Electric Generating Plant,  
Units 1 and 2)

May 11, 1995\*

The Commission clarifies that nothing in its earlier decision, CLI-93-15, 38 NRC 1 (1993), purported to prohibit the Staff from taking further action on the pending Vogtle and Hatch transfer amendments. In CLI-93-15, the Commission vacated a Partial Director's Decision under 10 C.F.R. § 2.206 and instructed the Staff to defer resolving the section 2.206 petition pending the outcome of the Vogtle transfer proceeding.

MEMORANDUM

In a letter to the Commission dated April 6, 1995, Georgia Power Company requests us to authorize the NRC Staff to complete its review and issue license

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\*Re-served May 12, 1995.

amendments transferring operational authority for the Vogtle and Hatch power reactors from Georgia Power to Southern Nuclear Operating Company. The Vogtle transfer is the subject of an ongoing adjudicatory proceeding. Georgia Power is concerned that the NRC Staff may "misconstrue" a prior Commission decision involving Vogtle, CLI-93-15, "as instructing the staff to defer issuance of a final 'no significant hazards [consideration]' determination until after the Licensing Board issues its decision in the amendment proceeding."

In CLI-93-15, we vacated a Partial Director's Decision under 10 C.F.R. § 2.206 and instructed the Staff to defer resolving the section 2.206 petition pending the outcome of the Vogtle transfer proceeding. 38 NRC 1 (1993). We ruled that "in view of the overlap and similarity of some issues between the section 2.206 petition and the transfer proceeding . . . , the Staff's final determination of the common issues should take into account the Licensing Board's findings and the outcome of the transfer proceeding." 38 NRC at 3. We reasoned that deferring consideration of these issues is consistent with the Commission's longstanding policy "discourag[ing] use of section 2.206 procedures as an avenue for deciding matters that are under consideration in a pending adjudication." 38 NRC at 2.

Our decision in CLI-93-15 was brief and addressed no other issues. Contrary to the concern expressed by Georgia Power in its April 6 letter, nothing in CLI-93-15 purported to prohibit the Staff from taking further action on the pending Vogtle and Hatch transfer amendments.

We intimate no judgment on whether it would be lawful or appropriate at this stage of the proceeding for the Staff to make a finding of no significant hazards consideration which would then enable it to issue the amendments. We simply observe that the Staff is not precluded by our ruling in CLI-93-15 from taking any lawful action with respect to them.

For the Commission<sup>1</sup>

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 11th day of May 1995.

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<sup>1</sup> Commissioner Jackson did not participate in this matter.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman  
Dr. Charles N. Kelber  
Dr. Peter S. Lam

In the Matter of

Docket No. IA 94-011  
(ASLBP No. 94-696-05-EA)

DR. JAMES E. BAUER  
(Order Prohibiting Involvement in  
NRC-Licensed Activities)

May 31, 1995

In this proceeding concerning an NRC Staff enforcement order prohibiting the involvement of Dr. James E. Bauer in NRC-licensed activities, the Licensing Board denies (1) the portion of an NRC Staff prediscovery dispositive motion relating to the parties' Joint Issue 1, which was initially considered in LBP-94-40, 40 NRC 323, 332-33 (1994), and (2) the Staff's petition for reconsideration of the Board's ruling in LBP-94-40, 40 NRC at 337, concerning Bauer Issue 8, albeit with an additional modification of that issue.

**RULES OF PRACTICE: SUMMARY DISPOSITION**

Summary disposition is appropriate only when it has been shown "that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law." *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993).

**RULES OF PRACTICE: SUMMARY DISPOSITION (BURDEN OF PROOF)**

With respect to a summary disposition motion, the moving party "bear: the burden of showing the absence of a genuine issue as to any material fact." *Id.* (footnote omitted). Further, in assessing the showing made by the motion's proponent, the presiding officer is required to "view the record in the light most favorable to the party opposing such a motion." *Id.* (footnote omitted). In doing so, however, if the presiding officer finds that the proponent has failed to make the required showing, then the presiding officer "must deny the motion — even if the opposing party chooses not to respond or its response is inadequate." *Id.* (footnote omitted).

**LICENSE: CONSTRUCTION OF TERMS**

In construing the meaning of the terms of a license, it is most useful to look to the principles that govern the construction of another written instrument — the contract. *Cf. Meadow Green-Wildcat Corp. v. Hathaway*, 936 F.2d 601, 603-05 (1st Cir. 1991) (regarding standard of review to apply in interpreting terms of agency permit, court will treat the instrument like a contract).

**LICENSE: CONSTRUCTION OF TERMS (AMBIGUITY; USING EXTRINSIC MATERIALS)**

It is a well-established rule that if the terms of a writing are plain and unambiguous, there is no room for construction, because the only purpose of judicial construction is to remove doubt and uncertainty. *See* 17A Am. Jur. 2d *Contracts* § 337, at 342 (1991). Further, if the language of the instrument is unambiguous, its meaning should be determined without reference to extrinsic materials. *See id.* at 343-44.

**RULES OF PRACTICE: SUMMARY DISPOSITION (CONSTRUCTION OF LICENSE TERMS)**

**LICENSE: CONSTRUCTION OF TERMS (AMBIGUITY; SUMMARY DISPOSITION)**

The preliminary inquiry in seeking to construe the terms of a written instrument is to determine whether ambiguity exists, which is a question of law that can be resolved through summary disposition. *See* 10A Charles A. Wright, et al., *Federal Practice and Procedure* § 2730.1, at 279 (2d ed. 1983). On the other hand, if it is determined that ambiguity exists that can be resolved

only through an inquiry into the state of mind of the parties to the instrument, then genuine issues of material fact generally will exist that make summary disposition inappropriate. *See id.* at 265-66.

**LICENSE CONDITIONS: CONSTRUCTION OF TERMS  
("BASED ON")**

Language in a license condition stating that the license is "based on" the statements and representations in a license application is not the equivalent of a declaration that the application is "incorporated by reference into" the license. As one court has pointed out in interpreting the interchangeable term "based upon," a "straightforward textual exegesis" leads to the conclusion that this term means "derived from" or "use[d] as a basis for." *United States ex rel. Siller v. Becton Dickinson & Co.*, 21 F.3d 1339, 1348 (4th Cir.), *cert. denied*, 130 L. Ed. 2d 278 (1994). To say that the license is derived from the application is not the same as saying that the application and its terms are incorporated into the license so as effectively to be made provisions of the license.

**LICENSE CONDITIONS: DEFINITION**

A license "condition" either imposes a specific qualification on the standard terms of the license or creates particular duties or requirements for the licensee beyond those specified under the standard terms of the license.

**LICENSE: CONSTRUCTION OF TERMS (AMBIGUITY; USE OF  
EXTRINSIC MATERIALS)**

Even if there is no facial ambiguity in the terms of a license, in interpreting the meaning of those terms it may be appropriate to look to an extrinsic source such as agency regulations based upon the general rule of construction that in drafting an instrument the parties are presumed to have in mind all the existing legal directives relating to the instrument, or the subject matter thereof. *See* 17A Am. Jur. 2d *Contracts* § 381, at 402-03 (1991).

**ENFORCEMENT ACTIONS: SCOPE OF PROCEEDINGS**

A party contesting a Staff enforcement order is free to propose any legal or factual issues it wants to litigate, at least so long as that issue bears some relationship to the bases set forth in support of the order by tending to establish, either alone or with other issues, that some explicit or implicit legal or factual predicate to the order should not be sustained. *See* LBP-94-40, 40 NRC at 336 n.7.



**MEMORANDUM AND ORDER**  
**(Dispositive Motion-Related Rulings)**

In LBP-94-40, 40 NRC 323 (1994), we made various rulings regarding pre-discovery disposition motions filed by petitioner James E. Bauer, M.D., and the NRC Staff relating to several issues specified by the parties in this enforcement order litigation. Currently pending before the Board are (1) party responses to additional questions we posed in LBP-94-40 regarding the Staff's request for summary disposition of Joint Issue 1, and (2) a December 19, 1994 Staff motion requesting reconsideration of our ruling modifying Bauer Issue 8. For the reasons detailed below, we deny both the Staff's request for summary disposition of Joint Issue 1 and its motion for reconsideration regarding Bauer Issue 8.

**I. JOINT ISSUE 1**

**A. Background**

As a preface to our rulings in LBP-94-40, we described in some detail both the circumstances surrounding the May 10, 1994 enforcement order that Dr. Bauer contests in this proceeding and the substance of the parties' motions requesting dispositive rulings on some issues designated by one or both of the litigants. See 40 NRC at 326-28. As was noted there, one basis cited by the Staff for its May 1994 order precluding Dr. Bauer from having any involvement in NRC-licensed activities for five years is his alleged use of a strontium-90 source for purposes not permitted under the applicable NRC license. Specifically, the Staff alleges that as the radiation safety officer and sole authorized user on a byproduct materials license permitting the Indiana Regional Cancer Center (IRCC) to use a strontium-90 source to treat specified medical conditions, Dr. Bauer violated the terms of this license by treating superficial skin lesions with the source. In Joint Issue 1, the parties posit the issue whether the use of the strontium-90 source for skin treatments is a violation of the IRCC license.

In its July 29, 1994 motion for summary disposition, in requesting a ruling in its favor on Joint Issue 1 the Staff asserted there are no disputed material issues of fact regarding this issue. As the basis for this claim, the Staff relied upon section nine of the IRCC license entitled "Authorized Use," which contains the statement that the licensed source is "[f]or use in Atlantic Research Corporation Model B1 Medical Eye Applicator for treatment of superficial eye conditions." Further, according to the Staff, the license does not provide for any other authorized use. See NRC Staff Motion for Summary Disposition and NRC Staff Motion for Dismissal (July 29, 1994) at 5. These undisputed facts, it asserted, compel

the conclusion that under the IRCC license the strontium-90 source can be used only for treating superficial eye conditions.

Dr. Bauer countered that there are material factual issues in dispute. He asserted that the license does not limit authorized uses to those set forth in section nine. As evidence of this, he pointed to section thirteen of the license, which is under the general heading of "CONDITIONS" and states "[t]his license is based on the licensee's statements and representations listed below: A. Application dated March 28, 1988." According to Dr. Bauer, because paragraph six of IRCC's March 1988 application states that the purpose for which licensed material will be used is "[t]reatment of superficial tissues of the eye and skin," the declaration in section thirteen of the license results in the application's statement of purpose being completely incorporated into the license. See Response to NRC Staff Motion for Summary Disposition and NRC Staff Motion for Dismissal (Aug. 29, 1994) at 2 & n.1.

In LBP-94-40, 40 NRC at 332-33, in reviewing the parties' arguments we found they had not discussed the applicability and impact of a possibly relevant provision of the agency's rules of procedure — 10 C.F.R. § 2.103(b). Section 2.103(b) provides that in instances when the Staff determines a materials license application does not meet statutory or regulatory requirements, it may issue a notice of denial or proposed denial that informs the applicant of the reasons for the Staff's action and offers an opportunity for a hearing on the denial or proposed denial. Because of the potential impact of this provision on our resolution of the Staff's dispositive motion, we asked that both parties address (1) whether IRCC had the right to receive notice that the Staff had denied its application for skin treatment authority and that it was entitled to a hearing on such a Staff determination; (2) if IRCC was entitled to such notice, whether and how the Staff provided that notice; and (3) if IRCC was entitled to such notice and the Staff did not provide it, whether the failure to provide notice has any impact on the Staff's assertion that IRCC's license did not provide authority for skin treatments.

In its January 6, 1995 response to these questions, the Staff states that because the strontium-90 license issued to IRCC only granted that portion of its request concerning the treatment of eye conditions, with respect to skin treatments IRCC's application "was, in effect, denied." NRC Staff's Response to Board's Questions (Jan. 6, 1995) at 3 [hereinafter Staff Questions Response]. The Staff also concedes that "IRCC should have been provided the notice described in section 2.103(b)," but was not. *Id.* at 3-4. Nonetheless, according to the Staff the failure to provide notice pursuant to this procedural regulation has no impact on its assertion that IRCC's license did not provide substantive authority to undertake skin treatments.

The Staff contends the license clearly shows that treatments are limited to superficial eye conditions. Also relevant, the Staff declares, is the April 25, 1988

cover letter accompanying the license that advised IRCC to review its license carefully to ensure it understood all the conditions imposed and to notify the NRC's regional office if there were any errors in the license or questions about its terms. The Staff further asserts that any failure to follow the requirements of section 2.103(b) could not create any presumption that the Staff granted IRCC's request for skin treatment authorization. The Staff maintains such a presumption would constitute granting the license by default, which is prohibited by 10 C.F.R. § 30.33(b) that mandates a materials license can be issued only upon deciding that an application meets the requirements of the Atomic Energy Act and Commission regulations. See Staff Questions Response at 4-5.

Finally, the Staff declares that the only impact of a failure to provide the notice and hearing opportunity mandated by section 2.103(b) is to toll the time for IRCC to request a hearing on the denial until the Staff issues the notice. The Staff nonetheless states that under the circumstances here IRCC could not request further relief because (1) the terms of the license clearly put IRCC on actual notice that the Staff had denied its application for skin condition treatment, and (2) in accordance with the recent settlement of a related case, see *Indiana Regional Cancer Center*, LBP-94-36, 40 NRC 283 (1994), IRCC has requested termination of its strontium-90 license.<sup>1</sup> See Staff Questions Response at 6-7.

In his February 3, 1995 response to the Board's questions, Dr. Bauer argues that because the Staff failed to provide the notice of denial referred to in section 2.103(b), the only conclusion is that the Staff approved IRCC's strontium-90 application in toto, including IRCC's request for authorization to provide superficial skin treatments. Further, Dr. Bauer dismisses the Staff assertion that he and IRCC were on notice of the denial as improperly forcing them to "engage in a 'guessing game'" about the extent of the licensed authority the Staff granted them. Dr. James E. Bauer's February 3, 1995 Response to the Board's Questions (Feb. 3, 1995) at 6-8.

Subsequently, Dr. Bauer petitioned to supplement his response. See Dr. James Bauer's March 2, 1995 Petition for Permission to File Supplemental Response to the Board's Questions (Mar. 2, 1995). In that supplement, he declares that various documents relating to agency policies and procedures regarding section 2.103(b) produced by the Staff in response to a January 9, 1995 Freedom of Information Act (FOIA) request make it clear that it is mandatory that the Staff provide notice of the denial of a materials license application. He concludes that by failing to follow this substantive directive, the Staff effectively granted the license that IRCC applied for, including IRCC's request for skin treatment authority. See Dr. James E. Bauer's March 2, 1995 Supplemental Response to the Board's Questions (Mar. 2, 1995) at 4-8. For its part, the Staff does

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<sup>1</sup>The implication in the Staff's response is that the same reasons would preclude Dr. Bauer from obtaining adjudicatory review of the Staff's denial decision.

not oppose Dr. Bauer's request to file the supplement, but maintains that the materials he refers to do not add anything substantive to the parties' responses to the Board's questions.<sup>2</sup> See NRC Staff Response to Dr. Bauer's Petition to File Supplemental Response (Mar. 21, 1995) at 1-2.

## B. Analysis

As it has often been stated, summary disposition is appropriate only when it has been shown "that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law." *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993). It is also apparent that the moving party "bears the burden of showing the absence of a genuine issue as to any material fact." *Id.* (footnote omitted). Further, in assessing the showing made by the motion's proponent, we are required to "view the record in the light most favorable to the party opposing such a motion." *Id.* (footnote omitted). In doing so, however, if we find that the proponent has failed to make the required showing, then we "must deny the motion — even if the opposing party chooses not to respond or its response is inadequate." *Id.* (footnote omitted).

As was noted above, as the moving party the Staff calls upon us to find that there are no material facts at issue and that it is entitled to a decision as a matter of law on the question whether the treatment of skin conditions violates the terms of IRCC's strontium-90 license. As is also noted above, as support for its position on this issue, the Staff relies upon the terms of the license, in particular section nine, that it declares establish no material facts are in dispute regarding the question of IRCC's (and Dr. Bauer's) lack of authority to provide skin treatments so that the Staff is entitled to a decision in its favor as a matter of law on that question.

To rule on the Staff's request, it is apparent we must interpret the terms of the IRCC strontium-90 license. As guidance in undertaking this task, we find it most useful to look to the principles that govern the construction of another written instrument — the contract. *Cf. Meadow Green-Wildcat Corp. v. Hathaway*, 936 F.2d 601, 603-05 (1st Cir. 1991) (regarding standard of review to apply in interpreting terms of agency permit, court will treat the instrument like a contract). It is, of course, a well-established rule that if the terms of a writing are plain and unambiguous, there is no room for construction, because the only purpose of judicial construction is to remove doubt and uncertainty. See 17A Am. Jur. 2d *Contracts* § 337, at 342 (1991) [hereinafter Am. Jur. 2d *Contracts*].

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<sup>2</sup>There being no opposition, we grant Dr. Bauer's March 2, 1995 request to supplement his response to the Board's questions.

Further, if the language of the instrument is unambiguous, its meaning should be determined without reference to extrinsic materials. *See id.* at 343-44.

The preliminary inquiry regarding such a written instrument thus is to determine whether ambiguity exists, which is a question of law that can be resolved through summary disposition. *See* 10A Charles A. Wright, et al., *Federal Practice and Procedure* § 2730.1, at 279 (2d ed. 1983). On the other hand, if it is determined that ambiguity exists that can be resolved only through an inquiry into the state of mind of the parties to the instrument, then genuine issues of material fact generally will exist that make summary disposition inappropriate. *See id.* at 265-66.

Using these guidelines, we come first to the Staff position that the language of the license is unambiguous in establishing that the Staff did not give IRCC the authority to conduct skin treatments with its strontium-90 source. The Staff is correct that license section nine, under the heading of "Authorized use," refers only to strontium-90 source use for the treatment of superficial eye conditions.<sup>3</sup> If this were all the license said, there would be no possible ambiguity.

There is, however, the language in section thirteen that Dr. Bauer contends provides cause for additional scrutiny. This section, which is under the general heading "CONDITIONS," states that the license is "based on" the statements and representations contained in the IRCC application, which includes a specific request for authority to provide skin treatments. Dr. Bauer insists that we can reasonably read this section as an expression of Staff intent to incorporate the terms of the IRCC application into the license, including the request for authority to provide skin treatments.

We are unable to conclude that the "based on" language used in section thirteen is the equivalent of "incorporated by reference into," which is the meaning that Dr. Bauer would give the term. Rather, as one court has pointed out in interpreting the interchangeable term "based upon," a "straightforward textual exegesis" leads to the conclusion that this term means "derived from" or "use[d] as a basis for." *United States ex rel. Siller v. Becton Dickinson & Co.*, 21 F.3d 1339, 1348 (4th Cir.), *cert. denied*, 130 L. Ed. 2d 278 (1994). To say that the license is derived from the application is not the same as saying that the application and its terms are incorporated into the license so as effectively to be made provisions of the license.

We thus are unable to accept Dr. Bauer's interpretation of this provision or to conclude that the language of the license concerning the appropriate use

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<sup>3</sup> Similarly, section 12 of the license, which falls under the general heading of "CONDITIONS" and the subheading "Material and Use," contains the statement "Strontium 90 sealed sources for treatment of superficial eye conditions."

of the strontium-90 source is ambiguous.<sup>4</sup> As a consequence, under the rules of contract construction to which we look, because there is no ambiguity in the written instrument, our inquiry should be over without further inquiry into extrinsic materials. See Am. Jur. 2d *Contracts* § 337, at 343-44.

Nevertheless, in the context of this regulatory proceeding, we conclude that it is appropriate to refer to one extrinsic matter — 10 C.F.R. § 2.103(b). We look to this extrinsic source based upon the general rule of construction that in drafting an instrument the parties are presumed to have in mind all the existing legal directives relating to the instrument, or the subject matter thereof. See Am. Jur. 2d *Contracts* § 381, at 402-03. Dealing as it does with the Staff denial of a materials license application, this section must have been a relevant consideration for the Staff as the issuer of the IRCC license. Moreover, based on the Staff's answers to our questions regarding this provision, its applicability to the IRCC application appears highly relevant to the important question of the Staff's intent concerning the license.<sup>5</sup>

The Staff's response to our questions regarding section 2.103(b) certainly suggests, although does not explicitly state, that the intent of the particular Staff personnel who were involved in issuing the IRCC license was to deny IRCC's request for skin treatment authority. At the same time, the Staff recognizes that pursuant to section 2.103(b), such an intent "should have" manifested itself as a notice of denial. Staff Questions Response at 3. In the face of this acknowledgment, we can only conclude that the Staff's action in not providing the notice under this regulation reasonably engenders a question about the intent of those who issued the license. And, as we noted earlier, *see supra* p. 330, if an inquiry into the state of mind of one of the parties to an instrument is needed, a material issue of fact exists that renders summary disposition inappropriate.

Consequently, we deny the Staff's request for summary disposition regarding Joint Issue 1. In doing so, however, we do not preclude either party from again seeking summary disposition on this issue once any appropriate discovery has been conducted.

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<sup>4</sup> Given our conclusion that section 13 does not incorporate the IRCC application by reference as Dr. Bauer maintains, it seems only appropriate to consider exactly what the language of that section does. As a license "condition," this section should either impose a specific qualification on the standard terms of the license or create particular duties or requirements for the licensee beyond those specified under the standard terms of the license. In this instance, the standard terms of the license provide that the license is issued "in reliance on statements and representations heretofore made by the licensee." Staff Dispositive Motion, Attach. 1. By providing in addition that the license is "based on" the statements and representations in the IRCC March 1988 application, section 13 apparently has the effect of limiting the scope of the Staff's reliance in granting the application to that particular document. This, of course, would have the additional effect of limiting the scope of the licensee representations that could be actionable in initiating an enforcement proceeding relative to the grant of the IRCC license.

<sup>5</sup> Because we have before us only the Staff's dispositive motion on Joint Issue 1, we are not in a procedural posture to resolve Dr. Bauer's assertion that the Staff's failure to provide notice under 10 C.F.R. § 2.103(b) compels a legal finding in his favor on that issue.

## II. RECONSIDERATION REQUEST

### A. Background

In LBP-94-40, 40 NRC at 337, we also ruled on the Staff's request to dismiss Bauer Issues 48 and 49. As we observed there, those issues presented the general questions whether the provisions of 10 C.F.R. Part 35, Subpart G, apply to the use of iridium-192 as a remote afterloader sealed source in high dose rate (HDR) brachytherapy treatments and, if so, whether the specific survey requirements of the provisions of Subpart G — in particular 10 C.F.R. § 35.404(a) — apply to such treatments.<sup>6</sup> Although noting that we had dismissed similar issues in the related *Oncology Services Corp.* proceeding because they were better stated in other issues, we found that dismissal in this proceeding was not appropriate given that not all those other issues were included here. We decided that the better course in this proceeding was to combine the essential elements of these issues with Bauer Issue 8, which the Staff had not sought to dismiss.<sup>7</sup> Bauer Issue 8, which asked whether any of the applicable survey requirements of Subpart G control the "reasonableness" standard of 10 C.F.R. § 20.201(b)(2),<sup>8</sup> was revised as follows:

8. Regarding the use of Iridium-192 as a sealed source in a brachytherapy remote afterloader for the High Dose Radiation treatment of humans ("HDR"):
  - a. Is 10 C.F.R. Part 35, Subpart G, including the specific survey requirement in section 35.404(a), applicable?
  - b. As a matter of law, does fulfilling any of the applicable survey requirements in 10 C.F.R. Part 35, Subpart G, control and/or satisfy the reasonableness standard in 10 C.F.R. § 20.201?

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<sup>6</sup> Dr. Bauer set forth those issues as follows:

48. Whether the regulations in 10 C.F.R. Part 35 Subpart G "Sources for Brachytherapy" apply to the use of Iridium-192 as a sealed source in a brachytherapy remote afterloader for the High Dose Radiation treatment of humans ("HDR").

49. If the regulations in 10 CFR Part 35 Subpart G "Sources for Brachytherapy" apply to the use of Iridium-192 as a sealed source in a brachytherapy remote afterloader for the treatment of humans (HDR) then whether the specific survey requirement of 10 C.F.R. § 35.404(a) applies to Iridium-192 HDR.

Joint Prehearing Report (June 24, 1994) at 6 [hereinafter Prehearing Report].

<sup>7</sup> As originally proposed, Bauer Issue 8 asked "[w]hether fulfillment of any applicable survey requirement of 10 C.F.R. Part 35, Subpart G, as a matter of law, either controls and/or satisfies the reasonableness standard set forth in 10 C.F.R. § 20.201?" Prehearing Report at 2.

<sup>8</sup> At the time of the November 1992 incident that is the subject of the portion of the Staff's May 1994 order pertinent to Bauer Issue 8, 10 C.F.R. § 20.201, entitled "Surveys," provided in subsection (b) that "[e]ach licensee shall make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations in this part, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present." With the revision of 10 C.F.R. Part 20 in 1994, section 20.201 was replaced by an analogous provision now found in 10 C.F.R. § 20.1501. See LBP-94-40, 40 NRC at 335 n.6.

40 NRC at 339. Further, because the revision of this issue was at our instigation, we suggested that the parties could seek reconsideration of our determination. *See id.* at 337 n.9.

In a December 19, 1994 petition, the Staff asks that we reconsider this modification of Bauer Issue 8 in part. The Staff states that it has no objection to subpart b of that issue as an expression of the "section 35.404(a) compliance" issue. It does, however, protest that subpart a of Bauer Issue 8 regarding the general applicability of 10 C.F.R. Part 35, Subpart G, to this proceeding should be dismissed as irrelevant. This is so, the Staff maintains, because even if the response to Bauer Issue 8, subpart a, is "yes," Dr. Bauer would not be entitled to any relief given that the May 1994 enforcement order at issue did not allege he violated Part 35, Subpart G. *See* NRC Staff's Petition for Partial Reconsideration (Dec. 19, 1994) at 4-5.

In his January 4, 1995 response, Dr. Bauer contends that Staff's objection to subpart a of Bauer Issue 8 is inconsistent with the statement of charges against him as outlined in the May 1994 enforcement order. Dr. Bauer notes that in the order the Staff claims he failed to conduct an appropriate survey under 10 C.F.R. § 20.201 during a purported brachytherapy remote afterloader misadministration incident in November 1992. To address this Staff claim, he asserts that it is necessary that he be able to make a showing under both subparts of Bauer issue 8. According to Dr. Bauer, a determination under Bauer Issue 8, subpart b, about whether any of the applicable Subpart G survey requirements, including section 35.404(a), satisfies the reasonableness standard in section 20.201(b)(2) is "almost meaningless" without a determination under Bauer Issue 8, subpart a, about whether Subpart G is applicable to brachytherapy remote afterloader HDR treatments. *See* Answer in Opposition to NRC Staff's Petition for Partial Reconsideration (Jan. 4, 1995) at 6-9 [hereinafter Bauer Reconsideration Answer].

Responding to the parties' filings, in a memorandum and order issued January 17, 1995, we noted the possible merit of Dr. Bauer's point about the necessity of a determination on Bauer Issue 8, subpart a, given that section 35.404(a) was a part of Part 35, Subpart G, at the time of the misadministration incident. Accordingly, we gave the Staff an additional opportunity to address Dr. Bauer's assertions regarding the relevance of subpart a, to which Dr. Bauer could submit a reply. *See* Memorandum and Order (Permitting Additional Filings on Staff Petition for Partial Reconsideration) (Jan. 17, 1995) at 3-4 (unpublished). In its response to the Board's order, the Staff declares that Bauer Issue 8, subpart a, is irrelevant because a determination about whether a particular survey regulation would satisfy section 20.201(b) does not require a demonstration that the regulation is applicable to the medical procedure being performed with licensed material. According to the Staff, to show compliance with section 20.201(b), Dr. Bauer need only demonstrate that he performed the survey described in



the particular regulation, such as section 35.404(a), and that this survey was reasonable under the circumstances within the meaning of section 20.201(b)(2). See NRC Staff's Response to Board Order Dated January 17, 1995 (Jan. 24, 1995) at 3-8.

In his reply, Dr. Bauer continues to maintain that the Staff's attempt to dismiss Bauer Issue 8, subpart a, is wholly misplaced. According to Dr. Bauer, subpart b of Bauer Issue 8 that the Staff accepts simply asks for an answer to the question "If Dr. Bauer has satisfied the NRC's survey requirements that apply to HDR, has he, *as a matter of law*, acted reasonably under section 20.201?" Dr. James Bauer's Response to the NRC Staff's Response to Board's Order Dated January 17, 1995 (Jan. 31, 1995) at 5 (emphasis in original). To answer this question, he asserts, one must know what survey requirements apply to HDR brachytherapy, which is precisely the answer Bauer Issue 8, subpart a, is intended to provide. He suggests that Staff's continued attempt to avoid the question posed by Bauer Issue 8, subpart a, is a result of its misplaced attempt to introduce an element of subjective "reasonableness" into the discussion of subpart b, which he finds total inapposite given that the issue by its very terms seeks a determination "as a matter of law." Dr. Bauer concludes by stating that through Bauer Issue 8 what he intends to prove is that by having complied with the specific prevailing NRC regulations applicable to HDR brachytherapy, as a matter of law, he behaved reasonably under 10 C.F.R. § 20.201. See *id.* at 6-9.

## B. Analysis

A party contesting a Staff enforcement order is free to propose any legal or factual issue it wants to litigate, at least so long as that issue bears some relationship to the bases set forth in support of the order by tending to establish, either alone or with other issues, that some explicit or implicit legal or factual predicate for the order should not be sustained. See LBP-94-40, 40 NRC at 336 n.7. To begin the process of defining and resolving the matters for litigation in this proceeding, we mandated that the initial joint prehearing report include a statement of central issues. The parties' dispositive motions regarding some of those issues are an important step in the ongoing process of issue denotation and resolution.

As for Bauer Issue 8, the Staff's reconsideration motion and the subsequent filings by both parties have helped give the Board a clearer picture of the parameters of what we have already recognized is an important matter for Dr. Bauer — the question of "section 35.404(a) compliance."<sup>9</sup> One thing that has emerged

<sup>9</sup> As part of his response to the Staff's reconsideration request, Dr. Bauer contends the Staff failed to meet the standards governing reconsideration under 10 C.F.R. § 2.771(b) by merely repeating, without new information, arguments it previously made rather than elaborating upon or refining arguments previously advanced. See Bauer

from the parties' recent filings is that they are working from fundamentally different premises in defining what this matter entails. The Staff's position is that in proving overall compliance with the section 20.201(b)(2) requirement that a licensee must make such surveys as are "reasonable under the circumstances," licensee compliance with any particular NRC regulatory provision is merely a factor that is to be weighed along with the other "relevant" circumstances involved. As Dr. Bauer correctly points out, under Staff's analysis there is a subjective factor in each section 20.201(b)(2) determination because a "reasonableness" finding always depends on weighing all the relevant circumstances, which may include any pertinent regulatory compliance or noncompliance. Dr. Bauer, on the other hand, maintains that if he has complied with the agency's regulatory provisions "applicable" to HDR brachytherapy treatment surveys, including section 35.404(a), as a matter of law he is entitled to a determination that he has satisfied the section 20.201(b)(2) standard of "reasonable under the circumstances." For him, actions that do not involve a violation of the applicable regulatory standards must be "reasonable" per se under section 20.201(b)(2). As such, a ruling on which regulations are "applicable" is relevant to his legal process.

In resolving this matter, we must first make clear our understanding of several terms used by the parties. As we discern it, in referring to regulatory provisions as "applicable," Dr. Bauer is describing those regulations that the agency intends to govern the conduct of a certain type of activity. In this instance, the activity in question is the conduct of surveys relating to the use of iridium-192 in a brachytherapy remote afterloader to provide HDR treatments. On the other hand, the Staff's reference to "relevant" regulatory requirements encompasses both those provisions that are and are not "applicable," as Dr. Bauer would define them. According to the Staff, a regulation need not be "applicable" to the licensed activity in question to be "relevant" to the reasonableness determination under section 20.201(b). Essentially, in making such a reasonableness determination under the Staff's analysis, an otherwise inapplicable standard may in fact be relevant under the circumstances so as to be worthy of consideration in the balancing process that is to be used to arrive at that determination.

With these definitions in mind, for purposes of resolving this matter we will assume that the Staff's interpretation of section 20.201(b)(2) is correct, i.e., that there is a subjective factor in each section 20.201(b)(2) determination because a "reasonableness" finding always depends on weighing all the relevant circumstances. In doing so, we also assume that the Staff is correct that any

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Reconsideration Answer at 4-5. Although the substance of the Staff's motion makes this a close question, because it was the Board's own action in reformulating Bauer Issue 8 that precipitated the motion, we are inclined to afford the Staff somewhat more latitude in this instance.

pertinent regulatory compliance or noncompliance is relevant to such a finding, regardless of whether the regulation is "applicable" under Dr. Bauer's definition of that term. Yet, even accepting the Staff's arguments about the nature of the finding under section 20.201(b), the fact that a regulation is "applicable" to the licensed activity involved would, in the absence of information to the contrary, establish that it is among the relevant circumstances that should be considered in making a reasonableness determination. As a result, we cannot say that the question of "applicability" posed by subpart a of Bauer Issue 8 is totally irrelevant to this proceeding even under the Staff's analysis of what is entailed in making a "reasonableness" finding under section 20.201(b).

Accordingly, we deny the Staff's motion that we reconsider our ruling in LBP-94-40 amending Bauer Issue 8 and delete subpart a. Nonetheless, based on the parties' filings and the language of Bauer Issue 8, subpart b, which refers only to "applicable survey requirements," we conclude that an additional modification of Bauer Issue 8, subpart a, is appropriate to make it clear that the focus of any "applicability" determination should be the survey provisions of 10 C.F.R. Part 35, Subpart G.<sup>10</sup>

### III. CONCLUSION

Because we conclude there are material factual issues in dispute regarding the Staff's intent in issuing the IRCC license authorizing the possession and use of strontium-90, we deny the Staff's request for summary disposition of Joint Issue 1. We also deny the Staff's petition for reconsideration of our prior addition of subpart a to Bauer Issue 8. We do so because we conclude that, even under the Staff's interpretation of 10 C.F.R. § 20.201(b), the question of a regulation's "applicability" to the licensed activity at issue has some relevance to the "reasonableness" determination that must be made under that section. Finally, we find that, consistent with the parties' filings and the language of Bauer Issue 8, subpart b, an additional modification of Bauer Issue 8, subpart a, is warranted to narrow consideration of any "applicability" issues to the survey requirements in 10 C.F.R. Part 35, Subpart G.

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For the foregoing reasons, it is this thirty-first day of May 1995, ORDERED, that

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<sup>10</sup>We also note that in this decision we need not and do not address whether, as Dr. Bauer asserts, an affirmative answer to the "applicability" question in Bauer Issue 8, subpart a, along with a finding that there has been compliance with the "applicable" regulation or regulations must, as a matter of law, result in a determination of "reasonableness" under 10 C.F.R. § 20.201(b)(2).

1. The portion of the Staff's July 29, 1994 motion for summary disposition requesting a ruling in its favor on Joint Issue 1 is *denied*.
2. Dr. Bauer's March 2, 1995 petition to supplement his response to the Board's questions posed in LBP-94-40 is *granted*.
3. The Staff's December 19, 1994 petition for reconsideration of our ruling in LBP-94-40 modifying Bauer Issue 8 by adding subpart a is *denied*.
4. Subpart a of Dr. Bauer Issue 8 is further *amended* to read as follows:
  8. Regarding the use of Iridium-192 as a sealed source in a brachytherapy remote afterloader for the High Dose Radiation treatment of humans ("HDR"):
    - a. Are any of the specific survey requirements in 10 C.F.R. Part 35, Subpart G, including the specific survey requirement in section 35.404(a), applicable?
    - b. As a matter of law, does fulfilling any of the applicable survey requirements in 10 C.F.R. Part 35, Subpart G, control or satisfy the reasonableness standard of 10 C.F.R. § 20.201?

THE ATOMIC SAFETY  
AND LICENSING BOARD<sup>11</sup>

G. Paul Bollwerk, III, Chairman  
ADMINISTRATIVE JUDGE

Charles N. Kelber  
ADMINISTRATIVE JUDGE

Peter S. Lam  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
May 31, 1995

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<sup>11</sup> Copies of this memorandum and order are being sent this date to counsel for Dr. Bauer by facsimile transmission and to Staff counsel by E-mail transmission through the agency's wide area network system.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF ENFORCEMENT

James Lieberman, Director

In the Matter of

Docket Nos. 50-250

50-251

50-335

50-385

FLORIDA POWER AND LIGHT  
COMPANY

(Turkey Point Nuclear Generating  
Plant, Units 3 and 4; and  
St. Lucie Nuclear Power Plant,  
Units 1 and 2)

May 11, 1995

The Director of the Office of Enforcement has denied petitions filed by Thomas J. Saporito, Jr., requesting that the NRC: (1) submit an *amicus curiae* brief to the Department of Labor regarding his claim that Florida Power & Light Co. (FP&L) retaliated against him for engaging in protected activities; (2) institute a show-cause hearing to modify, suspend, or revoke FP&L's licenses to operate Turkey Point; (3) institute a show-cause proceeding to order the FP&L to provide him with a "make whole" remedy; (4) take escalated enforcement action against FP&L and certain FP&L employees for engaging in retaliation; (5) conduct an investigation of FP&L to determine the involvement of each and every individual in the discrimination against him, and report the results to the Department of Justice; and (6) conduct an investigation to determine if the overall work environment at Turkey Point and St. Lucie nuclear stations is free from hostility and encourages employees to freely and confidentially contact the NRC without going through the normal chain of command. The reasons for the denial are fully set forth in the Decision.

## DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

### I. INTRODUCTION

On March 7, 1994, Thomas J. Saporito, Jr. (Petitioner), filed a request for enforcement action pursuant to 10 C.F.R. § 2.206 (Petition). The Petition requested that the NRC: (1) submit an *amicus curiae* brief to the Department of Labor (DOL) regarding his complaints numbered 89-ERA-007 and 89-ERA-017 concerning the Petitioner's claim that Florida Power & Light Company (FP&L or Licensee) retaliated against him for engaging in protected activity during his employment at Turkey Point Nuclear Generating Plant in violation of 10 C.F.R. § 50.7; (2) institute a show-cause proceeding pursuant to 10 C.F.R. § 2.202 to modify, suspend, or revoke Florida Power & Light Company's licenses authorizing the operation of Turkey Point; and (3) institute a show-cause proceeding pursuant to section 2.202 and order the Licensee to provide the Petitioner with a "make whole" remedy, including but not limited to, immediate reinstatement to his previous position, back wages and front pay with interest, compensatory damages for pain and suffering, and a posting requirement to offset any "chilling effect" Petitioner's discharge may have had on other employees at the Turkey Point and St. Lucie stations.

On March 13, 1994, Petitioner supplemented the Petition, reiterating the three requests noted in the preceding paragraph and providing additional information.

On April 7, 1994, Petitioner again supplemented the Petition providing additional information, including a chronology of events that relate to his request for action against FP&L. Petitioner also described what he believes should be the content of the *amicus curiae* brief to DOL, including the fact that a licensee employee can go directly to NRC with safety concerns, that NRC instructed Petitioner not to divulge his safety concerns to FP&L, that Petitioner's conduct in refusing to disclose his safety concerns to the Licensee should not be considered insubordinate, and that FP&L engaged in illegal conduct when its Vice President interrogated Petitioner about his safety concerns.

On June 12, 1994, Petitioner supplemented the Petition a third time with additional arguments responding to FP&L's response to his petition and stated that the discrimination is a continuing violation.

On June 7, 1994, Petitioner filed another request for enforcement action against FP&L and certain of its employees pursuant to section 2.206. The June 7, 1994 Petition incorporated much of the material and arguments of the Petition originally submitted on March 7, 1994, and requested, in addition to a reiteration of the request for a show-cause proceeding already requested in the March 7 Petition, that: (1) NRC take escalated enforcement action against FP&L and certain FP&L employees for violating NRC requirements under section 50.7 in

retaliating against Petitioner for his having engaged in protected activities during his employment at Turkey Point in 1988; (2) NRC conduct an investigation of FP&L to determine the involvement of each and every individual FP&L employee in the discrimination against Petitioner and forward the results of that investigation to the Department of Justice; and (3) NRC conduct an investigation to determine if the overall work environment at Turkey Point and St. Lucie nuclear stations is free from hostility and encourages employees to freely and confidentially contact the NRC with perceived safety concerns or to bypass the FP&L chain of command in raising those concerns to the NRC without first apprising FP&L management of the safety concerns.

On June 28, 1994, Petitioner supplemented his June 7 Petition with a document entitled "Complainant's Answer in Opposition to Respondent FPL's [FP&L's] Motion to File Brief Dated June 20, 1994." This supplement described the activities in the DOL deliberative process relative to Petitioner's complaints filed with that agency, restated Petitioner's request for escalated enforcement action against the Licensee, but did not otherwise provide any additional requests for action.

On June 30, 1994, Petitioner again supplemented his June 7 Petition to describe discussions that he had with the NRC Office of Investigations regarding the alleged chilling effect at FP&L facilities that was created as a direct result of his termination. Petitioner concluded the supplement by requesting an NRC investigation into whether a chilling effect exists at FP&L facilities.

## II. BACKGROUND

As a basis for his March 7, 1994 request, as supplemented, Petitioner noted that since it is NRC's policy to defer enforcement action until the Department of Labor (DOL) Administrative Law Judge (ALJ) has issued a decision, and since the ALJ issued a decision in Petitioner's cases in June 1989,<sup>1</sup> the NRC could now "take action as requested above against . . . Florida Power & Light Company." Furthermore, Petitioner stated that the incidents and adverse actions establish a *prima facie* case of hostile work environment and that the NRC cannot tolerate a hostile work environment at Turkey Point. Petitioner also stated that "[l]icensee employees have been dissuaded from raising safety issues . . . to the NRC because of FPL's [FP&L's] continuing retaliation against employees who do so." Petitioner asserts that FP&L's "interrogations of Petitioner about

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<sup>1</sup> In a Recommended Decision and Order (RD&O) issued on June 30, 1989, the DOL ALJ found that Petitioner failed to establish a *prima facie* case of discrimination and recommended dismissal of Petitioner's complaint. This RD&O was reversed and remanded in a decision issued by the Secretary of Labor on June 3, 1994. On July 22, 1994, Respondent FP&L filed a motion for reconsideration which was denied by the Secretary of Labor on February 16, 1995.

his protected activity in 1988 were illegal conduct under the law and NRC regulations under Title 10 of the *Code of Federal Regulations*."

As supplemented by the June 7, 1994 request, Petitioner's basis for requesting the enforcement action includes a reference to the Secretary of Labor's order on June 3, 1994, remanding Petitioner's DOL complaints to the ALJ for reconsideration.

### III. DISCUSSION

Petitioner requested that the NRC submit an *amicus curiae* brief with the Department of Labor "regarding issues of fact in DOL Case Nos. 89-ERA-7/17 . . . concerning the Licensee's retaliatory conduct towards Petitioner during Petitioner's period of employment at Licensee's Turkey Point nuclear station in 1988 as a direct or indirect result of Petitioner having engaged in 'protected activity' under 10 C.F.R. 50.7." The Petitioner requested that the *amicus curiae* brief make clear that the NRC instructed Petitioner *not* to divulge his concerns to FP&L<sup>2</sup> and that Petitioner's conduct should not be considered insubordinate.

It should be noted that, under the Atomic Energy Act of 1954 and NRC regulatory provisions, the primary responsibility for protecting the public health and safety in the operation of a nuclear facility lies with the licensee who is authorized to possess and use the facility. Consequently, licensees must be alert at all times to potential safety problems and should make diligent efforts to discover and resolve such problems when there are indications that they may exist. Thus, it may at times be difficult to balance the licensee's obligation to uncover and correct safety problems with a licensee employee's right to bypass the chain of command and take safety concerns directly to the NRC.

The Secretary of Labor issued a decision on June 3, 1994, in which he held that "[a]n employee who refuses to reveal his safety concerns to management and asserts his right to bypass the 'chain of command' to speak directly with the Nuclear Regulatory Commission is protected under the employee protection provision of the Energy Reorganization Act of 1974." Consequently, the

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<sup>2</sup> The Petitioner was not instructed *not* to divulge his concerns to FP&L. On December 6, 1988, the Petitioner contacted the Region II Senior Allegation Coordinator and asked if the NRC wanted him to provide a copy of his allegation material to the Licensee. The Petitioner was asked by the Senior Allegation Coordinator if he wanted to provide the material and the Petitioner responded that he had lost all confidence that the Licensee would resolve his concerns. The Petitioner further stated that he wanted to cooperate with the NRC and that if the NRC wanted him to provide a copy of the material to the Licensee he would do so.

On December 7, 1988, after consulting with Region II management, the Senior Allegation Coordinator attempted to contact the Petitioner to answer his question as to whether the NRC wanted him to provide his material to the Licensee. The Senior Allegation Coordinator spoke with the Petitioner's wife because the Petitioner was not available. The Senior Allegation Coordinator informed the Petitioner's wife that a review of the material indicated there was some information that the NRC would not provide to the Licensee. The Petitioner's wife was asked to inform the Petitioner that he did not have to provide a copy of his material to the Licensee if he did not want to, but that he was free to do so if he so desired.



Secretary ruled against FP&L for taking adverse action against the Petitioner for refusing to reveal his safety concerns to management.

On August 25, 1994, the NRC Chairman wrote to the Secretary of Labor expressing concern with the breadth of the ruling in that decision, noting that in certain circumstances employees have a duty to inform their employers of matters that could bear on public and worker health and safety.<sup>3</sup> The Secretary treated the letter as an *amicus* brief for the purpose of deciding a motion for reconsideration. The motion was denied on February 16, 1995. Because the Secretary ruled in favor of Petitioner on the issue of whether FP&L could legitimately take adverse action against him because of his refusal to report safety concerns to management, the request for an *amicus* brief addressing the factual circumstances surrounding that incident is denied.

The Petitioner also requested that the *amicus curiae* brief include a statement that FP&L engaged in illegal conduct by interrogating Petitioner. NRC cannot conclude that FP&L's inquiry of Petitioner on his safety concerns, in and of itself, is illegal. As previously mentioned, licensees have a responsibility — indeed an obligation — to pursue and resolve safety problems and an employee's public announcement, as in this case, that there are significant safety problems that must be addressed should cause any reasonable licensee to make efforts to discover, address, and resolve such concerns. Questioning an employee who has publicly stated that there are safety problems, in and of itself, would not be illegal; however, the Secretary of Labor has ruled that actions taken against the employee can constitute a violation of section 211 of the Energy Reorganization Act if the alleged said that he intended to report his concerns to the NRC. In the particular circumstances of this case, and noting that the ALJ is once again reviewing the facts and will make a recommendation to the Secretary of Labor regarding whether the Licensee had nondiscriminatory reasons for terminating Petitioner, the NRC does not at this time conclude that FP&L's questioning of the Petitioner in an attempt to discover Petitioner's safety concerns was a violation; therefore, this portion of the request is denied.

The Petitioner requested that the NRC initiate a show-cause proceeding pursuant to section 2.202 to modify, suspend, or revoke FP&L licenses authorizing the operation of Turkey Point; however, he did not specifically address the

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<sup>3</sup>The NRC published a draft statement of policy in the *Federal Register* titled "Freedom of Employees in the Nuclear Industry to Raise Safety Concerns Without Fear of Retaliation." This draft policy reiterated NRC's position that "except in limited fact-specific instances, advising the Commission of safety information would not absolve an employee of his or her duty also to inform the employer of matters that could bear on public, including worker, health and safety. Examples of those exceptions would include situations in which the employee had a reasonable expectation that he or she may be subject to retaliation for raising an issue to his or her employer even if an alternative internal process is used, situations where the licensee has threatened adverse action for identifying noncompliances or other safety concerns, and circumstances in which the employee believes that supervisors and management may have engaged in wrongdoing and that raising the matter internally could result in a cover-up or destruction of evidence." (60 Fed. Reg. 7592)

basis for this request in his Petition. Absent a specific description of the basis, therefore, the NRC assumes that Petitioner is requesting this action due to the Licensee's alleged discrimination and creation of a chilling effect in terminating Petitioner's employment. The NRC is aware that the Secretary of Labor has remanded the Petitioner's complaints to the ALJ, reversing in part the ALJ's finding that the Petitioner's acts were not protected activity and finding that FP&L violated the Energy Reorganization Act when it discharged Petitioner for his refusal to reveal his safety concerns to the Licensee. However, the Secretary directed the ALJ to "review the record . . . and submit a new recommendation . . . on whether FP&L would have discharged [Petitioner] for the unprotected aspects of his conduct." Therefore, the June 3, 1994 order does not constitute a final decision by the Secretary of Labor in this case, since the Secretary has asked the ALJ to consider whether the Licensee might have had additional, nondiscriminatory reasons for discharging the Petitioner. The Petitioner's basis for requesting enforcement action, i.e., the ALJ's RD&O (which did not find discrimination) and the Secretary's order (which remanded the case to the ALJ to determine whether there were nondiscriminatory reasons for the termination) is insufficient to justify enforcement action at this time. Until the ALJ issues a revised recommendation on remand, there is insufficient basis to initiate a show-cause proceeding or take other enforcement action requested by the Petitioner here, including actions against specific FP&L employees. Therefore, this portion of the request is denied. The NRC will monitor the DOL proceeding on remand to the ALJ and determine, based on further DOL findings and rulings in these cases, whether enforcement action against the Licensee is warranted.<sup>4</sup>

With respect to Petitioner's request that NRC initiate a show-cause proceeding to, among other things, require his immediate reinstatement, back pay, and compensatory damages, the Energy Reorganization Act (ERA) provides authority to the Department of Labor to order that such personal remedies be provided to individuals discriminated against for engaging in protected activities. The ERA does not extend this authority to the NRC. Remedies such as reinstatement, back pay, and compensatory damages to the individual must result from the DOL process and not an NRC show-cause proceeding. Accordingly, this portion of Petitioner's request is denied.

As noted above, the request for enforcement action against the Licensee is denied pending a finding by the ALJ as to whether discrimination occurred. Therefore, for the same reasons stated above, the Petitioner's request that NRC take escalated enforcement action against certain FP&L employees for violating NRC requirements is denied.

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<sup>4</sup>In view of my determination that there is not a sufficient basis for enforcement action against the licensee at this time, the Petitioner's claim that the Licensee's action against him is a continuing violation need not be considered here.

With respect to the Petitioner's request that the NRC initiate an investigation to determine the extent to which FP&L employees were involved in the discrimination against the Petitioner, the NRC intends to await the outcome of the DOL proceeding to determine whether an additional investigation by the NRC is warranted. Therefore, this portion of the request, as well as Petitioner's request that the results of such investigation be forwarded to the Department of Justice, are denied.

The Petitioner also requested that the NRC investigate whether the overall work environment at Turkey Point and St. Lucie nuclear stations is free from hostility and that the station employees feel free to report safety concerns to the Licensee or NRC. The NRC inspected the Turkey Point and St. Lucie Nuclear Safety Speakout Program for handling employee nuclear safety concerns in September and October 1993 (NRC Inspection Report Nos. 50-250/93-23, 50-251/93-23, 50-335/93-21, 50-389/93-21). Also, the NRC continuously monitors complaints filed by employees at the licensees' facilities across the nation to determine whether the complaints filed with, and substantiated by, the DOL warrant some action by the NRC. The NRC inspection results and the history of discrimination complaints at the Florida Power & Light Company's Turkey Point and St. Lucie nuclear stations do not warrant additional action by the NRC at this time. Therefore, this portion of the request is denied.

#### IV. CONCLUSION

As explained above, the Petitioner has not raised any issues that would warrant the requested actions. Therefore, the Petitions filed on March 7 and June 7, 1994, as supplemented by letters dated March 13, April 7, June 12, June 28, and June 30, 1994, are denied. The Staff will continue to monitor the case pending before the Department of Labor.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c). As provided by that regulation, the Decision will constitute final action of the Commission 25 days after issuance, unless the Commission, on its own motion, institutes a review of the decision within that time.

James Lieberman, Director  
Office of Enforcement

Dated at Rockville, Maryland,  
this 11th day of May 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

## OFFICE OF ENFORCEMENT

James Lieberman, Director

In the Matter of

ALL LICENSEES

May 25, 1995

The Director of the Office of Enforcement has denied a petition filed by Thomas J. Saporito, Jr., requesting that the NRC issue a generic letter of instruction to all licensees requiring them to review station operating procedures in order to ascertain whether the procedures contain any restrictions that would prevent or dissuade a licensee employee from bringing perceived safety concerns directly to the NRC without following the normal chain of command. In the petition, he also requested that each licensee be required to report to the Commission, under oath or affirmation, that the review has been completed, that its employees are free to bring concerns to the NRC without following the normal chain of command, and that this information has been communicated to all of its employees. The reasons for the denial are fully set forth in the Decision.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206****I. INTRODUCTION**

On March 8, 1995, Thomas J. Saporito, Jr. (Petitioner), filed a request for action pursuant to 10 C.F.R. § 2.206. Specifically, Petitioner requested that NRC issue a generic letter of instruction to all licensees requiring them to review their station operating procedures to determine whether those procedures include any restrictions that would prevent or dissuade a licensee employee from bringing perceived safety concerns directly to the NRC without following the normal chain of command. The petition requests that each licensee be required to

report to the Commission, under oath or affirmation, that the review has been completed, that its employees are free to bring concerns to the NRC without following the normal chain of command, and that this information has been communicated to all of its employees.

## II. BACKGROUND

As a basis for his request, Petitioner cites the decision by the Secretary of Labor on June 3, 1994, *Saporito v. Florida Power & Light Co.*, 89-ERA-007 and 89-ERA-017, in which the Secretary concluded, in part, that "[a]n employee who refuses to reveal his safety concerns to management and asserts his right to bypass the 'chain of command' to speak directly with the Nuclear Regulatory Commission is protected under the employee protection provision of the Energy Reorganization Act of 1974, as amended."<sup>1</sup> Slip op. at 1.

## III. DISCUSSION

Petitioner cites the Secretary's June 3 decision as support for Petitioner's contention that "[a]ny licensee policy or procedure preventing or dissuading employees from bypassing the normal 'chain of command' at a licensee's station and *directly* contacting the NRC to report perceived safety concerns is illegal . . . and fosters an inherent 'CHILLING EFFECT' . . . in violation of NRC requirements." The NRC addressed this issue on August 25, 1994, when the NRC Chairman wrote a letter to the Secretary of Labor which noted with concern the fact that the Secretary's broad statement, upon which Petitioner relies, could be applied, without qualification, outside the context of the particular facts involved in that case. The Chairman stated that the licensees, not the NRC, are in the best position to deal promptly and effectively with concerns raised by employees and that except in limited fact-specific instances, advising the Commission of safety information would not absolve an employee of his or her duty also to inform the employer of matters that could bear on public and worker health and safety.

In his February 16, 1995 Order, denying reconsideration of the June 3 decision, the Secretary said that it would not be accurate to interpret his June 3 decision as providing an employee an "absolute right" to refuse to report safety concerns to the plant operator (slip op. at 2-3). Rather, the Secretary stated that

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<sup>1</sup> While finding that the discharge of an employee for refusing to reveal his safety concerns to a licensee could be a violation of the Energy Reorganization Act, the Secretary of Labor did not reach a final decision as to whether the Licensee in Petitioner's case may have had other, legitimate, reasons to terminate Petitioner, but remanded the case to the Administrative Law Judge to review the record and submit a new recommendation on that issue.

the employee's right to bring information directly to the NRC and his duty to inform management of safety concerns "are independent and do not conflict" (slip op. at 3). These statements clearly indicate that whether a refusal to provide information to management is protected must be determined on a case-by-case basis.

Furthermore, the Petitioner has offered no evidence to suggest that there is widespread discrimination against employees who bypass the chain of command and report their concerns directly to the NRC. The NRC requires, in 10 C.F.R. § 19.11(c), that all licensees and applicants for a specific license post NRC Form 3, "Notice to Employees," which describes employee rights and protections. In addition, 10 C.F.R. § 50.7 and associated regulations were amended in 1990<sup>2</sup> to prohibit agreements and/or conditions of employment that would restrict, prohibit, or otherwise discourage employees from engaging in protected activity. These measures appear to be sufficient to: (1) alert employees in the nuclear industry that they may take their concerns to the NRC, and (2) alert licensees that they may not take adverse action for an employee's exercising the right to take concerns directly to the NRC. Without Petitioner establishing a factual basis to doubt the effectiveness of these measures, and without the NRC possessing independent evidence to reach such a conclusion on its own, the NRC cannot conclude that there is a sufficient cause to issue a generic letter as requested by the Petitioner.

#### IV. CONCLUSION

As explained above, the Petitioner has not established sufficient basis to require the requested actions. Therefore, the petition filed on March 8, 1995, is denied.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c). As provided by that regulation, the Decision will constitute final action of the Commission

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<sup>2</sup> In a recent decision, the Secretary of Labor cited the 1990 amendments to section 50.7 as effectively prohibiting any terms or conditions of employment that would prohibit, restrict, or otherwise discourage an employee from, among other things, providing information to the NRC. *John DeCore v. W.J. Barney Corp.*, 89-ERA-038, slip op. at 8-9 (Apr. 19, 1995). The Secretary emphasized that such attempts at restricting an employee "are not now prevalent in the nuclear industry due to [the] intervening regulation." Slip op. at 2.

25 days after issuance, unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

James Lieberman, Director  
Office of Enforcement

Dated at Rockville, Maryland,  
this 25th day of May 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William T. Russell, Director

In the Matter of

Docket Nos. 50-295  
50-304

COMMONWEALTH EDISON COMPANY  
(Zion Nuclear Power Station,  
Units 1 and 2)

May 26, 1995

The Director of the Office of Nuclear Reactor Regulation denies a petition submitted pursuant to 10 C.F.R. § 2.206 by Robert K. Rutherford and forty-three other security guards at the Zion Nuclear Power Station (Petitioners) requesting action with regard to the Zion Nuclear Power Station, Units 1 and 2, of the Commonwealth Edison Company (ComEd or Licensee). Petitioners requested that the Nuclear Regulatory Commission (NRC) rethink and withdraw its approval of the October 7, 1994 revisions to the Zion security plan, and demand greater justification from both the Licensee and its security contractor concerning the proposal to reduce the number of armed guards and the defense of the Zion facility. Petitioners also requested that the manning and positioning of armed guards be reconsidered and increased to a more sound defensive position. The petition is denied because Petitioners raised no substantial safety concern regarding the revised security plan for the Zion facility.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

**I. INTRODUCTION**

By letter dated November 3, 1994, Mr. Robert K. Rutherford and forty-three other security guards at the Zion Nuclear Power Station (Petitioners) requested that the Nuclear Regulatory Commission (NRC) rethink and withdraw its approval of the October 7, 1994 revisions to the Zion Nuclear Power



Station security plan, and demand greater justification from both Commonwealth Edison Company (ComEd or Licensee) and its security contractor concerning the proposal to reduce the number of armed guards and the defense of the Zion Nuclear Power Station. Petitioners also requested that the manning and positioning of armed guards be reconsidered and increased to a more sound defensive position.

As the bases for these requests, Petitioners allege that (1) the revised Response Team Member (RTM) plan degrades actual plant security to the point of folly; (2) the proposed qualifications for the RTM plan are causing employee turnover, undue stress, labor problems, and inconsistency in plant defense; (3) monetary considerations should not take priority over plant defense and administrative jobs should not replace front-line security guards; (4) the total disarming of the owner-controlled areas and protected areas is highly detrimental to plant defense and public safety; and (5) modern armaments and increased hostility among the general public as well as potential terrorist threats from either domestic and/or international sources have not abated. In addition, a copy of the same petition was sent to United States Senator Paul Simon of Illinois, who referred it to the Department of Energy (DOE). The DOE forwarded the copy of the petition to the NRC. On this copy of the petition, a handwritten note stated the following: "Low level waste is now being stored in the owner controlled area with no security patrols except a casual tour once per eight hour shift."

By letter dated December 22, 1994, the NRC acknowledged receipt of the petition and indicated that the NRC Staff would take action within a reasonable time. Commonwealth Edison Company responded to the petition by letter dated February 27, 1995. Petitioners replied to the ComEd response by letter dated February 28, 1995, supplementing the petition with further detail.

The Licensee's letter briefly described the revision to the security plan contained in its October 7, 1994 letter and explained that although the total number of guards on site will be decreased, the number of armed response personnel at Zion Station has not been changed and will continue to exceed the minimum requirements of 10 C.F.R. § 73.55(h)(3). The Licensee's February 27, 1995 letter also stated that certain administrative functions such as those performed by x-ray and metal detector machine operators, security badge issue personnel, and personnel search will be performed by watchmen. It went on to say that four of the six ComEd nuclear sites implemented the RTM plan in 1994, another implemented it in January 1995, and Zion is scheduled for implementation in June 1995. In addition to this general description of the revision to the security plan, the letter addressed each point in the petition.

For the reasons discussed below, I have concluded that the Petitioners have not raised any substantial safety concern, and I, therefore, deny the petition.

## II. BACKGROUND

The Licensee's original security plan, submitted in a letter dated November 18, 1977, and supplemented in letters dated May 26, 1978, and June 25, 1978, included an armed response commitment. The NRC Staff reviewed the security plan against the general performance requirements of 10 C.F.R. § 73.55(a) and the specific requirements of 10 C.F.R. § 73.55(b) through (h). In particular, the NRC Staff concluded that the physical security organization met the requirements of 10 C.F.R. § 73.55(b)(1) regarding the written agreement with the security contractor and the requirements of 10 C.F.R. § 73.55(b)(2) regarding the onsite presence of a full-time member of the security organization with the authority to direct physical protection activities of the security organization. Based on a review, principally of the size of the site, the location of the vital areas, and the response capability of the local law enforcement agencies, the NRC Staff also concluded that the security plan met the response requirements of 10 C.F.R. § 73.55(h). In particular, the number of guards in the plan substantially exceeded the requirements of section 73.55(h)(3) concerning the minimum number of guards on site. As defined in 10 C.F.R. § 73.2, a guard is a uniformed individual armed with a firearm. A watchman is an individual, not necessarily uniformed or armed with a firearm, who provides protection for a plant in the course of performing other duties, and armed response personnel are persons who are uniformed, whose primary duty in the event of attempted radiological sabotage shall be to respond, armed and equipped, to prevent or delay such actions. The NRC Staff concluded that Zion facility's security plan was satisfactory and that it was adequate to protect the Zion facility from threats, thefts, and radiological sabotage directed from within or outside the facility. Consequently, the NRC Staff issued a Security Plan Evaluation Report (SPER), dated March 14, 1979, which concluded that upon full implementation, the security plan would meet the general performance requirements of section 73.55(a) and the specific requirements of section 73.55(b) through (h), and that the security plan would ensure that the health and safety of the public would not be endangered from threats, thefts, and radiological sabotage directed at the Zion facility.

By letter dated October 7, 1994, ComEd submitted a revision to the security plan for Zion Station pursuant to 10 C.F.R. § 50.54(p), which allows licensees to make changes to their security plans without prior NRC approval, provided the changes do not reduce the effectiveness of the plan. The October 7, 1994 revision included use of watchmen in positions that formerly used guards. The revision reduced the total number of guards on site, but did not change the number of armed response personnel. In its October 7, 1994 submittal, the Licensee stated that the revision did not reduce the effectiveness of the plan.

### III. DISCUSSION

#### A. Plant Security

Petitioners contend that the revised RTM security plan degrades actual plant security "to the point of folly." Petitioners' supplemental letter of February 28, 1995, requests that the NRC guarantee that ComEd will not reduce the number of armed responders to five.

The total number of guards immediately available at a nuclear power plant to fulfill NRC response requirements shall nominally be ten, unless specifically required otherwise on a case-by-case basis by the Commission; however, this number may not in any case be reduced to less than five guards. 10 C.F.R. § 73.55(h)(3).

Although the October 7, 1994 revision to the security plan will reduce the total number of guards on site, the number of armed response personnel at the Zion facility will not change and will continue to exceed the minimum number of armed response personnel required by section 73.55(h)(3). The regulations address the use of both guards and watchmen in a security force. Historically, most licensees have used a combination of the two because there are certain job assignments that do not require use of a guard, i.e., central alarm station and secondary alarm station operator, personnel escorts in the protected and vital areas, x-ray and metal detector machine operators, security badge issue personnel, and personnel searchers. In the past, ComEd far exceeded the guard requirement, having guards even where they were not required by regulations. The NRC Staff has reviewed the revised RTM security plan and concluded that it provides sufficient site security, is not inimical to the common defense and security, and that protection of the public health and safety does not require the Licensee to increase the number of its armed response personnel or guards beyond the levels reflected in the revised plan. Moreover, the NRC Staff concluded that the revisions are acceptable and would not decrease the effectiveness of the security plan.

In view of the above, Petitioners have not raised a substantial safety concern regarding the reduction in the number of armed security personnel.

#### B. Effects of the Proposed Revision to the Zion Nuclear Power Station Security Plan on Employees and Plant Defense

Petitioners contend that the new qualifications for armed guard positions in the revised security plan will cause employee turnover, undue stress, labor problems, and inconsistency in plant defense.

Petitioners state in their February 28, 1995 supplemental letter that inconsistencies exist in that: unarmed personnel (watchmen and inspectors) are

permitted to respond to intrusion alarms although they have had no physical agility testing; unarmed personnel escort vehicles into a door zone which has direct containment access, although the NRC has directed that armed personnel be placed at Vertical Pipe Chase doors to prevent such access; and unarmed personnel intermingle with armed personnel at the main gate, which could be disastrous in the event of a firearms exchange.

NRC regulations only require that unarmed personnel such as watchmen shall have no physical weaknesses or abnormalities that would adversely affect their performance of assigned security job duties, 10 C.F.R. Part 73, Appendix B, Criterion LB.1.a, and do not specify which type of security officer should respond to intrusion alarms. The regulations also only require that vehicles be escorted in the protected and vital areas, 10 C.F.R. § 73.55(d)(4), and do not specify whether the escort must be an armed or unarmed officer. Moreover, NRC regulations do not require control of vital area doors and barriers by an armed security officer. Finally, there is no prohibition of both armed and unarmed personnel occupying access control facilities; in fact it is a common practice at many sites. It should be noted that 10 C.F.R. Part 73 is "performance oriented," with the specific implementation left to the licensee in the site-specific security plan. The details of the specific commitments depend on the specific site factors. As noted below, the NRC Staff review of the Zion security plan concluded that Zion meets the requirements of section 73.55(b) through (h).

In February 1994, NRC inspectors identified security force morale as poor due to continuing personnel layoffs to reduce security force shift manning levels to the minimum required to meet security plan commitments. NRC Inspection Report No. 50-295/94005 and 50-304/94005, dated March 22, 1994. In April 1994, the NRC Staff conducted another physical security inspection and concluded that overall security performance was good. In addition, the NRC Staff noted that morale had improved, due to better communication with security staff members during the backshifts following key personnel changes in the contract security management organization. However, the NRC Staff was concerned that continued high overtime hours worked by the security force had the potential to negatively affect performance. Security force staffing levels were sufficient to meet security plan commitments, but were strained to support unplanned maintenance work. NRC Inspection Report No. 50-295/94011 and 50-304/94011, dated May 25, 1994. The NRC Staff continues to monitor the performance of the security staff through security inspections, and the continued inspections by its resident inspector staff.

During an NRC Staff inspection of the Zion facility in October and November 1994, tactical response drills were conducted in which the security force demonstrated a high level of proficiency. NRC Inspection Report No. 50-295/94021 and 50-304/94021, dated December 12, 1994. The other five ComEd sites have already implemented their version of the October 7, 1994 security plan

revision. An NRC inspection at LaSalle County Station in July 1994 did not find any inconsistencies in plant defense or adverse effects of the revised RTM plan on plant physical protection and safety. The NRC Staff found that ComEd has continued to meet its armed response personnel commitments to the NRC. NRC Inspection Report Nos. 50-295/94005 and 50-304/94005, dated March 22, 1994; 50-295/94011 and 50-304/94011, dated May 25, 1994; 50-295/94021 and 50-304/94021, dated December 12, 1994. Accordingly, there is no reason to expect that implementation of the revised security plan at the Zion facility will result in inconsistencies in plant defense or adverse effects on plant physical protection and safety.

The October 7, 1994 revision to the security plan provided for an improved selection process that would result in the most qualified personnel performing armed responder duties. The revised selection criteria are higher objective standards for proficiency in firearms, physical agility, and knowledge of the security plan. It is ComEd's plan that security guards who cannot meet the new criteria to be an RTM member will be reassigned to the administrative duties of watchmen. Although such a reassignment could conceivably cause morale problems and turnover for such individuals, use of a process reasonably designed to select the guards who are best qualified for armed response personnel duties is in the best interest of the common defense and security and the public health and safety.

In view of the above, the Petitioners have not raised a substantial safety concern regarding security force morale or inconsistencies in plant security.

### **C. Monetary Considerations and Administrative Jobs**

Petitioners assert that monetary considerations should not take priority over plant defense, and administrative jobs should not replace frontline security guards.

Regardless of any anticipated Licensee savings or increased expenses that might be associated with the October 7, 1994 revision to the Licensee's security plan, the NRC Staff must review the revised plan for compliance with section 73.55. In particular, the NRC Staff considered whether the Licensee's onsite physical protection system and security organization include the capabilities to meet the requirements of section 73.55(b) through (h). As explained in Section III.A above, the NRC Staff concluded that the October 7, 1994 security plan revision to reduce the number of guards does not violate section 73.55. Moreover, after review of the October 7, 1994 revisions to the security plan, the NRC Staff found that the revisions are acceptable and would not decrease the effectiveness of the security plan.

For the reasons stated above, Petitioners have not raised a substantial safety concern regarding the reduction in the number of guards at the Zion facility.

#### **D. Disarming of Owner-Controlled and Protected Areas**

Petitioners assert that the total disarming of the owner-controlled area and the protected area is highly detrimental to plant defense and public safety.

Contrary to Petitioners' assertions, the Zion facility has not been totally disarmed. As explained above, at Section II.A, the Zion security plan meets NRC requirements for armed personnel. The Commission's regulations do not require any guards in the owner-controlled area. Security of the station is centered around protecting selected vital equipment situated within the protected area. *See* 10 C.F.R. § 73.55.

Prior to initial plant licensing, the NRC Staff evaluated the Licensee's security plan to ensure that it met the general performance objective and requirements of section 73.55(a) and that it implemented the more prescriptive requirements of section 73.55(b) through (h). In addition, the NRC Staff observed drills to ensure that the Licensee could effectively implement its security plan; in particular, to ensure that the security force could successfully perform the requirements of 10 C.F.R. § 73.55(h)(4), which are to determine the existence of a threat, assess the extent of the threat, take immediate concurrent measures to neutralize the threat by requiring responding guards to interpose themselves between vital areas and any adversary attempting entry for the purpose of radiological sabotage and inform local law enforcement agencies of the threat and request assistance. When a licensee submits a revision to its security plan, the NRC Staff evaluates it to ensure that the same general performance objective and requirements of section 73.55(a) and the more prescriptive requirements of section 73.55(b) through (h) are being met and implemented. Periodically, the NRC Staff also continues to observe tactical response drills to ensure that the Licensee remains capable of effectively implementing its security plan by demonstrating threat response as required by section 73.55(h)(4).

The Staff evaluated the Licensee's October 7, 1994 revision to the physical security plan and found that it met the requirements of section 73.55. Although Zion has not implemented the new RTM plan, an NRC inspection at LaSalle County Station (which has implemented the new RTM plan) in July 1994 did not find any inconsistencies in plant defense or adverse impacts on plant physical protection and safety.

Based on the above, the Petitioners have not raised a substantial safety concern regarding security of the owner-controlled areas and the protected area.

#### **E. Potential Threats**

Petitioners assert that modern armaments and increased hostility among the general public as well as potential terrorist threats from either domestic and/or international sources have not abated.

NRC regulations establish a framework for security plans with respect to such matters as terrorist attacks against licensed nuclear power plants. 10 C.F.R. Part 73. As explained above, although the October 7, 1994 revision to the Zion security plan will result in a reduced number of armed guards, the number of armed response personnel will not decline and the Licensee continues to meet the specific requirements of section 73.55(h)(3) with respect to the number of armed response personnel. In addition, NRC regulations require that in designing safeguards systems, licensees shall use the design-basis threats contained in the regulations, including those for the type of radiological sabotage referred to by Petitioners. 10 C.F.R. § 73.1(a)(1). On a daily basis, the Staff evaluates threat-related information to ensure that the design-basis threat statements in the regulations remain a valid basis for safeguards system design. On a semi-annual basis, the results of this Staff review are formally documented and forwarded to the Commission. To date, no credible threat to licensed facilities has been identified that would warrant a modification to the design-basis threat statements in the regulations. After review of the October 7, 1994 revision to the Zion facility security plan, the NRC Staff concludes that the revised security plan does not decrease the effectiveness of the plan in protecting the facility against design-basis threats and that the revised plan meets the requirements of 10 C.F.R. Part 73.

In view of the above, the Petitioners have not raised a substantial safety concern regarding sabotage or theft of special nuclear material at the Zion facility.

#### **F. Manning and Positioning of Armed Guards**

Petitioners asked that both manning and positioning of armed guards be reconsidered and increased back to a more sound defensive posture.

Specifically, Petitioners state in their February 28, 1995 supplemental letter that, in regard to the protected area, mobile patrols, armed posts, and armed positions have been reduced, and that there should be at least one continuous armed mobile patrol. Petitioners also state, with regard to the owner-controlled area, that at least one patrol should be made each 24 hours, and that a minimum of five armed guards per unit and two armed guards dedicated to the main gate are necessary, but that ten armed guards per unit (consisting of two protected-area patrols and/or sector guards) are optimum. Additionally, Petitioners state that there is a post for unarmed personnel in the vehicle search area, although the NRC has directed that at least one armed officer be present at an alternate gate entry.

There is no regulatory requirement to have (1) an armed guard at an entry gate to the protected area, (2) any security activities in the owner-controlled area outside the protected area, or (3) mobile patrols in the protected area.

While checking the protected area is required, 10 C.F.R. § 73.55(c)(4), the type of personnel and patrol frequency are not specified in the regulations, but are detailed in the site physical security plan. All changes to the Zion plan are reviewed against the requirements of the regulations and site-specific needs. The NRC inspects against the commitments contained in the approved plan to verify that the plan remains effective and that the Licensee continues to fulfill its commitments. Based on NRC Staff review of the Zion security plan and its associated revisions, and upon onsite verification of Zion's commitments, Zion continues to meet the performance objectives of section 73.55(a) and its commitments under its security plan.

As explained above, although the October 7, 1994 revision to the Zion security plan will result in a reduced number of armed guards, the number of armed response personnel will decline and the Licensee continues to meet the specific requirements of section 73.55(h)(3) with respect to the number of armed response personnel. In regard to the positioning of armed response personnel, NRC regulations require that licensees establish a safeguards contingency plan which requires armed response personnel to interpose themselves between vital areas and material access areas such that armed response personnel can prevent entry for the purpose of radiological sabotage. 10 C.F.R. § 73.55(h)(4)(iii)(A). If revisions to a licensee's security plan meet the requirements of section 73.55, the NRC Staff concludes that the revisions are consistent with 10 C.F.R. § 50.54(p) and that they will not decrease the effectiveness of the safeguards plan. In this case, the NRC Staff concluded that the October 7, 1994 revision to the Zion security plan met the requirements of section 73.55 and did not result in decreased effectiveness of the plan.

In view of the above, the Petitioners have not raised a substantial safety concern regarding manning and positioning of armed guards at Zion Station.

#### **G. Additional Concern Noted on a Copy of the Petition Sent to Senator Simon**

Petitioners appended an additional concern that low-level waste is now being stored in the owner-controlled area with no security patrols except a casual tour once per 8-hour shift, on a copy of the petition addressed to United States Senator Paul Simon of Illinois. Senator Simon referred the concern to the DOE, and DOE subsequently forwarded it to the NRC. Petitioners' supplemental letter of February 28, 1995, asserts that the interim radwaste storage facility is worthy of one full 24-hour patrol and alarmed, continuous surveillance equipment, such as a camera.

Storage and control of NRC-licensed material are governed, in pertinent part, by 10 C.F.R. § 20.1801 of Subpart I to 10 C.F.R. Part 20, which requires licensees to secure from unauthorized removal or unauthorized access licensed



materials that are stored in controlled or unrestricted areas. The security requirements of Part 73 do not apply to the storage of low-level waste. Zion Station maintains an interim radwaste storage facility (IRSF) for licensed material on site, within the owner-controlled area to which general access is not permitted. The IRSF is locked, key access is controlled, and once in each 8-hour shift the IRSF is patrolled by a security officer. The Staff finds that the IRSF at the Zion facility is in compliance with section 20.1801.

For the reasons stated above, Petitioners have not raised a substantial safety concern regarding security of low-level waste in the owner-controlled area at the Zion facility.

#### IV. CONCLUSION

The institution of a proceeding in response to a request for action under section 2.206 is appropriate only when substantial health and safety issues have been raised. See *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 176 (1975), and *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). I have applied this standard to determine what action, if any, is warranted in response to the matters raised by Petitioners. Each of the claims or allegations by Petitioners has been reviewed, and I conclude that, for the reasons discussed above, Petitioners have raised no substantial safety concern regarding the revised security plan for the Zion facility. Petitioners' requests that the NRC withdraw its approval of the changes to the security plan and that the NRC require an increase in the number of, or a change in the positioning of, armed guards at the Zion Nuclear Power Station, are denied. Petitioners' request that the NRC demand greater justification for the proposal to reduce the number of armed guards and the defense of the Zion Nuclear Power Station is denied. Since the NRC has agreed with the Licensee that the changes to Zion's security plan do not decrease the effectiveness of the plan, per section 50.54(p), NRC approval to implement the changes to Zion's security plan is not required.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c). As provided by section 2.206(c), this Decision will constitute the final action of the

Commission 25 days after issuance, unless the Commission, on its own motion, institutes a review of the decision within that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

William T. Russell, Director  
Office of Nuclear Reactor  
Regulation

Dated at Rockville, Maryland,  
this 26th day of May 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William T. Russell, Director

In the Matter of

Docket No. 50-389-A

FLORIDA POWER AND LIGHT  
COMPANY  
(St. Lucie Nuclear Power Plant,  
Unit 2)

May 26, 1995

The Director, Office of Nuclear Reactor Regulation, denies a petition dated July 2, 1993, filed by the Florida Municipal Power Agency (FMPA), which requested, *inter alia*, that the NRC (1) declare that Florida Power & Light Company (FPL) is obligated to provide network transmission among geographically separated sections of FMPA without imposing multiple charges for transmission among multiple delivery points; (2) issue a notice of violation of that obligation; (3) order FPL to file with the Federal Energy Regulatory Commission a rate schedule that provides for transmission in a manner that complies with the antitrust conditions which are a part of the St. Lucie Plant, Unit 2 license. The reasons for the denial are fully set forth in the Director's Decision.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

**I. INTRODUCTION**

The Florida Municipal Power Agency (FMPA), in a petition dated July 2, 1993, requested the Executive Director for Operations of the Nuclear Regulatory Commission (NRC or Commission) to take enforcement action against the Florida Power & Light Company (FPL) for allegedly violating the antitrust license conditions applicable to the captioned nuclear unit. The petition was referred to the Director, Office of Nuclear Reactor Regulation, for response.

FMPA requested that the NRC (1) declare that FPL is obligated to provide network transmission among geographically separated sections of FMPA without imposing multiple charges for transmission among multiple delivery points; (2) issue a Notice of Violation of that obligation; (3) impose a requirement by order directing FPL to file with the Federal Energy Regulatory Commission (FERC) a rate schedule that provides for transmission in a manner that complies with the antitrust conditions that are a part of the St. Lucie Plant, Unit 2 (St. Lucie); (4) take other such action as may be proper, including proposed imposition of civil monetary penalties; and (5) publish notice of the petition including when the NRC expects to decide whether to take action in response to the petition.

FMPA specifically alleged that the antitrust license conditions for St. Lucie require FPL to provide transmission of power over its system among the various sections of FMPA's system on a network basis without imposing multiple charges for transmission among multiple FMPA receipt and delivery points. FMPA alleged that FPL has refused to provide such network transmission and as a result, is in violation of the St. Lucie antitrust license conditions.

FMPA's section 2.206 petition centers on FPL's alleged continued refusal to provide network transmission service over its system. The issue of whether FPL is required to provide network transmission either under the St. Lucie antitrust license conditions or as a result of a filed request for transmission service before the FERC, was resolved by the issuance of a final order by the FERC in a related proceeding on May 11, 1994. The FERC order directs FPL to provide network transmission service to FMPA. Consequently, the issues that were raised by FMPA in its section 2.206 petition that pertain to issues under the NRC's jurisdictional purview, i.e., whether FPL was required to offer FMPA network transmission service, have been resolved. The unresolved issues pertaining to FMPA's request for network transmission service are rate-related issues, and are currently being negotiated by FMPA and FPL under a FERC order. For these reasons, I am denying FMPA's section 2.206 request for an enforcement action against FPL.

## II. BACKGROUND

During the antitrust review of St. Lucie conducted by the Atomic Energy Commission (AEC, predecessor of the NRC) staff and the staff of the Department of Justice (DOJ or Department), the Department, by letter dated November 14, 1973, advised the AEC staff that FPL appeared to be engaged in activity that was inconsistent with the antitrust laws, i.e., principally refusing to (1) wheel, (2) interconnect with other power entities, and (3) grant access to the St. Lucie nuclear facility. During settlement discussions between FPL, AEC staff and DOJ staff, FPL was asked to clarify what its corporate policies were on access

to its transmission facilities as well as participation in St. Lucie. By letter dated February 25, 1974, the AEC staff forwarded a set of license conditions to FPL that, if agreed upon by FPL, would obviate the need for an antitrust hearing in the St. Lucie construction permit antitrust review. The license conditions required FPL to offer several cooperative and municipal electric power systems various coordination services as well as the opportunity to purchase ownership in St. Lucie. On February 26, 1974, FPL agreed to adopt the proposed set of license conditions. However, several years thereafter, a group of Florida municipalities was permitted to intervene. Eventually, a settlement agreement reached in 1980 resulted in a 1981 license amendment adding antitrust license conditions to the St. Lucie construction permit. Subsequently, pursuant to section 105c of the Atomic Energy Act of 1954, as amended, the Staff conducted an operating license review of FPL's competitive activities which was completed in September of 1982. The Staff found no significant changes in FPL's activities since the completion of the construction permit review.

Subsequent to the issuance of the St. Lucie amendment adding the antitrust license conditions in 1981, FMPA alleged that FPL, on several occasions, refused to provide transmission services over its network among the various sections of FMPA without imposing multiple charges for transmission among multiple FMPA receipt and delivery points.<sup>1</sup> FMPA characterized this type of service as "network transmission service" as opposed to point-to-point transmission service. In 1982, FPL entered into settlement agreements with various Florida municipalities (the predecessor to FMPA<sup>2</sup>) and, according to FMPA, the settlement agreements refined and built upon the St. Lucie antitrust license conditions. In 1989, FMPA and FPL began negotiating for transmission network service. The negotiations were unsuccessful and in December 1991, FMPA filed suit against FPL in (Florida) state court alleging breach of contract. FPL removed the case to federal court, Middle District of Florida, in January 1992. FMPA alleged that FPL refused to supply network transmission service, per the transmission agreements negotiated as a result of the NRC licensing proceeding, and sought injunctive relief and damages.

On July 2, 1993, FMPA filed a complaint with the FERC in an outstanding electric rate case involving FPL (EL93-51-000). FMPA asked the FERC to find that certain access limitations of existing transmission service agreements between FMPA and FPL were unjust, discriminatory, and unreasonable under

<sup>1</sup> Specifically, license condition No. X(a) that requires FPL to "transmit power . . . (2) between two or among more than two neighboring entities, or sections of a neighboring entity's system which are geographically separated . . ."

<sup>2</sup> Several cities combined in 1978 to form FMPA, a joint action agency. Under Florida law, The Joint Power Act, entities have the right to join with other electric utilities in order to jointly finance, acquire, construct, manage, operate, or own an electric power project. These rights were extended to local governmental entities with the enactment of the Interlocal Cooperation Act in 1978.

the Federal Power Act. The complaint asked the FERC to direct FPL to provide network transmission service.<sup>3</sup> FMPA also filed a petition before the NRC on July 2, 1993, alleging that FPL was in violation of its St. Lucie antitrust license conditions requiring FPL to provide network transmission service and requested that the NRC enforce the St. Lucie antitrust license conditions and require FPL to offer network transmission service to FMPA.

On October 28, 1993, FERC issued a proposed order in the FMPA network transmission case (65 FERC ¶61,125) granting FMPA's request to order FPL to provide network transmission service. The FERC found that by ordering network transmission, the public interest would be served, fully consistent with its mandate under the Federal Power Act. As a result of the FERC proposed order, on December 16, 1993, the U.S. District Court for the Middle District of Florida issued a "Memorandum Decision and Order" in which the Court stated that the FERC's proposed order resolved the issues presented in the District Court. As a result, FMPA's request for damages was denied based upon the "filed rate doctrine" which empowers the FERC to rule on wholesale rate matters. The Court dismissed the case.

During a 60-day negotiating period set by the FERC following the proposed order, FMPA and FPL were unable to reach an agreement on the terms and conditions for a filed network transmission rate schedule. In the first quarter of 1994,

both parties filed briefs and supporting materials setting forth their respective positions. On May 11, 1994, the FERC issued a "Final Order" in Docket No. TX93-4-000, 67 FERC ¶61,167 (May 11, 1994), *reh'g pending*. In the Final Order, the FERC approved FPL's proposed load ratio approach to the pricing of network transmission with the crucial additional requirement, proposed by FMPA, that FMPA receive credit for transmission facilities owned by FMPA or its members that will be used, along with FPL transmission facilities, to integrate FMPA's loads and resources. 67 FERC at pages 61,481-2. Both FPL and FMPA sought rehearing of certain aspects of the Final Order, and those requests for rehearing remain pending.<sup>4</sup>

The FERC's Final Order, dated May 11, 1994 (67 FERC ¶61,167), directed FPL to offer network transmission service along with the necessary rates, terms, and conditions required to make this service a power supply option for FMPA.

<sup>3</sup>FMPA defines network transmission service as "a transmission arrangement that would enable [FMPA] to distribute a given quantity of transmission network usage among various delivery points, without paying multiple monthly or yearly transmission charges." FMPA Complaint before the FERC at 25.

<sup>4</sup>Letter dated December 5, 1994, from Robert A. Jablon and Bonnie S. Blair of Spiegel & McDiarmid to Anthony T. Gody, Chief, Inspection Program Branch, Office of Nuclear Reactor Regulation at 2 [FMPA Letter].

### III. DISCUSSION

Institutional and competitive pressures have been building over the past decade within the electric bulk power services market to open up the life-line of the industry, i.e., transmission, by lowering existing entry barriers to transmission access that would allow a more efficient distribution of scarce resources and ultimately, cheaper power to those in need and willing to pay for an efficient power supply. With the passage of the Energy Policy Act of 1992 (EPAct), the institutional reorganization that has been gathering momentum in the electric power industry for several years, developed an inertia unseen in the industry in this country since the emergence of large vertically integrated electric holding companies in the 1920s and 1930s. After much public debate leading up to passage of EPAct, the feature included in the act that has been most influential in reshaping the character of the electric utility industry is section 211. Section 211 empowers the FERC to order transmission access to promote competition where to do so would be in the public interest — this public policy change represents a dramatic change from the competition-neutral policy intended by the Public Utilities Regulatory Policies Act of 1978 (PURPA). Smaller, transmission-dependent power systems have long argued that PURPA has not gone far enough in opening up the tightly knit nature of large generation and transmission systems and have lobbied Congress for several years to amend PURPA and empower the FERC to order transmission access or "wheeling." The Staff believes that the formation of FMPA and the goals imposed upon this joint action agency by its members mirror the changes that have taken place and continue to take place in the electric bulk power market during the past 10-15 years.

Since the late 1970s, several cities in Florida have sought greater access to FPL's transmission grid. Typically, these cities own their electric distribution systems and in some instances, generate a portion of their own power supply requirements. In order to seek out the most cost-efficient source of power supply, these cities need meaningful access to transmission facilities, i.e., usually the local, large, fully integrated electric utility system serving in the relevant geographic area — in this instance, FPL.

During the construction permit review of the St. Lucie facility, the antitrust staffs of the Department of Justice and the Atomic Energy Commission identified instances where FPL's market dominance in generation and transmission in the state of Florida was allegedly used to restrict the competitive options of smaller power systems in the state. FPL did not offer the cities and their successor organization, FMPA, the type of transmission access that would allow FMPA to successfully compete for sales or purchases of wholesale power in the state

of Florida or other potential markets in neighboring states.<sup>5</sup> The Staff identified this market conduct by FPL during the licensing review of the St. Lucie facility. Subsequently, the Department of Justice and NRC staffs recommended that a set of license conditions, designed to prevent FPL from abusing its market dominance, be made a part of the St. Lucie operating license.

The Florida municipalities, in the 1970s and early 1980s, and FMPA since the early 1980s, have sought a type of transmission access, termed "network transmission service," that would, according to FMPA, provide for a more level playing field in the Florida bulk power services market. FMPA's quest for competitive power supply options should not be inhibited by power systems that have considerable market power and abuse their market power in a manner that diminishes economic efficiency in the market place. I agree with FMPA's assessment that its planned integrated dispatch operation (IDO) project, or a project similar to it, "represents the logical next step in FMPA's development" as a competing bulk power entity in the state of Florida represents a plausible next step in its development as a power supply system. As the petition states:

Integrating and coordinating its resources has been an important long-term FMPA goal. FMPA has previously sought to establish a Florida-wide power pool and, failing that, a FMPA-FPL power pool, but those efforts were rebuffed by FPL. The IDO project would establish an integrated dispatch and operations pool of certain FMPA members, thereby permitting substantially more economic and efficient use of their existing resources and planning for more economic future resources.<sup>6</sup>

The antitrust license conditions developed in the St. Lucie proceeding were intended to resolve the alleged anticompetitive situation that would be maintained if an unconditioned license for St. Lucie, Unit 2 had been issued without conditions. The license conditions were designed to promote the efficient allocation of energy resources in the state of Florida and perhaps service areas in adjoining states. The Staff concluded that the manner in which FPL charged

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<sup>5</sup> "Applicant's control over the transmission network in its area has given it the power to grant or deny access to coordination — and thereby access to the benefits of large-scale, low-cost, baseload nuclear generation — to neighboring smaller systems. There have been some allegations that Applicant may have used this power to deny coordinating benefits to smaller systems or to take the predominant share of the benefits of such coordination as has been entered into." Department of Justice Letter [hereinafter, "Advice Letter"] dated November 14, 1973, from Bruce B. Wilson, Acting Assistant Attorney General, Department of Justice to Howard K. Shapar, Assistant General Counsel, Atomic Energy Commission at 3-4. The Advice Letter continued, "Our antitrust review led us to the following conclusions: (1) Applicant is the dominant electric utility in Florida and because of its ownership of transmission, has the power to grant or deny other systems in its area the access to coordination — and thus the nuclear power — needed to compete in bulk power supply and retail distribution markets; (2) there is some indication Applicant's dominance may have been enhanced through conduct inhibiting the competitive opportunities of the smaller systems in its area; and (3) construction and operation of St. Lucie No. 2, and the sale of power therefrom to meet Applicant's load growth and compete with the smaller systems in its area could create or maintain a situation inconsistent with the antitrust laws if access to nuclear generation were denied those smaller systems." Advice Letter at 6-7.

<sup>6</sup> FMPA Section 2.206 Petition to the NRC Staff, dated July 2, 1993, at 8.



multiple transmission fees for transfer of blocks of power over its transmission system was potentially anticompetitive and, consequently, helped design license conditions that would preclude FPL from abusing its market power in the Florida bulk power services market.

There are similarities between the instant matter and a merger case reviewed by the Staff in the early 1990s, although the letter did not involve a request for an enforcement action. A brief comparison of the two matters should provide additional insight into how I reached my decision herein. In the early 1990s, the Staff reviewed the competitive implications of the merger between Public Service Company of New Hampshire (Seabrook Nuclear Station licensee) and Northeast Utilities (i.e., the NU/PSNH merger). The merger was also reviewed for competitive implications by the FERC pursuant to section 203 of the Federal Power Act and the Securities and Exchange Commission (SEC) pursuant to section 10(b)(1) of the Public Utilities Holding Company Act.

As in the instant case, the NU/PSNH merger was reviewed for competitive implications by different regulatory agencies with different standards of review and areas of regulatory oversight. In its review of the NU/PSNH merger, the Staff followed the hearings conducted by the FERC very closely and made its no "significant change" finding based largely upon the testimony and resultant premerger conditions imposed on the merging parties by the FERC. The Staff determined that the potential anticompetitive implications of the NU/PSNH merger were adequately mitigated by the FERC conditions. The SEC, which was required to determine whether the merger would lead toward undue concentration of control over public utility companies and thereby be detrimental to the public interest, initially approved the merger but in a subsequent order indicated that the pertinent competitive issues were under the jurisdiction of the FERC and therefore made its final approval contingent upon FERC also approving the merger.

Intervenors at the SEC appealed the SEC decision to the Court of Appeals for the District of Columbia Circuit claiming that the SEC had abdicated its antitrust responsibility by deferring its ultimate decision to the FERC. The Court ruled that the SEC did not abdicate its statutory duty to find on the competitive issues attendant to the proposed acquisition because the SEC indicated in its order that the intervenors had the opportunity to "rescind or further condition its [the merger's] approval" before the SEC if they disagreed with the ultimate FERC ruling. The Court indicated that the SEC, in order to ensure coordination of their orders in a parallel review, conditioned its approval of the acquisition upon the FERC's final order approving the merger. The Court stated that,

Although the SEC may not rely upon the FERC's concurrent jurisdiction over an acquisition as a reason to shirk its own statutory mandate to determine the anticompetitive effect of that transaction, see, e.g., *Municipal Elec. Ass'n*, 413 F.2d at 1059-60, it does not follow that

the SEC must pretend that it is the only agency addressing the issue when it is not; that would only lead it to conduct a wasteful, duplicative proceeding. Rather, when the SEC and another regulatory agency both have jurisdiction over a particular transaction, the SEC may "watchfully defer[]" to the proceedings held before — and the result reached by — that other agency. *Wisconsin's Environmental Decade v. SEC*, 882 F.2d 523, 527 (D.C. Cir. 1989).<sup>7</sup>

The NRC Staff, prior to the Court of Appeals' decision, indicated that it was aware of the FERC proceeding and the FERC decision; however, the NRC did not *defer* to the FERC decision.

The Staff continues to employ the concept of "watchful deference" espoused by the Court and has determined that the FERC Order in the rate case involving FMPA and FPL addressed and adequately responded to the concerns contained in FMPA's Section 2.206 petition to the NRC. The FERC ordered FPL to provide FMPA network transmission service in its order dated May 11, 1994 — FMPA's primary concern expressed in its section 2.206 petition. FMPA continues to argue that it is not taking network transmission service from FPL. It is apparent from the ongoing discussions between FPL and FMPA and the continuing rate case proceeding at the FERC that there are issues outstanding between the two parties that need to be resolved before FMPA begins taking network transmission service from FPL. However, it is also apparent that the remaining outstanding issues are rate-related issues within the jurisdiction of the FERC, not the NRC.

#### IV. CONCLUSION

I have concluded that FERC's Order requiring FPL to provide network transmission service to FMPA and the subsequent ongoing rate proceeding before the FERC, adequately address and resolve the concerns raised in FMPA's Section 2.206 petition and request for action by the NRC. As a result of the

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<sup>7</sup> *City of Holyoke Gas & Electric Department v. SEC*, 972 F.2d 358, 363 (D.C. Cir. 1992).

foregoing, I have determined that no proceeding should be instituted and no further regulatory action by the NRC is required.

FOR THE NUCLEAR  
REGULATORY COMMISSION

William T. Russell, Director  
Office of Nuclear Reactor  
Regulation

Dated at Rockville, Maryland,  
this 26th day of May 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William T. Russell, Director

In the Matter of

Docket Nos. 50-213  
50-245  
50-336  
50-423  
(License Nos. DPR-61  
DPR-21  
DPR-65  
NPF-49)

NORTHEAST UTILITIES  
(Haddam Neck Plant and  
Millstone Nuclear Power Station,  
Units 1, 2, and 3)

May 31, 1995

The Director of the Office of Nuclear Reactor Regulation has denied the petition filed by Mr. Ronald Gavensky requesting that the licenses of the Haddam Neck Plant and the Millstone Nuclear Power Station, Units 1, 2, and 3, be temporarily revoked based on Petitioner's allegations. Petitioner raised numerous concerns regarding receipt inspection activities by Northeast Utilities (NU) at these facilities. After a review of Petitioner's concerns, the Director concluded that no substantial health and safety issues were raised regarding these facilities that would require initiation of formal enforcement action.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

**I. INTRODUCTION**

On March 3, 1994, Mr. Ronald Gavensky (Petitioner) filed a petition with the U.S. Nuclear Regulatory Commission (NRC) pursuant to 10 C.F.R. § 2.206.

In the petition, the Petitioner, a Northeast Utilities (NU) quality control receipt inspector raised concerns regarding receipt inspection activities by NU at the Haddam Neck Plant and the Millstone Nuclear Power Station.<sup>1</sup>

The Petitioner alleged violations of 10 C.F.R. Part 50, Appendix B, by NU in the receipt inspection area. He alleged that parts represented as having been inspected and accepted for use were in fact deficient; that adequate training, skilled personnel, and necessary tools were not available to perform adequate receipt inspections; and that he had observed unethical and incorrect methods of receipt inspection, and that he had sought to identify quality problems within his own department, along with recommendations and solutions, but had not been permitted to do so. Finally, the Petitioner accused NU of "whitewashing" his concerns. Specifically, the Petitioner alleged that on two occasions NU's management had hired investigators to investigate concerns he had raised only to conclude that there were no problems. The Petitioner requested that the "license of Northeast Utilities" be temporarily revoked until after the NRC investigates his allegations.

On May 9, 1994, I informed the Petitioner that the petition had been referred to my office for preparation of a Director's Decision. I further informed the Petitioner that his issues were not considered immediate safety concerns and, therefore, did not warrant immediate shutdown of the Haddam Neck Plant and Millstone Nuclear Power Station, Units 1, 2, and 3. I also informed the Petitioner that the NRC would take appropriate action within a reasonable time regarding the specific concerns raised in the petition. By letter dated November 28, 1994, following a telephone conversation with the Petitioner of November 15, 1994, this office provided him portions of NRC Inspection Reports that relate to his concerns and a copy of a Brookhaven National Laboratory Associated Universities, Inc. report of an evaluation of thirty bolts chosen at random from the Millstone Warehouse in November 1993. This office also provided the Petitioner status reports of the Director's Decision concerning his petition pursuant to 10 C.F.R. § 2.206 of March 3, 1994, by letters dated February 23, and May 9, 1995.

NU voluntarily submitted a response to the NRC on July 26, 1994 (NU Response), regarding the issues raised in the petition. The Petitioner voluntarily submitted a response dated August 16, 1994, regarding the issues raised in the NU Response. Based on a review of the issues raised by Petitioner as discussed below, I have concluded that no substantial health and safety issues have been raised that would require the initiation of formal enforcement action.

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<sup>1</sup> Northeast Nuclear Energy Company (Millstone licensee), an electric operating subsidiary of Northeast Utilities (NU), holds licenses for the operation of Millstone Nuclear Power Station, Units 1, 2, and 3. The Connecticut Yankee Atomic Power Company (Haddam Neck licensee), an electric operating company owned in part by NU, holds the license for the Haddam Neck Plant. Reference in the petition to the "license of Northeast Utilities" refers to the licenses of the Haddam Neck Plant and Millstone Nuclear Power Station, Units 1, 2, and 3.

## II. DISCUSSION

In the petition, the Petitioner raised numerous concerns regarding receipt inspection activities by NU at the Haddam Neck Plant and Millstone Nuclear Power Station, Units 1, 2, and 3. The issues raised in the petition are summarized and evaluated below.

### A. Adequacy of the NU Receipt Inspection Program

The Petitioner alleged that NU did not have skilled personnel or the necessary tools or equipment to perform adequate receipt inspection until 1990 for the Haddam Neck Plant and could not have had a properly executed receipt inspection department until 1989 for the Millstone Nuclear Power Station, Units 1, 2, and 3. He alleged that at the present time there are only two skilled mechanical receipt inspectors at the Millstone Nuclear Power Station. Also, all current receipt inspectors are qualified at Level 2 to ANSI/ASME Standard N45.2.6-1972. However, most lacked the actual experience in mechanical receipt inspection required by the standard to which NU is committed.

The Petitioner alleged that, when he was first employed by NU 16 years ago, he found parts still packed in the original containers unopened but green-tagged (acceptable for use). He also found cracked parts, bent parts, mismatched parts, all of which were green tagged, and many bad parts accepted for use by the architect-engineer, Stone and Webster Engineering Corporation (SWEC), and wrongly installed.

The Petitioner also claimed that he had observed unethical and incorrect methods of receipt inspection and that he was prevented from raising quality problems either by his supervisor or the Director of Quality.

Most of the specific concerns raised by the Petitioner appear to relate to NU procurement activities before 1990. At that time, NU, as indicated in the NU response to the petition, maintained an approved-suppliers list and relied heavily, like most utilities, on vendor audits and certifications to ensure the adequacy of procured parts. Because of extensive use of an approved-suppliers list, NU stated that its internal programs, including elements for ensuring independently the quality of procured parts, were not relied on to the same extent as they are now. NU considered this approach appropriate at the time, given the number of vendors who maintained 10 C.F.R. Part 50, Appendix B quality assurance programs.

As the number of vendors maintaining Appendix B programs declined and the instances of counterfeit and fraudulent products increased, the nuclear industry, including NU, found it necessary to develop more sophisticated internal programs to qualify commercial-grade parts procured for nuclear safety-related applications. Generic Letter 89-02, "Actions to Improve the Detection of Coun-

terfeit and Fraudulently Marketed Products," dated March 21, 1989, describes these emerging procurement issues. To address these issues, Generic Letter 89-02 conditionally endorsed Electric Power Research Institute (EPRI) Report NP-5652, "Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Related Applications (NCIG-07)," dated June 1988. On June 28, 1990, the Nuclear Management and Resources Council (NUMARC) board of directors directed licensees to adhere to the guidance in EPRI Report NP-5652 and to review and strengthen their procurement programs in accordance with specific guidance in NUMARC 90-13, "Nuclear Procurement Program Improvements." The procurement programs for the Haddam Neck Plant and Millstone Units 1, 2, and 3 were significantly upgraded in response to Generic Letter 89-02 and the NUMARC initiatives.

In February 1989, the vendor interface and procurement programs at Haddam Neck were inspected (*see* NRC Inspection 50-213/89-200 dated May 25, 1989) as part of an initial group of thirteen team inspections conducted by the NRC to evaluate licensee procurement and commercial-grade dedication programs. That inspection identified several deficiencies including weaknesses in the procurement and dedication of commercial-grade items for safety-related applications at the Haddam Neck Plant.

Upgraded procurement programs have been implemented at the Haddam Neck Plant and Millstone Nuclear Power Station, Units 1, 2, and 3. The programs at the Millstone units were inspected by the NRC (NRC Inspection Reports 50-245/91-201, 50-336/91-201, and 50-423/92-201, dated November 5, 1991). The upgraded program at the Haddam Neck Plant, while not inspected by the NRC in the level of detail as Millstone, was reviewed in part during the resolution of the identified deficiencies from NRC Inspection 89-200 as well as the 1990 Maintenance Team Inspection. The inspection at Millstone found that, before June 1987, commercial-grade items were purchased and receipt-inspected with acceptance criteria primarily based on verification of the correct part number. Between 1988 and 1990, NU upgraded its procedures to upgrade its procurement inspection services. The NRC assessment team noted that NU had made a significant effort to strengthen the commercial-grade dedication program and that its overall program description was generally consistent with the dedication approaches described in EPRI Report NP 5652. The team found that receipt inspection capabilities at Millstone Nuclear Power Station, Units 1, 2, and 3 had undergone several improvements. The Millstone Nuclear Power Station receipt inspectors had a new enclosed facility. The facility's equipment was being enhanced and included micrometers, gage blocks, a metal sorter, a shadow graph, and a variety of electronic devices. The improved receipt inspection facility and improved testing and inspection equipment had enhanced the capability of the receipt inspection process to detect misrepresented parts, equipment, and material. The procurement inspection services consisted of twelve inspectors

and one supervisor. The receipt inspectors were certified under requirements established by procedures. The assessment team identified several procedural weaknesses and implementation weaknesses involving the improper identification of design criteria, safety function(s), critical characteristics, and methods for verifying the critical characteristics. The assessment team found strengths and potential strengths in such areas as receipt inspection testing capabilities at the Metallurgy Laboratory Facilities in Berlin, Connecticut, and at the Millstone Nuclear Power Station site, self-assessments of the commercial-grade dedication program, the 4-day procurement and commercial-grade dedication training course, the review project of previous commercial-grade inspections at Millstone Nuclear Power Station and the general consistency of the program with the dedication approaches of EPRI NP-5652. In addition, the quality, attitude, and dedication of the Licensee's personnel were evident. The team concluded that, with appropriate modifications to address the weaknesses, the program, if properly implemented, would provide adequate control over the commercial-grade procurement process.

Additional inspections of the procurement programs for the Haddam Neck Plant and Millstone Units 1, 2, and 3 have been conducted by the NRC (NRC Inspection Reports 50-423/92-11 dated May 30, 1992, 50-213/92-14 dated August 12, 1992, 50-423/92-24 dated January 12, 1993, 50-423/93-26 dated January 14, 1994, and 50-336/94-21 dated August 31, 1994). In 1992, after its inspection of the Haddam Neck Plant, the NRC Staff concluded that adequate measures were in place to ensure that the level of quality of procured items was commensurate with their safety-related application. In 1993, the NRC Staff reported that NU's receipt inspection program at Millstone Nuclear Power Station, Units 1, 2, and 3 was deliberate, controlled, and consistent in the choice of attributes required to be inspected and the documentation of results. After its inspection of NU's procurement program late in 1993, the NRC Staff found no significant safety issues. In 1994, the NRC Staff reported in NRC Inspection Report 50-336/94-21 that NU's procurement inspection services inspections were performed by personnel certified under NU's Quality Services Department Procedures QSD 1.08, "Department Indoctrination, Training and Qualification," and QSD 2.08, "Selection, Training, Qualification and Certification of Inspection, Examination and Testing Personnel." The Quality Department Inspector Training Program served as the basis of the training required for certification. The program emphasized technical knowledge, skill development, and problem solving. The procurement inspection personnel were well trained, with ten of twelve inspectors certified to a Level 2 in at least two disciplines. In addition, refresher training was provided to maintain proficiency and certification of personnel. Also in 1994 (NRC Inspection Report 50-336/94-21), the NRC Staff reported that NU's procurement inspection services maintained an inventory of over 500 tools for measuring and testing and that appropriate inspectors were trained and certified in the use of



these tools. Such tools are typical of many nuclear power plants' inventory. NU also stocked some exceptional tools such as an optical comparator shadowgraph, an Ames hardness tester, and an alloy analyzer. In summary, during these post-1990 inspections, the NRC Staff noted procurement program upgrades and found no significant safety issues in the procurement area.

#### **B. Quality of Fasteners Installed at Northeast Utilities Facilities**

Petitioner has an extensive background in the area of receipt inspection of fasteners of NU nuclear facilities and has raised a number of specific concerns regarding the quality of fasteners. The focus of the NRC evaluation of the Petitioner's concerns is receipt inspection of fasteners and assurance that fasteners will perform their intended function. NU acknowledged in its response of July 26, 1994, the Petitioner's efforts in raising and aggressively pursuing valid issues. NU acknowledged that, in March 1992, the Petitioner had issued six nonconformance reports (NCRs) based on his visual inspection of various surplus fasteners procured in 1983 for use at Millstone Unit 3. Later, he issued an additional NCR, citing potential programmatic deficiencies by SWEC, concerning procurement of various other materials installed at Millstone Unit 3.

The concerns of the Petitioner were verified in NRC Inspection Report 50-423/92-11 dated May 30, 1992. In the report, the Staff noted that an inspection in 1992 by NU of six of the forty-three items obtained from SWEC stock that were designated for transfer to the Millstone Nuclear Power Station stores resulted in an initial rejection of all six items. An item was defined as all of a specific type of bolt or fastener material, e.g., 600  $\frac{9}{16}$ "  $\times$  4  $\frac{1}{2}$ " bolts were classified as one item. Six NCR reports were written concerning these findings and indicated that all of the material constituting the six items was scrapped.

Also, the Staff noted that thirty-two of forty-eight items that had been transferred from SWEC stock and introduced into Millstone Nuclear Power Station stores in 1990 were receipt-inspected and green-tagged without proper dedication. These items were considered acceptable for use as safety-related material for installation in the three Millstone Units 1, 2, and 3. An NCR report was written concerning this finding. Further, NU identified work orders indicating that fastener material (bolts, nuts, washers) from the thirty-two items had been used in Millstone Units 1, 2, and 3 during the previous 2 years. The bolts were used principally in the mounting of electrical components (relays, terminal boards, etc.), fans, ventilation housing, and cable trays. The materials were also used on various safety-related systems, such as Millstone Unit 1 reactor protection system bypass switches, Millstone Unit 2 containment air recirculation fans, and Millstone Unit 3 shutdown margin monitor.

In NRC Inspection Report 50-423/92-11, the Staff noted that NU had tested six bolts from the lots of the thirty-two items and had found that the

chemical properties and tests to determine tensile properties were acceptable. A Corrective Action Request (CAR) that was initiated on April 27, 1992, as a result of the NCRs, indicated that these six bolts were the poorest appearing bolts of the lots. Thus, NU determined that the bolts were functionally acceptable. In NRC Inspection Report 50-423/92-16 dated September 3, 1992, the Staff reported that, as a result of its questions about whether the six tested fasteners adequately represented the population of fasteners installed, NU tested an additional thirty fasteners randomly selected from the warehouse and one sample chosen by the NRC Staff that had linear indications running from the body into the head of the fastener. NU determined that all the fasteners met specification requirements for material and mechanical properties. The NRC Staff raised a second concern, that is, that the sample did not represent all the fasteners because all the manufacturers were not represented. NU then took another sample of thirty fasteners from each of three manufacturers. The testing of these bolts showed that all the fasteners, except for one cap screw, were acceptable. The one cap screw had a tensile strength of only 121.3 ksi rather than the specified strength of 125 ksi. However, the cap screw did have an acceptable yield strength. The Licensee performed a statistical analysis on the results of the testing and determined that the probability of an installed bolt from the thirty-two items failing to perform its safety function is extremely small (in the order of 1 chance in 345,000). The NRC Staff concluded in NRC Inspection Report 50-423/92-24 dated January 12, 1993, that the results for all the fasteners tested except one were acceptable and that the nonconforming conditions, including some visual deficiencies, would not have impaired the capability of the fasteners to perform their functions, and that NU's current inspection program was deliberate and controlled.

NU initially indicated that the remaining fasteners transferred from SWEC to the Millstone Nuclear Power Station stores would be scrapped. However, it did install some of the fasteners in the units after performing additional inspections and dedicating the fasteners before they were installed.

Finally, a random sample of thirty bolts of various sizes was taken from the Millstone Nuclear Power Station warehouse bins during November 1993 for laboratory tests. They were tested by the Brookhaven National Laboratory Associated Universities, Inc., and twenty-six of the thirty met specification requirements for chemical, mechanical, and dimensional properties. Four bolts did not pass the thread fit inspection with a "Go" gage. However, the discrepancies would not have prevented the bolts from performing their function. (See Letter dated May 2, 1994, from Brookhaven National Laboratory Associated Universities, Inc., to Mr. James A. Davis, NRC, which is available in the NRC's Public Document Room.) In summary, on the basis of the extensive tests of samples of fasteners taken from the warehouse bins, the NRC Staff concludes that materials in the bins are acceptable for use.

The possibility of nonconforming fasteners already installed in safety-related applications was addressed in an NU letter to the NRC Staff dated September 22, 1994. NU concluded that this issue did not warrant action for the Haddam Neck Plant and Millstone Units 1, 2, and 3. NU indicated that periodic testing and inspection are performed on installed fastener components. Further, safety-related plant equipment is periodically tested to ensure that fasteners have not degraded. Piping systems and valves are pressure-tested periodically and fasteners are visually inspected. Other components, such as pumps, are tested and key fasteners are checked for tightness and degradation. These inspections ensure that components remain fastened. Loose components, when found, are evaluated for generic implications, such as installation errors or defective materials, and are repaired or replaced as necessary. Plant walkdowns are performed in accessible areas at least three times a day by trained individuals able to identify abnormal conditions. Components that have degraded because of fastener problems are more likely to leak initially than suffer a catastrophic failure and are, therefore, likely to be identified and repaired. In addition, the NRC Staff notes that fastener installations typically provide for large safety margins in application. Also, fastener inspection continues through the installation phase and nonconforming conditions, particularly visual defects, are likely to be identified and corrected. On the basis of these considerations, the NRC Staff concludes that the possibility of installed nonconforming fasteners is not a significant safety issue.

### **C. Alleged "Whitewashing" of Petitioner's Concerns**

The Petitioner alleged that the procurement inspection services supervisor and his manager had performed perfunctory investigations into his concerns related to the adequacy of NU's receipt inspection program and the Millstone Unit 3 construction.

The first investigation was one commissioned by the NU Nuclear Safety Concerns Program (NSCP) and was performed between May 18 and May 29, 1992, by an independent review team (IRT) composed of outside consultants. The IRT investigated five areas of concern identified by the Petitioner. These areas included NU's control and oversight of the SWEC Quality Assurance Program, NU control of vendor activities, adequacy of NU receipt inspection program in the areas of training and adequacy of tools, adequacy of the NCR process in the receipt inspection area, and adequacy of the transfer of materials with respect to "visual damage" inspection. In addition, the IRT interviewed the Petitioner and most, if not all, of the members of the Procurement Inspection Services Department.

In NRC Inspection Report 50-423/92-16 dated September 3, 1992, the NRC Staff presented the results of its review of the first investigation. The Staff

found that the IRT review was cursory in nature in two areas and that the IRT had not supported its conclusions in these areas. Specifically, (1) the IRT had not reviewed, in detail, the SWEC lower tier procedures and procurement documents pertaining to the fasteners transferred from SWEC to the Millstone Nuclear Power Station stores, and (2) the IRT concluded that NU's oversight of SWEC's quality assurance program was satisfactory without determining how the nonconforming fasteners were accepted and placed in stock and whether a programmatic problem existed that allowed the acceptance of the discrepant fasteners.

The NRC Staff made an additional observation regarding the IRT review of the concern regarding guidance for inspecting for visual damage. The concern submitted by the Petitioner to the NSCP was the lack of guidance for performing inspections for visual damage during receipt inspection. On the basis of its review, the IRT concluded that damage would be identified. However, the examples chosen to support the claim that instruction was given on identifying visual damage were examples for inservice inspection, not receipt inspection. The Quality Services Director committed to review the definition of visual damage and revise it as necessary for use in receipt inspection.

Although the IRT report may have been cursory in two areas, it was comprehensive in the other areas investigated: the Combustion Engineering reactor head studs inspection, the A&G Engineering Inc. bolting, the tools available for use, and the training received by those performing receipt inspection. In addition, the IRT conducted a substantial number of interviews to support the investigation. During its inspection regarding the adequacy of the IRT report, the NRC Staff could find no information that suggested a deliberate effort on the part of NU to color the results of the investigation. "Whitewash" implies a deliberate act to conceal a fault or defect in an effort to exonerate or give the appearance of soundness. Although the NRC Staff found that the IRT investigation and report were not complete in two areas and in regard to the definition of "visual damage," the NRC did not find evidence of a deliberate effort on the part of NU to conceal a defect or falsify records. Thus the NRC does not consider the IRT report as a "whitewash."

NRC Inspection Report 50-423/92-24, dated January 12, 1993, discusses the second investigation. This investigation evolved as a result of the NRC inspection findings on the IRT report concerning the effectiveness of NU's and SWEC's receipt inspection programs. It also was a result of a CAR initiated on April 27, 1992, as a result of several NCRs issued by the Petitioner. The CAR was initiated because a significant amount of bolting material had been transferred from SWEC quality assurance stock to NU and green-tagged without proper receipt inspection and because there was a question about the SWEC receipt inspection program. NU initiated the CAR to resolve these concerns. The purpose of the CAR was to provide reasonable assurance that,

under SWEC's quality assurance program for Category I, non-engineered items, nonconforming items were identified and were prevented from being installed at Millstone Unit 3. To accomplish this, NU reviewed SWEC's program for establishing purchase order and receipt inspections requirements. NU concluded that appropriate procedures existed to ensure the quality of Category I, non-engineered items. To review the implementation of the procedures, NU reviewed approximately 4500 receipt inspection reports (RIRs) and selected for detailed review 1000 that identified nonconforming conditions. From this review, NU concluded in closeout documents that SWEC's program was effective in ensuring the quality of Category I items.

The NRC Staff reviewed a sample of RIRs and identified a small number of fasteners that were not inspected for specific attributes, such as the fabrication attribute or coating/preservatives, as required by Quality Assurance Directive (QAD) 7.7, "Receiving Inspection — General." With the exception of these discrepant bolts, there were no other accepted non-engineered items that have subsequently been found to be nonconforming. Therefore, it appeared that the SWEC's receipt inspection program had been effective.

The Staff did note that NU had closed the CAR without adequately justifying that SWEC receipt inspections had been conducted in accordance with quality assurance program requirements. The Licensee's review of these concerns identified that SWEC inspections for non-engineered items relied heavily on the experience of the inspector and did not strictly follow QAD 7.7. Specifically, the receipt inspector would decide what needed to be inspected by review of procurement documents. The inspector conducted the inspections and documented the results on a generic checklist. Therefore, any required attribute could have been inspected and documented in another attribute of the inspector's choice.

Considering the extensive effort by NU to resolve this issue and in spite of the deficiencies noted during the NRC inspection, the NRC Staff could find no information that suggested a deliberate effort on the part of NU to conceal a defect or falsify records. Thus, the NRC Staff does not consider the closeout of the CAR as a "whitewash."

### III. CONCLUSION

The institution of proceeding pursuant to 10 C.F.R. § 2.206 is appropriate only if substantial health and safety issues have been raised. See *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175 (1975), and *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 924 (1984). This is the standard that

has been applied to the concerns raised by the Petitioner to determine whether the action requested by the Petitioner, or other enforcement action, is warranted.

On the basis of the above assessment, I have concluded that no substantial health and safety issues have been raised regarding the Haddam Neck Plant and Millstone Nuclear Power Station, Units 1, 2, and 3 that would require initiation of formal enforcement action. In particular, safety issues related to the Petitioner's allegations concerning discrepant fasteners were resolved by either removing those fasteners from stores or determining that they were functionally adequate. Therefore, no enforcement action is being taken in this matter.

Although the concerns raised did not warrant the action requested in the petition, the Petitioner's initiative has led to improvements in the procurement receipt inspection program for the Haddam Neck Plant and the Millstone Nuclear Power Station.

Current inspection plans call for continued NRC inspection effort in this programmatic area for the Haddam Neck Plant and Millstone Units 1, 2, and 3 to ensure compliance with current requirements.

The Petitioner's request for action pursuant to section 2.206 is denied. As provided in 10 C.F.R. § 2.206(c), a copy of this Decision will be filed with the Secretary of the Commission for the Commission's review. This Decision will constitute the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes review of the Decision in that time.

FOR THE NUCLEAR  
REGULATORY COMMISSION

William T. Russell, Director  
Office of Nuclear Reactor  
Regulation

Dated at Rockville, Maryland,  
this 31st day of May 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

**Ivan Selin, Chairman**  
**Kenneth C. Rogers**  
**E. Gail de Planque**  
**Shirley A. Jackson**

In the Matter of

Docket No. 55-30662-EA  
(IA 94-007)

**KENNETH G. PIERCE**  
(Shorewood, Illinois)

June 1, 1995

The NRC Staff sought Commission review of the Initial Decision on the ground that the Licensing Board made "clearly erroneous" factual findings. The Commission denied Staff's petition for review.

**RULES OF PRACTICE: PETITION FOR REVIEW**

Among the factors we consider in exercising our discretion to grant or deny review of a licensing board initial decision is the existence of a substantial question whether a licensing board finding of material fact is "clearly erroneous."

**RULES OF PRACTICE: PETITION FOR REVIEW**

The Staff's petition does not show that the Board's own view of the evidence was "clearly erroneous" — i.e., that its findings were not even plausible in light of the record viewed in its entirety. This is fatal to a petition for review resting solely on the "clearly erroneous" argument.

## MEMORANDUM AND ORDER

Among the factors we consider in exercising our discretion to grant or deny review of a licensing board initial decision is "the existence of a substantial question" whether a licensing board "finding of material fact is clearly erroneous." See 10 C.F.R. § 2.786(b)(4)(i). In this enforcement proceeding, the NRC Staff seeks Commission review on the sole ground that the Licensing Board made "clearly erroneous" factual findings.

We deny the petition for review. The Staff's petition, supported by an *amicus curiae* answer filed by the Commonwealth Edison Company, demonstrates only that the record evidence in this case may be understood to support a view sharply different from that of the Board. The Staff's petition does not show that the Board's own view of the evidence was "clearly erroneous" — i.e., that its findings were not even "plausible in light of the record viewed in its entirety." *Anderson v. Bessemer City*, 470 U.S. 564, 573-76 (1985). This is fatal to a petition for review resting solely on the "clearly erroneous" argument.

We grant Commonwealth Edison's Motion for Leave to File *Amicus Curiae* to the extent that it seeks permission to file an answer to the Staff's petition, and we deny it as moot to the extent that it requests permission to file a full brief with the Commission.

It is so ORDERED.

For the Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 1st day of June 1995.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque  
Shirley A. Jackson

In the Matter of

Docket No. 70-3070-ML

LOUISIANA ENERGY SERVICES  
(Claiborne Enrichment Center)

June 8, 1995

The Commission denies a petition filed by Citizens Against Nuclear Trash (CANT) seeking interlocutory Commission review of the Atomic Safety and Licensing Board's March 2, 1995 Memorandum and Order (unpublished). That order denied CANT's petition for waiver of certain regulations contained in 10 C.F.R. Part 61 that pertain to land disposal of waste.

**RULES OF PRACTICE: INTERLOCUTORY REVIEW**

Interlocutory review of Atomic Safety and Licensing Board decisions is disfavored unless a party can show that the licensing board's decision threatens "irreparable impact" or has a "pervasive or unusual" effect on the proceeding's basic structure.

**RULES OF PRACTICE: APPEALABLE ORDERS**

Licensing board rulings denying waiver requests pursuant to 10 C.F.R. § 2.758, which are interlocutory, are not considered final for purposes of appeal.

## ORDER

The Commission has before it a petition for review filed by an intervenor, Citizens Against Nuclear Trash (CANT). CANT challenges a March 2, 1995 Memorandum and Order (unpublished) of the Atomic Safety and Licensing Board denying a petition for waiver of certain regulations contained in 10 C.F.R. Part 61 that pertain to land disposal of waste. The NRC Staff and the Licensee, Louisiana Energy Services (LES), oppose CANT's petition for review. We deny the petition.

We view the Licensing Board ruling denying the waiver petition as interlocutory. CANT, relying on a 1989 decision in *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-920, 30 NRC 121, 124-26 (1989), suggests that the Licensing Board's waiver denial is final for purposes of appeal. We do not find that *Seabrook*, which was issued by the now-defunct Appeal Board, governs this case. The Appeal Board's holding in *Seabrook* was based on the totality of the circumstances of an extremely complicated proceeding and must be read in light of distinctions between the Commission's review in contrast to the Appeal Board's in section 2.758 proceedings. Moreover, treating licensing board waiver denials as final and allowing immediate Commission review would contradict the waiver rule itself, which provides for immediate certification to the Commission *only* when the Board finds a *prima facie* case in favor of a waiver. See 10 C.F.R. § 2.758.

Interlocutory review of licensing board decisions is disfavored unless a party can show that the licensing board's decision threatens "irreparable impact" or has a "pervasive or unusual" effect on the proceeding's "basic structure." See *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-15, 40 NRC 319 (1994) (*Vogtle*); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-94-2, 39 NRC 91, 93 (1994) (*Rancho Seco*). CANT has not suggested, nor do we see, how its petition meets these interlocutory review standards.

The waste disposal issues in this case are subtle and complex. We would prefer to review waste disposal as a whole, rather than in a piecemeal fashion, after a final licensing board decision resolving the entire case has been issued, unless intervening circumstances demand immediate Commission review. Our reluctance to step into this controversy prematurely is reinforced by a recent licensing board pleading filed by CANT on the effects of the Low-Level Radioactive Waste Policy Act on depleted uranium tails disposal. In that pleading, CANT states that the Board "would have to reopen the waiver proceeding for classification of the tails in order to rule that the tails should not be disposed of by the States as Class A waste pursuant to the LLRWPA." See

CANT's Response Memorandum Regarding Effects of Low Level Radioactive Waste Policy Act on Depleted Uranium Tails Disposal at 6 n.2.

We leave unresolved CANT's challenges to the merits of the Licensing Board's ruling.

### CONCLUSION

For these reasons, CANT's petition for Commission review of the Licensing Board's March 2, 1995 Memorandum and Order is DENIED.

IT IS SO ORDERED.

For the Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 8th day of June 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque  
Shirley A. Jackson

In the Matter of

Docket Nos. 70-00270  
30-02278-MLA  
(TRUMP-S Project)  
(Byproduct License  
No. 24-00513-32; Special  
Nuclear Materials License  
No. SNM-247)

THE CURATORS OF THE  
UNIVERSITY OF MISSOURI

June 22, 1995

The Commission grants a petition for reconsideration of CLI-95-1, 41 NRC 71 (1995), in which the University of Missouri challenges one of the conditions imposed by the Commission. The Commission also denies a second petition for reconsideration of CLI-95-1, in which the Intervenor challenge a number of technical and legal underpinnings of that order.

**ATOMIC ENERGY ACT: SAFETY FINDINGS**

**NRC: HEALTH AND SAFETY RESPONSIBILITIES;  
RESPONSIBILITIES UNDER AEA; ADJUDICATORY  
RESPONSIBILITIES**

The fact that the Commission's radiation-protection mission requires it to consider questions of fire safety does not convert the Commission into the direct enforcer of local codes, OSHA regulations, or national standards on fire safety, occupational safety, and building safety.

**ATOMIC ENERGY ACT: COMMON DEFENSE AND SECURITY,  
NON-PROLIFERATION**

**NUCLEAR PROLIFERATION**

**RULES OF PRACTICE: ADMISSIBILITY OF AREAS OF CONCERN**

Federal restrictions on the University's publication of the methodology and results of the TRUMP-S experiments, including a requirement that it receive security clearance from the Department of Energy if the University wishes to publish such information, constitutes an intervening step outside the control of the NRC and the University that separates the experiments' results from the proliferation feared by the Intervenor.

**ATOMIC ENERGY ACT: SAFETY FINDINGS**

**LICENSE AMENDMENT APPLICATION**

**MATERIALS LICENSE UNDER PART 30: STANDARDS**

**MATERIALS LICENSE UNDER PART 70: STANDARDS**

**NRC: HEALTH AND SAFETY RESPONSIBILITIES;  
RESPONSIBILITIES UNDER AEA; ADJUDICATORY  
RESPONSIBILITIES**

While the Commission by no means encourages defective applications, it also does not take the position that an application, however minimally flawed, must be rejected altogether, and may not be modified or improved as NRC review goes forward. Such a position would be incompatible with the dynamic licensing process followed in Commission licensing proceedings.

**ADJUDICATORY BOARDS: AUTHORITY OVER STAFF ACTION**

**LICENSING BOARD/PRESIDING OFFICER: REVIEW OF NRC  
STAFF'S ACTIONS**

Although the Commission expects its Staff to consider thoroughly all its licensing decisions, the issue for decision in adjudications is not whether the Staff performed this duty well, but instead whether the license application raises health and safety concerns.

## **ENVIRONMENTAL REPORTS**

The Commission's regulations categorically exclude from NEPA review all amendments for the use of radioactive materials for research and development. The purpose of an environmental report is to inform the Staff's preparation of an Environmental Assessment (EA) and, where appropriate, an Environmental Impact Statement (EIS). Where Staff is categorically excused from preparing an EA or EIS, a licensee need not submit an environmental report.

## **REGULATORY GUIDES: APPLICATION**

When determining issues of public health and safety, the Commission has the discretion to use the best technical guidance available, including any pertinent NUREGs and Regulatory Guides, as long as they are germane to the issues then pending before the Commission. However, the Commission's decision to look to such documents for technical guidance in no way contradicts the Commission's rulings that NUREGs and Regulatory Guides are advisory by nature and do not themselves impose legal requirements on either the Commission or its licensees.

## **REGULATORY GUIDES: APPLICATION**

A licensee is free either to rely on NUREGs and Regulatory Guides or to take alternative approaches to meet its legal requirements (as long as those approaches have the approval of the Commission or NRC Staff).

## **REGULATORY GUIDES: APPLICATION**

The fact that the emergency planning regulations had not yet gone into effect when the University filed its applications did not preclude the Commission from seeking technical guidance from a NUREG that provided the scientific foundation for those regulations.

## **LICENSE AMENDMENT APPLICATION**

### **MATERIALS LICENSE APPLICATION: NEED TO SUBMIT SAFETY PROCEDURES**

The Commission is free to consider a licensee's general emergency procedures when resolving risk issues, regardless of the fact that the Commission's regulations do not require the licensee to submit those emergency procedures as part of an application.

## TECHNICAL ISSUES

The following technical issues are discussed: Radiation detection equipment; Evacuation plan; Dose and dispersion calculations; Fire safety issues; Emergency plans; Emergency procedures; Transuranic (TRU) material, storage of; Dispersion; Accident dose estimates; NUREG-1140; Regulatory Guide 1.145.

## MEMORANDUM AND ORDER (Petitions for Reconsideration)

In CLI-95-1, the Commission addressed numerous issues related to the application of the University of Missouri ("University" or "Licensee") to use uranium and certain transuranic elements for research in its "TRUMP-S Project." 41 NRC 71 (1995). Both the University and the Intervenor (three organizations and ten individuals) have filed petitions for reconsideration. The University seeks clarification of a license condition placed upon it by our order, and the Intervenor take issue with our resolution of a host of safety and procedural issues. For the reasons set forth below, we clarify our earlier order as requested by the University, and we deny the Intervenor's request for reconsideration.

### I. BACKGROUND

Because CLI-95-1 already sets forth the background of this proceeding in considerable detail, we will provide here only a brief description of the case's history. In 1990, the Commission's Staff ("NRC Staff") issued to the University two license amendments which collectively authorized the Licensee to possess and use certain specified quantities of uranium, neptunium, americium, and plutonium at its Columbia, Missouri campus. The University intended to use the materials in research known as the "TRUMP-S Project," which aims at developing an inexpensive means to reduce the volume of waste requiring high-level radioactive waste disposal facilities. See 41 NRC at 88.

Three organizations and ten individuals intervened, objecting to these amendments on the grounds that their issuance would be inconsistent with the public health and safety and would damage the common defense and security of the country. After a lengthy informal hearing, the Presiding Officer issued a Final Initial Decision in which he concluded that the University's possession and use of the radioactive elements at issue were consistent with the public health and safety and did not harm the common defense and security. However, to decrease further the risks associated with such possession and use, the Presiding Officer

imposed certain additional safety conditions on the licensee. LBP-91-31, 34 NRC 29, *clarified*, LBP-91-34, 34 NRC 159 (1991). Both the University and the Intervenor appealed these two decisions.

In CLI-95-1, we affirmed LBP-91-31 and LBP-91-34 with several modifications, and thereby approved the University's license amendment applications, subject to nine conditions. More specifically, we affirmed the Presiding Officer's conclusions regarding all procedural issues raised on appeal as well as his decision to exclude three areas of concern (nuclear proliferation, waste disposal, and decommissioning funding); we concluded that the dose and dispersion risks associated with the release of TRUMP-S radioactive material are acceptably small; and we modified and supplemented the fire safety conditions that the Presiding Officer had imposed upon the University.

Both the University and the Intervenor seek reconsideration of CLI-95-1. The University challenges one of the nine conditions imposed by the Commission, and the Intervenor challenge numerous technical and legal underpinnings of CLI-95-1.

## II. DISCUSSION

### A. Licensee's Petition for Reconsideration

In CLI-95-1, the Commission imposed a number of requirements on the University as a condition for the grant of its license amendments, including the following:

- b. . . . the University must modify the Emergency Classes and Action Levels in its MURR Facility Emergency Plan<sup>1</sup> in the following . . . respect[]:

\* \* \* \*

- ii. The classification scheme must clarify that either a "prolonged fire" affecting nuclear materials or a "significant release possibly approaching EPA [Environmental Protection Agency] PAG [Protective Action Guideline] levels" of such materials would constitute a "Site Area Emergency."

41 NRC at 172.

The University questions the wording of this condition. The University agrees with the Commission that a "significant release [of nuclear materials] possibly approaching EPA PAG levels" at the site boundary should be classified as a Site Area Emergency, but argues that a "prolonged fire" affecting nuclear materials in the Alpha Lab would not necessarily cause a "significant release possibly

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<sup>1</sup> "Emergency Plan for the University of Missouri Research Reactor Facility," Facility License No. R-103, Docket No. 50-186 (dated Aug. 12, 1989; reprinted Dec. 8, 1989) (hereinafter "Emergency Plan" or "MURR Emergency Plan"), submitted by NRC Staff into the record of this proceeding on August 16, 1990.



approaching EPA PAG levels." The University's proposed remedy for this problem is that the Site Area Emergency classification would apply only to a "prolonged fire" that could cause a "significant release." Licensee's Petition at 2-3.

The University's point is well taken and, in fact, accurately reflects what the Commission intended in imposing this condition. Our order's phrase "'prolonged fire' affecting nuclear materials" was intended to be nothing more than a shorthand version of the following language from the University's own Emergency Plan:

[p]rolonged fire or explosion within the facility that can result in a release of radioactivity that would cause exposures of the public or Staff approaching 1 rem whole body or 5 rem thyroid

which appeared earlier in the same paragraph of our order. CLI-95-1, 41 NRC at 156 (emphasis omitted), *quoting* MURR Emergency Plan at 25-26, Table 1, "NOUE" action level 5.

To remove any possible confusion, we modify Ordering Paragraph 2.b.ii to read:

The classification scheme must clarify that either a "prolonged fire or explosion within the facility that can result in a release of radioactivity that would cause exposures of the public or Staff approaching 1 rem whole body" or a "significant release possibly approaching EPA PAG levels" of such materials would constitute a "Site Area Emergency."

The Intervenor's oppose this modification, contending initially that the University lacks the equipment necessary to measure accurately any "significant releases" from airborne alpha-emitting transuranics outside the MURR facility. They argue that the MURR Emergency Plan focuses on a reactor accident, which would involve gamma-emitting material detectable by geiger counters, but that geiger counters are useless in detecting alpha emissions. Answer of Intervenor's-Appellants, filed May 1, 1995 ("Answer"), at 1-2. The Intervenor's are incorrect. The University does have the capacity to detect alpha emitters both directly and indirectly, as indicated by record evidence and discussed in CLI-95-1. *See* 41 NRC at 132. Actual radiation measurements, in any event, normally come after-the-fact. Site area emergencies are declared on the basis of predictive judgments based on site conditions.<sup>2</sup>

The Intervenor's next assert that the facility is in a public area, without boundaries to keep the public sufficiently far away from the facility (at least

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<sup>2</sup>The Intervenor's also argue that the University has no plans to station people at appropriate locations outside the facility to measure doses over time so as to determine the time at which doses exceed PAG levels. Answer at 2. However, the Intervenor's point to no record evidence that supports their position that the University will not take appropriate radiation measurements when necessary.

200 meters, according to the Intervenor) to avoid receiving a dose in excess of the PAG.<sup>3</sup> Answer at 2. (The University claims that its site boundary is actually 400 meters from the facility.) The Intervenor's argument ignores record evidence that the University does in fact control the area around the facility. See Licensee's Exhibit No. 10, Affidavit of J. Charles McKibben Regarding Adequacy of Site, at 4 ¶12. Given the likely time available between the start of a fire and the radionuclides' escape through the doors of the building (the escape route in the worst-case scenario), the University should easily be able to remove members of the public from an area with only a 150-meter radius.<sup>4</sup> This is because the University currently has in place both "an agency-approved emergency plan that includes an evacuation area considerably larger than the one that would be required for a stand-alone Alpha Lab" (CLI-95-1, 41 NRC at 153) and also procedures and personnel necessary to evacuate buildings or fields within 400 meters of the facility (Licensee's Exhibit No. 10, *supra*, at 3 ¶8, 4 ¶12).

Finally, the Intervenor argue broadly that the Commission in CLI-95-1 unfairly "massaged" certain numbers in its dose and dispersion calculations, selected the least conservative numbers to use in those calculations (specifically, for  $\chi/Q$ , release fraction, and the quantity of transuranics involved in a fire), concluded from those calculations that the risks of an offsite dose equivalent exceeding the EPA PAG are insignificant, and thereby sent a "message" to the University that "there is no need for safety." Answer at 2-3. The Commission stands by its technical calculations for the reasons explained in considerable detail in CLI-95-1. See, e.g., 41 NRC at 145-52. We cannot agree with the Intervenor that our decision, which resulted in the imposition of nine safety-related license conditions on the University (in addition to those already imposed by the Presiding Officer), somehow suggests Commission approval of "a lackadaisical attitude toward safety." Answer at 3.

## B. Intervenor's Petition for Reconsideration

Intervenor's petition for reconsideration in places resorts to intemperate, even disrespectful, rhetoric in attacking the Commission's decision. See, e.g., Petition at 6 ("kangaroo Commission"), 22 ("giving the words 'arbitrary and capricious'

<sup>3</sup>The PAG limit set by the EPA is 1- to 5-rem exposure during a 1-hour period. U.S. Environmental Protection Agency, *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents*, at p. 2-6, Table 2-1, EPA 400-R-92-001 (October 1991). The Commission has based its own 1-rem effective dose equivalent standard on the most conservative end of the EPA's 1- to 5-rem spectrum. See NUREG-1140, "A Regulatory Analysis on Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," January 1988, at iv.

<sup>4</sup>The Commission in CLI-95-1 found that the PAG levels would not be exceeded outside a radius of about 150 meters — not 200 meters as suggested by the Intervenor. 41 NRC at 152 n.126, 153 (1.02-rem whole-body dose at 150 meters).

a bad name"), 23 ("Arbitrariness elevated to a high art"). While colorful, this style of advocacy does not help elucidate the issues before the Commission. Even so, we have examined carefully each of the Intervenor's arguments for reconsideration, but find them unpersuasive.

### *1. Fire Safety Issues*

The Intervenor's assert that the Commission "punted" on fire safety and improperly "ignored" the City of Columbia's fire ordinances, the BOCA Code, a Department of Energy Order, an Office of Personnel Management Circular, National Fire Protection Association ("NFPA") documents (specifically NFPA 801, NFPA N10, and the NFPA Handbook), and regulations promulgated by the Occupational Safety and Health Administration. Petition at 1-2. According to the Intervenor, the Commission was "required" to consider "these authorities as a guide." *Id.*

The Intervenor's position is entirely misconceived. Far from ignoring the various fire-safety documents in the record, the Commission explicitly relied on them where appropriate. *See* 41 NRC at 135-36 n.92, 161 nn.141 & 142, 162 n.145. In addition, the Presiding Officer canvassed these same materials extensively (*see* LBP-91-31, 34 NRC at 50-93), and while the Commission did not go so far as to endorse his finding that a fire was not even "credible," we did find "correct in general" his view "that the chances of a severe fire are very small." CLI-95-1, 41 NRC at 128. We saw no need, however, to go over in detail the same fire-safety ground as the Presiding Officer. This was because we were convinced that, "even in a worst-case scenario (i.e., a fire leading to offsite radiation exposures), . . . the risk to the public from a fire affecting the TRUMP-S materials is still acceptably small." *Id.*

The Intervenor's also take issue with our statements that our "responsibility is directed to the hazards associated with nuclear materials rather than to all questions of fire safety at licensed facilities," and that we are "not a general fire safety or occupational health agency." Petition at 2. But these statements merely reiterate the Commission's statutory charter to protect against radiation hazards.<sup>5</sup> It is, of course, true that the Commission's radiation-protection mission requires it to consider questions of fire safety, but this does not convert the Commission into the direct enforcer of local codes, OSHA regulations, or national standards on fire safety, occupational safety, and building safety. Here, the Commission considered questions of fire probability, fire consequences, and fire protection and was able to find adequate protection against radiation hazards from fire. *See* CLI-95-1, 41 NRC at 127-63.

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<sup>5</sup> *See* AEA §§ 57(c)(2), 84a(1), 182a, 42 U.S.C. §§ 2077(c)(2), 2014(a)(1), 2232(a) (1988). *See also* 10 C.F.R. §§ 30.33(a)(2), 70.23(a)(3).

There is one additional fire-safety matter raised in the Intervenor's petition. They challenge the Commission's decision, when considering the adequacy of the fire-safety conditions imposed by the Presiding Officer, to "derate" 50% of the fire load in the MURR basement. Petition at 25, citing CLI-95-1, 41 NRC at 160-61. According to the Intervenor, derating is a "peculiar" concept.

In fact, derating is an accepted practice in rating fire load, as demonstrated in portions of the NFPA's *Fire Protection Handbook* that the Commission cited in its opinion. See 41 NRC at 161 n.141. We thus disagree with the Intervenor's fire-safety expert, Fire Chief Wallace, on this issue.

## **2. Exclusion of the Issue of Nuclear Weapons Proliferation**

The Intervenor objects to the Commission's refusal to consider their claim that the TRUMP-S Project increases the risk of nuclear weapons proliferation and therefore is inimical to the common defense and security. Petition at 3, 25-27. In CLI-95-1, the Commission explained in detail why this issue was not germane to the subject matter of this proceeding. 41 NRC at 165, quoting 10 C.F.R. § 2.1205(g). In brief, the Commission ruled that the Intervenor had failed to show that weapons proliferation was reasonably related to, and would arise as a direct result of, the specific license amendments at issue in this proceeding. 41 NRC at 165-66.

In their petition for reconsideration, the Intervenor recast their position in an attempt to establish a direct connection between the TRUMP-S Project and nuclear proliferation. They say that the release of information learned from the TRUMP-S Project would give other nations access to technology enabling them to obtain plutonium in a form usable in bombs, even if the United States itself never adopts the technology. Petition at 26.

It is not a purpose of the TRUMP-S Project, however, to enhance bomb-making capacity or to provide a supply of plutonium for use in bombs. Rather, the research has the benign purpose of developing less-costly means of radioactive waste disposal. See CLI-95-1, 41 NRC at 88. The Intervenor's proliferation concern assumes that a side-effect of the TRUMP-S information would be to provide information that foreign powers interested in nuclear weapons might find useful. But, as we said in CLI-95-1, "[w]e are loath to halt basic research in its tracks on the purely speculative ground that its fruits may someday be put to improper use." 41 NRC at 166.

Such improper use is by no means inevitable. The Intervenor's argument, for example, ignores federal restrictions on the University's publication of the methodology and results of the TRUMP-S experiments, including a requirement that it receive security clearance from the Department of Energy if the University

wishes to publish such information.<sup>6</sup> See 10 C.F.R. Part 810; AEA § 57b, 42 U.S.C. § 2077(b). More specifically, prior to publishing its methodology and results, the University would need either to ensure that such information constituted a "generally authorized activity" appropriate for public dissemination pursuant to 10 C.F.R. § 810.7, or to obtain from the Department of Energy "specific authorization" for the publication pursuant to 10 C.F.R. § 810.8. This clearance process constitutes an intervening step outside the control of the NRC and the University that separates the experiments' results from the proliferation feared by the Intervenor.

### 3. *Commission's Alleged Failure to Enforce Its Regulations on Applications*

The Intervenor criticizes the Commission for stating that an application must not automatically be rejected whenever Staff or an intervenor finds a flaw in it. According to the Intervenor, the Commission's statement indicates the Commission's unwillingness to enforce its own regulations (particularly 10 C.F.R. § 2.1233(c)), Petition at 7.

The Commission answered this precise argument in CLI-95-1, 41 NRC at 95-96. We by no means encourage defective applications, but we also do not take the Intervenor's absolutist position that an application, however minimally flawed, must be rejected altogether, and may not be modified or improved as NRC review goes forward. The Intervenor's position is incompatible with the dynamic licensing process followed in Commission licensing proceedings. See *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 790, *review declined*, CLI-83-32, 18 NRC 1309 (1983).

Throughout their petition, the Intervenor stress alleged shortfalls by the NRC Staff in its review of the TRUMP-S application, as if the adequacy of the Staff review is what the Commission must decide. See, e.g., Petition at 16-17. We expect the Staff, of course, to consider thoroughly all its licensing decisions.

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<sup>6</sup> The Intervenor's error is surprising, given another point they make: that the TRUMP-S contract itself "attempts to prevent" foreign nationals' access to the TRUMP-S results. Petition at 26. This is not really true as a contractual matter — the contract appears to contemplate some foreign (particularly Japanese) access. Support Services Agreement between Rockwell International Corp. and the University of Missouri, dated Aug. 10, 1990, at 7 ¶ 13(b), 10 ¶ 13(d)2.3, and Flysheet #1 ¶ 1. Intervenor's Exhibit No. 19 at 505, 508, and 518. Cf. Excerpts on TRUMP-S from the Minutes of the January 10, 1990 Meeting of the Isotope Use Subcommittee of the Reactor Advisory Committee at 1, appended as Attachment 3 to Licensee's Exhibit No. 9, Affidavit of Dr. Susan M. Langhorst Regarding Adequacy of Safety Procedures, Administrative Controls and Licensee's Personnel Qualifications (the results of the TRUMP-S experiments "would be a significant development for . . . countries where waste disposal options are limited (such as Japan, which is funding this project)"). However, the contract does cross-reference the DOE restrictions: "[t]he [University] must comply with the applicable DOE regulations regarding sensitive nuclear technology . . ." Support Services Agreement between Rockwell International Corp. and the University of Missouri, dated Aug. 10, 1990, at Flysheet #1 ¶ 1. Intervenor's Exhibit No. 19 at 518.

But in adjudications, the issue for decision is not whether the Staff performed well, but whether the license application raises health and safety concerns. See CLI-95-1, 41 NRC at 121-22.

#### 4. Environmental Report

The Intervenor offers three objections to the Commission's ruling that the University did not need to submit an environmental report as a part of its applications: (1) the Commission allegedly failed to address the fact that the use of students to perform the TRUMP-S experiments is inherently riskier than the use of professionals to conduct those experiments, and that, under such circumstances, the Commission's regulations required the University to file an environmental report; (2) the TRUMP-S experiment, by its very nature, allegedly increases the risks at MURR, thereby necessitating the submittal of an environmental report; and (3) the Commission allegedly ignored its own requirement that an environmental report be filed for projects involving plutonium processing. Petition at 12-13, referring to CLI-95-1, 41 NRC at 103-04.

As noted in our earlier opinion, however, the NRC's rules categorically exclude from NEPA review all amendments, such as the TRUMP-S amendments, for the "use of radioactive materials for research and development." See 41 NRC at 124, discussing 10 C.F.R. § 51.22(c)(14)(v). The purpose of an environmental report is to inform the Staff's preparation of an Environmental Assessment ("EA") and, where appropriate, an Environmental Impact Statement ("EIS"). See, e.g., 10 C.F.R. § 51.45(c) ("[t]he environmental report should contain sufficient data to aid the Commission in its development of an independent analysis").<sup>7</sup> Where (as here) Staff is categorically excused from preparing an EA or EIS, a licensee need not submit an environmental report. See *National Institutes of Health*, DD-95-5, 41 NRC 227, 235 (1995).<sup>8</sup>

As noted in CLI-95-1, the Intervenor could have sought a waiver of the categorical exclusion here upon a showing that it did "not serve the purposes for which the regulation was adopted." 10 C.F.R. § 2.1239(b), cited in

<sup>7</sup> The Commission imposed the regulatory requirements regarding submittal of "environmental information" (of which an environmental report is one kind) for the express purpose of implementing section 102(2) of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4332(2) (which requires the preparation of EAs and/or EISs). See 10 C.F.R. § 51.41 ("[t]he Commission may require an applicant to submit such information to the Commission as may be useful in aiding the Commission in complying with section 102(2) of NEPA"). Cf. 10 C.F.R. § 51.40 (encouraging applicants to consult with NRC Staff before submitting environmental reports or other environmental information).

<sup>8</sup> Although the above analysis is sufficient to dispose of all three of the Intervenor's arguments regarding the absence of an environmental report from the University's applications, we also note that the Intervenor fails to address either our reasons for concluding that the use of graduate students poses no significantly increased risk to public health and safety (CLI-95-1, 41 NRC at 103) or our lengthy explanation of why we do not consider the Alpha Lab to be a plutonium processing plant (*id.* at 124-27).

CLI-95-1, 41 NRC at 125 n.70. The Intervenor quibble over how CLI-95-1 described the waiver provision, *see* Petition at 18-19 n.3, but fail to explain why our rules prevented them from arguing that the categorical exclusion for research ought not apply to the TRUMP-S project.

**5. *Allegedly Inconsistent Treatment of NUREGs and Regulatory Guides***

The Intervenor asserts that the Commission relied on its own NUREGs and Regulatory Guides only when they supported the Commission's position, but refused to abide by them when they demonstrated that the licensee failed to meet the standards set forth in those documents. Petition at 7-8.

When determining issues of public health and safety, the Commission has the discretion to use the best technical guidance available, including any pertinent NUREGs and Regulatory Guides, as long as they are germane to the issues then pending before the Commission. However, the Commission's decision to look to such documents for technical guidance in no way contradicts the Commission's rulings (elsewhere in CLI-95-1) that NUREGs and Regulatory Guides are advisory by nature and do not themselves impose legal requirements on either the Commission or its licensees. A licensee is free either to rely on NUREGs and Regulatory Guides or to take alternative approaches to meet legal requirements (as long as those approaches have the approval of the Commission or NRC Staff). *See* CLI-95-1, 41 NRC at 97-98, 100-01.

**6. *Allegedly Inconsistent Treatment of New Emergency Planning Regulations and NUREG-1140***

The Intervenor alleges that the Commission acted inconsistently in deciding that new emergency planning regulations were inapplicable to this proceeding yet also relying extensively on NUREG-1140, the basis for those regulations, in its examination of the dose and dispersion issues. Petition at 22-24, *referring to* CLI-95-1, 41 NRC at 101-03 and 143-52, respectively.

In fact, no such inconsistency exists. The fact that the emergency planning regulations had not yet gone into effect when the University filed its applications did not preclude the Commission from seeking technical guidance from a document (NUREG-1140) that provided the scientific foundation for those regulations. As noted in the preceding section of this Order, the Commission, in deciding issues of public health and safety, is free to use any NUREGs and

Regulatory Guides as guidance, as long as they are germane to the issues then pending before the Commission.<sup>9</sup>

### **7. Allegedly Inconsistent Treatment of the Emergency Plan**

The Intervenors argue that the Commission inconsistently held both that the MURR Emergency Plan applies to the Alpha Laboratory (CLI-95-1, 41 NRC at 129) and that certain parts of the Plan cannot, by their terms, apply to the Alpha Laboratory and must be changed (*id.* at 130). Petition at 19-20. In so arguing, the Intervenors ignore the fact that emergency plans can have different subsections that apply to different portions of a facility. The Commission sees no inconsistency in declaring that the Plan as a general matter applies to all laboratories in the MURR facility (including the Alpha Lab) but requires a few modifications to reflect the addition of the Alpha Lab to the facility. This is analogous to our approving a license application subject to conditions.

### **8. Alleged Inconsistent Treatment of Licensee's Emergency Procedures**

The Intervenors criticize the Commission for relying on the Reactor Emergency Procedures to "downplay" the risks associated with the TRUMP-S Project and at the same time ruling that the Intervenors have no right to demand that the license amendment application be accompanied by emergency procedures specifically applicable to the TRUMP-S Project. Petition at 20. Again, the Commission sees no inconsistency here. The Commission is free to consider a licensee's general emergency procedures when resolving risk issues, regardless of the fact that our regulations do not require the licensee to submit specific emergency procedures as part of an application.<sup>10</sup>

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<sup>9</sup>In a related argument, the Intervenors question the meaning of the Commission's statement that NUREG-1140 underwent "the public notice and comment process." Petition at 23 n.4, citing CLI-95-1, 41 NRC at 148. The Commission's statement was intended to indicate that the dose calculation methodology set forth in NUREG-1140 was a subject of the notice and comment process which ultimately led to the promulgation of the two new Emergency Planning regulations. See Final Rule, "Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees," 54 Fed. Reg. 14,051, 14,052 (Apr. 7, 1989) ("The conservative accident scenarios and dose calculations which formed the technical basis for the proposed rule are described in . . . NUREG-1140"); Draft Report for Comment, NUREG-1140, at 1 (June 1985) ("This [draft] regulatory guide evaluates the need for a proposed rule to require additional emergency preparedness for certain . . . material licensees"). Although the above-cited draft of NUREG-1140 was originally published in June 1985, it was reprinted April 1987, contemporaneously with the issuance of Notice of Proposed Rulemaking, 52 Fed. Reg. 12,921 (Apr. 20, 1987), which led to the issuance of the Final Rule cited above.

<sup>10</sup>The Intervenors also question how the Commission can conclude that the procedures are adequate when the Commission has not seen more than the few procedures that the Intervenors submitted into the record. Petition at 20. As we indicated in CLI-95-1, the adequacy of the emergency procedures is not even before us in this proceeding. 41 NRC at 141 n.101.



### 9. *Alleged Need for a TRUMP-S Emergency Plan*

The Intervenor's argue that the Commission erred in ruling that the existence of the University's Reactor Emergency Plan made it unnecessary for the licensee to submit a plan dealing specifically with emergencies arising from the TRUMP-S Project. Petition at 10-12, *citing* CLI-95-1, 41 NRC at 129-43. Intervenor's assert that the Reactor Emergency Plan addresses types of accidents (fuel damage events) quite different from those that could arise from the TRUMP-S Project (a fire resulting in release of extremely fine radioactive particulates into the air). Petition at 11.

The Intervenor's also assert that the primary risk from a reactor accident comes from gamma-emitting radionuclides, and thus the primary emergency equipment identified in the Reactor Emergency Plan are gamma-detection devices. They argue that, by contrast, the principal risk from a TRUMP-S accident comes from alpha-emitting materials for which the Reactor Emergency Plan's equipment would be useless, so that there would be no way to measure radioactive contamination after an accident. *Id.* at 11-12. Finally, the Intervenor's note that the Reactor Emergency Plan has never been the subject of a contested proceeding in which its adequacy has been tested. *Id.* at 12.

None of this is persuasive, however. First, the Intervenor's have failed to rebut or even address the Commission's reasons, stated in CLI-95-1, for believing that it would be unwise as well as unnecessary to have two emergency plans for the MURR facility. *See* 41 NRC at 130. Second, they do not discuss the modifications that CLI-95-1 ordered in the MURR Emergency Plan to take account of the TRUMP-S project. *See* 41 NRC at 130, 154-56, 172. Third, they disregard the MURR Emergency Plan's explicit references to laboratory accidents.<sup>11</sup> Fourth, they fail to address the Commission's explanation, set forth in CLI-95-1, of the University's capacity to detect alpha emitters. *See* 41 NRC at 131-32. Finally, the fact that the MURR Emergency Plan was not the subject of a hearing prior to this proceeding raises no inference that it is inadequate.

### 10. *Amount, Storage, and Disposal of Transuranic Material*

In CLI-95-1, the Commission imposed, as a condition on the TRUMP-S license amendments, the requirement that the University use no more than 1 gram of any actinide at any one time in the TRUMP-S experiments. *See* 41 NRC at 148 n.114, 173. Because 1 gram of Am-241 contains 3.43 curies, the

<sup>11</sup> For instance, the Emergency Plan specifies that "[c]ontainment, *laboratory building* and site boundary airborne radioactivity and radiation levels shall be determined by stack monitor, area radiation monitors and portable monitoring equipment." Emergency Plan, *supra* note 1, at 14 §§ 5.2.2, 5.3.2 (emphasis added). *See also* Intervenor's Exhibit No. 19 (University document entitled "Emergency Plan for TRUMP-S at MURR") at 420 ("The MURR emergency plan contains a description of the elements of advance planning to cope with emergency situations connected with the operation of MURR, including experiments conducted within the MURR facility").

Commission based its dose/dispersion analysis on the assumption that only 1 gram of Am-241, or 3.43 curies, would be involved in a fire. The Intervenor raise three objections to this ruling.

*a. Presumption That Licensee Complies with Condition*

The Intervenor first object to the Commission's decision to base its dose/dispersion analysis on the 1-gram (or 3.43 curies) license condition, and point to the fact that the license permits possession and use of 10 curies of Am-241. Petition at 21. They ask us to base our findings on the assumption that the University will violate an explicit and unambiguous condition of its license. We see no reason to do so, and the Intervenor have offered no persuasive argument why we should. They point out that license conditions sometimes are violated, which is undoubtedly true, but here it seems unlikely in the extreme that a University violation of the 1-gram restriction would happen to coincide with a fire in the MURR facility. We decline to rest our fire safety analysis on that hypothetical possibility.

*b. Consideration of Actinides When in Storage*

Second, the Intervenor object to the Commission's decision that a fire analysis need not consider americium and plutonium when they are in storage. They argue that people enter and exit the storage facility frequently and that the storage facility is a place "where various flammable events may occur." Petition at 21.<sup>12</sup>

We disagree. The actinides are placed in storage before and after being used in experiments. Prior to using the actinides in experiments, the University stores the actinide material in the reactor fuel vault, a highly secure facility housed inside the reactor containment building.<sup>13</sup> The Intervenor have referred us to no record evidence (and have provided us with no other reason) that would convince us that this reactor fuel vault is a location "where various flammable events may occur" or where the likelihood of a fire is at all credible. After use, the actinides are placed in the archived storage vault, which, as the record

<sup>12</sup>The Intervenor offer a similar argument in support of their objection to our affirmation of the prehearing exclusion of their waste disposal issue. Petition at 3. They assert that the current absence of a licensed disposal facility for transuranic or mixed waste means that the wastes from the TRUMP-S Project will remain on the University campus indefinitely, perhaps for decades, and that the waste storage facility is designed neither for handling such wastes nor for safely storing them indefinitely. This is of particular concern to the Intervenor because these wastes allegedly "would be kept with other flammable materials for decades in a setting where a fire is a serious likelihood." *Id.* at 27. For the reasons set forth in CLI-95-1, 41 NRC at 167-68, we reject this argument. See also discussion of archived storage vault, *infra*, at pp. 400-01.

<sup>13</sup>Licensee's Exhibit No. 4, Affidavit of Chester B. Edwards, Jr., Regarding the Adequacy of Alpha Laboratory Equipment, Fire-Related Features in the Alpha Laboratory and General Basement Area, and the Storage and Transfer of Actinide and Archived Materials, dated Nov. 13, 1990, at 10 ¶42.

reflects in detail, is a facility in which extensive shielding is provided by lead, steel, concrete, and earth. *See id.* at 13-14 ¶¶ 61-65. Again, the Intervenor's petition offers no evidence that this facility would fail to provide both secure storage and protection against fire.

From the description and location of the archived storage vault, we find that it is constructed of heavy noncombustible materials and is located so as to minimize the surface area potentially exposed to fire as well as to protect the vault and its contents from any fire-related building hazards. We conclude that a fire affecting the contents of the archived storage vault is not credible.

*c. Alleged Storage of Actinides in Waste Facility*

Third, the Intervenor's assert that at the conclusion of the TRUMP-S Project, the entire TRUMP-S supply of americium and plutonium will no longer be in the storage facility but will instead be located in the waste facility, in forms far more vulnerable to fire and closer to other materials of substantial fire hazard. The Intervenor's also call our attention to the flammability of the transuranics and also to the long period (allegedly years or decades) when that waste may have to sit awaiting removal to a federal disposal site. Petition at 21-22. We see no evidence in the record to support this contention. Rather, the record indicates that after the conclusion of the experiments, the University will safely store the actinides in its archived storage vault, just described, until DOE takes possession of the waste.

**II. The Commission's Selection of a  $\chi/Q$  Value**

In CLI-95-1, the Commission rejected the Intervenor's argument that we were required to apply Regulatory Guide 1.145, dealing with accidental dispersion from nuclear power plants, to the determination of the  $\chi/Q$  value for the TRUMP-S Project. The Commission chose to rely instead on the  $\chi/Q$  value derived in NUREG-1140, dealing with accidental dispersion from materials license facilities. 41 NRC at 149-51. The Intervenor's challenge the Commission's conclusion that Regulatory Guide 1.145 was designed to address dispersion from nuclear power plants, rather than materials facilities. They assert that all dispersions must be treated alike, regardless of the type of facility, and that Regulatory Guide 1.145 is binding on the Commission. But that Regulatory Guide's title — "Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants" — plainly indicates its limited application. Moreover, as previously noted, Regulatory Guides do not have the force of law. Thus, this claim is doubly without merit.

The Commission explained in CLI-95-1 its reasons for looking to NUREG-1140 rather than Regulatory Guide 1.145 in determining the  $\chi/Q$  value for the

TRUMP-S project: it is more recent than the Regulatory Guide and, because it rests on a sophisticated analysis targeting materials licensees, it results in more reliable modeling of postulated accidents.<sup>14</sup> See also note 9, *supra*. We find no error in our prior analysis on this point.

## 12. Release Fraction

The Intervenors assert that the Commission, in its dose and dispersion calculations, was confused about the distinction between the entrainment fraction and the release fraction (RF). According to the Intervenors, the Commission cited two scientists, Schwendiman and Mishima, as measuring RFs (*citing* CLI-95-1, 41 NRC at 148-49), yet elsewhere claimed that studies on which the Intervenors' expert relied (which included those of Schwendiman and Mishima) concerned entrainment rather than RFs (*citing* 41 NRC at 148 n.116). Petition at 22-23.

We are well aware of the difference between RF and entrainment. See CLI-95-1, 41 NRC at 146 n.110. In concluding otherwise, the Intervenors misread CLI-95-1. On the one hand, we stated that Schwendiman and Mishima, who were cited repeatedly by both the University and the Intervenors, were also cited in NUREG-1140 when the Staff developed RFs for fires. On the other hand, *without* citing Schwendiman and Mishima, we stated that the Intervenors' "TRUMP-S Review Panel derived *much of its data* from experiments on entrainment which, as previously noted, does not equate with RF." 41 NRC at 148 n.116 (emphasis added). The two statements are not contradictory.

The Intervenors also object that the Commission did not review the dispute between them and the University regarding the correct RF value. Petition at 23. Given that the Commission had already engaged in a detailed examination of this issue in a recent rulemaking (*see* note 9, *supra*), and given further that the detailed examination was related directly to the issue at bar in this proceeding (i.e., the appropriate release fraction for a materials license facility), we saw no need to "reinvent the wheel" by examining it again in this proceeding.

## 13. Other Matters

The Intervenors accuse the Commission of describing the TRUMP-S Project inaccurately. Petition at 6. This argument is inappropriately raised on reconsideration. Petitions for reconsideration are akin to appeals from Initial Decisions

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<sup>14</sup> Contrary to the Intervenors' suggestion, dispersion is not simply dispersion, regardless of the type of facility from which the radionuclides come. Petition at 24 n.5. Accidents at different types of facilities would result in the release of different physical forms of radionuclides and would consequently lead to quite different dispersions. (In fact, the Intervenors make this very point in another section of their Petition, at 11.) Airborne concentrations of particulates (the physical form of *all* plutonium and/or americium that might be released in a TRUMP-S accident) would be less than airborne concentrations of gases (the form of *most* radioactive material released from a reactor accident), due to plume depletion from gravitational settling, turbulent diffusion, impaction with the ground, and scavenging of material during precipitation. NUREG/CR-3657, SAND84-0186, "Preliminary Screening of Fuel Cycle and Byproduct Material Licenses for Emergency Planning" at 36 (March 1985).

— they lie only from unfavorable actions by the Commission, not from *dictum* or factual background sections in an order with which the party disagrees but which have no operative effect. See CLI-95-1, 41 NRC at 119 n.63. We therefore need not rule on this argument.<sup>15</sup>

Finally, the Intervenor's reiterate other previously raised contentions regarding decommissioning, personnel qualifications, TRUMP-S safety procedures, proper interpretation of the Commission's procedural regulations, the order of evidentiary submissions, the required degree of specification for special nuclear material,<sup>16</sup> the adequacy of Staff's safety review, the need for a licensee to submit a safety analysis, and the need for Staff to prepare a safety evaluation report, an environmental impact statement, and/or an environmental assessment. Petition at 3-4, 5-6, 8-10, 13-19. Because the Commission already has fully considered and rejected all such arguments (CLI-95-1, 41 NRC at 95-96, 98 n.12, 99-101, 104-13, 116-18, 121-28, 168-71), we see no point in revisiting them here.

### III. CONCLUSION

The University's petition for reconsideration is *granted* to the extent described above, and the Intervenor's petition for reconsideration is *denied*.

It is so ORDERED.

For the Commission\*

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 22d day of June 1995.

<sup>15</sup> Moreover, as for two of the three alleged inaccuracies, the Intervenor's are not asserting that CLI-95-1 contains false information, but only that the Commission did not include certain information that the Intervenor's would have preferred to see in the "Background" section of that order. As to the Intervenor's third point (i.e., the Commission misspoke in suggesting that the United States currently has high-level disposal facilities in operation), they are correct, but our mistaken characterization of the current status of TRU waste (it is actually stored on site) is inconsequential to the merits of our decision.

<sup>16</sup> The Intervenor's incorrectly suggest that the Commission failed to consider Professor Warf's arguments on this issue. The Commission considered the Intervenor's position on this issue, as set forth in Intervenor's Exhibit No. 20, Declaration of TRUMP-S Review Panel, dated Dec. 24, 1990, at 11-14 — a document that Dr. Warf coauthored. CLI-95-1, 41 NRC at 104 *et seq.* Insofar as Professor Warf's views are incompatible with the conclusions of CLI-95-1, the Commission disagrees with his views.

\*Commissioner Jackson did not participate in this decision.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**COMMISSIONERS:**

Ivan Selin, Chairman  
Kenneth C. Rogers  
E. Gail de Planque  
Shirley A. Jackson

In the Matter of

Docket Nos. 50-424-OLA-3  
50-425-OLA-3

GEORGIA POWER COMPANY, *et al.*  
(Vogtle Electric Generating Plant,  
Units 1 and 2)

June 22, 1995

The Commission denies Georgia Power Company's motion that in effect requests the Commission to stay indefinitely inquiries being conducted by the NRC Office of Investigation.

**ADJUDICATORY BOARDS: EFFECT OF OTHER PROCEEDINGS**

It is not unusual in our practice for an adjudicatory proceeding and an OI investigation on the same general subject matter to proceed simultaneously, even where issues may overlap.

**ENFORCEMENT ACTIONS: STAY OF PROCEEDINGS**

Despite this practice, the Commission has been willing to stay a parallel proceeding if a party shows substantial prejudice.

## ORDER

### A. Introduction

The Georgia Power Company ("GPC") has filed before the Commission a "Motion for Order Preserving the Licensing Board's Jurisdiction" that in effect requests the Commission to stay indefinitely inquiries being conducted by the NRC Office of Investigations ("OI"). The GPC motion asks us to direct OI "not to pursue investigations related to discovery or pleadings" in an ongoing Licensing Board proceeding. GPC Motion at 1. The NRC Staff and the Intervenor, Allen Mosbaugh, oppose the stay. We deny the motion for the reasons stated below.

### B. Standard of Review

It is not unusual in our practice for an adjudicatory proceeding and an OI investigation on the same general subject matter to proceed simultaneously, even where issues may overlap. This allows the NRC to use all of its tools for carrying out its broad responsibilities to protect public health and safety. Recognizing this practice, the Commission in 1984 issued a Policy Statement that established guidelines for OI to make *in camera*, *ex parte* disclosures to the Licensing Board when information gathered during the course of a separate ongoing investigation is potentially relevant to an adjudicatory proceeding. See Statement of Policy; Investigation, Inspection, and Adjudicatory Proceedings, 49 Fed. Reg. 36,032 (Sept. 13, 1984).

Despite this practice, the Commission has been willing to stay a parallel proceeding if a party shows substantial prejudice, e.g., where discovery in an adjudicatory proceeding would compromise an OI investigation (the converse of the situation in this case). See *Oncology Services Corp.*, CLI-93-17, 38 NRC 44 (1993). Here, however, GPC's objections do not rise to the level of substantial prejudice required to enjoin an ongoing, customary agency activity.

### C. Discussion

Despite GPC's suggestions to the contrary, the Licensing Board and OI appear to be fully aware of their respective roles and are following the Commission's policy statement requiring (in some instances) OI-Board consultations. OI is keeping the Licensing Board informed of its investigations through Board Notifications and through an earlier *in camera*, *ex parte* Staff briefing. Moreover, to the extent that the OI inquiry does cover matters that could theoretically also be the focus of an inquiry by the Licensing Board into conduct of GPC counsel,

the Licensing Board has not initiated such an inquiry. We see no evidence that it would be hindered in doing so because of the OI investigation.

GPC asserts that the OI investigation will provide an avenue for Mr. Mosbaugh to obtain affidavits that were refused him on privilege grounds during discovery in the adjudicatory proceeding. In support of this assertion, GPC argues that Mr. Mosbaugh will be able to use the OI proceeding to circumvent the Licensing Board's privilege ruling. However, beyond conclusory assertions, GPC has offered no explanation how Mr. Mosbaugh would get these affidavits from OI. Indeed, as we understand it, GPC already has refused to give the affidavits to OI, claiming that they are privileged. We are aware of no direct or obvious route by which the affidavits would pass from GPC to OI to Mr. Mosbaugh. Therefore, the threat of Mr. Mosbaugh obtaining the privileged affidavits through the OI investigation is speculative, to say the least, and does not provide a legitimate reason for staying the OI investigation.

Finally, GPC has failed to demonstrate any other form of prejudice to its interest arising from the parallel OI investigations and the adjudicatory proceeding. GPC claims that the adjudicatory proceeding diverts its employees' and counsel's attention away from the adjudicatory hearing. But this is true in *any* case of parallel proceedings and is insufficient, in and of itself, to halt either one of the proceedings. Here, GPC has offered little to demonstrate that the OI investigation actually has interfered with GPC's ability to make its case in the adjudicatory hearing.

GPC's motion provides only one specific example of interference. GPC asserts that OI requested an interview with a GPC employee who also is a witness in the adjudicatory proceeding. However, according to the Staff, the interview never took place and OI has agreed voluntarily not to interview the employee until after he has testified in the pending hearing. *See* NRC Staff Response to Georgia Power Company's Motion for Order Preserving the Licensing Board's Jurisdiction, at 4 (May 17, 1995).

### CONCLUSION

In summary, GPC has failed to meet its heavy burden of showing that continuing the OI investigation would create substantial prejudice to GPC's participation in the proceeding now under way before the Licensing Board. Accordingly,



GPC's Motion for Order Preserving the Licensing Board's Jurisdiction is DENIED.

IT IS SO ORDERED.

For the Commission

JOHN C. HOYLE  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 22d day of June 1995.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD PANEL**

**Before Administrative Judges:**

**Charles Bechhoefer, Presiding Officer**  
**Jerry R. Kline, Special Assistant**

**In the Matter of**

**Docket No. 030-30266-ML-Ren**  
**(ASLBP No. 95-701-01-ML-Ren)**  
**(Byproduct Materials License**  
**No. 30-23697-01E)**

**INNOVATIVE WEAPONRY, INC.**  
**(Albuquerque, New Mexico)**

**June 1, 1995**

In a proceeding involving an appeal from the NRC Staff's denial of a requested renewal of a byproduct materials license, in which (based on a transfer of the license to a new entity) the Staff rescinds its prior license renewal denial, the Presiding Officer grants the Staff's unopposed motion to terminate the proceeding.

**RULES OF PRACTICE: MOOTNESS**

Although the NRC is not strictly bound by the mootness doctrine, its adjudicatory tribunals have generally adhered to the mootness principle.

**MEMORANDUM AND ORDER**  
**(Terminating Proceeding)**

This proceeding involved an appeal from the NRC's denial of the requested renewal of License No. 30-23967-01E by Innovative Weaponry, Inc. (IWI-New

Mexico), together with a Demand for Information (DFI) directed to Mr. Barry Mowry, IWI-New Mexico's President. Pending resolution of IWI-New Mexico's appeal, the license remained in effect in accordance with 10 C.F.R. § 30.36. On November 15, 1994, the Presiding Officer issued a Notice of Hearing (59 Fed. Reg. 60,025 (Nov. 21, 1994)).

This proceeding is subject to the hearing procedures set forth in 10 C.F.R. Part 2, Subpart L (§ 2.1201 *et seq.*) In accord with 10 C.F.R. § 2.1231, the NRC Staff on December 19, 1994, forwarded the hearing file for the proceeding to the Presiding Officer and the parties.

On December 23, 1994, the NRC Staff moved (without opposition) to hold the proceeding in abeyance until January 31, 1995, pending its consideration of new information (an application to transfer control of the license from IWI-New Mexico to Innovative Weaponry, Inc., of Nevada (IWI-Nevada)). The Presiding Officer granted the Staff's request on January 5, 1995. The Presiding Officer later granted further Staff unopposed requests to hold the proceeding in abeyance (Orders dated February 27, 1995, March 17, 1995, and May 3, 1995).

On May 4, 1995, the Staff filed a Motion to Terminate the Proceeding. It states that on April 3, 1995, the Staff transferred the license from IWI-New Mexico to IWI-Nevada and that on April 4, 1995, it rescinded both the denial of the renewal application and the DFI. Before filing this motion, the Staff sought additional information from IWI-Nevada and Mr. Mowry. The Staff received a response by letter dated April 21, 1995. Based on this information, the Staff concludes that the issue raised by the hearing request — i.e., whether there was an adequate basis for the Staff's denial — is moot because the license has been transferred, the denial has been rescinded, and Mr. Mowry is no longer involved with activities authorized by the transferred license.

Although, as the Staff observes, the NRC is not strictly bound by the mootness doctrine, its adjudicatory tribunals have generally adhered to the mootness principle. *See, e.g., Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-8, 37 NRC 181, 185 (1993). I find no reason not to do so here and to terminate this proceeding on mootness grounds.

Mootness exists when there is no reasonable expectation that the matter will recur and that interim relief or intervening events have eradicated the effects of the allegedly unlawful action. However, even when an agency order no longer has effect, as here, a matter may not be moot if it is "capable of repetition, yet evading review." *Id.* Although the Staff indicates that it may in the future issue a new DFI to Mr. Mowry (Motion at 5 n.5), that possibility does not vitiate the applicability of mootness principles to this proceeding. Mr. Mowry could

assert any legal rights he may have were such a DFI to be issued.<sup>1</sup> Similarly, although the Staff has apparently not yet granted the renewal of the license to IWI-Nevada, that organization would have a right to appeal any such denial. (As set forth earlier, the transferred license remains in effect pending final Staff action on the renewal. 10 C.F.R. § 30.36.) That being so, the mootness principle applies and the exception is not here applicable.

The Staff states that it has not sought to determine whether the other parties to this proceeding might have objection to its termination motion. Because the time for response to the motion has elapsed and we have received no response, I am treating the Staff's motion as unopposed and, for the reasons stated, I am *granting* it. This proceeding is hereby *terminated*.

This Memorandum and Order is effective upon issuance and will constitute the final action of the Commission thirty (30) days after issuance, unless any party petitions the Commission for review pursuant to 10 C.F.R. § 2.786 or the Commission takes review *sua sponte*. Any petition for review must be filed within fifteen (15) days of service of this Memorandum and Order.

IT IS SO ORDERED.

Charles Bechhoefer, Presiding Officer  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
June 1, 1995

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<sup>1</sup> The Staff claims that hearing rights do not attach to a DFI, and on November 30, 1994, it filed a Motion for Clarification and Reconsideration of my November 15, 1994 Memorandum and Order granting the request of IWI-New Mexico for a hearing, together with the associated Notice of Hearing. The Staff's various deferral motions sought to hold the entire proceeding in abeyance, including my action on its reconsideration motion. By granting the Staff's termination request, I am declining to take any further action on the Staff's reconsideration motion.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman  
Frederick J. Shon  
James H. Carpenter

In the Matter of

Docket Nos. 030-05980-ML&ML-2  
030-05982-ML&ML-2  
(ASLBP Nos. 92-659-01-ML  
92-664-02-ML-2)

SAFETY LIGHT CORPORATION,  
*et al.*

(Bloomsburg Site Decommissioning and  
License Renewal Denials)

June 8, 1995

In this Memorandum the Licensing Board sets forth its reasons for previously granting an NRC Staff motion for summary deposition on the issue of whether the agency has regulatory jurisdiction over USR Industries and its four wholly owned subsidiaries.

**RULES OF PRACTICE: LAW OF THE CASE**

Although in some circumstances the law of the case doctrine may be a rule of practice, that doctrine only applies to successive stages of the *same* proceeding. See 1B *Moore's Federal Practice* ¶0.404[1] (2d ed. 1995).

#### **RULES OF PRACTICE: LAW OF THE CASE**

That doctrine provides that once the law of the case is determined on appeal by a superior tribunal in a proceeding, the inferior tribunal lacks the authority to depart from it in that same proceeding. Any change in the law of the case must be made by the superior tribunal itself or by a yet higher authority to which the superior tribunal owes obedience. See 1B *Moore's Federal Practice* ¶0.040[1] (2d ed. 1995).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

The doctrine of collateral estoppel long has been held applicable to administrative adjudicatory determinations. See *United States v. Utah Construction & Mining Co.*, 384 U.S. 394, 421-22 (1966); *Commissioner v. Sunnen*, 333 U.S. 591 (1948). See also 4 K. Davis, *Administrative Law Treatise* §21:2 (2d ed. 1983). And issue preclusion is a settled principle of NRC adjudicatory proceedings. See, e.g., *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-74-12, 7 AEC 203 (1974).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

As in judicial proceedings, the purpose of the administrative repose doctrine "is to prevent continuing controversy over matters finally determined and to save the parties and boards the burden of relitigating old issues." *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant), ALAB-837, 23 NRC 525, 536 (1986).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

In contrast to the doctrine of *res judicata* that is applicable only when a final judgment is rendered, "for purposes of issue preclusion . . . 'final' judgment" includes any prior adjudication of an issue in another action that is determined to be sufficiently firm to be accorded conclusive effect." *Restatement (Second) of Judgments* § 13 (1980).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

For a prior determination of an issue to be sufficiently firm to support issue preclusion, the earlier decision should not be "avowedly tentative." *Restatement (Second) of Judgments* § 13 cmt. g (1980). Additionally, the fact "that the parties were fully heard, that the court supported its decision with a reasoned opinion,

[and] that the decision . . . was in fact reviewed on appeal are factors supporting the conclusion that the decision is final for the purpose of preclusion." *Id.*

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

Finally, even when all of the requirements for applying the doctrine of collateral estoppel are met, the doctrine still must be "applied with a sensitive regard for any supported assertion of changed circumstances or the possible existence of some special public interest factor in the particular case." *Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 and 2)*, ALAB-182, 7 AEC 210, 216 (1974).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

"To produce absolution from collateral estoppel on the ground of changed factual circumstances, the changes must be of a character and degree such as might place before the court an issue different in some respect from the one decided in the initial case." 1B *Moore's Federal Practice* ¶0.448, at III.-642 (2d ed. 1995).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

Similarly, "a change or development in the controlling legal principles" or a "change [in] the legal atmosphere" may make issue preclusion inapplicable. *Commissioner v. Sunnen*, 333 U.S. 591, 599-600 (1948).

#### **RULES OF PRACTICE: COLLATERAL ESTOPPEL**

Whether other public policy factors may outweigh the application of the doctrine of collateral estoppel, the correctness of the earlier determination of an issue is not among them. Simply stated, issue preclusion does not depend on the correctness of the prior decision. *United States v. Moser*, 266 U.S. 236, 242 (1924); *McLaughlin v. Bradlee*, 803 F.2d 1197, 1204 (D.C. Cir. 1986). See 1B *Moore's Federal Practice* ¶0.441[2], at III.-519 to III.-521 (2d ed. 1995).

#### **RULES OF PRACTICE: SUMMARY DISPOSITION**

Because the Commission's summary disposition rules borrow extensively from Rule 56 of the Federal Rules of Civil Procedure, it has long been held that federal court decisions interpreting and applying like provisions of Rule 56 are appropriate precedent for the Commission's rules. See, e.g., *Cleveland Electric*

*Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753-34 (1977).

**RULES OF PRACTICE: SUMMARY DISPOSITION**

Pursuant to Rule 56(c) and by analogy the Commission's summary disposition rule, "[o]nly disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment. Factual disputes that are irrelevant or unnecessary will not be counted." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

**RULES OF PRACTICE: SUMMARY DISPOSITION**

Similarly, summary judgment, as well as summary disposition, "will not lie if the dispute about a material fact is 'genuine', that is, if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

**RULES OF PRACTICE: SUMMARY DISPOSITION**

Stated otherwise, "there is no issue for trial unless there is sufficient evidence favoring the nonmoving party for a jury to return a verdict for that party. If the evidence is merely colorable or is not significantly probative, summary judgment may be granted." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249-50 (1986).

**ATOMIC ENERGY ACT: INTERPRETATION**

The plain language of section 184 of the Atomic Energy Act is exceptionally broad and the reach of the provision is all encompassing. The title of section 184, "Inalienability of Licenses," only reinforces its breadth inasmuch as "inalienable" means "incapable of being alienated, surrendered or transferred." *Webster's Third New International Dictionary* 1140 (1971).

**ATOMIC ENERGY ACT: INTERPRETATION**

The reach of the statute is manifest from its comprehensive language, and section 184 contains absolutely no limiting provisions. The terms "voluntarily or involuntarily, directly or indirectly" and the phrase "through transfer of control of any license to any person" are words and phrases of inclusion indicating a congressional intent to expand the scope of the section to the maximum extent.



#### **ATOMIC ENERGY ACT: INTERPRETATION**

On its face, section 184 not only broadly prohibits all manner of transfers, assignments, and disposals of NRC licenses, but also all manner of actions that have the effect of, in any way, directly or indirectly, transferring actual or potential control over a license without the agency's knowledge and express written consent.

#### **ATOMIC ENERGY ACT: SECTION 184**

As a consequence of the merger and the merger agreement, the new parent corporation now possessed the ultimate authority to exercise dominion over the corporate affairs of its wholly owned subsidiary, including the power to direct, manage, and regulate all activities concerning the material license. The very definition of a subsidiary corporation is one that is controlled by another corporation by reason of the latter's ownership of at least a majority of the shares of stock. *Black's Law Dictionary* 1428 (6th ed. 1990). See 18 Am. Jur. 2d *Corporations* § 35 (1985).

#### **ATOMIC ENERGY ACT: SECTION 184**

If the statutory proscription against the transfer of control of NRC licenses could be avoided by the expedient of a corporate restructuring, complex or otherwise, then section 184 would be a toothless tiger.

#### **ATOMIC ENERGY ACT: SECTION 184**

As long as section 184 and any other regulation or license condition is not violated, a material licensee may transfer its assets without notifying and obtaining the agency's permission.

#### **ATOMIC ENERGY ACT: SECTION 184**

When the transfer of control of NRC licenses is involved, section 184 requires the agency's express written consent, not just that the agency be notified.

#### **ATOMIC ENERGY ACT: SECTION 184**

The language of the Atomic Energy Act itself demonstrates that Congress placed no importance on the corporate form in enacting section 184.

**ATOMIC ENERGY ACT: SECTION 184**

The inclusion of a "corporation" in the definition of a "person" in section 115 of the Atomic Energy Act and the use of the latter term in the inalienability of licenses provision in section 184 indicates that Congress intended a corporation to be treated in the same manner as all other entities.

**ATOMIC ENERGY ACT: SECTION 184**

Corporate law principles, which are applicable only to the corporate form of organization, are entitled to no consideration under section 184 and do not thwart NRC regulatory jurisdiction over a corporation for violating that provision.

**ATOMIC ENERGY ACT: SECTION 184**

Congress, in effect, already has pierced the corporate veil for corporate violators of section 184 by definitionally including corporations in the inalienability of licenses provision. See *Pension Benefit Guaranty Corp. v. O'Quinn Corp.*, 711 F.2d 1085, 1093 (1st Cir.), cert. denied, 464 U.S. 961 (1983).

**ATOMIC ENERGY ACT: SECTION 184**

It long has been established that the fiction of corporate separateness of state-chartered corporations will not be permitted to frustrate the policies of a federal statute.

**ATOMIC ENERGY ACT: SECTION 184**

The statutory frustration principle permits the NRC to disregard the corporate form and impose liability on the parent corporation shareholder for the obligations of its subsidiary. And, this is true whether or not its intent was to avoid the statutory prohibition of section 184 for "intention is not controlling when the fiction of corporate entity defeats a legislative purpose." *Kavanaugh v. Ford Motor Co.*, 353 F.2d 710, 717 (7th Cir. 1965).

**MEMORANDUM**

In LBP-94-41, we approved a settlement agreement of the five pending *Safety Light* proceedings and terminated all proceedings.<sup>1</sup> Among those proceedings

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<sup>1</sup>40 NRC 340 (1994).

was the consolidated proceeding involving a challenge to (1) an NRC Staff denial of renewal applications for two byproduct material licenses originally issued to the United States Radium Corporation ("Radium Corporation") and (2) a Staff order setting the criteria and schedule for decommissioning the radioactively contaminated Bloomsburg, Pennsylvania manufacturing site formerly owned by that licensee.<sup>2</sup> In an earlier bare bones order in the consolidated proceeding,<sup>3</sup> we granted the Staff's motion for summary disposition<sup>4</sup> on the question whether the agency has regulatory jurisdiction over USR Industries, Inc., and its four wholly owned subsidiaries, USR Lighting Products, Inc., USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc. ("USR Companies"), each of which the Staff named as among the responsible parties in the license renewal denials and decommissioning order.<sup>5</sup> Although the consolidated proceeding was settled along with the other *Safety Light* proceedings, this Memorandum ties up a loose end and sets forth fully our reasons for granting the Staff's summary disposition motion and concluding that the NRC has regulatory jurisdiction over USR Industries and its four wholly owned subsidiaries.

## I. ISSUES PRESENTED

Section 184 of the Atomic Energy Act broadly prohibits the direct or indirect transfer, assignment, or disposal of any NRC license through the transfer of control of the license to any person without the Commission's knowledge and written consent.<sup>6</sup> Here, the Staff's summary disposition motion squarely raises the question whether the 1980 transmogrification of the publicly held Radium Corporation into a wholly owned subsidiary of a newly created USR Industries and the subsequent conveyance by that subsidiary (after a corporate name change) of all the nonregulated assets of Safety Light (nee Radium Corporation) to four other freshly formed subsidiaries, followed, in turn, by the conveyance of all the stock in those four subsidiaries to USR Industries, all without the Commission's written consent, contravenes section 184 so that the NRC has jurisdiction over USR Industries and the other USR Companies. In addition, the Staff's motion raises a second narrower question whether the

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<sup>2</sup>The site is located on approximately 10 acres along the north bank of the Susquehanna River about 2.5 miles from Bloomsburg, Pennsylvania.

<sup>3</sup>Order (Aug. 13, 1993) (unpublished).

<sup>4</sup>See NRC Staff's Motion for Summary Disposition as to NRC Jurisdiction Over USR Industries, Inc., USR Lighting, Inc. [sic], USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc. (June 30, 1992) [hereinafter Staff's Motion].

<sup>5</sup>The agency's regulatory jurisdiction over the current named licensee of the two subject material licenses, Safety Light Corporation, was not contested in the consolidated proceeding.

<sup>6</sup>See 42 U.S.C. § 2234. The language of section 184 is repeated in the Commission's regulations, 10 C.F.R. § 30.34(b).

later 1982 sale of Safety Light by its parent (USR Industries) to the subsidiary's operating management, again without the Commission's written consent, runs afoul of section 184 so as to give the agency jurisdiction over USR Industries. USR Industries and the other USR Companies contest the NRC's assertion of jurisdiction over them and oppose the summary disposition motion.<sup>7</sup>

The identical jurisdictional issues involving the same corporate restructuring were also presented in two other separate proceedings that also were before us. Those proceedings involved Staff enforcement orders against, *inter alia*, USR Industries and the other USR Companies as responsible parties for these same byproduct material licenses. Because of the identity of the jurisdictional issues in these separate enforcement proceedings with the consolidated proceeding, we start by briefly outlining the procedural history of all the proceedings. We then set forth the licensing history of the byproduct material licenses at issue. Next, we describe the corporate restructuring of Radium Corporation and the subsequent sale of Safety Light. We treat these matters in detail because the parties' summary disposition filings give only a brief glimpse of these events, while many of the details helpful to a full understanding of the corporate makeover are buried in the stack of documents filed as exhibits. Having unearthed the details of the transactions, we include them in this Memorandum so that in the event these issues arise again, the history of these events will appear in one place. Finally, we turn to the arguments of the parties.

## II. PROCEDURAL HISTORY

The instant consolidated proceeding began with the Staff's February 7, 1992 letter denying the long-pending license renewal applications of Safety Light for byproduct material licenses No. 37-00030-02 (the "02" license) and No. 37-00030-08 (the "08 license"). As grounds for its action, the Staff declared that the licensees had failed to comply with the requirements of 10 C.F.R. § 30.35 regarding decommissioning funding for the Bloomsburg facility.<sup>8</sup> On the same date, the Staff issued an order directing the licensees to satisfy the

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<sup>7</sup> See Answer of USR Industries, Inc., USR Lighting [sic], Inc., USR Chemical Products, Inc., USR Metals, Inc., U.S. Natural Resources, Inc., and Safety Light Corporation in Opposition to the NRC Staff Motion for Summary Disposition (Aug. 15, 1992); Statement of Disputed Facts, Exhibits to the Statement of Disputed Facts in Support of the Answer of USR Industries, Inc., et al., in Opposition to the NRC Staff Motion for Summary Disposition (Aug. 15, 1992) [hereinafter collectively USR Industries' Answer].

Even though licensee Safety Light does not contest the agency's assertion of jurisdiction over it, Safety Light nevertheless has joined USR Industries and the other USR Companies in opposing the Staff's Motion for Summary Disposition. This seeming incongruity is permitted under the Commission's summary disposition rule, which provides that "[a]ny other party may serve an answer supporting or opposing the motion [for summary disposition]" 10 C.F.R. § 2.749(a) (emphasis supplied).

<sup>8</sup> Letter from Robert M. Bernero, Director, Office of Nuclear Material Safety and Safeguards ("NMSS"), to Safety Light Corporation, et al. (Feb. 7, 1992).

decommissioning requirements of 10 C.F.R. § 30.36 in accordance with certain prescribed criteria and a specified schedule.<sup>9</sup>

In describing the contamination at the site, the order stated:

Although the Bloomsburg site has not been characterized completely, the record indicates that not only are buildings and equipment contaminated with strontium-90 (Sr-90), cesium-137 (Cs-137), and other radionuclides, but outdoor areas (i.e., soil, groundwater) are also contaminated at levels that render the site unsuitable for unrestricted release. Since 1982, Oak Ridge Associated Universities (ORAU), Chem-Nuclear Systems, Inc. (CNSI), and the Department of Energy's Radiological and Environmental Sciences Laboratory (RESL) have conducted limited studies, analyzed soil and water samples from various locations on the site, or both. Most of the samples exhibit radioactive contamination, and the levels of contamination of many samples are higher than those the NRC considers acceptable for release for unrestricted use. ORAU measured the highest concentrations found in individual samples from the site: ORAU measured 15.4 picocuries Sr-90 per gram of soil, 631 picocuries Cs-137 per gram of soil, and 62,000 picocuries Sr-90 per liter of groundwater, which are approximately 3, 42, and 7760 times the appropriate release criteria, respective [sic]. Despite the limited number of samples and the limited nature of studies conducted to date, the ORAU, CNSI, and RESL data show that there is widespread contamination on site which must be remediated before the site can be released for unrestricted use.<sup>10</sup>

Previewing their arguments now before us, in their joint answer to both Staff actions, USR Industries and the other USR Companies denied that they ever had been NRC licensees or possessed any NRC-regulated materials and that the agency lacked jurisdiction over them.<sup>11</sup> After considerable procedural skirmishing, the proceedings encompassing the license renewal denials and the decommissioning order were consolidated.<sup>12</sup> The Commission reversed that Board determination, but it nevertheless ordered the two proceedings consolidated.<sup>13</sup>

At the time the Staff denied Safety Light's license renewal applications, there were two agency enforcement proceedings already pending against, *inter alia*, Safety Light, USR Industries, and the other USR Companies. Those proceedings involved a number of material licenses, including the 02 and 08 licenses, and were before identically constituted licensing boards that were treating the proceedings together. The first proceeding began with a March 16, 1989 immediately effective Staff order directing the licensees to prepare and implement a plan for characterizing and decontaminating the Bloomsburg

<sup>9</sup> 57 Fed. Reg. 6136 (1992).

<sup>10</sup> *Id.* at 6136-37 (footnotes omitted).

<sup>11</sup> Answer and Request for Hearing (Feb. 27, 1992) at 3.

<sup>12</sup> LBP-92-13A, 35 NRC 205 (1992). See also Memorandum and Order (Granting in Part and Denying in Part NRC Staff's Motion of April 13, 1992) (June 1, 1992); Chief Administrative Judges' Memorandum (Designating Presiding Officer) (June 9, 1992); LBP-92-16A, 36 NRC 18 (1992).

<sup>13</sup> CLI-92-13, 36 NRC 79 (1992). See also Commission Order [Granting Interlocutory Review] (July 2, 1992).

site.<sup>14</sup> The second proceeding began with an August 21, 1989 Staff order directing the licensees to establish and fund a \$1,000,000 trust to ensure the adequate characterization of the extent and type of radioactive contamination at the Bloomsburg site.<sup>15</sup> In providing that the August 21 order also should be immediately effective, it stated that the licensees'

failure to provide assurance of adequate funding to complete implementation of a satisfactory site characterization plan, the uncertainty regarding the nature and extent [sic] of contamination at the Bloomsburg facility, and the statements made by the Corporations' principal officers as to the limited financial resources available for site characterization let alone decontamination, demonstrate that additional actions are immediately needed to protect public health and safety. . . .<sup>16</sup>

In the enforcement proceedings, USR Industries and the other USR Companies moved to dismiss the March 16 and August 21 orders on the ground that the NRC lacked regulatory jurisdiction over them. The Licensing Board, as then constituted, denied the licensees' motion holding that the NRC had jurisdiction over USR Industries and the other USR Companies. With respect to the complex 1980 corporate transactions, the Board concluded that

[t]here was no notice given of the transfers of controlling interest in the stock which could involve transfers of ownership and control of a license, requiring NRC written consent. In short, there was not even an attempt to comply with the mandatory requirements regarding "transfer of control of any license" upon written consent by the NRC after securing full information. The statute requires a full, fair disclosure to be made by licensees of actions involving the transfer or control of licenses, so that the NRC can make an informed judgment whether such actions are in accordance with the Atomic Energy Act. Clearly financial and other considerations related to decontamination of the site of licensed nuclear byproduct activities could and should be reviewed by the NRC in fulfilling its statutory responsibilities. However, the NRC never had an opportunity to review the effect of the significant changes in the licensed corporation because of the nondisclosure of the facts by the parties to this proceeding. As a result of noncompliance with the statutory requirements, the transfers of control of the licenses by corporate restructuring were invalid as to the NRC which is obligated by statute to disregard them.<sup>17</sup>

Similarly with regard to the 1982 sale by USR Industries of its subsidiary Safety Light, the Board determined that

there was no affirmative disclosure of changes in 100% stock ownership and transfer of control over licenses, and no written consent by the NRC pursuant to the statutory mandate. The prohibitions against unapproved transfers of control of licenses enacted by Congress

<sup>14</sup> 54 Fed. Reg. 12,035 (1989).

<sup>15</sup> 54 Fed. Reg. 36,078 (1989).

<sup>16</sup> *Id.* at 36,079.

<sup>17</sup> LBP-90-7, 31 NRC 116, 128 (1990) (footnotes omitted).

cannot be ignored or avoided by licensees or by the NRC itself. The attempted transfers of ownership and control by the USR Companies were ineffective to eliminate NRC jurisdiction over the succeeding entities because the transfers were in violation of statutory requirements. The strong public policy established by Congress cannot be defeated or eroded by using corporate forms to shield licensees from their obligations to protect the public health and safety. USR Industries remain[s] responsible for decontaminating the Bloomsburg site under the licenses, and the NRC has jurisdiction over them to compel compliance in this enforcement proceeding.<sup>18</sup>

Upon interlocutory review, the now defunct Atomic Safety and Licensing Appeal Board determined that the 1982 sale of Safety Light by USR Industries contravened section 184 of the Atomic Energy Act and it affirmed the Licensing Board's ruling that the agency had jurisdiction over USR Industries.<sup>19</sup> The Appeal Board specifically left open, however, the question whether the agency had jurisdiction over USR Industries' four wholly owned subsidiaries as a result of the 1980 corporate restructuring.<sup>20</sup>

Immediately after this Licensing Board was established to hear the challenges of Safety Light, USR Industries, and the other USR Companies to the Staff's denials of the license renewal applications for the 02 and 08 licenses and the Staff's decommissioning order, the Licensing Board presiding over the enforcement proceedings was reconstituted so all the proceedings were before identically constituted Boards.<sup>21</sup> Thereafter, we decided to proceed with the consolidated proceeding on the license renewal denials and the decommissioning order and, in effect, hold the proceedings involving the enforcement orders in abeyance. The enforcement proceedings were not consolidated with the proceeding on the license renewal denials and the decommissioning order. We took this step in an effort to hold only one trial instead of three because of the likelihood that the two Staff enforcement orders would become moot in the event we upheld the Staff's denial of the license renewal applications and sustained the Staff's decommissioning order. In turn, this approach minimized the expenditure of the licensees' limited assets on legal fees and litigation expenses in circumstances where those assets were needed for the costly cleanup of the Bloomsburg site.<sup>22</sup> We then provided the Staff with the opportunity to file the motion for summary disposition on the jurisdictional issues.<sup>23</sup>

<sup>18</sup> *Id.* at 128-29.

<sup>19</sup> ALAB-931, 31 NRC 350 (1990).

<sup>20</sup> *Id.* at 368-69.

<sup>21</sup> 57 Fed. Reg. 11,343 (1992).

<sup>22</sup> See LBP-92-16A, 36 NRC at 19-21.

<sup>23</sup> *Tr.* at 89-90.

### III. CHRONICLES

#### A. Licensing History

Radium Corporation employed naturally occurring radioisotopes in its business long before the enactment of the Atomic Energy Act of 1954. With the advent of the Atomic Energy Commission's (AEC) licensing authority under that act, Radium Corporation received its first license to possess and use byproduct material at its Bloomsburg, Pennsylvania site on March 16, 1956. That license, No. 37-30-1, authorized Radium Corporation to possess and use up to 1 curie of actinium-227 "[f]or preparation of sealed sources for experimental use within the laboratory and for resale to AEC licensed users."<sup>24</sup> Shortly thereafter, on June 20, 1956, the AEC issued the 02 license to Radium Corporation.<sup>25</sup> That license replaced the initial license, which was then canceled. The 02 license entitled Radium Corporation to possess and use at its Bloomsburg site substantial quantities of any byproduct material with an atomic number between 3 and 83 for "RESEARCH AND DEVELOPMENT as defined in [original] Section 11(q) Atomic Energy Act of 1954" and for "PROCESSING FOR REDISTRIBUTION to AEC licensed users."<sup>26</sup> At the top of the first page of the 02 license, as in the case of Radium Corporation's initial license and all subsequent licenses, the license stated, *inter alia*, that "[t]his license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below."<sup>27</sup> In turn, section 183(c) provides that "[n]either the license nor any right under the license shall be assigned or otherwise transferred in violation of the provisions of this Act."<sup>28</sup>

Since its issuance to Radium Corporation, the 02 license has been renewed and amended frequently. In addition, Radium Corporation received a number of other byproduct material licenses for Bloomsburg site activities such as the manufacture of self-luminous sources and the application of tritiated luminous paint to timepiece hands and dials,<sup>29</sup> but none of these licenses is involved in the consolidated proceeding. As pertinent here, Radium Corporation applied again to renew the 02 license on April 25, 1969.<sup>30</sup> That renewal application sought

<sup>24</sup> Staff's Motion, Exh. 1, License No. 37-30-1 (Mar. 16, 1956).

<sup>25</sup> As originally issued, the 02 license was designated License No. 37-30-2 but in subsequent years the NRC's license numbering system was changed so that the license now carries the number 37-00030-02.

<sup>26</sup> Staff's Motion, Exh. 2, License No. 37-30-2 (June 20, 1956).

<sup>27</sup> *Id.* See generally 10 C.F.R. § 34.34(a).

<sup>28</sup> 42 U.S.C. § 2233(c).

<sup>29</sup> See, e.g., Staff's Motion, Exh. 3, License No. GL 122 (May 16, 1962) (subsequently No. 37-00030-10G); *id.*, Exh. 4, License No. 37-30-7 (Apr. 16, 1965) (subsequently No. 37-00030-07E).

<sup>30</sup> *Id.*, Exh. 6, Application for Byproduct Material License (Apr. 25, 1969).



authorization to possess the byproduct material with atomic numbers between 3 and 83 then at the Bloomsburg site for "[d]econtamination, clean-up and disposal of areas previously used for research, development and processing under this license" and "[d]istribution to authorized recipients of material of value that are [sic] not radioactive scrap."<sup>31</sup> In a letter accompanying the renewal application, Radium Corporation also requested that a new license be issued to authorize the remainder of the activities it wished to continue at the Bloomsburg site that were not already covered by its other licenses, in addition to a short-term renewal of the 02 license "to allow for completion of decontamination and disposal in areas which were used for processing under this license."<sup>32</sup>

In response to this renewal application, the AEC issued amendment 36 to the 02 license on August 5, 1969, renewing it until July 31, 1970. The amendment authorized Radium Corporation to possess any byproduct material in the contaminated facilities and equipment at the Bloomsburg site for the purpose of "[d]econtamination, clean-up and disposal of equipment and facilities previously used for research, development, and processing under this license."<sup>33</sup> On the same date, the AEC also issued the 08 license to Radium Corporation authorizing it to possess and use at the Bloomsburg site substantial quantities of a number of radioisotopes for, *inter alia*, "[p]rocessing for distribution to authorized recipients" and "[r]esearch and development as defined in 10 CFR 30.4(q)."<sup>34</sup> Since 1970, the 08 license has been amended several times, the last time on January 8, 1987.<sup>35</sup> The 08 license has remained in effect past its stated expiration date of December 31, 1987, pursuant to the Commission's regulations allowing license continuation pending agency action on a timely renewal application and a final decision on the challenge to the Staff's February 7, 1992 denial of the renewal applications.<sup>36</sup>

After several additional license renewals, Radium Corporation once again applied to renew the 02 license on June 7, 1977.<sup>37</sup> Just over a year later on June 9, 1978, the Staff wrote to Radium Corporation requesting that "you supplement your application with a detailed report concerning the status of your decontamination efforts."<sup>38</sup> Specifically, the Staff directed that the report

<sup>31</sup> *Id.* at 1.

<sup>32</sup> *Id.*, Exh. 2, Letter from O. L. Olson, Director, Nuclear Division, United States Radium Corporation, to Robert E. Brinkman, Isotopes Branch, U.S. Atomic Energy Commission (Apr. 24, 1969) (filed as a supplement to Exh. 2 by the Staff on Oct. 23, 1992).

<sup>33</sup> *Id.*, License No. 37-00030-02, Amendment 36 (Aug. 5, 1969).

<sup>34</sup> *Id.*, Exh. 7, License No. 37-00030-08 (Aug. 5, 1969).

<sup>35</sup> USR Industries' Answer, Exh. 16, License No. 37-00030-08, Amendment 10 (Jan. 8, 1987). See 57 Fed. Reg. at 6136.

<sup>36</sup> See 10 C.F.R. § 30.37(b).

<sup>37</sup> Staff's Motion, Exh. 2, Application for Byproduct Material License (June 7, 1977).

<sup>38</sup> *Id.*, Letter from Frederick Combs, Radioisotopes Licensing Branch, Division of Fuel Cycle and Material Safety, to United States Radium Corporation, Attn: J. David McGraw (June 9, 1978).

"identify those areas which are still contaminated and the types and quantities of contamination in those areas, provide a description of your current program for surveying these areas and surrounding environs, and outline your plan for completing decontamination of this facility."<sup>39</sup> Radium Corporation responded in an October 23, 1978 letter stating "[e]nclosed is the information you requested in your letter of June 9, 1978. Specific operations are scheduled only through June of 1979. At this time, a complete evaluation of survey results collected will be carried out to determine further operations."<sup>40</sup>

The report enclosed with Radium Corporation's October 23, 1978 letter, which was entitled "Decontamination Program[,] U.S. Radium Corporation[,] Bloomsburg Facility," contained two parts. Part I, labeled "Present Status," began with a preface stating that

[t]he purpose of the plant survey was to identify, to the best of our ability, the status of the entire plant site. The survey was not designed to determine the full extent of any contamination found in a specific area, but rather to determine what areas or buildings did have any significant levels of contamination, and a rough estimate of the work and equipment needed to carry out such decontamination. This type of survey was sorely needed because records of the early history of radioactives [sic] operations on the site (1948-1956) were incomplete.<sup>41</sup>

The report then briefly described the status of twenty-six numbered areas of the Bloomsburg site. For example, with respect to "Area #9 — Silo" the report states that "[t]he silo was used solely for remote storage of certain types of high-level sources. Contamination is basically background; however, a thorough survey has not been conducted."<sup>42</sup> With respect to "Area 11 — Personnel Office" the report states that

[i]n the basement of the former personnel office is an old well of some sort that was apparently used for waste disposal purposes. No records are available as to what was disposed of in this well — by whom, why or when. It apparently has a concrete cap. Radiation levels over the cap are 0-0.25 mR/hr beta-gamma.<sup>43</sup>

Part II of the report was labeled "Proposed Schedule for Further Study and Decontamination Operations" and began with a brief preface stating that

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<sup>39</sup> *Id.*

<sup>40</sup> *Id.* Letter from Terry D. Brown, Nuclear Operations Manager, United States Radium Corporation, to Frederick Combs, U.S. Nuclear Regulatory Commission (Oct. 23, 1978).

<sup>41</sup> *Id.* Decontamination Program, U.S. Radium Corporation, Bloomsburg Facility (undated).

<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

[b]ased upon the site contamination status contained in Part I of this program, a tentative schedule for the decontamination program has been developed covering the next nine months. It will be modified by considerations such as weather conditions and survey results.

In June of 1979, a schedule for the next twelve months will be developed, based upon new survey results and any other new information available.<sup>44</sup>

The preface was followed by a schedule that detailed the decontamination steps and further surveying Radium Corporation would conduct from October through December 1978 for eight of the areas at the Bloomsburg site and the actions it then would take from January through June 1979 for five other areas at the site.<sup>45</sup>

Following receipt of Radium Corporation's report, the NRC issued amendment 40 on January 25, 1979, renewing the 02 license until February 29, 1984.<sup>46</sup> Like the earlier licenses, amendment 40 authorized Radium Corporation to possess the byproduct material contaminating the facilities and equipment at the Bloomsburg site for the purpose of "[d]econtamination, cleanup, and disposal of equipment and facilities previously used for research and development under this license."<sup>47</sup> In addition, amendment 40 included new license conditions 13 and 14. Condition 13 stated that "[a] report of status and schedule of work for the 12 months [sic] period commencing July 1 shall be submitted no later than July 1."<sup>48</sup> Condition 14 provided that "the licensee shall possess and use [the] licensed material [described in the license] in accordance with statements, representations, and procedures contained in . . . [the] application dated June 7, 1977 as amended October 23, 1978."<sup>49</sup> This was the status of the 02 and 08

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*, License No. 37-00030-02, Amendment 40 (Jan. 25, 1979).

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 1-2.

<sup>49</sup> *Id.* at 2. Any ambiguity that condition 13 of license amendment 40 imposed an *annual* reporting requirement about Radium Corporation's decontamination activities at its Bloomsburg site was clarified the next year by Radium Corporation's July 17, 1980 letter commitment to the NRC. That letter from Jack Miller, Manager, Nuclear Operations, United States Radium Corporation, to John D. Kinneinan, Chief, Materials Radiological Protection Section, United States Nuclear Regulatory Commission - Region I, was written in response to an NRC inspection report finding Radium Corporation's failure to file the decontamination status report an item of noncompliance. In pertinent part, Radium Corporation's letter stated:

Further to your letter dated June 24, 1980, which we received on June 30, 1980, it appears that the single item of noncompliance resulted from an improper interpretation of Condition 13 of the above-captioned license by Mr. Terry D. Brown, former Manager of Nuclear Operations.

As we advised the USNRC by the letter dated February 20, 1980 (copy attached), Mr. Brown is no longer employed by United States Radium Corporation, his former responsibilities having been assumed by the undersigned.

As Manager, Nuclear Operations, I have joined Dr. John G. MacHutchin, Radiation Safety Officer, in establishing an affirmative review procedure designed to insure that proper interpretation of our license requirements is maintained and that *the status report will be submitted to the NRC annually within the July 1 date specified.*

USR Industries' Answer, Exh. 22 (emphasis supplied).

material licenses held by Radium Corporation at the time the licensee underwent major structural surgery in 1980.

## B. Corporate Restructuring

By way of background, Radium Corporation was initially incorporated in Delaware in 1917 and maintained corporate offices at 170 East Hanover Avenue, Morristown, New Jersey.<sup>50</sup> Prior to its total restructuring in 1980, Radium Corporation was managed and operated on a highly centralized basis with three divisions: the chemical products division that manufactured luminescent phosphors; the lighting products division that produced instrument panels; and the metal products division that made specialty watch dials.<sup>51</sup> The metal products division was located at the Bloomsburg site and also included Radium Corporation's safety lighting products business that manufactured safety lighting products and tritiated chromatograph foils and accelerator targets — activities requiring byproduct material licenses from the NRC.<sup>52</sup> Before its 1980 metamorphosis, Radium Corporation also owned oil and gas interests and a number of subsidiaries including Unatco Funding Corporation and Metreal Corporation. Unatco, a Panama corporation, was formed in June 1979 to make international venture investments. Metreal, a Pennsylvania corporation, was formed in January 1979 and owned the contaminated land and buildings at the Bloomsburg site previously owned by Radium Corporation, which were leased back to the parent corporation for, *inter alia*, the safety lighting products business.<sup>53</sup> In addition to the Unatco and Metreal subsidiaries, Radium Corporation also owned

<sup>50</sup> Staff's Motion, Exh. 8, Proxy Statement of United States Radium Corporation (May 28, 1980) and Preliminary Prospectus of USR Industries, Inc. (May 16, 1980) at 1, 21, filed as part of SEC Form S-14 Registration Statement of USR Industries, Inc. (May 16, 1980).

<sup>51</sup> *Id.*, Exh. 9, Proxy Statement of United States Radium Corporation and Prospectus of USR Industries, Inc. (July 11, 1980) at 14 [hereinafter Proxy Statement] filed as part of the American Stock Exchange Listing Application of USR Industries, Inc. (Feb. 11, 1981) [hereinafter AMEX Application]. Staff's Motion Exh. 9 includes, in addition to the Proxy Statement, the following documents as part of the AMEX Application that will be cited as follows: Letter from Ralph T. McElvenny, Jr., Chairman of the Board and Chief Executive Officer, United States Radium Corporation, to Stockholders (July 11, 1980) [hereinafter Stockholder Letter] and Notice of Annual Meeting (July 11, 1980); Exhibit A to Proxy Statement, Agreement and Plan of Merger (May 16, 1980) [hereinafter Merger Agreement]; and Exhibit B to Proxy Statement, Certificate of Incorporation of USR Industries, Inc. (May 14, 1980).

<sup>52</sup> Although Radium Corporation's July 11, 1980 Proxy Statement clearly states that the corporation only had three divisions and that the safety lighting products business was operated together with the metals products division, contemporaneous correspondence suggests that Radium Corporation sometimes indicated that the regulated safety lighting products business was another division. For example, in a July 17, 1980 letter from Radium Corporation to the NRC, the letterhead reads "United States Radium Corporation, Nuclear Products Division." The letter is signed, however, by Jack Miller in his capacity as "Manager, Nuclear Operations." USR Industries' Answer, Exh. 22. See also *id.*, Exh. 24, Letter from Jack Miller, Manager, Nuclear Operations, United States Radium Corporation, Nuclear Products Division, to Paul Guinn, United States Nuclear Regulatory Commission (Sept. 19, 1980). But in an October 14, 1980 letter from Radium Corporation to the NRC, the letterhead does not contain the "Nuclear Products Division" designation even though it is signed by Jack Miller in his capacity as "Manager, Nuclear Operations." *Id.*, Exh. 25.

<sup>53</sup> Staff's Motion, Exh. 9, Proxy Statement at 14.

four other nominally capitalized subsidiaries that it formed in 1979 as part of its restructuring process: USR Chemical Products, Inc., a New Jersey corporation; USR Lighting Products, Inc., a New Jersey corporation; USR Metals, Inc., a Pennsylvania corporation; and U.S. Natural Resources, Inc., a Texas corporation.<sup>54</sup>

Until its 1980 restructuring, Radium Corporation was a publicly held, American Stock Exchange-listed corporation directed by a four-person board of directors.<sup>55</sup> In October 1978, Mr. Ralph T. McElvenny, Jr., became Chairman of the Board and Chief Executive Officer ("CEO"), having been first elected to the Board in August of that same year.<sup>56</sup> Mr. McElvenny also owned the controlling interest in and, since 1977, was Chairman and CEO of Titan Wells, Inc., a company involved in oil and gas exploration and production that owned 26.08% of the shares of Radium Corporation's outstanding common stock.<sup>57</sup> Further, Mr. McElvenny was the sole director of USR Chemical Products, Inc., USR Lighting Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc. — the four wholly owned subsidiaries Radium Corporation formed in 1979 as part of its restructuring process.<sup>58</sup>

In 1980, Radium Corporation undertook the remaining steps to complete the corporate makeover that ultimately resulted in it becoming a renamed, wholly owned subsidiary of a new parent corporation. The newly named subsidiary, however, owned only those assets requiring NRC material licenses while Radium Corporation's other assets resided in four sister subsidiary corporations. In describing its restructuring plan in a letter to stockholders accompanying its 1980 proxy statement, Radium Corporation's Chairman, Mr. McElvenny, stated that, "[a]lthough the objectives of the plan are simple, the mechanics may at first seem somewhat complicated."<sup>59</sup> The simple objectives of the plan were then detailed in the 1980 proxy statement as follows:

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<sup>54</sup> *Id.* Proxy Statement at 15; *id.*, Exhs. 12, 11, 10, 13, Certificates of Incorporation of USR Chemical Products, Inc., USR Lighting Products, Inc., USR Metal, Inc., and U.S. Natural Resources, Inc., respectively.

<sup>55</sup> *Id.*, Exh. 9, AMEX Application at 2; *id.*, Proxy Statement at 4.

<sup>56</sup> *Id.* Proxy Statement at 7. Two other Radium Corporation directors, Brian P. Burns and Joseph G. Kostrzewa also came on the board of directors in 1978. The fourth board member, Harry J. Dabagian, President and Chief Operating Officer of Radium Corporation since September 1978, became a director in 1977, having previously served as Vice President and General Manager of the Chemical Products Division. Mr. Burns was a senior partner in one of the law firms that rendered legal services to Radium Corporation and Mr. Kostrzewa was Senior Vice President and Treasurer of Traverse Corporation, one of two companies that operated Radium Corporation's oil and gas interests. *Id.* at 5-7, 11.

<sup>57</sup> *Id.* at 3, 6-7.

<sup>58</sup> *Id.*, Exhs. 11, 12, 13, Certificates of Incorporation of USR Lighting Products, Inc., USR Chemical Products, Inc., and U.S. Natural Resources, Inc., respectively. See also *id.*, Exh. 15, Consent of Sole Director (Nov. 24, 1980) (attached to November 24, 1980 Agreement between Radium Corporation and USR Metals, Inc.).

<sup>59</sup> Staff's Motion, Exh. 9, Stockholder Letter.

The objective of the merger and the transfers described above is to rearrange the business of United States Radium Corporation into a structure better suited to meet the current and future needs of the total enterprise.

The restructuring is further intended to limit the risks and liabilities associated with each business of the Corporation to the assets associated with that business. Management believes that each of the Corporation's businesses should be free-standing to the extent possible; that is, that none of the businesses should have to depend upon the others for support, or be burdened with the risks and liabilities associated with those other businesses. As a related matter, the Corporation believes that it would be advantageous to conduct those of its businesses which are not licensed and regulated through corporations which are separate and distinct from a corporation whose business is licensed and regulated. The Corporation's safety lighting products business is the only business of the Corporation which is licensed and regulated.<sup>60</sup>

The mechanics of Radium Corporation's restructuring plan — the complicated part — were also outlined in the 1980 proxy statement and an exhibit thereto entitled Agreement and Plan of Merger. First, on May 14, 1980, Radium Corporation formed another nominally capitalized subsidiary, incorporated in Delaware, named USR Industries, Inc.<sup>61</sup> In turn, USR Industries formed an additional nominally capitalized, wholly owned subsidiary, also incorporated in Delaware, dubbed Industries Merger Company, Inc. ("Merger Company").<sup>62</sup>

Thereafter, pursuant to the May 16, 1980 Agreement and Plan of Merger ("Merger Agreement") among Merger Company, USR Industries, and Radium Corporation, Merger Company merged into Radium Corporation effective August 27, 1980.<sup>63</sup> This union left Radium Corporation as the surviving corporation and ended Merger Company's existence. Further, under the Merger Agreement and on the effective date of the merger, each outstanding share of common stock of Radium Corporation automatically converted into a share of common stock of USR Industries, each outstanding share of common stock of Merger Company converted into a new share of common stock of Radium Corporation, and each share of common stock of USR Industries outstanding immediately prior to the merger was canceled.<sup>64</sup> As a consequence of these actions, Radium Corporation (the former publicly held parent corporation of USR Industries) became the wholly owned, privately held subsidiary of USR Industries.<sup>65</sup> In addition, the Merger Agreement called for Radium Corporation to amend its certificate of incorporation to change its name to Safety Light Corporation.<sup>66</sup>

<sup>60</sup> *Id.*, Proxy Statement at 16-17.

<sup>61</sup> *Id.*, Certificate of Incorporation of USR Industries.

<sup>62</sup> *Id.*, AMEX Application at 3; *id.*, Proxy Statement at 16.

<sup>63</sup> *Id.*, Merger Agreement at A-2; *id.*, AMEX Application at 1.

<sup>64</sup> *Id.*, Merger Agreement at A-3; *id.*, Proxy Statement at 20.

<sup>65</sup> *Id.*, Proxy Statement at 12, 15-16.

<sup>66</sup> *Id.*, Merger Agreement at A-3.

Although the terms of the Merger Agreement changed the corporate form of Radium Corporation from a publicly held corporation to that of a wholly owned subsidiary of a new parent corporation, the merger itself effected few immediate substantive changes. Following the merger, shares of USR Industries' common stock represented the same interest in the same assets as shares of Radium Corporation common stock represented prior to the merger.<sup>67</sup> Similarly, the consolidated financial statements of USR Industries immediately after the merger were substantially the same as the consolidated financial statements of Radium Corporation immediately before the merger.<sup>68</sup> The number of authorized, issued, and outstanding shares of USR Industries common stock after the merger was the same as that of Radium Corporation before the merger.<sup>69</sup> Following the merger, the shareholders who previously owned Radium Corporation common stock owned the same proportion and amount of USR Industries common stock and no exchange of stock certificates was required.<sup>70</sup> Also, after the merger the stock options for shares of Radium Corporation stock held by the Chairman and CEO of Radium Corporation, Mr. McElvenny, and one of the directors, Mr. Burns, only could be exercised for USR Industries common stock.<sup>71</sup> Additionally, on the effective date of the merger, shares of Radium Corporation common stock were to be removed from listing on the American Stock Exchange and shares of USR Industries common stock were to be listed.<sup>72</sup>

The officers and directors of Radium Corporation at the time of the merger remained in their positions following it. In addition, the Chairman and CEO, as well as the other three Directors of Radium Corporation, initially assumed the same positions at USR Industries.<sup>73</sup> The certificate of incorporation and bylaws of Radium Corporation did not change because of the merger, although the Merger Agreement called for Radium Corporation to change its name to Safety Light Corporation.<sup>74</sup> Similarly, USR Industries' certificate of incorporation and bylaws at the time of the merger remained substantially the same as those of Radium Corporation.<sup>75</sup>

In contrast to changes in the corporate form of Radium Corporation that occurred with the implementation of the Merger Agreement, the substantive changes in its corporate existence occurred thereafter. The final steps in its corporate transformation involved a series of asset transfers from Radium

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<sup>67</sup> *Id.*, Proxy Statement at 16.

<sup>68</sup> *Id.* at 12.

<sup>69</sup> *Id.*, Merger Agreement at A-1; *id.*, Proxy Statement at 16.

<sup>70</sup> *Id.*, Proxy Statement at 16, 21.

<sup>71</sup> *Id.* at 20-21.

<sup>72</sup> *Id.* at 20.

<sup>73</sup> *Id.* at 18; *id.*, Merger Agreement at A-4.

<sup>74</sup> *Id.*, Merger Agreement at A-3 to A-4.

<sup>75</sup> *Id.*, Proxy Statement at 20.

Corporation to four of its wholly owned subsidiaries, followed by the transfer of stock in those subsidiaries, plus the stock of an additional subsidiary, to Radium Corporation's new parent, USR Industries. Specifically, in late 1980, Radium Corporation conveyed, without compensation, the entire assets of its lighting products division to its wholly owned USR Lighting Products, Inc., subsidiary. The transfer was accomplished by means of an agreement between Radium Corporation and USR Lighting Products that was executed on behalf of the former by its Chairman and CEO, Mr. McElvenny, and adopted on behalf of the latter by its sole director, Mr. McElvenny.<sup>76</sup> Similarly, with the exception of its NRC-regulated safety lighting products business which it retained, Radium Corporation assigned all the rest of the assets of its metal products division to its wholly owned USR Metals, Inc., subsidiary.<sup>77</sup> According to its proxy statement, Radium Corporation also was to transfer the assets of its chemical products division to its wholly owned USR Chemical Products, Inc., subsidiary and transfer its oil and gas interests to its wholly owned U.S. Natural Resources, Inc., subsidiary.<sup>78</sup>

To complete its corporate restructuring, Radium Corporation then conveyed all the shares of stock of these four subsidiary corporations, plus the shares of its wholly owned Unatco Funding Corporation subsidiary, to its new parent corporation, USR Industries.<sup>79</sup> These asset transfers left Radium Corporation with only its NRC-regulated safety lighting products business (regulated by the 08 license) and its wholly owned Metreal, Inc., subsidiary — the subsidiary from which it leased the contaminated land and buildings at the Bloomsburg, Pennsylvania site (regulated under Radium Corporation's 02 license). All of Radium Corporation's other assets now were the property of USR Lighting Products, USR Chemical Products, USR Metals, U.S. Natural Resources, and Unatco, which, with the stock conveyances from Radium Corporation to its new parent, were now, like Radium Corporation, wholly owned subsidiary corporations of USR Industries.

According to Mr. McElvenny, the Chairman and CEO of both USR Industries and Radium Corporation during the period of the corporate reorganization, no one at either Radium Corporation or USR Industries notified the NRC of the corporate restructuring before it occurred or asked the agency for its approval because they did not believe it was required.<sup>80</sup> Similarly, Mr. McElvenny also

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<sup>76</sup> *Id.*, Exh. 14, Agreement Between Radium Corporation and USR Lighting Products, Inc. (Nov. 24, 1980) and Consent of Sole Director (Nov. 24, 1980); *id.*, Exh. 9, Proxy Statement at 15.

<sup>77</sup> *Id.*, Exh. 15, Agreement Between Radium Corporation and USR Metals, Inc. (Nov. 24, 1980) and Consent of Sole Director (Nov. 24, 1980).

<sup>78</sup> *Id.*, Exh. 9, Proxy Statement at 15. Both of these subsidiary corporations apparently are now inactive corporations.

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*, Exh. 16, Deposition of Ralph T. McElvenny at 181-82.



knew of no explicit written consent approving any of these transactions sent by the NRC to Radium Corporation or USR Industries,<sup>81</sup> and the NRC has never given its explicit written consent to any aspect of the corporate restructuring of Radium Corporation.<sup>82</sup>

Following the completion of Radium Corporation's restructuring in late 1980, Radium Corporation notified the NRC in a December 19, 1980 letter referencing the 08 license that the "United States Radium Corporation, Nuclear Products Division, has recently changed its corporate name to Safety Light Corporation."<sup>83</sup> The letter then stated "[a]s discussed, during one of your last plant visits, we would like to incorporate this change and the resultant operational changes in the renewal of the captioned license. As you suggested, we are re-submitting our entire renewal application in place of the one originally sent to you in 1978."<sup>84</sup> Thereafter, in a January 21, 1981 letter to the NRC referencing the 02 license, Radium Corporation stated that

This is to advise you officially that, effective 24 November 1980, our Company name was changed from United States Radium Corporation to Safety Light Corporation.

Our facility location is the same as before, with the exception that the mailing address has been modified to specify our actual building, rather than the general plant site. Therefore, in future, kindly address all correspondence to the following:

Safety Light Corporation  
4150-A Old Berwick Rd.  
Bloomsburg, PA 17815

Our telephone number remains unchanged . . . .<sup>85</sup>

Notwithstanding the representations in the December 19, 1980 and January 21, 1981 letters to the NRC, it was not until June 22, 1981, that Radium

<sup>81</sup> *Id.* at 182-83.

<sup>82</sup> *Id.*, Exh. 22. Affidavit of Francis M. Costello at 7.

<sup>83</sup> *Id.*, Exh. 17. Letter from Jack Miller, President, Safety Light Corporation, to U.S. Nuclear Regulatory Commission (Dec. 19, 1980). This letter also appears as USR Industries' Answer, Exh. 8.

<sup>84</sup> Staff's Motion, Exh. 17. The discussion referenced in the December 19, 1980 letter apparently occurred during an earlier August 14, 1980 meeting between three members of the NRC Staff and four representatives of Radium Corporation when the Staff visited the Bloomsburg facility to discuss Radium Corporation's pending April 12, 1978 license renewal application for the 08 license. A subsequent NRC confirmatory letter indicated that Radium Corporation had agreed to resubmit its license application because "[t]he original application was filed April 12, 1978, and is now outdated (e.g., user changes, pending company name change, etc.) . . . [and] [t]he management structure of the organization has changed substantially." USR Industries' Answer, Exh. 7. Letter from Paul R. Guinn, Material Licensing Branch, Division of Fuel Cycle and Material Safety, to United States Radium Corporation (Oct. 3, 1980). See also *id.*, Exh. 5. Memorandum from Myu Cao, obell, Materials Inspector, MRPS, for John D. Kinneman, Chief, Material Radiological Protection Section, FF& ISB (Aug. 20, 1980) re meeting between U.S. Radium Corporation and NRC Licensing, *id.*, Exh. 6. Memorandum from Michael E. Wangler, Materials Licensing Branch, to Files (undated) re precicensing visit to U.S. Radium Corporation, License No. 37-00030-08.

<sup>85</sup> Staff's Motion, Exh. 18. Letter from Jack Miller, President, Safety Light Corporation, to U.S. Nuclear Regulatory Commission (Jan. 21, 1981). This letter also appears as USR Industries' Answer, Exh. 9.

Corporation's Board of Directors — now made up of three Directors — adopted a resolution changing its corporate name to Safety Light Corporation.<sup>86</sup> That action was followed on June 24, 1981 by USR Industries' adoption, as the sole shareholder of Radium Corporation, of a resolution consenting to the corporate name change.<sup>87</sup> Six months later, on December 21, 1981, Radium Corporation filed with the Office of the Secretary of State of Delaware a name change certificate of amendment to its articles of incorporation.<sup>88</sup>

### C. Sale of Safety Light

After finalizing its subsidiary's corporate name change, USR Industries disposed of Safety Light by selling it to Lime Ridge Industries, Inc. — a Pennsylvania Corporation owned by the President and two Vice Presidents of Safety Light.<sup>89</sup> The sale to Safety Light's operating management was accomplished by means of a May 24, 1982 stock purchase agreement between USR Industries and Lime Ridge whereby USR Industries sold all of the issued, outstanding shares of capital stock of Safety Light to Lime Ridge for \$35,000 and a promissory note for \$315,000.<sup>90</sup> Under the explicit terms of the stock purchase agreement, no personal liability for payment of the debt attached to the Lime Ridge shareholders and Lime Ridge granted USR Industries a security interest in the shares of Safety Light by pledging the shares pursuant to an escrow agreement.<sup>91</sup> In turn, Safety Light guaranteed Lime Ridge's obligation and secured its guarantee by granting USR Industries a security interest in Safety Light's equipment, inventory, and accounts receivable and Lime Ridge further secured its obligation under the promissory note by granting USR Industries a similar security interest.<sup>92</sup> Finally, Lime Ridge agreed to merge into Safety Light within 90 days, after which the shares pledged by Lime Ridge to USR Industries would be released from escrow.<sup>93</sup> Prior to the execution of the May 24, 1982

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<sup>86</sup> Staff's Motion, Exh. 19, Unanimous Consent of Board of Directors (June 22, 1981).

<sup>87</sup> *Id.*, Exh. 20, Action of Sole Stockholder in Lieu of Meeting (June 24, 1981).

<sup>88</sup> *Id.*, Exh. 21, Certificate of Amendment (Dec. 21, 1981).

<sup>89</sup> *Id.*, Exh. 24, Stock Purchase Agreement (May 24, 1982). This Staff exhibit consists of a stack of 22 documents labeled "Safety Light Corporation 1982 Sale Documents." The Stock Purchase Agreement has six schedules and four exhibits and is followed by the remainder of the documents. Because most of the documents are made up of multiple pages and not all of them carry page numbers, the documents are cited by title and date and a page number has been assigned, if necessary.

<sup>90</sup> *Id.* at 2; *id.*, Exh. A, Promissory Note (May 24, 1982).

<sup>91</sup> *Id.*, Stock Purchase Agreement at 3; *id.*, Exh. B, Pledge and Escrow Agreement (May 24, 1982).

<sup>92</sup> *Id.*, Stock Purchase Agreement at 4; *id.*, Exh. C, Guaranty of Payment (May 24, 1982); *id.*, Exh. D, Security Agreement (May 24, 1982).

<sup>93</sup> *Id.*, Stock Purchase Agreement at 4-5. The agreement for the sale of Safety Light also provided that Safety Light and its subsidiary, Metreal — the lessee and owner, respectively, of the Bloomsburg site — would enter into a lease for a portion of that property with USR Metals, now the wholly owned subsidiary of USR Industries possessing the nonregulated assets of the former metals products division of Radium Corporation. *Id.* at 13; Lease

(Continued)

stock purchase agreement for the sale of all of the stock of Safety Light to its operating management, neither USR Industries nor Safety Light informed the NRC of the intended sale.<sup>94</sup> Similarly, neither USR Industries nor Safety Light sought the written consent of the NRC for any aspect of the transaction, and the NRC has never given its written consent to any aspect of USR Industries' May 24, 1982 sale of Safety Light to the subsidiary's operating management.<sup>95</sup>

Ten months after the sale of Safety Light in 1982 and some 14 months following Safety Light's January 21, 1981 letter notifying the NRC that Radium Corporation had changed its name to Safety Light, the agency responded to that correspondence by issuing amendment 42 to the 02 license.<sup>96</sup> The March 7, 1983 license amendment changed the name on Radium Corporation's 02 material license to Safety Light.<sup>97</sup> Coincidentally, the next day NRC inspectors conducted an unannounced routine inspection of the Bloomsburg site and discovered that ownership of the facility had changed. According to the September 20, 1983 report of the earlier March 8, 1983 inspection,

[t]he inspectors learned from discussions with the licensee's management that actual ownership of the Bloomsburg facility had changed on November 24, 1980 [sic], when U.S. Radium sold the facility and a portion of the activities previously conducted at the Bloomsburg facility to the current President and Vice President of the Safety Light Corporation. The remainder of the previous activities conducted by U.S. Radium at the Bloomsburg facility were transferred to U.S.R. Metals Corporation.<sup>98</sup>

The agency's transmittal letter enclosing the inspection report also instructed Safety Light to provide

the details of the recent change in ownership of the Safety Light Corporation, including the date of the transaction, a discussion of the reorganization which occurred when the name of

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Agreement (Apr. 1, 1982). The lease was for portions of two buildings and related rights of way, easements, and facilities at the Bloomsburg site where the metals products division of Radium Corporation had carried on its unregulated manufacturing operations. The lease was for an initial 5-year term at \$416.67 per month and gave USR Metals four options to renew for successive 5-year terms with a rent increase for each term at 50% of the applicable Consumer Price Index for northeastern Pennsylvania. Lease Agreement at 1.

<sup>94</sup> Staff's Motion, Exh. 16, Deposition of Ralph T. McElvenny at 204-05; *id.*, Exh. 22, Affidavit of Francis M. Costello at 5; *id.*, Exh. 25, Deposition of John T. Miller at 163; *id.*, Exh. 26, Deposition of Charles R. White at 69.

<sup>95</sup> *Id.*, Exh. 16, at 205; *id.*, Exh. 22, at 7; *id.*, Exh. 25, at 164; *id.*, Exh. 26, at 73-74.

<sup>96</sup> Earlier, on January 20, 1983 — exactly 2 years after Safety Light's January 21, 1981 letter notifying the agency of the name change — the NRC issued amendments to Radium Corporation's other licenses changing the name of the licensee to Safety Light. USR Industries' Answer, Exh. 10, License No. 37-00030-07E, Amendment 07 (Jan. 20, 1983), License No. 37-00030-09G, Amendment 06 (Jan. 20, 1983), License No. 37-00030-10G, Amendment 04 (Jan. 20, 1983).

<sup>97</sup> Staff's Motion, Exh. 2, License No. 37-00030-02, Amendment 42 (Mar. 7, 1983). This license also appears as USR Industries' Answer, Exh. 10.

<sup>98</sup> *Id.*, Exh. 27, Inspection Report Nos. 30-5980/83-01, 30-5981/83-01, 30-5982/83-01, 30-5335/83-01, 30-8444/83-01 (Sept. 20, 1983) at 4 attached to letter from Thomas T. Martin, Director, Division of Engineering and Technical Programs [Region I, NRC] (original signed by John D. Kinneman for Mr. Martin) to Safety Light Corporation (Sept. 22, 1983) [hereinafter Martin Letter].

the licensee changed from U.S. Radium to Safety Light Corporation on November 24, 1980, a description of the current organization of the Safety Light Corporation and a description of who is financially responsible for the ultimate decontamination of the radioactive materials buried on your property.<sup>99</sup>

In its letter, the NRC also instructed Safety Light to "promptly submit a report of the status and schedule for decontamination activities for the 12-month period commencing on July 1, 1983."<sup>100</sup>

Safety Light responded to the NRC request for information in a November 11, 1983 letter stating, in pertinent part:

1. As previously stated in correspondence of 21 January 1981 and properly incorporated into all our existing licenses, effective 24 November 1980, our Company name was changed from United States Radium Corporation to Safety Light Corporation. There were no organizational changes made due to the name change.
2. On 24 May 1982, USR Industries, Inc., 2203 Timberloch Place, The Woodlands TX, finalized the sale of the stock of its wholly-owned subsidiary Safety Light Corporation to a group of executive officers of Safety Light Corporation.

The following individuals now own 100% of the stock of Safety Light Corporation: John T. Miller—President, David J. Watts—Vice President, Charles R. White—Vice President

3. Safety Light Corporation is the corporate entity which has full corporate power to carry on its business and is responsible for the properties and assets now owned and operated by it.<sup>101</sup>

Safety Light's November 11, 1983 letter thus clearly revealed to the agency that when Safety Light was sold to its operating management it was a subsidiary of an entity called USR Industries, Inc., a corporation theretofore unknown to the NRC. The agency nonetheless did not pursue its inquiry into the corporate lineage of Safety Light and the availability of adequate resources to decontaminate the Bloomsburg site for some 2½ years. During this prolonged interval, however, the agency did amend another of Safety Light's material licenses

<sup>99</sup> *Id.*, Exh. 27, Martin Letter at 1-2. This letter also appears as USR Industries' Answer, Exh. 12.

<sup>100</sup> Staff's Motion, Exh. 27 at 2. At the same time that the Regional Office instructed Safety Light to provide it with the details of the sale of the company, the Chief of the Materials Section for Region I, John D. Kinneman, sent a memorandum to NRC Headquarters setting out his current understanding of the events surrounding the sale of Safety Light. The memorandum also questioned whether Safety Light had adequate resources to decontaminate the Bloomsburg site. USR Industries' Answer, Exh. 21, Memorandum from John D. Kinneman for John W. Hickey, Materials Licensing Branch, NMSS (Sept. 22, 1983). In recommending that the 02 material license should contain a schedule for decontamination of the property, Mr. Kinneman stated that "[t]he wording of License Condition No. 13, does not make it clear that the licensee has to submit an annual plan or schedule for decontamination activities." *Id.* at 2. In this regard, it should be noted that Mr. Kinneman was the addressee of Radium Corporation's July 17, 1980 letter responding to the agency's citation of the licensee (also approved by Mr. Kinneman) for failure to file an annual decontamination status report, as required by condition 13 of license amendment 40 in which the licensee committed to filing an annual status report. See *supra* note 49.

<sup>101</sup> Staff's Motion, Exh. 23, Letter from Jack Miller, President, Safety Light Corporation, to U.S. Nuclear Regulatory Commission (Nov. 11, 1983). This letter also appears as USR Industries' Answer, Exh. 13.

authorizing it to distribute luminous signs, although that license is not involved in this proceeding.<sup>102</sup> Then, on June 19-20, 1986, and again on November 12, 1986, the NRC inspected the Bloomsburg site.<sup>103</sup> During these inspections, the agency's inspectors requested that the licensee provide the NRC with a site plan and the location of every company occupying the site and the location and levels of contamination found by the licensee's surveys.<sup>104</sup> In a February 6, 1987 response, Safety Light provided the NRC with a site plan of the Bloomsburg site that detailed the contaminated areas and also showed the elaborate division of the buildings and grounds among Safety Light, its subsidiary Metreal, and their lessee, USR Metals.<sup>105</sup>

Although the agency inspected the Bloomsburg site in June and November 1986, the NRC did not finalize its report of that inspection until March 22, 1988.<sup>106</sup> It then sent the inspection report to USR Industries on April 20, 1988.<sup>107</sup> According to the report of the inspection, the agency found three apparent violations.<sup>108</sup> First, the agency determined that the failure of USR Industries and Safety Light to apprise the NRC of the sale of Safety Light and obtain prior approval of the transfer of the 02 and 08 material licenses constituted an apparent violation of 10 C.F.R. § 30.34(b). Second, the agency concluded that the licensee's failure to file an annual report of the status and schedule of site

<sup>102</sup> USR Industries' Answer, Exh. 16. License No. 37-00030-09G, Amendment 08 (July 22, 1986). It should be noted that during the lengthy period in which the NRC did not further investigate Safety Light's corporate history, the Materials Licensing Branch of NMSS corresponded with Region I regarding the renewal of Safety Light's 02 material license. In an August 9, 1984 intra-agency memorandum, the Licensing Branch indicated that it had reviewed the status of Safety Light's 02 license that was then under timely renewal and stated that it now was clear that Safety Light had been sold to the current owners without any NRC review or approval. The Licensing Branch, nevertheless, recommended that Region I process Safety Light's January 27, 1984 renewal application and obtain from the licensee a decommissioning schedule. Finally, the Licensing Branch recommended that the regional office send USR Industries a letter it had drafted stating that the NRC had not received prior notice of the sale of Safety Light or approved the sale and that it was reviewing whether USR Industries might be held liable for any decontamination obligation not met by Safety Light. USR Industries' Answer, Exh. 14. Memorandum from John W.N. Hickey, Section Leader, Industrial Section, Material Licensing Branch, FC, NMSS, for John D. Kinneman, Chief, Nuclear Material Section A, Region I (Aug. 9, 1984). The regional office never sent the Licensing Branch's proposed letter, apparently because the Region I staff could not reach a consensus on the approach the agency should take toward USR Industries. USR Industries' Answer, Exh. 3. Deposition of John D. Kinneman at 66-67.

<sup>103</sup> Staff's Motion, Exh. 22. Affidavit of Francis M. Costello at 6; *id.*, Exh. 29, Inspection Report Nos. 030-05982/86-01, 030-05980/86-01 (Mar. 22, 1988) at 1 [hereinafter March 1988 Inspection Report], attached to Letter from William T. Russell, Regional Administrator [Region I, NRC] to USR Industries, Inc. (Apr. 20, 1988) [hereinafter Russell Letter].

<sup>104</sup> *Id.*, Exh. 29, March 1988 Inspection Report at 3-4.

<sup>105</sup> *Id.*, Exh. 28. Legend and Site Plan attached to Letter from Jack Miller, President, Safety Light Corporation to U.S. Nuclear Regulatory Commission (Feb. 6, 1987). Both before and after receiving this Safety Light response, the agency continued to issue license amendments to Safety Light's various material licenses. On January 8, 1987, the NRC issued amendment 10 to the 08 material license and on June 16, 1987, the NRC issued another amendment to Safety Light's material license authorizing distribution of luminous signs. USR Industries' Answer, Exh. 16.

<sup>106</sup> Staff's Motion, Exh. 29, March 1988 Inspection Report.

<sup>107</sup> *Id.*, Exh. 29, Russell Letter.

<sup>108</sup> *Id.*, Exh. 29, March 1988 Inspection Report at 2.

decommissioning work for each 12-month period since July 1, 1979, constituted an apparent violation of condition 13 of the 02 license. Third, the agency found that licensee's failure to complete decontamination of portions of the site in accordance with the schedule contained in licensee's letter of October 23, 1978, constituted an apparent violation of condition 14 of the 02 license.<sup>109</sup> Finally, the agency's transmittal letter included a demand for information pursuant to section 182a of the Atomic Energy Act<sup>110</sup> directing USR Industries to provide, within 30 days, sworn, written responses describing all relationships and transactions between USR Industries, United States Radium Corporation, and their successors and subsidiaries affecting the Bloomsburg site. The NRC's information demand also directed USR Industries to provide the agency with a decommissioning plan for the site, including an estimate of the cost of decommissioning, and to propose a method to ensure the availability of sufficient funds to implement the decommissioning plan.<sup>111</sup>

Based upon the information contained in USR Industries' response to the agency's demand for information, the Staff issued the previously described enforcement orders of March 16, 1989, and August 21, 1989, that are not part of the instant proceeding.<sup>112</sup> In each enforcement order the Staff named as responsible entities not only Radium Corporation and Safety Light but also USR Industries, USR Lighting Products, USR Chemical Products, USR Metals, U.S. Natural Resources, Lime Ridge, and Metreal. Subsequently, on February 7, 1992, when the Staff denied Safety Light's license renewal applications for the 02 and 08 licenses and issued the decommissioning order for the Bloomsburg site — the Staff actions before us in this consolidated proceeding — it named all of these same corporations as responsible entities.<sup>113</sup>

#### IV. PARTIES' ARGUMENTS

##### A. Collateral Estoppel

In its motion for summary disposition, the Staff argues that the doctrine of collateral estoppel precludes USR Industries from relitigating in the instant consolidated proceeding the issue of the NRC's regulatory jurisdiction over it because that identical jurisdictional issue was previously decided against USR Industries by the Appeal Board in ALAB-931.<sup>114</sup> That decision resolved the interlocutory appeal, by way of directed certification, of USR Industries and

<sup>109</sup> See *supra* p. 426.

<sup>110</sup> 42 U.S.C. § 2232(a).

<sup>111</sup> Staff's Motion, Exh. 29, Russell Letter, App. B.

<sup>112</sup> See *supra* pp. 420-21.

<sup>113</sup> See *supra* pp. 419-20.

<sup>114</sup> Staff's Motion at 39-47.

its four wholly owned subsidiaries (i.e., USR Lighting Products, USR Chemical Products, USR Metals, and U.S. Natural Resources) from the Licensing Board's denial of the USR Companies' motion to dismiss the Staff's March 16 and August 21, 1989 enforcement orders.<sup>115</sup>

As previously noted, the Licensing Board in LBP-90-7 ruled that the NRC had regulatory jurisdiction over USR Industries and the other USR Companies because both the 1980 corporate restructuring of Radium Corporation and the 1982 sale of Safety Light by USR Industries violated section 184 of the Atomic Energy Act.<sup>116</sup> Upon the interlocutory appeal of USR Industries and the USR Companies, the Appeal Board squarely held that USR Industries' 1982 sale of its Safety Light subsidiary, without the Commission's consent, was a transfer of control of the 02 and 08 material licenses within the meaning of section 184 of the Atomic Energy Act, thereby giving the NRC jurisdiction over USR Industries for purposes of the enforcement order proceedings.<sup>117</sup> The Appeal Board left open, however, the issue of the agency's regulatory jurisdiction over USR Industries' four wholly owned subsidiaries that were created as part of the 1980 corporate restructuring of Radium Corporation.<sup>118</sup>

In its opinion in ALAB-931, the Appeal Board began its analysis with the language of section 184 of the Atomic Energy Act and posed the jurisdictional issue before it as requiring the Board to decide what constitutes "the direct or indirect transfer of a license through a 'transfer of control' of that license."<sup>119</sup> The Appeal Board then addressed each of USR Industries' arguments on that jurisdictional question.

Before the Appeal Board, USR Industries first asserted that the 1982 sale of Safety Light stock to three members of Safety Light's operating management was not a transfer of the license within the meaning of section 184 because of the established tenet of corporate law that the transfer of stock in a corporation does not act to transfer any of the assets of the corporation. Based on the lack of any supporting legislative history of section 184, the Appeal Board rejected this assertion, concluding there was no indication that Congress intended to incorporate that principle or any other tenet of corporate law into the section.

The Appeal Board also examined and rejected USR Industries' argument concerning the significance of the fact that section 184 speaks only to the transfer of a license. According to USR Industries, because section 184 as originally proposed would have encompassed the transfer of a *licensee*, the difference between this language and the enacted language indicated a congressional

<sup>115</sup> ALAB-931, 31 NRC at 355.

<sup>116</sup> See *supra* pp. 421-22.

<sup>117</sup> ALAB-931, 31 NRC at 365-68.

<sup>118</sup> *Id.* at 368.

<sup>119</sup> *Id.* at 363.

intent not to include transactions like the 1982 sale of Safety Light stock.<sup>120</sup> Similarly, USR Industries argued that such a legislative intent could be found in the difference in language between section 184 and section 310(d) of the Communications Act<sup>121</sup> — an earlier enacted regulatory scheme on which many of the provisions of the Atomic Energy Act generally were based. The latter provision, in prohibiting transfers of Federal Communications Commission station licenses without agency permission specifically speaks of, *inter alia*, transfers of control of corporations holding licenses. In rejecting these USR Industries' arguments, the Appeal Board stated that the legislative history of section 184 of the Atomic Energy Act was silent regarding the reason for casting that section in terms of the transfer of control of the license and it concluded that

there is no cause to believe that Congress would have desired certain transfers of total ownership of licensed radio stations to require prior agency approval in circumstances where identical transfers of total ownership in corporations holding nuclear licenses would not require such approval. Indeed, given the manifest public health and safety implications of activities under nuclear licenses, it is reasonable to assume that Congress would have been even more interested in clothing this Commission with the authority to pass advance judgment on the acceptability of transactions such as those now in issue.<sup>122</sup>

Having concluded that there was no congressional bar to Commission oversight of the 1982 transaction, the Appeal Board turned its attention to the question of whether that arrangement was a direct or indirect transfer of control of the licenses issued to Radium Corporation. In this regard, the Appeal Board concluded:

[w]e discern no room for reasonable doubt that a transfer of control took place. In this regard, we find totally irrelevant the fact that, as the USR Companies stress, under corporate law, a transfer of shares of stock does not serve as a transfer of corporate assets. Apart from the absence of anything to indicate that Congress intended that doctrine to govern the application of section 184 of the Atomic Energy Act, our concern here is with the transfer of control over the licenses issued to U.S. Radium. Irrespective of whether those licenses themselves (as a corporate asset) are deemed to have been transferred when USR Industries sold its 100% interest in its Safety Light (nee U.S. Radium) subsidiary to the three individuals, it cannot be seriously maintained that the effect of the sale was not a transfer of control.

Before the sale, those who possessed dominion over the full range of the operations of USR Industries had the authority, if they desired to exercise it, to call the tune with respect to Safety Light's activities under the licenses by reason of Safety Light's status as a wholly-owned subsidiary. . . . This is so even though the 1982 purchasers of Safety Light also happened to be its President and two Vice Presidents. Upon consummation of the sale, USR Industries' management necessarily relinquished all right to dictate how the licensed

<sup>120</sup> *Id.* at 363-64.

<sup>121</sup> 47 U.S.C. § 310(d).

<sup>122</sup> ALAB-931, 31 NRC at 364.



activities should be conducted. Rather, the full right to direct those activities — and thus to control the licenses themselves — became vested in the new owners of Safety Light. . . .<sup>123</sup>

In making this determination, the Appeal Board in ALAB-931 also rejected several additional arguments of USR Industries. According to USR Industries, because the same radiation safety officer and employees under the supervision of the licensee's radioisotope committee had "control" of the license and licensed activity both before and after the 1982 sale there was never a transfer of that control. The Appeal Board found that conditions contained in the 02 license designed to ensure that only qualified employees were involved with licensed activities did not place those employees in control of the license within the meaning of section 184 of the Atomic Energy Act.<sup>124</sup>

Finally, USR Industries argued that the NRC interpreted the concept of control in section 184 of the Atomic Energy Act differently for Part 30 material licenses than for Part 50 reactor licenses. USR Industries claimed that in initial applications for reactor licenses, unlike initial applications for material licenses, the agency requires the names, address, and citizenship of the utility's directors and officers. This difference, USR Industries claimed, was proof that the agency did not believe that control of Part 30 material licenses is vested in corporate directors and officers. In rejecting this argument, the Appeal Board stated:

No doubt, the Commission has its reasons for requiring utilities seeking to construct or to operate massive nuclear power plants to provide information that is not likewise required of a corporate applicant for a byproduct material license, which generally are of much smaller dimensions. There is, however, no cause to suppose that one of those reasons is that the Commission perceives fundamental differences in the concept of control of a Part 50 license, as compared with that of a Part 30 license. Indeed, the Commission's implementing regulations in the two Parts are identical to the extent relevant here.

In sum, although there are obvious differences between Part 30 and Part 50 licenses (and the processes necessary to obtain them), none of those differences is pertinent to the matter of where "control" of the license lies within the meaning of the Atomic Energy Act and the implementing regulations. In the instance of a corporate Part 30 or Part 50 licensee, that control is to be found in the person or persons who, because of ownership or authority explicitly delegated by the owners, possess the power to determine corporate policy and thus the direction of the activities under the license. Here, to repeat, control over the license in question thus was in the hands of USR Industries at the time of the sale of its wholly-owned Safety Light subsidiary and, upon that sale, the control was transferred to the purchasers without the NRC's consent.<sup>125</sup>

In its answer to the Staff's summary disposition motion, USR Industries does not directly respond to the Staff's argument that the doctrine of collateral

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<sup>123</sup> *Id.* at 365.

<sup>124</sup> *Id.* at 366.

<sup>125</sup> *Id.* at 367 (footnotes omitted).

estoppel bars it from relitigating here the same jurisdictional issue previously decided against USR Industries by the Appeal Board in ALAB-931. Rather than confront the Staff's argument, USR Industries takes the position that the Appeal Board's jurisdictional ruling in ALAB-931 is only the "law of the case" and, therefore, we should reconsider the question of the agency's jurisdiction over USR Industries in this proceeding. In support of this proposition, USR Industries contends that because the law of the case doctrine is only a rule of practice, we have the necessary authority to reconsider the jurisdictional issue. It then argues, without any elaboration or specification, that we should exercise our discretion to revisit the issue in the instant proceeding because the Staff has submitted new facts and arguments not previously raised and USR Industries should have the opportunity to present additional evidence in response.<sup>126</sup> Finally, in a concluding footnote, USR Industries claims that "[f]or these same reasons, the related doctrines of collateral estoppel and res judicata should not prevent reconsideration of the issue of jurisdiction over USR Industries."<sup>127</sup> Citing the Commission's *Clinch River* decision,<sup>128</sup> USR Industries asserts that these doctrines need not apply to an administrative agency when overriding public policy interests favor relitigation of a matter. It argues that revisiting the jurisdictional issue is appropriate here in order to lay to rest the Staff's assertion that the 1982 sale of Safety Light violated section 184 of the Atomic Energy Act.<sup>129</sup>

USR Industries' reliance on the law of the case doctrine to avoid the preclusive effects of the Appeal Board's jurisdictional ruling in ALAB-931 is misplaced. Although in some circumstances the law of the case doctrine may be a rule of practice as USR Industries suggests, that doctrine only applies to successive stages of the *same* proceeding.<sup>130</sup> The instant consolidated proceeding involves the Staff's February 7, 1992 license renewal denials of the 02 and 08 material licenses and the Staff's decommissioning order of the same date. This consolidated proceeding is a separate and distinct proceeding from the enforcement proceedings in which the Appeal Board handed down ALAB-931. The latter enforcement proceedings have not been consolidated with the license renewal denials and decommissioning proceeding with which we deal here. This being so, the law of the case doctrine simply has no relevance to the current consolidated proceeding and that doctrine cannot be used as the foundation for an argument to avoid the preclusive effects of ALAB-931.

<sup>126</sup> USR Industries' Answer at 27-29.

<sup>127</sup> *Id.* at 29 n.19.

<sup>128</sup> *United States Department of Energy* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 420 (1982).

<sup>129</sup> USR Industries' Answer at 29 n.19.

<sup>130</sup> See 1B James W. Moore et al., *Moore's Federal Practice* ¶0 404[1] (2d ed. 1995) [hereinafter *Moore's Federal Practice*].

Nonetheless, even if we assume that the instant consolidated proceeding is somehow part of the earlier enforcement proceedings in which ALAB-931 was decided, the law of the case doctrine still provides no basis for USR Industries to avoid the preclusive effects of the Appeal Board's ruling. That doctrine provides that once the law of the case is determined on appeal by a superior tribunal in a proceeding, the inferior tribunal lacks the authority to depart from it in that same proceeding. Any change in the law of the case must be made by the superior tribunal itself or by a yet higher authority to which the superior tribunal owes obedience.<sup>131</sup> Thus, in the posited circumstances, we would be required to follow ALAB-931 because it was rendered by a superior tribunal upon an interlocutory appeal at a previous stage of the same proceeding. Consequently, even in this assumed situation, USR Industries' argument evidences a fundamental misapprehension of the law of the case doctrine and its argument does nothing to avoid the preclusive effects of the Appeal Board's earlier ruling that the NRC has regulatory jurisdiction over USR Industries.

Further, the Staff is correct that USR Industries is barred by the doctrine of collateral estoppel from relitigating here the identical jurisdictional issue decided against it by the Appeal Board in ALAB-931. Although variously stated, one familiar formulation of the doctrine of collateral estoppel, or issue preclusion, was provided by the first Justice Harlan:

The general principle announced in numerous cases is that a right, question, or fact distinctly put in issue and directly determined by a court of competent jurisdiction, as a ground of recovery, cannot be disputed in a subsequent suit between the same parties or their privies; and even if the second suit is for a different cause of action, the right, question, or fact once so determined must, as between the same parties or their privies, be taken as conclusively established, so long as the judgment in the first suit remains unmodified.<sup>132</sup>

That doctrine long has been held applicable to administrative adjudicatory determinations<sup>133</sup> and issue preclusion is a settled principle of NRC adjudicatory proceedings.<sup>134</sup> As in judicial proceedings, the purpose of the administrative repose doctrine "is to prevent continuing controversy over matters finally determined and to save the parties and boards the burden of relitigating old issues."<sup>135</sup>

Agency precedents, which track judicial ones, establish that, in order for issue preclusion to apply,

<sup>131</sup> *Id.*

<sup>132</sup> *Southern Pacific R.R. v. United States*, 168 U.S. 1, 48-49 (1897).

<sup>133</sup> See *United States v. Utah Construction & Mining Co.*, 384 U.S. 394, 421-22 (1966); *Commissioner v. Sunnen*, 333 U.S. 591 (1948). See also 4 K. Davis, *Administrative Law Treatise* § 21-2 (2d ed. 1983).

<sup>134</sup> See, e.g., *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-74-12, 7 AEC 203 (1974).

<sup>135</sup> *Carolina Power and Light Co.* (Shearon Harns Nuclear Power Plant), ALAB-837, 23 NRC 525, 536 (1986).

the individual or entity against whom the estoppel is asserted must have been a party, or in privity with a party, to the earlier litigation. The issue to be precluded also must be the same as that involved in the prior proceeding and the issue must have been actually raised, litigated, and adjudged [by a tribunal of competent jurisdiction]. Additionally, the issue must have been material and relevant to the disposition of the first action, so that its resolution was necessary to the outcome of the earlier proceeding.<sup>136</sup>

Stated somewhat more succinctly, the application of the doctrine of collateral estoppel requires that we consider the questions of identity of parties, identity of issues, and issue materiality.

In the circumstances presented, the doctrine is fully applicable and USR Industries has submitted no supportable grounds to thwart its impact. Initially, however, we note that USR Industries effectively has abandoned any defense to the applicability of the doctrine with respect to the issue of the NRC's regulatory jurisdiction over USR Industries stemming from the 1982 sale of Safety Light in violation of section 184 of the Atomic Energy Act. In its summary disposition motion, the Staff met its burden as the moving party by fully briefing the issue of the applicability of the doctrine and demonstrating how each requirement of the preclusion doctrine was met. USR Industries' only response has been to ignore the Staff's argument. In such circumstances, we are under no obligation to construct USR Industries' defense for it. Rather, we justifiably may treat the legal issue as conceded by USR Industries.<sup>137</sup>

In any event, all of the elements for the application of issue preclusion on the question of the NRC's regulatory jurisdiction over USR Industries are present here. Turning first to the issue of party identity, USR Industries was named as a responsible party in the Staff's enforcement orders of March 16 and August 21, 1989,<sup>138</sup> and USR Industries requested the hearings<sup>139</sup> that ultimately led, upon its interlocutory appeal, to the Appeal Board's jurisdictional ruling in ALAB-931. Thus, USR Industries clearly was a party to the earlier enforcement proceedings in which the issue of jurisdiction was litigated.

With respect to the matter of identity of issues, we note that the doctrine of collateral estoppel is fully applicable to questions of jurisdiction.<sup>140</sup> In the instant consolidated proceeding, the question of the agency's regulatory jurisdiction over USR Industries is identical in every material respect to the jurisdictional issue that was raised, litigated, and adjudged in the enforcement

<sup>136</sup> *Id.* at 536-37 (footnote citations omitted).

<sup>137</sup> *Cf. Shearon Harris*, ALAB-837, 23 NRC at 533-34; *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 413 (1976); *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-270, 1 NRC 473, 476 (1975).

<sup>138</sup> 54 Fed. Reg. 12,035 (1989); 54 Fed. Reg. 36,078 (1989).

<sup>139</sup> Answer and Request for Hearing (Sept. 7, 1989) at 5; Answer and Request for Hearing (Sept. 8, 1989) at 5.

<sup>140</sup> *See, e.g., Stoll v. Gottlieb*, 305 U.S. 165, 172 (1938); *Baldwin v. Iowa State Traveling Men's Ass'n*, 283 U.S. 522, 524-26 (1931).

proceedings. Specifically, in its answer to the Staff's March 16 and August 21, 1989 enforcement orders, USR Industries denied that the NRC had regulatory jurisdiction over it.<sup>141</sup> USR Industries then affirmatively raised the issue of the agency's jurisdiction over it before the Licensing Board in a motion to dismiss the Staff orders.<sup>142</sup> After the Licensing Board denied its motion to dismiss,<sup>143</sup> USR Industries filed with the Appeal Board a motion for directed certification of the Licensing Board's action.<sup>144</sup> The Appeal Board accepted USR Industries' interlocutory appeal, and, in ALAB-931, affirmed the Licensing Board's ruling with respect to the agency's regulatory jurisdiction over USR Industries.<sup>145</sup> The Appeal Board's ruling in ALAB-931 — like the Licensing Board's initial ruling in LBP-90-7 — leaves no doubt that the issue of the agency's regulatory jurisdiction over USR Industries was raised, argued, and decided in the enforcement proceedings. Nor is there any question that under the Commission's Rules of Practice the Licensing Board and then the Appeal Board had the requisite authority to entertain and dispose of USR Industries' motion to dismiss and the subsequent interlocutory appeal on this issue.<sup>146</sup>

There also is no question that the issue of the NRC's regulatory jurisdiction over USR Industries was relevant and material to the eventual disposition of the enforcement proceedings. Without regulatory jurisdiction over USR Industries, the agency's enforcement orders directed to that corporation would be without force and effect. Thus, the last requisite for applying issue preclusion is fulfilled because resolution of the jurisdictional issue was necessary to the outcome of the enforcement proceedings.

Moreover, even though the Appeal Board's jurisdictional ruling in ALAB-931 was in response to an interlocutory appeal, its decision is sufficiently final to warrant imposition of the doctrine of collateral estoppel and preclude

<sup>141</sup> Answer and Request for Hearing (Apr. 7, 1989) at 5; Answer and Request for Hearing (Sept. 8, 1989) at 5.

<sup>142</sup> Motion to Dismiss Orders Issued March 16, 1989, and August 21, 1989 (Nov. 20, 1989). See also NRC Staff's Response to Motion of USR Industries, Inc., USR Lighting, Inc., USR Chemicals, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc., to Dismiss Orders Issued March 16, 1989, and August 21, 1989 (Dec. 15, 1989); Reply of USR Industries, Inc., USR Lighting, Inc., USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc., in Support of the Motion to Dismiss Orders Issued March 16, 1989 and August 21, 1989 (Jan. 3, 1990).

<sup>143</sup> LBP-90-7, 31 NRC 116 (1990).

<sup>144</sup> Motion of USR Industries, Inc., USR Lighting, Inc., USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc., for Directed Certification (Feb. 7, 1990). See also Supplemental Motion of USR Industries, Inc., USR Lighting, Inc., USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc., for Directed Certification (Feb. 13, 1990); NRC Staff's Response to Motion and Supplemental Motion of USR Industries, Inc., USR Lighting, Inc., USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc., for Directed Certification (Feb. 28, 1990); Submission of USR Industries, Inc., Comparing Section 310 of the Federal Communication Act of 1934, as amended, to Section 184 of the Atomic Energy Act of 1954 (Mar. 7, 1990); NRC Staff Response to Submission of USR Industries, Inc., Comparing Section 310 of the Federal Communication Act of 1934, as amended, to Section 184 of the Atomic Energy Act of 1954 (Mar. 16, 1990).

<sup>145</sup> ALAB-931, 31 NRC 350 (1990).

<sup>146</sup> See 10 C.F.R. §§ 2.718, 2.721, 2.730(e); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-271, 1 NRC 478 (1975).

relitigating the identical issue here. In contrast to the doctrine of res judicata that is applicable only when a final judgment is rendered, "for purposes of issue preclusion . . . 'final judgment' includes any prior adjudication of an issue in another action that is determined to be sufficiently firm to be accorded conclusive effect."<sup>147</sup> For a prior determination of an issue to be sufficiently firm to support issue preclusion, the earlier decision should not be "avowedly tentative."<sup>148</sup> Additionally, the fact "that the parties were fully heard, that the court supported its decision with a reasoned opinion, [and] that the decision . . . was in fact reviewed on appeal are factors supporting the conclusion that the decision is final for the purpose of preclusion."<sup>149</sup>

Precisely because the jurisdictional issue was resolved by the Licensing Board in the enforcement proceedings and then thoroughly tested on appeal before the Appeal Board, it is appropriate to apply the preclusion doctrine here. The Appeal Board's affirmance in ALAB-931 of the Licensing Board's jurisdictional ruling with respect to USR Industries was not tentative or preliminary but was intended as the terminative determination on the question of the agency's regulatory jurisdiction over USR Industries. The type and quality of procedures under which the jurisdictional issue was litigated before the Licensing Board in the enforcement proceedings were identical to those that would be applicable if the issue were again litigated in this consolidated proceeding. Both proceedings are formal adjudicatory proceedings conducted pursuant to Subpart G of the Commission's Rules of Practice, 10 C.F.R. Part 2. Thus, USR Industries already has had a full and fair opportunity to litigate the issue in the enforcement proceedings and there is no valid reason for giving it a second bite of the apple.

Finally, even when, as here, all of the requirements for applying the doctrine of collateral estoppel are met, the doctrine still must be "applied with a sensitive regard for any supported assertion of changed circumstances or the possible existence of some special public interest factor in the particular case."<sup>150</sup> In the instant case, USR Industries has not shown any changed circumstances or asserted any valid public interest factors sufficient to avoid the imposition of the preclusion doctrine to the issue of the agency's regulatory jurisdiction over it. Nevertheless, we note that USR Industries does make the bald declaration in its misplaced argument on the law of the case doctrine that "the NRC Staff has submitted new facts and arguments not previously raised with respect to jurisdiction" and, therefore, "USR Industries should not be prevented from vigorously presenting additional evidence in response."<sup>151</sup> USR Industries fails

<sup>147</sup> *Restatement (Second) of Judgments* § 13 (1980).

<sup>148</sup> *Id.* cmt. g.

<sup>149</sup> *Id.*

<sup>150</sup> *Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 and 2)*, ALAB-182, 7 AEC 210, 216 (1974), *remanded*, CLI-74-12, 7 AEC 203 (1974).

<sup>151</sup> USR Industries' Answer at 28.

to identify, much less support, what facts and arguments the Staff makes in this consolidated proceeding that were not made previously in the enforcement proceedings. Nor has it identified what new evidence it seeks to offer or explained why such evidence was not presented in support of its motion to dismiss in the enforcement proceedings. Indeed, our comparison of the filings of USR Industries and the Staff before the Licensing Board and the Appeal Board in the enforcement proceedings with the filings of the parties in the instant consolidated proceeding fails to reveal any new material facts or significant arguments that were not fairly made in the enforcement proceedings.<sup>152</sup>

In any event, even if the Staff asserts some new facts or arguments in support of the agency's regulatory jurisdiction in its summary disposition motion, that occurrence, without a great deal more, does not translate into the kind of "supervening, material change in factual or legal circumstances" that is necessary to vitiate imposition of issue preclusion.<sup>153</sup> "To produce absolution from collateral estoppel on the ground of changed factual circumstances, the changes must be of a character and degree such as might place before the court an issue different in some respect from the one decided in the initial case."<sup>154</sup> Similarly, "a change or development in the controlling legal principles" or a "change [in] the legal atmosphere" may make issue preclusion inapplicable.<sup>155</sup> No such factual or legal changes are present here and USR Industries asserts none. Furthermore, the Licensing Board's jurisdictional ruling in the enforcement proceedings was issued in response to USR Industries' motion to dismiss for lack of regulatory jurisdiction over it. By raising the jurisdictional issue in a dismissal motion before it had undertaken any discovery, USR Industries controlled not only the timing of its filing but also the extent of the factual development of the issue, so it should not now be heard to complain about newly asserted, albeit unspecified, facts and arguments by the Staff in the instant proceeding.

Finally, there are no special public interest factors present here to preclude applying the doctrine of collateral estoppel. USR Industries claims that the jurisdictional issue was wrongly decided in the enforcement proceedings and argues in a footnote that there is a "significant public policy interest in correctly determining the issue of jurisdiction."<sup>156</sup> USR Industries' argument is devoid of merit. Whatever other public policy factors may outweigh the application of the doctrine of collateral estoppel,<sup>157</sup> the correctness of the earlier determination of

<sup>152</sup> See *supra* notes 142 & 144.

<sup>153</sup> *Farley*, ALAB-182, 7 AEC at 213.

<sup>154</sup> 1B *Moore's Federal Practice* ¶0 448, at III -642. See *Montana v. United States*, 440 U.S. 147, 159 (1979) (holding that change in factual setting not sufficient to create a new legal issue).

<sup>155</sup> *Sonnen*, 333 U.S. at 599-600.

<sup>156</sup> USR Industries' Answer at 29 n.19.

<sup>157</sup> See, e.g., *Mencoid Corp. v. Mid-Continent Investment Co.*, 320 U.S. 661, 669-70 (1944).

an issue is not among them. Simply stated, issue preclusion does not depend on the correctness of the prior decision.<sup>158</sup>

The premise of preclusion itself is that justice is better served in most cases by perpetuating a possibly mistaken decision than by permitting relitigation. If relitigation were permitted whenever it might result in a more accurate determination, in the name of "justice," the very values served by preclusion would be quickly destroyed. The risks of imposing a wrong decision on later litigation, moreover, are accounted for in many ways by the wide array of limitations [on applying the doctrine].<sup>159</sup>

Nor is USR Industries' argument buttressed by its reliance on the Commission's *Clinch River* decision.<sup>160</sup> That decision involved a request for an exemption pursuant to 10 C.F.R. § 50.12 rather than a formal adjudicatory proceeding required by section 189 of the Atomic Energy Act. Whatever else that case may stand for, it is simply inapposite to the question of the applicability of the doctrine of collateral estoppel to the formal administrative adjudications involved here.

Accordingly, all the requirements for applying the doctrine of collateral estoppel are met and USR Industries is estopped from asserting in the instant consolidated proceeding that the NRC lacks regulatory jurisdiction over it. USR Industries may not relitigate here the same jurisdictional issue decided against it in ALAB-931.

## B. Alternative Holding

Alternatively, even if we assume that the doctrine of collateral estoppel is inapplicable to the issue of the NRC's regulatory jurisdiction over USR Industries, we nevertheless would resolve that question precisely as the Appeal Board did in ALAB-931. Because the facts regarding USR Industries' 1982 sale of its Safety Light subsidiary, the jurisdictional issue, and USR Industries' arguments before the Appeal Board in the enforcement proceedings, are all identical to the facts, issue, and arguments here, there is no basis to distinguish ALAB-931 from the instant case. Hence, we must follow that decision as a matter of stare decisis. Equally compelling, however, is the fact that the Appeal Board's reasoning in ALAB-931 rejecting each of USR Industries' various arguments is fully explained and is correct. Thus, we not only follow that decision, but we incorporate it here to avoid repeating that same analysis. We do so notwithstanding the fact that the Appeal Board's jurisdictional ruling was

<sup>158</sup> *United States v. Moser*, 266 U.S. 236, 242 (1924); *McLaughlin v. Bradlee*, 803 F.2d 1197, 1204 (D.C. Cir. 1986). See 1B *Moore's Federal Practice* ¶0.441[2], at III-519 to III-521.

<sup>159</sup> 18 Charles A. Wright et al., *Federal Practice and Procedure* § 4426, at 265 (1981).

<sup>160</sup> CLI-82-23, 16 NRC 412 (1982).



rendered on review of the Licensing Board's ruling on a motion to dismiss rather than, as here, on a motion for summary disposition. We are able to make this determination because, contrary to USR Industries' assertion, there are no genuine issues of material fact in dispute that preclude the grant of summary disposition on the jurisdictional issue with respect to USR Industries.

Along with its summary disposition motion, the Staff filed a statement of undisputed material facts as required by 10 C.F.R. § 2.749(a). Among its factual assertions regarding USR Industries' 1982 sale of its Safety Light subsidiary, the Staff's listing includes statements 65, 66, and 67 asserting, respectively, that none of the corporations involved in the 1982 transaction requested the NRC's prior permission or consent to transfer control of the 02 and 08 material licenses; that the NRC has never made a finding that the 1982 transaction was in accordance with section 184 of the Atomic Energy Act; and that the NRC has never given its written consent to the 1982 transaction as required by section 184.<sup>161</sup> The Staff supports statement 65 with the deposition testimonies of the Chairman and Chief Executive Officer of USR Industries, and the initial President and Vice President of Safety Light.<sup>162</sup> Although this same deposition testimony also supports factual assertions 66 and 67, the Staff specifically supports these factual statements with the affidavit of the NRC's principal inspector for the Bloomsburg site who served in that capacity from 1980 through 1989.<sup>163</sup>

In both its answer to the Staff's summary disposition motion as well as its statement of disputed facts filed with its answer, USR Industries merely states in a footnote, without more, that it disputes the Staff's statements 65, 66, and 67.<sup>164</sup> Nowhere in either its answer or its statement of disputed facts, however, does USR Industries challenge these Staff statements or provide any evidence directly controverting them. Because USR Industries has neither controverted Staff statements 65, 66, and 67 as required by section 2.749(a) nor provided affidavits or other evidence demonstrating that there is a genuine issue of fact

<sup>161</sup> NRC Staff's Statement of Undisputed Material Facts as to which no Genuine Issue Remains (undated) at 10.

<sup>162</sup> *Id.* at 10 n.37.

<sup>163</sup> *Id.* at 10 nn.38 & 39. See *supra* pp. 433-34 and notes 94-95.

<sup>164</sup> See USR Industries' Answer at 4 n.1; Statement of Disputed Facts (undated) at 2 n.1. In the same manner, USR Industries also disputes Staff statement 21, which asserts that there is no issue as to the NRC's regulatory jurisdiction over Metreal. See USR Industries' Answer at 4 n.1, 30 n.20; Statement of Disputed Facts (undated) at 2 n.1. Contrary to USR Industries' assertion, however, Staff statement 21 presents no genuine issue of disputed material fact and USR Industries cannot now for the first time challenge the agency's regulatory jurisdiction over Metreal. In response to the Staff's February 7, 1992 license renewal application denials and decommissioning order that named, *inter alia*, Metreal as a responsible party, Safety Light, USR Industries, and the other USR Companies filed, on February 27, 1992, a joint "Answer and Request for Hearing." See 10 C.F.R. § 2.705. The answer denied that the NRC had regulatory jurisdiction over USR Industries and the other USR Companies. The answer did not deny that the agency had jurisdiction over Metreal and the answer was not filed on behalf of Metreal. Further, Metreal did not file a separate answer denying that the NRC had regulatory jurisdiction over it. Accordingly, because no denial by, or on behalf of, Metreal ever has been filed with respect to the agency's regulatory jurisdiction over it and, under the Commissioner's Rules of Practice matters not denied are admitted, USR Industries cannot now challenge the NRC's jurisdiction over Metreal.

about those statements as required by section 2.749(b), Staff statements of material fact 65, 66, and 67 are deemed admitted.<sup>165</sup> Accordingly, there are no genuine issues of material fact to preclude the grant of summary disposition on the jurisdictional issue with respect to USR Industries and there is no bar to our following and adopting the Appeal Board's decision in ALAB-931.

Moreover, nothing raised by USR Industries' counsel during argument on the Staff's summary disposition motion rises to the level of sufficient evidentiary support to controvert the Staff's factual statements and demonstrate a genuine issue of disputed material fact. At oral argument, USR Industries' counsel opined that the 1983 discussion between Safety Light's management and NRC inspectors at the Bloomsburg site, where the inspectors learned of the earlier 1982 sale of Safety Light and the Staff's subsequent correspondence for over 4 years exclusively with Safety Light (and not USR Industries), amounted to an NRC finding of compliance with the requirements of the Atomic Energy Act and NRC consent to the sale of Safety Light.<sup>166</sup> Although this argument is inventive, the matters recited by USR Industries' counsel simply do not controvert the Staff's fully supported statement of undisputed material facts 65, 66, and 67. Even if the events asserted at oral argument are most generously considered, they fall short of the mark. While these events might amount to colorable evidence, under the standards governing summary disposition,<sup>167</sup> they do not constitute sufficient evidence from which a reasonable jury could find for USR

<sup>165</sup> Section 2.749(a) of 10 C.F.R. provides that "[a]ll material facts set forth in the statement required to be served by the moving party will be deemed to be admitted unless controverted by the statement required to be served by the opposing party." In a second similar provision, the Commission's summary disposition rules, like the analogous summary judgment provision of Rule 56(c) of the Federal Rules of Civil Procedure, states that

[w]hen a motion for summary disposition is made and supported as provided in this section, a party opposing the motion may not rest upon the mere allegations or denials of his answer; his answer by affidavits or as otherwise provided in this section must set forth specific facts showing that there is a genuine issue of fact.

10 C.F.R. § 2.749(b). Finally, and again like the provision of Rule 56(c) of the Federal Rules, the summary disposition rules provide that the Licensing Board

shall render the decision sought if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.

10 C.F.R. § 2.749(d).

<sup>166</sup> Tr. at 235. See *supra* pp. 434-36.

<sup>167</sup> Because the Commission's summary disposition rules borrow extensively from Rule 56 of the Federal Rules, it has long been held that federal court decisions interpreting and applying like provisions of Rule 56 are appropriate precedent for the Commission's rules. See, e.g., *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753-54 (1977). Thus, pursuant to Rule 56(c) and, by analogy the Commission's summary disposition rule, "[o]nly disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment. Factual disputes that are irrelevant or unnecessary will not be counted." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). Similarly, summary judgment, as well as summary disposition, "will not lie if the dispute about a material fact is 'genuine', that is, if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id.* Stated otherwise, "there is no issue for trial unless there is sufficient evidence favoring the nonmoving party for a jury to return a verdict for that party. If the evidence is merely colorable or is not significantly probative, summary judgment may be granted." *Id.* at 249-50 (citations omitted).

Industries on these matters. Consequently, these assertions also do not create a genuine issue of disputed material fact that would preclude a grant of summary disposition in the Staff's favor.

In its answer to the Staff's summary disposition motion, USR Industries further argues that the Staff's actions after discovering the 1982 sale of Safety Light amount to consent to the stock sale. Specifically, USR Industries asserts that, after learning of the sale of Safety Light, the Staff nevertheless communicated only with Safety Light, issued various license amendments only to Safety Light, and sent inspection reports only to Safety Light after conducting inspections at the Bloomsburg site. According to USR Industries, these Staff actions amount to NRC consent to the 1982 sale of Safety Light and such consent now deprives the agency of regulatory jurisdiction over USR Industries.<sup>168</sup>

The operative facts of USR Industries' argument are not in dispute; nonetheless the conclusion it draws from the Staff's actions is incorrect. Section 184 of the Atomic Energy Act requires, *inter alia*, that the agency "shall give its consent in writing" to the transfer of control over any NRC-granted license. This statutory provision is clear and unambiguous. The NRC cannot ignore, waive, or change this statutory mandate. Nothing short of the agency's written permission expressly agreeing to the transfer of the 02 and 08 material licenses from USR Industries to Safety Light will comply with section 184. Contrary to USR Industries' suggestion, letters from the NRC to Safety Light on other subjects or the agency's grant of unrelated license amendments to Safety Light do not meet the consent requirement of the statute. "Implied consent," as USR Industries' counsel candidly referred to its position at one point in oral argument,<sup>169</sup> is insufficient under section 184 — even assuming the Staff actions could somehow be interpreted as amounting to implied consent.<sup>170</sup>

<sup>168</sup> USR Industries' Answer at 36-38.

<sup>169</sup> Tr. at 235.

<sup>170</sup> Because the agency cannot ignore the command of section 184 that it consent in writing to all license transfers, USR Industries' additional argument that there is no basis for the agency to withhold its consent to the 1982 sale of Safety Light cannot serve as a valid defense to the agency's assertion of jurisdiction over USR Industries for violating the statute. Moreover, USR Industries' assertion that NRC approval of the 1982 transaction would be consistent with the agency's own guidelines and practices is based on a selective and inaccurate reading of the applicable agency policy directive and information notice. See Policy and Guidance Directive FC 86-2; Processing Material License Applications Involving Change of Ownership (Feb. 11, 1986) at 1, ¶ 3 b ("[n]ote that if the change of ownership has already occurred without written consent from NRC, it is a violation of NRC regulations"); NRC Information Notice No. 89-25: Unauthorized Transfer of Ownership or Control of Licensed Activities (Mar. 7, 1989) at 3, ¶¶ 2.b & 2.c ("NRC approvals for change in ownership or control may be delayed or denied if the following information, where relevant, is not included in the submittal: b. [T]he presence or absence of contamination should be documented. If contamination is present, will decontamination occur before transfer? If not, does the successor company agree to assume full liability for the decontamination of the facility or site? c. A description of any decontamination plans, including financial assurance arrangements of the transferee, should be provided. . . . This should include information about how the transferee and transferor propose to divide the transferor's assets, and responsibility for any cleanup needed at the time of transfer.")

### C. Agency Jurisdiction Over the USR Companies

In its motion for summary disposition, the Staff also argues that the 1980 corporate makeover of Radium Corporation violated section 184 of the Atomic Energy Act, thereby giving the NRC regulatory jurisdiction over USR Industries as well as its four wholly owned subsidiaries, USR Lighting Products, Inc., USR Chemical Products, Inc., USR Metals Inc., and U.S. Natural Resources, Inc. — the beneficiaries of all of Radium Corporation's former nonregulated assets.<sup>171</sup> As in the case of the Appeal Board's analysis in ALAB-931 of USR Industries' 1982 sale of its Safety Light subsidiary, the starting point for determining whether the 1980 corporate restructuring of Radium Corporation violated section 184 is the statute itself. That provision provides that no NRC license

shall be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of any license to any person, unless the Commission shall, after securing full information, find that the transfer is in accordance with the provisions of this [Act], and shall give its consent in writing.<sup>172</sup>

The plain language of this section is exceptionally broad and the reach of the provision is all encompassing. The title of section 184, "Inalienability of Licenses," only reinforces its breadth inasmuch as "inalienable" means "incapable of being alienated, surrendered, or transferred."<sup>173</sup> The reach of the statute is manifest from its comprehensive language, and section 184 contains absolutely no limiting provisions. The terms "voluntarily or involuntarily, directly or indirectly" and the phrase "through transfer of control of any license to any person" are words and phrases of inclusion indicating a congressional intent to expand the scope of the section to the maximum extent. Indeed, it would be difficult to write a broader or more encompassing provision. Nor is the broad reach of section 184 surprising as a component of an overall regulatory scheme that has been described as "virtually unique in the degree to which broad responsibility is reposed in the administering agency."<sup>174</sup> Thus, on its face, section 184 not only broadly prohibits all manner of transfers, assignments, and disposals of NRC licenses, but also all manner of actions that have the effect of, in any way, directly or indirectly, transferring actual or potential control over a license without the agency's knowledge and express written permission. And when the 1980 corporate restructuring of Radium Corporation is analyzed in this light, we have no trouble concluding that there was a transfer of control

<sup>171</sup> Staff's Motion at 37-39.

<sup>172</sup> 42 U.S.C. § 2234.

<sup>173</sup> *Webster's Third New International Dictionary* 1140 (1971).

<sup>174</sup> *Siegel v. AEC*, 400 F.2d 778, 783 (D.C. Cir. 1968).

over the 02 and 08 licenses without the NRC's knowledge and written consent, in violation of section 184.

In Part II.B, above, we spelled out the details of the 1980 corporate transformation of Radium Corporation and we need not repeat all of those particulars here. It suffices to note that before the 1980 restructuring, Radium Corporation was a publicly held corporation governed by a four-person board of directors, which was elected by a majority vote of the shareholders.<sup>175</sup> As such, Radium Corporation possessed the exclusive dominion over all activities with respect to the 02 and 08 material licenses, subject, of course, to the terms and conditions of the license and the agency's regulations.

In contrast, after its 1980 restructuring through a reverse triangular merger and the operation of the Merger Agreement, Radium Corporation no longer was a publicly held corporation that possessed exclusive control over its material licenses. Rather, Radium Corporation was a wholly owned subsidiary of a new parent corporation, USR Industries. As a wholly owned subsidiary, Radium Corporation no longer had independent authority over its corporate affairs and exclusive control over the 02 and 08 material licenses. Its previous exclusive authority independently to direct, manage, and regulate all activities with respect to its material licenses had been transferred by operation of the merger and the effect of the Merger Agreement to its new parent, USR Industries.

As a consequence of the merger and the merger agreement, the new parent, USR Industries, now possessed the ultimate authority to exercise dominion over the corporate affairs of its wholly owned subsidiary, Radium Corporation, including the power to direct, manage, and regulate all activities concerning the material license.<sup>176</sup> The very definition of a subsidiary corporation is one that is controlled by another corporation by reason of the latter's ownership of at least a majority of the shares of stock.<sup>177</sup> Here, of course, USR Industries owned 100% of the shares of stock of Radium Corporation. Similarly, the definition of a parent corporation is one that has control through stock ownership of a subsidiary corporation.<sup>178</sup> Thus, the 1980 corporate restructuring resulted in a transfer of control of the 02 and 08 material licenses from Radium Corporation to

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<sup>175</sup> At the time of the 1980 annual meeting preceding its corporate restructuring, there were 1,164,136 outstanding shares of Radium Corporation common stock and only one stockholder owned beneficially more than 5% of the outstanding shares. Titan Wells, Inc., held 26.08% of the outstanding shares while Radium Corporation's officers and directors collectively owned beneficially 35.97% of the common stock. Staff's Motion, Exh. 9, AMEX Application at 1; *id.*, Proxy Statement at 3-4.

<sup>176</sup> See ALAB-931, 31 NRC at 364 n.46, 365.

<sup>177</sup> *Black's Law Dictionary* 1428 (6th ed. 1990). See 18 Am. Jur. 2d *Corporations* § 35 (1985).

<sup>178</sup> *Black's Law Dictionary* 1114 (6th ed. 1990). See 18 Am. Jur. 2d *Corporations* § 35 (1985).

USR Industries within the meaning of section 184 of the Atomic Energy Act.<sup>179</sup> Because neither Radium Corporation nor USR Industries sought or received the NRC's express written consent for this transfer of control over the 02 and 08 material licenses,<sup>180</sup> the 1980 merger violated section 184, thereby giving the NRC regulatory jurisdiction over USR Industries as the transferee of the ultimate control over its new subsidiary's 02 and 08 material licenses.

Moreover, because the 1980 makeover of Radium Corporation transferred control over the 02 and 08 licenses in violation of the Atomic Energy Act and occurred without complying with the requirements of section 184, the corporate restructuring of the original corporate holder of the 02 and 08 licensees is void ab initio as to the NRC. An important consequence of this nugatory act is that the NRC also has regulatory jurisdiction over all of USR Industries' wholly owned subsidiaries that received the various pieces of Radium Corporation as part of the corporate restructuring.

Specifically, as a publicly held corporation, Radium Corporation was comprised of three divisions — lighting, chemical and metal products — and it owned a number of subsidiaries and other oil and gas interests. Prior to its corporate makeover, all of the assets of Radium Corporation's three divisions, as well as the worth of its wholly owned subsidiaries and its other assets, stood behind its regulatory obligations as the licensee under the 02 and 08 material licenses. Radium Corporation then underwent major surgery that radically altered its corporate form and worth.

In a nutshell, the corporate restructuring began with Radium Corporation forming four nominally capitalized subsidiaries whose names paralleled its operating divisions and its oil and gas interests. These subsidiaries were called USR Lighting Products, USR Chemical Products, USR Metals, and U.S. Natural Resources. Next, Radium Corporation formed another nominally capitalized subsidiary, USR Industries, that, in turn, formed yet another subsidiary called Merger Company. Pursuant to the terms of a Merger Agreement among Radium Corporation, Merger Company, and USR Industries, Merger Company merged into Radium Corporation leaving Radium Corporation the surviving corporation.

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<sup>179</sup> In its answer to the Staff's motion for summary deposition, USR Industries does not argue that there could not be a transfer of control over the 02 and 08 licenses because the same individuals served as directors of Radium Corporation both before and after the 1980 merger and also served as the initial directors of USR Industries. We note, however, that the commonality of directors has no bearing on whether the 1980 corporate restructuring resulted in a "transfer of control of any license to any person" within the meaning of section 184. This is so because section 11s of the Atomic Energy Act, 42 U.S.C. § 2014(s), defines "person" to include a corporation. Therefore, even though Radium Corporation and USR Industries had the same individuals serving on their respective boards, each corporation nevertheless is a separate entity and thus a separate "person" within the meaning of section 184. Moreover, assuming arguendo that the identity of board members somehow was material, the individuals on the Radium Corporation board after the 1980 merger wore different "hats" than those same individuals wore as members of the initial USR Industries board. Under the broad language of section 184, this difference of duties and responsibilities of the members of the respective boards after the merger would establish, at a minimum, an indirect transfer of control over the 02 and 08 material licenses.

<sup>180</sup> See *supra* pp. 431-32.

This merger, in conjunction with the stock conversion provisions of the Merger Agreement, left Radium Corporation as the wholly owned subsidiary of USR Industries. As a wholly owned subsidiary under the control of its new parent, USR Industries, Radium Corporation completed its restructuring through a series of asset transfers.

First, Radium Corporation conveyed, without compensation, the assets of its lighting products division to its USR Lighting Products subsidiary. Next, with the exception of its NRC-regulated safety lighting products business that it retained, Radium Corporation assigned all the other assets of its metal products division to its USR Metals subsidiary. Further, according to its proxy statement, Radium Corporation was to convey the assets of its chemical products division to its USR Chemical Products subsidiary and transfer its oil and gas interests to its U.S. Natural Resources subsidiary. As the final step in its corporate makeover, Radium Corporation transferred all the shares of stock in these four subsidiaries to its new parent thereby making each entity, like itself, a wholly owned subsidiary of USR Industries. Similarly, it conveyed the shares of its wholly owned Unatco subsidiary to USR Industries, leaving Radium Corporation with only its NRC-regulated safety lighting products business and its Metreal subsidiary from which Radium Corporation leased the contaminated land and buildings at the Bloomsburg site.

Thus, at the conclusion of its corporate restructuring, the bulk of Radium Corporation's former assets resided with its sister subsidiary corporations controlled by USR Industries. Because the corporate makeover of Radium Corporation violated section 184 by transferring control of Radium Corporation's 02 and 08 material licenses to USR Industries without the express written consent of the NRC, and the asset transfers to Radium Corporation's sister subsidiaries were an integral part of that corporate restructuring, the NRC's regulatory jurisdiction necessarily extends to the USR Companies that received Radium Corporation's assets. Any other result effectively would be at odds with the purpose and intent of section 184 by rendering the inalienability of licenses provision a nullity. If the statutory proscription against the transfer of control of NRC licenses could be avoided by the expedient of a corporate restructuring, complex or otherwise, then section 184 would be a toothless tiger. Accordingly, in the circumstances presented, the NRC also has regulatory jurisdiction over the USR Companies.

In opposing the NRC Staff's assertion of regulatory jurisdiction over it and the other USR Companies, USR Industries makes a number of arguments. Each of these arguments lacks merit.

First, USR Industries argues that the NRC lacks jurisdiction over them because Radium Corporation and its successor, Safety Light, have been the sole

consecutive licensees at the Bloomsburg site.<sup>181</sup> Contrary to USR Industries' argument, the fact that neither USR Industries nor any of the other USR Companies have been named as licensees on the 02 and 08 material licenses is not determinative of the NRC's regulatory jurisdiction over them. As previously explained, the agency's jurisdiction over USR Industries and the other USR Companies stems from the unapproved restructuring of Radium Corporation in violation of section 184 of the Atomic Energy Act and the role USR Industries and the USR Companies played in that corporate reorganization. Hence, it is the transfer of control of the NRC licenses without agency approval in violation of section 184 that gives the NRC regulatory jurisdiction over USR Industries and the other USR Companies and the fact that they have never been named NRC licensees is irrelevant.

For much the same reason, USR Industries' second argument also is without merit. It initially asserts that there are no regulatory requirements that an NRC material licensee give prior notice, or any notice at all, to the NRC before it spins off non-nuclear-related assets to its stockholders, which it claims is all Radium Corporation did here. Next, USR Industries states, without elaboration, that prior to Radium Corporation's restructuring the NRC did not have notice of, or reply upon, the existence of that corporation's assets in granting the material licenses and that Radium Corporation gave timely notice of its restructuring to the Securities and Exchange Commission in proxy and registration statements that were disseminated publicly. From this, USR Industries concludes that the transfer of Radium Corporation's nonregulated assets to other entities did not give the NRC jurisdiction over those entities and "[t]o conclude otherwise would lead to the unreasonable result that the NRC has regulatory jurisdiction over all entities to whom its licensees donate or contribute any nonregulated assets of value."<sup>182</sup>

USR Industries is correct that there is no regulatory requirement that a material licensee notify the NRC before transferring nonregulated assets to its stockholders. Such an assertion is irrelevant, however, to the question of the agency's regulatory jurisdiction over USR Industries and the other USR Companies here. It is not, as USR Industries claims, the transfer of nonregulated assets to stockholders per se that provides the basis for agency jurisdiction. As already explained, the restructuring of Radium Corporation violated section 184 by transferring control of Radium Corporation's 02 and 08 material licenses to USR Industries without the agency's express written consent as required by the Atomic Energy Act. It is that violation and the role USR Industries and the other USR Companies played in the restructuring that gives the NRC regulatory jurisdiction over them.

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<sup>181</sup> USR Industries' Answer at 13-14.

<sup>182</sup> *Id.* at 16.



Indeed, as long as section 184 and any other regulation or license condition is not violated, a material licensee may transfer its assets without notifying and obtaining the agency's permission. Nor is the fact that Radium Corporation notified the SEC through the filing of publicly disseminated proxy and registration statements relevant to the jurisdictional question. The SEC does not enforce the provisions of the Atomic Energy Act and, in any event, notice to it is not notice to the NRC. Moreover, when the transfer of control of NRC licenses is involved as occurred with the restructuring of Radium Corporation, section 184 requires the agency's express written consent, not just that the agency be notified.

As its next argument, USR Industries asserts that well-settled principles of corporate law preclude the NRC from holding it or the other USR Companies responsible for the liabilities of Radium Corporation, renamed Safety Light. Specifically, it recites corporate law principles to the effect that a parent corporation is not liable for the obligations of its subsidiary and the separate existence of distinct sister corporations should not be disregarded solely because the assets of one are not sufficient to discharge its obligations. USR Industries argues that neither the Atomic Energy Act nor the agency's regulations indicate that the NRC is to reject these well-settled corporate law principles.<sup>183</sup>

Although USR Industries casts its argument in terms of ultimate liability and not initial regulatory jurisdiction, we already rejected USR Industries' basic argument in our earlier alternative holding that the NRC had jurisdiction over USR Industries because its 1982 sale of Safety Light violated section 184. In reaching that decision, we adopted the Appeal Board's reasoning and decision in ALAB-931.<sup>184</sup> As previously noted, USR Industries argued that the 1982 sale of its Safety Light stock to that corporation's operating management was not a transfer of control over the 02 and 08 licenses within the meaning of section 184 because of the established tenet of corporate law that a transfer of stock does not operate to transfer any of the corporate assets. In rejecting that argument, the Appeal Board stated that "[w]e find nothing in the legislative history of section 184 that significantly aids the USR Companies' insistence that Congress enacted the section with that principle — or any other specific tenet of corporate law — in mind."<sup>185</sup> That reasoning, which we already adopted, is equally applicable to the asserted principles of corporate law that USR Industries recites here. Accordingly, these asserted tenets of corporate law do not immunize USR Industries and the other USR Companies from the applicability of section 184, which provides the basis for the agency's regulatory jurisdiction over them.

Moreover, the language of the Atomic Energy Act itself demonstrates that Congress placed no importance on the corporate form in enacting section 184.

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<sup>183</sup> *Id.* at 17-18.

<sup>184</sup> See *supra* pp. 447-48.

<sup>185</sup> ALAB 931, 31 NRC at 363 (footnote omitted).

That provision prohibits, *inter alia*, the direct or indirect transfer of control of any license "to any person" without the Commission's express written consent. Section 11s of the Act then defines "person" in the broadest possible manner to mean

(1) any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, Government agency other than the Commission, any State or any political subdivision of, or any political entity within a State, any foreign government or nation or any political subdivision of any such government or nation, or other entity; and (2) any legal successor, representative, agent, or agency of the foregoing.<sup>186</sup>

Thus, contrary to USR Industries' assertion, the inclusion of a "corporation" in the definition of a "person" and the use of the latter term in the inalienability of licenses provision indicates that Congress intended a corporation to be treated in the same manner as all other entities. It follows therefore, that USR Industries' asserted corporate law principles, which are applicable only to the corporate form of organization, are entitled to no consideration under section 184 and do not thwart NRC regulatory jurisdiction over it or the other USR Companies for violating that provision.

Further, with respect to USR Industries' arguments about its ultimate liability, Congress, in effect, already has pierced the corporate veil for corporate violators of section 184 by definitionally including corporations in the inalienability of licenses provision.<sup>187</sup> This being so, USR Industries' corporate separateness does not shield it against responsibility for the obligations of its former subsidiary, Radium Corporation. Such liability attaches because USR Industries was the transferee of control over the 02 and 08 licenses from the original licensee as a result of the corporate makeover of Radium Corporation that violated section 184.

In any event, we note it long has been established that the fiction of corporate separateness of state-chartered corporations will not be permitted to frustrate the policies of a federal statute. As the Supreme Court has observed:

[A State] may chose such rules of limitation on the liability of stockholders of her corporations as she desires. And those laws are enforceable in federal courts. . . . But no State may endow its corporate creatures with the power to place themselves above the Congress of the United States and defeat the federal policy . . . which Congress has announced.<sup>188</sup>

As we already have explained, USR Industries' conduct here offends the federal statutory policy against inalienability of NRC licenses. To remedy this situation,

<sup>186</sup> 42 U.S.C. § 2014(s).

<sup>187</sup> See *Pension Benefit Guaranty Corp. v. O'Neil Corp.*, 711 F.2d 1085, 1093 (1st Cir.), cert. *denied*, 464 U.S. 961 (1983).

<sup>188</sup> *Anderson v. Albott*, 321 U.S. 349, 365 (1944) (citations omitted).

the statutory frustration principle permits the NRC to disregard the corporate form and impose liability on USR Industries, the parent corporation shareholder, for the obligations of its subsidiary, Radium Corporation.<sup>189</sup> And, contrary to USR Industries' assertion,<sup>190</sup> this is true whether or not its intent was to avoid the statutory prohibition of section 184 for "[i]ntention is not controlling when the fiction of corporate entity defeats a legislative purpose."<sup>191</sup>

The same principle of statutory frustration also permits the NRC to hold the other USR Companies liable for the obligations of Radium Corporation. The corporate restructuring of Radium Corporation that violated section 184 was effectuated through the instrumentalities of USR Industries and affiliated subsidiary corporations that received the bulk of Radium Corporation's pre-restructuring assets. In such circumstances, "[w]here the statutory purpose could thus be easily frustrated through the use of separate corporate entities, the Commission is entitled to look through corporate form and treat the separate entities as one and the same for purposes of regulation."<sup>192</sup> Accordingly, USR Industries' various arguments that corporate law principles preclude it and the other USR Companies from being held liable for the obligations of Radium Corporation also are wide of the mark.<sup>193</sup>

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The foregoing reasons constitute the basis upon which we previously granted the Staff's motion for summary disposition on the jurisdictional issue and concluded that the NRC has regulatory jurisdiction over USR Industries and its

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<sup>189</sup> See, e.g., *Ouimet*, 711 F.2d at 1093; *H.P. Lambert Co. v. Secretary of Treasury*, 354 F.2d 819, 822 (1st Cir. 1965).

<sup>190</sup> USR Industries' Answer at 20.

<sup>191</sup> *Kavanaugh v. Ford Motor Co.*, 353 F.2d 710, 717 (7th Cir. 1965).

<sup>192</sup> *General Telephone Co. of the Southwest v. United States*, 449 F.2d 846, 855 (5th Cir. 1971).

<sup>193</sup> USR Industries also asserts that, at the time of its corporate restructuring, Radium Corporation was under no obligation to decontaminate the Bloomsburg site. Even assuming the validity of such a dubious assertion, any clean up responsibilities with respect to the Bloomsburg site are irrelevant to the question of the NRC's regulatory jurisdiction over USR Industries and the other USR Companies for their part in the corporate restructuring that violated section 184. That statutory provision requires the agency's express written consent for transfers of control over NRC licenses, regardless of any outstanding decontamination obligations. Here, whether or not Radium Corporation had any cleanup responsibilities in 1980, the NRC did not consent, in writing to the transfer of control over the 02 and 08 material licenses.

four wholly owned subsidiaries, USR Lighting Products, Inc., USR Chemical Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc.

THE ATOMIC SAFETY AND  
LICENSING BOARD

Thomas S. Moore, Chairman  
ADMINISTRATIVE JUDGE

James H. Carpenter  
ADMINISTRATIVE JUDGE

Frederick J. Shon  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
June 8, 1995

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**B. Paul Cotter, Jr., Chairman**  
**Dr. Richard F. Cole**  
**Dr. Peter S. Lam**

In the Matter of

Docket No. 50-458-OLA  
(ASLBP No. 93-680-04-OLA)

**GULF STATES UTILITIES  
COMPANY, *et al.***  
(River Bend Station, Unit 1)

June 15, 1995

The Licensing Board denies a motion for summary disposition after determining that material facts remained in dispute. The Intervenor had shown that there were disputed material facts as to whether River Bend would be safely operated, shut down, and maintained during adverse financial conditions.

**SUMMARY DISPOSITION: MATERIAL FACTS NOT PROVIDED**

Summary disposition is not appropriate when the movant fails to carry its burden setting forth all material facts pertaining to its summary disposition motion.

**SUMMARY DISPOSITION: BANKRUPTCY OF A LICENSEE**

In response to a movant's claim that a bankruptcy court will ensure that a nuclear reactor receives sufficient funding to ensure safety, the board concludes that this claim involves disputed factual questions for which summary disposition is inappropriate.

**FINANCIAL QUALIFICATIONS: NON-UTILITY APPLICANTS FOR OPERATING LICENSES**

Non-utility applicants for operating licenses are required by the NRC's financial qualifications rule to demonstrate adequate financial qualifications before operating a facility. A board is not authorized to grant exemptions from this rule or to acquiesce in arguments that would result in the rule's circumvention.

**THE FINANCIAL QUALIFICATION RULE: SAFETY SIGNIFICANCE**

Safety considerations are the heart of the financial qualifications rule. The Board reasoned in this regard that insufficient funding can cause licensees to cut corners on operating or maintenance expenses. Moreover, the Commission has recognized that a licensee in financially straitened circumstances would be under more pressure to commit safety violations or take safety "shortcuts" than one in good financial shape.

**MEMORANDUM AND ORDER**  
**(Ruling on Licensee's Motion**  
**Requesting Summary Disposition of Contention 2)**

On January 5, 1995, Gulf States Utilities Company (GSU) moved for summary disposition on Contention 2 of Cajun Electric Cooperative, Inc. (Cajun), the only remaining contention in this proceeding. For the reasons stated herein, GSU's motion is denied.

**BACKGROUND**

In August 1993, Cajun, a 30% owner of the River Bend Nuclear Reactor and a co-licensee on the River Bend license, filed a Petition to Intervene in this licensing proceeding in response to a Notice of Opportunity for Hearing published in the *Federal Register*. 58 Fed. Reg. 36,423, 36,435-36 (July 7, 1993). That notice included two proposed amendments to the River Bend operating license belonging to GSU. The first amendment would change the ownership of GSU by authorizing Gulf States to become a wholly owned subsidiary of Entergy Corporation (Entergy Corp.). The second would add Entergy Operations Inc. (EOI) as a non-owner licensee and would authorize EOI to operate River Bend.

On January 27, 1994, the Board found GSU's objections on standing and the lack of an admissible contention without merit and allowed Cajun to intervene in this proceeding. LBP-94-3, 39 NRC 31 (1994). Of the seven contentions proffered by Cajun, the Board admitted only Contention 2 which reads: "The proposed license amendments may result in a significant reduction in the margin of safety at River Bend." *Id.* at 41. Cajun provided four bases for this contention:

- (a) The proposed River Bend Operating Agreement runs only between Gulf States and EOI. Therefore, Gulf States has the full obligation under the Operating Agreement to compensate EOI for River Bend operation and EOI cannot look to Entergy or Cajun for payment. . . .
- (b) EOI is very thinly capitalized. If Gulf States ceases to make its Operating Agreement payments, EOI has no other sources of funds to maintain safe and reliable River Bend operation. . . .
- (c) Gulf States faces severe financial exposure from litigation with Cajun and from certain Texas regulatory proceedings which could render Gulf States bankrupt and unable to make adequate payments to EOI to maintain safe and reliable River Bend operation. . . .
- (d) Entergy views its obligations to support EOI in the event of lack of funding from Gulf States to be very limited. Officials of Entergy and EOI have admitted that EOI would be forced to shut down River Bend if EOI lacked adequate funds. . . .

*Id.*

Acting on GSU's appeal of that decision, on August 23, 1994, the Commission affirmed the Board's decision to allow Cajun to intervene and to litigate Contention 2. CLI-94-10, 40 NRC 43 (1994).

Following the Commission's decision, discovery was conducted by all parties. A prehearing conference was held on October 4, 1994, in an attempt to define and limit the issues and to settle outstanding discovery disputes. The Board ordered that all discovery be completed by November 24, 1994, and that Motions for Summary Disposition, or a written Waiver of Motions for Summary Disposition, be filed on or before January 9, 1995. Unpublished Memorandum and Order (Revised Prehearing Schedule) (Oct. 20, 1994). The discovery phase of this proceeding thus has been concluded.

On January 9, 1995, GSU filed a Motion for Summary Disposition<sup>1</sup> in this case arguing that there remain no outstanding factual issues to be resolved concerning the admitted contention. The Motion was predicated in part upon the responses to interrogatories GSU had received from Cajun and the Staff during the discovery period. Cajun filed an answer to the GSU Motion asserting

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<sup>1</sup> Gulf States Utilities Company's Motion for Summary Disposition (Jan. 9, 1995) (hereafter GSU Motion).

that there are disputed material facts pertaining to the licensing of EOI.<sup>2</sup> Cajun appended two affidavits in support of its position.<sup>3</sup> The Staff of the Nuclear Regulatory Commission (Staff) filed its response to the Motion supporting GSU's position.<sup>4</sup> The Staff supported its response with the affidavit of one David L. Wigginton. Cajun subsequently filed an answer in opposition to the Staff's response.<sup>5</sup>

### THE PARTIES' POSITIONS

The GSU Motion asserts that it is undisputed that under the terms of the new River Bend Operating Agreement (the Operating Agreement between GSU and EOI), EOI may look only to GSU as the source for payment of operating costs. Neither EOI nor Entergy Corp., the parent of EOI, will provide those funds. GSU also states that it is undisputed that GSU faces the potential for financial difficulties if Cajun prevails and is awarded the relief it has sought in its litigation against GSU.

GSU alleges that the responses elicited through discovery establish that Cajun has no factual or evidentiary basis on which to support its contention that safety at River Bend will be reduced as a result of the merger. To the contrary, GSU asserts that no safety problem exists because the NRC Staff has found that EOI and GSU "collectively" are financially qualified. GSU Statement of Undisputed Facts at 1. It further asserts that EOI intends to operate River Bend safely with the funds made available to it and, if such funds are not available to operate River Bend safely, that it will safely shut down and maintain the facility in accordance with the plant's operating procedures and technical specifications. GSU Motion at 10.

A major portion of the GSU Motion is given to the assertion that the NRC's oversight and enforcement powers over the safe operation of River Bend, including those that could theoretically arise from financial difficulties, ensure that River Bend will be safely operated by EOI. Moreover, according to GSU, even if the dire circumstances predicted by Cajun were to occur, the only experience the Commission has with bankrupt commercial light-water nuclear reactor power plants is that they are safely operated under the jurisdiction of

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<sup>2</sup> Cajun Electric Power Cooperative, Inc.'s Answer in Opposition to Gulf States Utilities Company's Motion for Summary Disposition (Jan. 23, 1995) (hereafter Cajun Answer to GSU Motion).

<sup>3</sup> Affidavits of John M. Griffin and Werner T. Ullrich.

<sup>4</sup> NRC Staff's Response in Support of GSU's Motion for Summary Disposition (Jan. 23, 1995) (Staff Response to GSU Motion).

<sup>5</sup> Cajun Answer in Opposition to NRC Staff Response in Support of GSU's Motion for Summary Disposition (Feb. 6, 1995) (hereafter Cajun Answer to Staff's Response).



the bankruptcy court and that the funds necessary for safe operation would be made available through that court. *Id.* at 21-35.

In support of its Motion, GSU attaches six statements about which it says no material disagreement exists:

1. The River Bend Operating Agreement, pursuant to which Entergy Operations operates River Bend, runs between Entergy Operations and Gulf States only.
2. Under the Operating Agreement, Entergy Operations looks only to Gulf States for the funds needed to operate River Bend.
3. Gulf States faces the potential for adverse financial conditions as a result of the litigation initiated by Cajun and Texas regulatory procedures.
4. The NRC Staff has examined the financial qualifications of Entergy Operations and Gulf States and has found them to be collectively financially qualified.
5. In every instance in which the owner of a commercial light water nuclear power plant has gone into bankruptcy, adequate funds were made available through the bankruptcy court to safely operate the facility.
6. Entergy Operations intends to safely operate River Bend within the requirements of the Operating License as long as funds are available for that purpose, and in the event such funds are not available, River Bend will be safely shut down and maintained in a safe condition.

GSU Statement of Undisputed Facts at 1-2.

The NRC Staff's Response agrees that any potential financial difficulties GSU may face from civil litigation would not pose a threat to the public health and safety, even if GSU were to declare bankruptcy. The Staff argues that its inspection and enforcement processes will ensure safe operations at the plant regardless of the level of funding. Moreover, the Staff asserts that it would be involved in any bankruptcy proceeding involving River Bend and that bankruptcy courts themselves have held the protection of the public's health and safety to be an important interest in a bankruptcy proceeding. Thus, according to the Staff, the mere fact that GSU faces bankruptcy does not indicate that the River Bend facility could not be operated safely.

In contesting GSU's Motion, Cajun asserts that important material facts are in dispute that prevent the granting of summary disposition. Its primary argument is that statements in the affidavits of Cajun's two expert witnesses, Werner T. Ulrich and John M. Griffin, establish that there are disputed material issues of fact regarding the safe operation of River Bend in the event of insufficient funding. In their affidavits, these individuals assert that a lack of funding will reduce safety at River Bend by impairing: (1) safe performance during operation; (2) safe shutdown; and (3) adequate decommissioning once shutdown is achieved. Cajun Answer to GSU Motion at 24-32. Cajun contends that the statements of these experts directly contradict GSU's Statement of Facts that

health and safety would not be jeopardized if there are insufficient funds to operate River Bend.

Citing to *National Association of Government Employees v. Campbell*, 593 F.2d 1023, 1027 (D.C. Cir. 1978), Cajun further states that summary disposition cannot be granted because GSU's Statement of Facts does not include all necessary material facts in dispute in this proceeding. Cajun contends that, as a matter of law, summary disposition is not appropriate when an adequate factual basis is not provided by the moving party for the trier of facts to conclude that no material facts are in dispute. According to Cajun, the GSU Statement of Facts fails to include facts establishing: (1) that River Bend will be adequately funded to continue safe operation in the event of an adverse determination in the River Bend litigation; (2) that a bankruptcy court would be obligated to provide sufficient funding to allow EOI to meet the terms of the River Bend license; (3) that there will be sufficient funding for River Bend's safe shutdown and storage if funding becomes insufficient for continued operation; and (4) that sufficient funding for decommissioning will be available in the event of an adverse determination in the River Bend litigation. Cajun Answer to GSU Motion at 10-14, 35-36.

Cajun also advances a legal and policy argument why summary disposition should not be granted. It contends that summary disposition should not be sanctioned when, as is the case here, important health and safety issues associated with the operation of nuclear power plants are at stake. Citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-90-44, 32 NRC 433, 437 (1990). Cajun Answer to GSU at 37-38.

In addressing the Staff's Response, Cajun asserts that the Staff is shortsighted in its support for GSU. In rebuttal of Staff's arguments, Cajun makes five assertions. First, it asserts that the obligation for a nuclear facility to stop operating when necessary funds are unavailable does not excuse an applicant from meeting financial qualification requirements under 10 C.F.R. § 50.33(f) and section 182 of the Atomic Energy Act of 1954. Second, the Staff's inspection and oversight process is not sufficient to ensure that inadequate funding will not affect safe operations. Third, Staff has failed to establish that no genuine issue exists with respect to the funding of River Bend Operation in the event of a GSU bankruptcy. Fourth, Staff's reliance on the electric utility exception to the financial qualification rule is misplaced because EOI is not an electric utility, and fifth, Staff ignores the significant concerns the Commission has had in the past regarding potential licensee bankruptcy.

## STANDARDS FOR SUMMARY DISPOSITION

Summary disposition is appropriate where, based on the filings, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, there is no genuine issue of material fact and the movant has demonstrated that it is entitled to judgment as a matter of law. 10 C.F.R. § 2.749(d); *see also Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993) (AMS). The movant seeking summary disposition has the burden of demonstrating the absence of any genuine issue of material fact. *Id.* The evidence submitted by the movant must be construed in favor of the party opposing the motion, and that party receives the benefit of any favorable inference. *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-17, 39 NRC 359, 361 (1994). Yet a party opposing the motion may not rely on a simple denial of material facts stated by the movant, but must set forth specific facts showing that there is a genuine issue. 10 C.F.R. § 2.749(b); AMS, 38 NRC at 102.

Summary disposition is favored by the Commission as "an efficacious means of avoiding unnecessary and possibly time-consuming hearings on demonstrably insubstantial issues." *Wisconsin Electric Power Co.* (Point Beach Nuclear Plant, Unit 1), ALAB-696, 16 NRC 1245, 1263 (1982) (citation omitted). *See also Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 457 (1981). However, in an operating license proceeding, where significant health and safety or environmental issues may be involved, a licensing board should only grant summary disposition if it is convinced that the public health and safety and environment will be satisfactorily protected. *Seabrook*, LBP-90-44, 32 NRC at 437, *citing Cincinnati Gas and Electric Co.* (William H. Zimmer Nuclear Station), LBP-81-2, 13 NRC 36, 40-41 (1981). Even if no party opposes a motion for summary disposition, the movant's filing must still establish the absence of a disputed material fact. *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753-54 (1977).

## DISCUSSION

Reduced to its simplest terms, the central issue in this proceeding is whether underfunding of River Bend, which may result from ongoing litigation and regulatory proceedings involving the River Bend facility, can adversely affect safety at the facility. GSU concedes, for purposes of this motion, that it will be the only source of funds for operating River Bend and that its ability to continue with this funding could be jeopardized by the River Bend litigation. Having made these concessions, however, it claims, as an uncontroverted fact,

that no safety concern is involved because the facility will be safely shut down if funds become unavailable. To support the assumption that safety would not be adversely affected, GSU claims that the NRC's oversight and enforcement power will ensure safe operations during financial hardship. It also claims that financially troubled reactors have been operated in the past without safety problems, and that sufficient funds for safe operation of River Bend would be made available through the bankruptcy courts. In addition, GSU argues that there is no safety concern because River Bend will be safely shut down if EOI lacks sufficient funds for its operation. The NRC Staff also adopts most of this same rationale. See Staff Response at 3-7.

As we have stated, to defeat GSU's motion for summary disposition, Cajun need only demonstrate that material facts are in dispute, and not that it will prevail in litigation. In our opinion, the affidavits of Cajun's two expert witnesses, John M. Griffin and Werner T. Ullrich, demonstrate such factual disputes.<sup>6</sup> Their statements, if correct, may be grounds for concluding that insufficient funding for River Bend could result in: (1) impairment of EOI's ability to safely operate River Bend; (2) impairment of the safe shutdown of River Bend after a determination is made that sufficient funding is unavailable to continue operating; and (3) impairment of safe and adequate decommissioning once shutdown is achieved. The bases for these assertions are as follows:

#### *1. Factual Disputes Presented by Messrs. Griffin and Ullrich*

##### *a. Impairment of Safe Operations at River Bend Caused by Insufficient Funding*

Mr. Ullrich contends that if funding is reduced while River Bend is being operated, its safety performance may be impaired in a number of ways. According to Mr. Ullrich,

Reduced funding generally results in reduction of the variable costs that are more easily controlled by the plant management. In most cases, this impacts administrative and engineering staffing and workload; limits the amount of internal or external services purchased.

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<sup>6</sup>Mr. Ullrich is currently a Senior Management Consultant with United Energy Services Corporation, a nationwide management consulting firm. He states that he holds a Bachelor of Science degree in Electrical Engineering from Drexel University and has completed a nuclear engineering course and graduate level courses in atomic physics, electrical engineering, and advanced mathematics. He has held a variety of management positions with electric utilities including Plant Manager for the Peach Bottom nuclear unit, various support management positions for Limerick Unit 2, and Field Service Manager for the restart of Brown's Ferry Unit 3.

Mr. Griffin is currently President of United Energy Services Corporation. He states that he holds a Bachelor of Science Degree in Naval Science from the United States Naval Academy. He has been a member of the Board of Directors of the American Nuclear Society and the Institute of Nuclear Operations National Nuclear Accrediting Board. He has held positions as the Assistant Manager of Nuclear Operations for the New York Power Authority, Manager of Nuclear Operations for Arkansas Nuclear Unit 1, and Start-Up Manager for the Brunswick Nuclear Units.

and extends time schedules for implementation or completion of costly corrective action, i.e. mandated NRC study programs, and discretionary preventive and corrective maintenance. It may also impact discretionary training for the plant staff. When O&M budgets are reduced, staff workload typically increases because purchased service such as engineering support and vendor support is curtailed.

Reduction of O&M funding also stimulates middle management to look for departmental activities that can be eliminated or curtailed, without immediate detrimental effect . . . . . Reduction of staffing in these groups has the potential for decreasing the effectiveness of training and quality oversight and transferring more of the workload to other groups that are more directly involved in the day-to-day operation of the facility. Typically, when a utility is forced to reduce O&M budgets, capital budgets are also reduced. This means that only the most important modifications mandated by the NRC or required for continued plant operation are funded, engineered and installed.

Ullrich Affidavit at 3.

Mr. Ullrich goes on to assert that River Bend's safety performance has been deficient and that additional funding is necessary for improvement. He states that once a plant's safety performance has declined, significantly increased funding is required to re-establish the plant's safety performance to an acceptable level. A declining safety performance, according to him, will increase the potential for a plant to experience a significant safety event. He estimates that the Long Term Performance Plans (LTPP) for River Bend being initiated by EOI will require additional funding, at least in the near term, to maintain safety. *Id.* at 2, 5-7.

Mr. Griffin, like Mr. Ullrich, believes that the overall cost of operation and maintenance of River Bend will be elevated at least in the near term. He also agrees with Mr. Ullrich that there is significant potential at River Bend for reduced funding which could substantially impact River Bend's operations and its long-term safety performance. Griffin Affidavit at 3-4.

*b. Impairment of Safe Shutdown at River Bend Caused by Insufficient Funding*

Mr. Griffin contends that River Bend cannot be shut down and maintained in a safe condition without significant funding. He estimates that the facility will require from \$90 million to \$110 million for the first 2 years to be maintained in a safe shutdown condition. Then, when the facility receives a Possession Only License, an additional \$20 million to \$30 million annually will be needed to protect spent fuel and control radioactivity. *Id.* at 4-5.

Mr. Ullrich agrees that safe shutdown will require substantial funding which GSU may not be able to provide. He claims that if insufficient funding forces River Bend to close, EOI will still be required to pay maintenance, testing,

training, programs, and O&M costs during shutdown. However, at the same time it is incurring these expenses, River Bend will no longer be generating revenue from its operations. Mr. Ullrich estimates that a plant that is permanently shut down on short notice could spend about \$100 million prior to receipt of its Possession Only License. Ullrich Affidavit at 6-7.

*c. Impairment of Safe and Adequate Decommissioning at River Bend by Insufficient Funding*

Mr. Ullrich claims EOI may not be able to provide long-term funding to support River Bend's decommissioning. He explains that River Bend's decommissioning deficit will be made greater because reactor decommissioning costs for electric utilities are now higher than original estimates, caused in part by a lack of permanent high-level and low-level waste storage facilities. He contends that the total decommissioning costs for River Bend will be at least \$20 million per year for about 30 years, which is considerably higher than the \$382 million originally estimated by GSU. *Id.*

*2. Analysis of Cajun's Disputed Facts*

The assertions by Messrs. Ullrich and Griffin that insufficient funding may adversely affect safe operations, shutdown, and decommissioning of River Bend directly contradict GSU's Statement of Fact Number 6 that River Bend will be operated safely and will be safely shut down and maintained in a safe condition in the event sufficient funds become unavailable. The conflicting assertions clearly establish a dispute over material facts regarding Contention 2. What remains is to examine the rationale for GSU's Statement of Fact Number 6 and to determine whether it is sufficient to compel a finding in favor of the summary disposition motion despite the contradicting factual assertions of Messrs. Ullrich and Griffin.

Briefly stated, GSU's rationale for contending that River Bend will be safely operated, shut down, and maintained during adverse financial conditions is that: (1) NRC oversight and inspection will ensure safety; (2) financially troubled reactors have been operated safely in the past; (3) sufficient funding for safety will be supplied by bankruptcy courts; and (4) there is no safety concern because River Bend will be safely shut down if EOI lacks sufficient funds for its operation. We deal with each of these rationales in turn.

*a. GSU's Assertion That NRC Oversight and Inspection Will Ensure Safe Operation During Financial Hardship*

GSU contends that the NRC's reactor inspection program, combined with the input of the Office of Nuclear Reactor Regulation, enables the NRC Staff to ensure that its rules and regulations are being met and that the River Bend facility will be operated in accordance with all NRC requirements. GSU reasons that these Staff resources enable the Staff to ensure that River Bend will be safely operated or safely shut down even if the unit experiences financial difficulties. GSU Motion at 22-28. Cajun responds that Staff oversight and inspection programs are not sufficient to ensure safety. It points out that if these programs were enough, Congress and the Commission would not have required applicants to furnish assurance of obtaining funds necessary to cover estimated operation costs for the period of their licenses. Cajun Answer to GSU at 13-14; Answer to Staff at 8-9.

The Board agrees with GSU and Staff that Staff enforcement programs are vitally important in ensuring the safety of a nuclear facility. However, such programs will not always ensure that safety problems would not occur. Indeed, it is a fundamental principle of NRC regulation of civilian nuclear reactors that responsibility for safe facility operation rests primarily in the licensee and not the Staff. Moreover, as stated by Cajun, the financial qualification rule is indicative that Congress and the Commission wished to rely on more than just Staff oversight and inspection in ensuring that a nuclear facility will have sufficient funding.

The question of whether Staff oversight and inspection will ensure safety at River Bend involves factual issues that should not be resolved by summary disposition. Although GSU may wish to rely heavily on the existence of such programs in ultimately proving its case regarding Contention 2, these programs will not support the grant of its present motion.

*b. GSU's Assertion That Financially Troubled Reactors Have Been Operated Safely in the Past*

GSU cites experiences at the Seabrook and Palo Verde nuclear reactors for the proposition that River Bend's financial difficulties will not impair health and safety. As GSU points out, the NRC had allowed those facilities to operate while the owner(s) were in Chapter 11 bankruptcy. Cajun responds that GSU should not be allowed to rely on the experience of Palo Verde and Seabrook reactors since their situations may differ from River Bend's. It points out in this

regard that those reactors did not have to experience plant shutdown.<sup>7</sup> Cajun also emphasizes that GSU's rationale does not address the material issue of funding for shutdown or decommissioning. Cajun Response to GSU at 11-12, 15.

Aside from listing the Palo Verde and Seabrook bankruptcies, GSU has supplied very little information concerning the situations of the owners and operators of those utilities or the underlying situations involving the reactors. Certainly, the treatment of those facilities was dependent, at least in part, on the factual situations involved for each. Because there is insufficient information here for us to make meaningful comparisons on which to base summary disposition, GSU has failed to carry its burden of establishing all material facts. *National Association of Government Employees v. Campbell*, 593 F.2d 1023, 1027 (D.C. Cir. 1978). Moreover, comparing those situations with River Bend could involve factual disputes for which summary disposition would be inappropriate.

*c. GSU's Assertion That Sufficient Funding for Safety Will Be Supplied by Bankruptcy Courts*

GSU and Staff contend that if GSU is forced to declare bankruptcy, a bankruptcy court will ensure that River Bend receives sufficient funding to ensure safety. For support, they cite various bankruptcy regulations and court cases which they contend establish that bankruptcy courts will protect the public interest. GSU Motion at 29-31; Staff Response in Support of GSU at 6-7. Cajun's primary argument in opposition to summary disposition is that GSU has not supplied enough information to establish that a bankruptcy court would or could supply sufficient funding to safely operate, shut down, and decommission River Bend. Cajun Answer to GSU at 11, 15-16. Cajun also attempts to discredit reliance on bankruptcy courts by citing past Staff and Commission concerns about the bankruptcy process. Cajun's Response to Staff at 10-12.<sup>8</sup>

Based on the record before us, the Board concludes that the question of whether bankruptcy courts will adequately fund nuclear facilities to ensure safety is a disputed factual question for which summary disposition is inappropriate.

<sup>7</sup>The Board also notes that for Palo Verde, El Paso Natural Gas was neither the operator nor a principal owner of the Palo Verde units.

<sup>8</sup>For example, Cajun cites the history of 10 C.F.R. § 50.54(cc) requiring licensees to notify Regional Administrators following petitions for bankruptcy. According to Cajun, the Commission, in promulgating the notification requirements for this regulation, was concerned that "a licensee who is experiencing severe economic hardship may not be capable of carrying out licensed activities in a manner that protects public health and safety" and that "financial difficulties also can result [from bankruptcy] in problems affecting the licensee's waste disposal activities" (51 Fed. Reg. 22,531 (1986)). Cajun also cites a statement in a SECY paper for Proposed Rulemaking on the Potential Impact on Safety of Power Reactor Licensee Ownership Arrangements. In that paper, Staff reported to the Commission that "it is not clear how the Bankruptcy Court will treat [El Paso's] operational and decommissioning obligations vis-a-vis obligations to other creditors . . ." (SECY-93-075 at 3 (Mar. 24, 1993)).



Even if, as a matter of law, bankruptcy courts are legally required to favor a non-utility licensee operator of a nuclear reactor over a utility's other creditors, a principle that has not been established by the pleadings in this proceeding, factual questions would exist about whether sufficient funds would be available to the courts for necessary reactor expenses.

*d. GSU's Assertion That There is No Safety Concern Because River Bend Will Be Safely Shut Down if EOI Lacks Sufficient Funds for Its Operation*

GSU and the Staff assert that no link exists between the financial qualifications of licensees and the safety of the nuclear reactors they operate. They base this assertion on the exemption in 10 C.F.R. § 50.33(f) excusing electric utilities from financial qualification requirements at the operating license stage. In allowing that exemption, the Commission employed the rationale that an electric utility will safely operate and then shut down a nuclear reactor if funds become insufficient. According to the Commission, this safety will be ensured by funding that a regulated utility can obtain through their regulator's ratemaking process. 49 Fed. Reg. 35,747, 35,749 (Sept. 12, 1984); GSU Motion at 32-33; Staff Response at 4-5.

GSU previously made this same "safe shutdown" claim at the intervention phase of this proceeding. What GSU wanted then, and requests now, is that EOI be treated in the same way as an electric utility is treated under the Commission's financial qualifications rule so that it can be presumed that a lack of EOI funding will not adversely affect River Bend's safety. In the alternative, GSU appears to be asking that its financial qualifications, and not EOI's, be an issue in this proceeding. In either case, what GSU requests is that EOI be exempted from the Commission's financial qualifications rule.

The Board and the Commission rejected these GSU arguments at the intervention stage. As the Board then stated, section 50.33(f) requires applicants for operating licenses to demonstrate that they possess reasonable assurance of obtaining funds necessary to cover estimated operation costs for the period of the licenses. Although electric utilities were exempted (with certain exceptions) in 1984 from these financial disclosure requirements, the Board found that this exemption does not apply to EOI because EOI is not an electric utility as defined by 10 C.F.R. § 2.4 (1994). LBP-94-3, 39 NRC at 39, 42. Therefore, we concluded in this earlier decision that EOI is bound by section 50.33(f) and that a "safe shutdown" presumption for River Bend is not appropriate. *Id.* On appeal, the Commission also declared that:

We cannot accept GSU's conclusion that "[t]he financial qualification of EOI is not at issue in this proceeding." GSU Appeal Brief at 22-23. Our regulations make EOI's financial

qualification an issue. See p. 48, *supra*. GSU's arguments simply fail to recognize that EOI as the new operator is subject to the financial qualifications rule, and that the reliability of funding for River Bend's operations has been placed into question. Cajun's contention and its bases bear directly on whether the Commission's regulations are satisfied.

CLI-94-10, 40 NRC at 52.

Safety considerations are the heart of the financial qualifications rule. Both the Commission's and Board's intervention decisions stressed that non-utility applicants for operating licenses must be required to demonstrate adequate financial qualifications before operating a facility. The Board reasoned that insufficient funding could cause licensees to cut corners on operating or maintenance expenses and that even during shutdown there are accident risks associated with a nuclear reactor. LBP-94-3, 39 NRC at 39. The Commission decision likewise stated that:

Commission regulations recognize that underfunding can affect plant safety. Under 10 C.F.R. § 50.33(f)(2), applicants — with the exception of electric utilities — seeking to operate a facility must demonstrate that they possess or have reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license. Behind the financial qualifications rule is a safety rationale. In drafting the original financial qualifications rule (which did not exempt utilities), the Atomic Energy Commission "must have intuitively concluded that a licensee in financially straitened circumstance would be under more pressure to commit safety violations or take safety "shortcuts" than one in good financial shape." [Citation omitted].

CLI-94-10, 40 NRC at 48.

GSU and Staff now would have us ignore these safety considerations, either by allowing EOI an exemption from the rule or by looking only to GSU's financial status and not to EOI's. We cannot do so. This Board is not authorized to grant exemptions to NRC regulations or to acquiesce in arguments that would result in circumvention of those regulations. Even if we had this authority, we would not grant exemptions when important safety considerations are at stake such as those underlying the financial qualifications rule. Nor would we summarily grant an exemption where, as here, expert witnesses disagree about the safety effects.

Under these circumstances, EOI is not entitled to the "safe shutdown" presumption granted to electric utilities in section 50.33(f). Because EOI is not an electric utility, GSU cannot invoke the regulatory presumption that River Bend be operated safely and then safely shut down in the event that it does not receive sufficient funding. GSU's Summary Disposition Motion regarding this request, therefore, must be denied.

## CONCLUSION

For all the foregoing reasons, we find that material issues of disputed fact have been presented by Cajun as to whether River Bend will be safely operated, shut down, and maintained during adverse financial conditions. Accordingly, GSU's Motion for Summary Disposition for Contention 2 is denied.

### THE ATOMIC SAFETY AND LICENSING BOARD

B. Paul Cotter, Jr., Chairman  
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole  
ADMINISTRATIVE JUDGE

Dr. Peter S. Lam  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
June 15, 1995

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

G. Paul Bollwerk, III, Chairman  
Dr. Jerry R. Kline  
Dr. Peter S. Lam

In the Matter of

Docket No. IA 94-017  
(ASLBP No. 95-705-03-EA)

DANIEL J. McCOOL  
(Order Prohibiting Involvement in  
NRC-Licensed Activities)

June 23, 1995

**MEMORANDUM AND ORDER**  
(Dismissing Proceeding)

In an October 25, 1994 hearing petition, Daniel J. McCool requested that this proceeding be convened to permit him to challenge an August 26, 1994 immediately effective order of the NRC Staff. The basis for the order was alleged misconduct by Mr. McCool involving NRC-licensed activities while he was president of the American Inspection Company, Inc. (AMSPEC). Among other things, that order (1) prohibits Mr. McCool from engaging in any NRC-licensed activities for a period of five years from the date of the order, and (2) requires that for a period of five years thereafter Mr. McCool must notify the agency within twenty days of accepting any employment offer involving NRC-licensed activities or otherwise becoming involved in such activities. *See* 59 Fed. Reg. 46,676, 46,677 (1994).

The question now before the Board is whether we should dismiss this proceeding because of Mr. McCool's failure to prosecute this case in a timely

manner. For the reasons set forth below, we conclude that this action should be terminated.

As part of his initial filings requesting a hearing, Mr. McCool indicated that he preferred that the start of the adjudicatory process be delayed until after March 15, 1995. He contended that this date was significant because it was the day of his scheduled release from the Federal Prison Camp in Pensacola, Florida, where he was serving a sentence for two Atomic Energy Act felony convictions relating to his activities as AMSPEC president. As grounds for delaying the proceeding until his release, he cited the difficulty while incarcerated of meeting with his counsel to discuss the Staff's order.

By memorandum and order issued December 1, 1994, we directed Mr. McCool to submit a pleading addressing more fully why he wanted to delay the start of the hearing process until after his release from prison and provided the Staff with an opportunity to respond to his filing. In a December 17, 1994 pleading, he reiterated that he anticipated extreme difficulty in preparing his case while in prison because he would not have ready access to his lawyer. In response, the Staff stated that it did not oppose Mr. McCool's request to delay the proceeding.

On January 9, 1995, we granted Mr. McCool's request for a delay, with several caveats.<sup>1</sup> We directed that by April 3, 1995, Mr. McCool should submit a filing providing a mailing address where pleadings and orders can be served upon him; a daytime telephone number where he can be reached; and, if available, a telephone number where he can receive facsimile transmissions. We also directed Mr. McCool to advise us promptly of any change in his release date.

April 3 came and went, but Mr. McCool neither supplied the information requested in our January 9 issuance nor contacted the Board to obtain a further delay in the proceeding. Therefore, on May 4, 1995, we issued a memorandum and order directing that Mr. McCool show cause why this proceeding should not be dismissed because of his failure to prosecute his case. In that order, we directed that by June 5, 1995, Mr. McCool should provide the Board with the information requested in our January 9 issuance as well as an explanation of why this proceeding should not be dismissed given his failure to follow the Board's earlier directive. In addition, we advised Mr. McCool that failing to respond to this Board request could lead to the summary dismissal of his case. Finally, in an effort to ensure that Mr. McCool received our show cause order, we asked that the Office of the Secretary contact Staff counsel to obtain other

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<sup>1</sup> Notwithstanding his seeming reliance upon his lack of access to counsel as a basis for delaying this proceeding, in his December 17 filing Mr. McCool indicated that he intended to represent himself in this proceeding. In our January 9 issuance we asked that in his next filing Mr. McCool clarify whether he intended to retain counsel to represent him in this proceeding. With our dismissal of this proceeding, his answer to that question no longer is of any moment.

addresses where Mr. McCool might be found and that the Secretary serve the Board's order at those locations as well.

As before, Mr. McCool has not responded by the filing date established by the Board. Because Mr. McCool now has failed on several occasions to provide information that is important to his continued participation in this proceeding, we can only conclude that he now longer wishes to contest the Staff's August 1994 enforcement order in this litigation. Accordingly, we dismiss this proceeding.

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For the foregoing reasons, it is, this twenty-third day of June 1995, ORDERED that

1. In accordance with the terms of the Board's May 4, 1995 order to show cause, this proceeding is *dismissed* because of petitioner McCool's failure to prosecute this action.

2. The Office of the Secretary shall serve this memorandum and order on Mr. McCool at all the addresses it used for service of the Board's May 4, 1995 memorandum and order.<sup>2</sup>

THE ATOMIC SAFETY AND  
LICENSING BOARD

G. Paul Bollwerk, III, Chairman  
ADMINISTRATIVE JUDGE

Jerry R. Kline  
ADMINISTRATIVE JUDGE

Peter S. Lam  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
June 23, 1995

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<sup>2</sup> A copy of this memorandum and order is being sent this date to Staff counsel by E-mail transmission through the agency's wide area network system.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**ATOMIC SAFETY AND LICENSING BOARD**

**Before Administrative Judges:**

**James P. Gleason**, Chairman  
**Dr. Jerry R. Kline**  
**G. Paul Bollwerk, III**  
**Thomas D. Murphy**, Alternate Board Member

In the Matter of

Docket No. 40-8027-EA  
(ASLBP No. 94-684-01-EA)  
(Source Material License  
No. SUB-1010)

**SEQUOYAH FUELS CORPORATION**  
and **GENERAL ATOMICS**  
(Gore, Oklahoma Site Decontamination  
and Decommissioning Funding)

June 30, 1995

**MEMORANDUM AND ORDER**

**(Denying General Atomics' Motion Regarding  
NRC Staff "Reliance" Issues and Establishing  
Schedule for Bifurcated Issue of Agency Jurisdiction)**

As part of this proceeding regarding an October 15, 1993 NRC Staff enforcement order concerning the adequacy of decommissioning funding for the Sequoyah Fuels Corporation (SFC) Gore, Oklahoma uranium hexafluoride facility, petitioner General Atomics (GA) has submitted a filing raising questions about the validity of certain bases cited by the Staff in support of its order. Specifically, by motion filed June 6, 1995, GA has requested various forms of relief relating to Staff claims in the October 1993 order about purported reliance by the Commission or other agency officials on statements by GA Chairman J.

Neal Blue concerning decommissioning funding for the SFC Gore facility. The NRC Staff and Intervenors Native Americans for a Clean Environment (NACE) and the Cherokee Nation oppose GA's requests for relief.

For the reasons that follow, we deny GA's motion *in toto*. In addition, we bifurcate the jurisdictional issue of the agency's authority to subject GA to the decommissioning funding requirements set forth in the Staff's October 1993 enforcement order and establish a schedule for discovery and summary disposition motions relating to that issue.

## I. BACKGROUND

The genesis of the dispute now before the Board is a portion of our April 1995 decision in LBP-95-5, 41 NRC 253, 272 (1995), that established a discovery completion date of July 31, 1995. In response to that deadline, on April 28, 1995, GA counsel sent a letter to the Board Chairman in which he expressed the opinion that it was unlikely discovery could be completed by the end of July, in part because GA intended to take discovery from each of the NRC Commissioners. This letter, in turn, prompted the Board on May 15, 1995, to hold a telephone conference with the parties, including petitioners GA and SFC, the Staff, and Intervenors NACE and the Cherokee Nation, to discuss discovery scheduling. Based on the parties' presentations during that conference, we asked them to confer and attempt to reach agreement on whether it would be more efficient to conduct discovery on, and then have the Board undertake to resolve, the issue of the agency's regulatory "jurisdiction" over petitioner GA before going forward with discovery and any evidentiary hearing on the other issues in this proceeding. *See* Tr. 243-45.

Subsequently, in letters to the Board dated May 17 and 19, 1995, the parties made it clear that they were unable to reach an agreement regarding bifurcation. The Staff and Intervenors NACE and the Cherokee Nation generally favored bifurcation, while GA and SFC opposed it. From the May 15 telephone conference and the parties' letters, a major point of contention appeared to be the exact nature of the Staff's theory of regulatory jurisdiction.

In this regard, in the October 1993 enforcement order that is the focus of this litigation, the Staff made the following statements relative to the agency's regulatory jurisdiction over GA:

Although at the time of the purchase [of the Gore, Oklahoma uranium hexafluoride facility] GA may have refused to guarantee SFC's obligation to decontaminate the facility, GA's actions in control over the day-to-day operations and business of SFC, and GA's representations of financial guarantees described above, *on which the Commission has relied*, make GA responsible, along with SFC to satisfy the NRC financial assurance requirements.



After review of the responses to the Demands for Information, the NRC staff finds that there is no basis to change its conclusion that the degree of GA's control over the business of SFC and Mr. Blue's representations of financial assurance, on which the Commission relied, make GA responsible, along with SFC, for satisfying NRC financial assurance requirements.

58 Fed. Reg. 55,087, 55,091 (1993) (emphasis supplied). In an attachment to a January 13, 1994 memorandum discussing the agenda for our initial prehearing conference, we suggested that from these and other statements in the order, the Staff appeared to be basing regulatory jurisdiction upon one or more of three theories: (1) GA is a *de facto* licensee; (2) GA is a "person otherwise subject to the jurisdiction of the Commission" in accordance with 10 C.F.R. § 2.202 and 10 C.F.R. Part 2, App. C; and (3) GA has a contractual obligation or legal duty to SFC or the agency flowing from, among other things, the Commission's purported reliance upon representations made by GA. See Memorandum (Posing Matters for Consideration at Prehearing Conference) (Jan. 13, 1994), attach. at 3-4 (unpublished).

Thereafter, during our initial prehearing conference on January 19, 1994, in response to a Board question about the Staff's jurisdictional theory, Staff counsel responded that

to the extent that there is conceivably a quasi-contractual reliance theory, I will say again that that is not one that the Staff at this time intends to pursue, but I am not sure what need be done with the order, the order to the Staff clearly put General Atomics on notice that we were concerned with the day-to-day control of GA as we have alleged over the licensee, and that that principally is the angle that we were taking.

Tr. 109. During our May 15 telephone conference, Staff counsel indicated that the Staff continues to "stand by" this statement. Tr. 241. But, despite its own intimation that something might need to be done to the order to reflect this position, the Staff has not taken any steps to amend or further clarify the order.

Notwithstanding the Staff's representations that a "quasi-contractual reliance" theory is not a basis for the order, in its May 19 letter to the Board regarding bifurcation, GA continued to assert that without some Staff action relative to the order it was unsure about the validity of any "reliance" theory. This, according to GA, had important implications for bifurcation of the regulatory jurisdiction question. GA contended that if it must still pursue this reliance theory, discovery will take substantially longer, which weighs significantly against bifurcation. See Letter from Stephen M. Duncan to Administrative Judge James P. Gleason, Chairman, Atomic Safety and Licensing Board (May 19, 1995) at 2-3.

By order issued May 23, 1995, we directed the Staff to appear at a May 31, 1995 hearing and show cause why the Board should not declare that the "reliance" theory set forth in its October 1993 order had been abandoned such that any legal or factual statements in the order that relate solely to that

theory would be deemed irrelevant to this proceeding. See Memorandum and Order (Order to Show Cause) (May 23, 1995) at 4 (unpublished). During the May 31 hearing, the Staff stated that regulatory jurisdiction in this case was not based upon either theory two or theory three suggested by the Board in the attachment to its January 13 memorandum, which the Staff described in shorthand, respectively, as the "wrongdoing" and "quasi-contractual/detrimental reliance" theories. See Tr. 252. Instead, the Staff asserted that its theory of the case, which is more along the line of suggested Board jurisdictional theory one (i.e., GA as a *de facto* licensee), was set forth most fully in an April 13, 1994 pleading as follows:

1. By reason of GA's 100% ownership of SFC, and its direct involvement in certain activities of SFC going beyond the mere exercise of voting control over SFC, GA has affected or engaged in matters over which the NRC has subject matter jurisdiction, and has become subject to the NRC's broad authority to issue the Order to it, which under these facts constitutes a reasonable, necessary, rational, and lawful exercise of the NRC's broad authority granted by Congress to enable the NRC to fulfill its statutory mandate to protect health and minimize danger to life or property.
2. By reason of GA's 100% ownership of SFC, and its direct involvement in certain activities of SFC going beyond the mere exercise of voting control over SFC, GA has affected or engaged in matters over which the NRC has subject matter jurisdiction and has become a *de facto* licensee, fully subject to the NRC's regulations and NRC's broad authority to issue the Order to it, which under these facts constitutes a reasonable, necessary, rational, and lawful exercise of the NRC's broad authority granted by Congress to enable the NRC to fulfill its statutory mandate to protect health and minimize danger to life or property.
3. By reason of GA's 100% ownership of SFC, and its direct involvement in certain activities of SFC going beyond the mere exercise of voting control over SFC, GA has affected or engaged in matters over which the NRC has subject matter jurisdiction, and has become subject to the NRC's broad authority to issue the Order to it, which under these facts, coupled with GA's voluntary commitment to guarantee financially the decommissioning funding for cleanup of the SFC site, constitutes a reasonable, necessary, rational, and lawful exercise of the NRC's broad authority granted by Congress to enable the NRC to fulfill its statutory mandate to protect health and minimize danger to life or property.

Tr. 254-56 (quoting NRC Staff's Answer in Opposition to General Atomics' Motion for Summary Disposition or for an Order of Dismissal (Apr. 13, 1994) at 26-27).

Further, in response to Board questions concerning the significance of the wording in the October 1993 order, referencing GA representations of financial assurance "on which the Commission relied," the Staff explained that this phrasing was not intended to pose a theory of regulatory jurisdiction (or GA liability) that depends upon actual reliance by the Commission or any other agency employee on such commitments. According to the Staff, those commitments potentially are relevant in two contexts: first, as one of the indicia

that GA had the requisite degree of control over SFC to establish that GA is subject to the agency's authority, perhaps as a *de facto* licensee; and second, as a discrete factor that, when considered in conjunction with circumstances showing GA control of SFC, establishes GA is subject to the agency's authority. *See* Tr. 256-57, 278-81.

The Staff also asserted that an important step in establishing the relevance of those commitments is to show they were material to the agency in that there was regulatory reliance on the commitments. To demonstrate such reliance, however, the Staff maintained it is not necessary to show "actual" reliance on the commitments by individual Commissioners or other agency personnel. Instead, drawing an analogy to the Commission's decisions on the nature of "material false statements" in *Randall C. Orem, D.O.*, CLI-93-14, 37 NRC 423 (1993), and *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480 (1976), *aff'd sub nom. Virginia Electric and Power Co. v. NRC*, 571 F.2d 1289 (4th Cir. 1978), the Staff declared that the materiality of the commitments is a question of law that requires a Board determination about whether the circumstances involved support the conclusion that a reasonable agency decisionmaker would take the commitment into account in doing his or her job. *See* Tr. 257-60, 281-82. As a consequence, the Staff declared that GA's concerns about having to pursue extensive discovery of Commission members and agency officials to contest any Staff "reliance" theory was groundless and so did not weigh against bifurcation of the jurisdictional issue. *See* Tr. 261.

In response, GA asserted that given the impact on GA's dealings with financial institutions and other business entities of the Staff's allegations about commitments purportedly made by GA Chairman Blue and agency reliance on those commitments, it was unjust and unfair now to permit the Staff to disavow reliance on those allegations without amending the October 1993 order. GA argued that all allegations about reliance and statements by Chairman Blue should be stricken from the record and that discovery should proceed on all remaining Staff claims without bifurcation of the jurisdictional issue. *See* Tr. 262-64, 291. SFC supported GA's position. *See* Tr. 276-77. For their part, Intervenor NACE and the Cherokee Nation agreed with the Staff's substantive position regarding reliance, but now expressed skepticism that bifurcation would be efficient given that the Staff's position obviated GA's supposed need for extensive discovery regarding agency reliance. *See* Tr. 287-89.

At the conclusion of the hearing, the Board requested that GA put its request to strike portions of the October 1993 order in writing. *See* Tr. 292-93. GA did so in the June 6, 1995 motion now pending before the Board. In addition, GA requests summary disposition in its favor on all issues and claims in the October 1993 order that relate to any purported reliance by NRC officials on any statements or representations of GA Chairman Blue. Further, GA asks that the Board limit the Staff's theories of liability to only the first two of the three

theories specified by the Staff in its April 1994 opposition to GA's motion for summary disposition and reiterated during the May 31 hearing. *See* [GA's] Motion for Summary Disposition, to Strike Language from the October 15, 1993 Order, and to Limit Issues in the Proceeding (June 6, 1995) [hereinafter GA Reliance Motion]. Both the Staff and Intervenors NACE and the Cherokee Nation oppose all aspects of GA's motion. *See* NRC Staff's Answer to [GA's] Motion for Summary Disposition, to Strike Language from the October 15, 1993 Order and to Limit Issues in the Proceeding (June 12, 1995) [hereinafter Staff Reliance Response]; [NACE's] and Cherokee Nation's Opposition to [GA's] Motion for Summary Disposition, to Strike Language from the October 15, 1993 Order, and to Limit Issues in the Proceeding (June 12, 1995) [hereinafter NACE/Cherokee Nation Reliance Response].

## II. ANALYSIS

In its motion, GA uses the same arguments to justify all three forms of relief requested. GA begins by asserting that the Staff has conceded that under the October 1993 order agency regulatory jurisdiction over GA and GA decommissioning cost liability are not founded upon any quasi-contract, detrimental reliance theory. *See* GA Reliance Motion at 2. GA also declares that the Staff has recognized that in the order GA is not alleged to have been involved in any wrongdoing. *See id.* at 3-4. GA further contends that the Staff has acknowledged that it will not attempt to establish GA's liability based upon any statements made by GA Chairman Blue and relied upon by the Commission, but instead will use such statements to establish that GA exercised some degree of control over its subsidiary SFC. *See id.* at 4.

GA then declares that, in light of these various Staff concessions, the Board should both reject any Staff attempt to use the statements in this manner and strike any reference in the October 1993 order that relates to any statements or representations made by Chairman Blue. Such Board action is justified, according to GA, because (1) use of the statements is clearly wrong as a matter of law under either (a) the case authority cited by the Staff, or (b) the general legal concept of "materiality"; (2) use of the statements adds nothing to the case, but rather is so prejudicial to GA as to be inconsistent with any notion of fundamental fairness in the conduct of this proceeding; and (3) permitting the statements to be used will significantly and adversely affect the orderly conduct of this proceeding by prolonging discovery. *See id.* at 5-12. We address each of these arguments in turn.

#### A. Staff Legal Basis for Using the Statements

GA declares that the *North Anna* and *Orem* cases cited by the Staff in support of its use of the statements are irrelevant because both cases define the standard for determining in a civil penalty case whether a material false statement exists. Here, GA maintains, the Staff already has stated that it is not contending Chairman Blue made material false statements. *See id.* at 6-7. In addition, equating the term "material" with the term "relevant" used in Federal Rule of Evidence 401, GA declares that Chairman Blue's statements cannot be considered relevant (i.e., material) to the factual question of corporate control because as "[v]oluntary, non-binding, true statements" that contained no directive content instructing its subsidiary SFC, they cannot constitute indicia of control that would support a determination to "pierce the corporate veil" and reach a parent corporation. *Id.* at 7-9.

In response, both the Staff and the Intervenors maintain that under the three theories identified by the Staff as the conceptual basis for asserting regulatory jurisdiction and funding liability vis-a-vis GA, Chairman Blue's statements are certainly relevant as probative of the relationship between GA and its subsidiary SFC. Both also declare that the *North Anna* and *Orem* cases cited by the Staff provide a framework for determining how the references to "reliance" in the October 1993 order should be understood in the context of those three theories. Specifically, the Staff contends that the definition of "material" in these two cases illustrates its position that in utilizing the statements to support the Staff's jurisdictional/liability theories, the pertinent question is not whether agency personnel, including the Commission, actually relied on the statements. Instead, as the analysis in these cases suggests, the issue is whether the Staff is able to demonstrate reliance as an objective matter based on the pertinent factual circumstances. *See Staff Reliance Response* at 5-6.

From the various Staff statements before us, it is apparent that any reference in the October 1993 order to "reliance" on Chairman Blue's statements was not intended to incorporate a quasi-contractual theory of regulatory jurisdiction and decommissioning funding liability. On the other hand, the Staff has indicated that agency "reliance" on those statements is a relevant concern because reliance is a valid consideration under the second and third jurisdictional/liability theories the Staff has identified. Regarding those theories, however, based on the cursory GA arguments we have before us currently, we cannot say that the Staff is precluded from pursuing either concept because agency "reliance" on statements by GA Chairman Blue forms a basis for each theory. Nor can we grant GA summary disposition relative to those theories.

For instance, based on what GA has presented thus far, we see no reason to preclude a Staff argument that statements such as those of Chairman Blue may be relevant to the issue of control. GA suggests that a parent corporation's

statement before the agency that supports a subsidiary but does not constitute a directive to the subsidiary is outside the realm of circumstances that will support imposing liability on a parent corporation. See GA Reliance Motion at 8-9. Yet, if parental control can be utilized as a means of establishing agency jurisdiction over a nonlicensee parent, the fact that a parent corporation's statements are directed to the agency rather than the subsidiary hardly seems dispositive.

GA also has not provided any convincing argument to counter the Staff's position that one measure of the significance of those statements as an indicia of control would be their relevance to regulatory decisionmakers, thereby making agency "reliance" on such a statement a matter "material" to the issue of control. Moreover, based on what GA has asserted, we do not see that the Staff's "objective" approach to determining agency "reliance" is inapplicable. Certainly, the fact that the statements in question are not alleged to be "false" is not dispositive of the validity of the "objective reliance" approach outlined in the *North Anna* and *Orem* cases. This is particularly so, as the Intervenor's point out, given the judicial authority suggesting that attempts to probe the actual mental processes of agency decisionmakers generally are disfavored. See NACE/Cherokee Nation Reliance Response at 10 (citing, among others, *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971)).

We thus find no basis in the present motion for rejecting or limiting any of the Staff's jurisdictional/liability theories as a matter of law because they may be based on "reliance" on GA Chairman Blue's statements.

#### **B. Prejudicial Nature of the Statements in the Order**

Besides seeking to eliminate any Staff jurisdictional/liability based on reliance, GA also asserts that the statements in the order regarding Chairman Blue's statements and agency reliance on those statements should be stricken. According to GA, because the Staff has admitted that its order is not based on a quasi-contractual reliance theory, the prejudice that inures to GA from having those statements in the order warrants this relief. As GA describes it, the present wording of the order prejudices GA's ability to conduct business with its existing and potential customers, financial institutions, and its vendors and employees because they will be misled about the nature of the order and the fact that it is not based on any "wrongdoing" by GA. See GA Reliance Motion at 10-11. Both the Staff and the Intervenor's respond that the nature of any prejudice is not clear and, in any event, the statements by Chairman Blue, which are a matter of public record, are indeed relevant to the jurisdictional/liability theories that underlie the Staff's order. See Staff Reliance Response at 4-5; NACE/Cherokee Nation Reliance Response at 7-8.

The October 1993 order leaves much to be desired in terms of providing a clear explanation how and why Chairman Blue's statements and agency reliance

on those statements provide a basis for the order. Nonetheless, as we indicated under section II.A, above, based on the information now before the Board and the parties, it appears that those statements and the issue of agency reliance on them do have an appropriate place in this litigation, only as evidence relevant to the issue of corporate control. Evidence concerning any claimed quasi-contractual liability will not be considered. However, this is not intended to rule adversely at this time concerning any of the Staff's three theories supporting its claim of jurisdiction. Certainly, in light of GA's amorphous claims of prejudice, we find no basis at present for striking any portion of the October 1993 order.

### **C. Prolonging Discovery**

GA also claims that the Board's general authority to maintain order in and regulate the course of this proceeding supports striking all portions of the October 1993 order relating to Chairman Blue's statements and agency reliance on those statements. According to GA, failure to exercise this authority will result in prolonged discovery that will have a significant adverse effect on the proceeding. If those statements remain, GA asserts, it will have to probe the relevancy of the statements in relation to the issue of its purported control over SFC, including seeking discovery from the Commission and Staff personnel on the question of their reliance. *See* GA Reliance Motion at 11-12. Both the Staff and Intervenors label this argument a "threat" that is without substance because the Staff's admission that its jurisdictional/liability theories are not based upon "reliance in fact" means that such discovery is irrelevant to the proceeding and so not appropriate. *See* Staff Reliance Response at 6-7; NACE/Cherokee Nation Reliance Response at 10.

In our discussion in section II.A, above, we have indicated that, based on the information now before us, we see no reason to preclude the Staff from pursuing its second and third jurisdictional/liability theories notwithstanding the fact that they may be based on an "objective" reliance theory. The need for discovery from individual agency personnel regarding their actual "reliance" that is the particular focus of GA's argument thus appears problematic. As such, we see no basis for granting this relief sought by GA.

## **III. BIFURCATION**

Having ruled on GA's motion, we are back to the initial question that prompted its filing: Should the Board bifurcate and decide the issue of agency regulatory jurisdiction over GA before proceeding to the "merits" of the order as it relates to the adequacy of SFC decommissioning funding? After reviewing the positions of the parties on this question, we have concluded that, for reasons

of economy and expedition, the central nature of the jurisdiction issue to this proceeding merits separate consideration at this time.

The parties thus should proceed with discovery on the question of the agency's regulatory authority to impose joint and several liability upon GA for providing site remediation funding and decommissioning financial assurance. Discovery and the submission of any additional motions for summary disposition relating to that issue will be in accordance with the following schedule:

Discovery Closes: <sup>1</sup>	Friday, September 15, 1995
Dispositive Motions Due: <sup>2</sup>	Friday, October 13, 1995
Dispositive Motion Responses Due:	Friday, November 17, 1995
Dispositive Motion Replies Due:	Friday, December 8, 1995

If the Board finds on the basis of the motions filed that it is unable to grant summary disposition on this issue because there are material factual issues in dispute, it is the Board's intent to convene an evidentiary hearing promptly to resolve the regulatory jurisdictional issue.

#### IV. CONCLUSION

The June 6, 1995 GA motion provides no basis either for limiting the Staff's theories of regulatory jurisdiction that are based upon "reliance" by agency personnel on statements made by GA Chairman Blue or for granting summary disposition in favor of GA on all issues or claims that relate to such "reliance." Nor does that motion provide support sufficient to cause us to strike any portion of the Staff's October 1993 order relating to Chairman Blue's statements or representations. We thus deny the motion.

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For the foregoing reasons, it is this 30th day of June 1995, ORDERED that

1. The June 6, 1995 motion of GA for summary disposition, to strike language from the October 15, 1993 order, and to limit issues in the proceeding is *denied*.

2. This proceeding is bifurcated to permit the jurisdiction issue herein to be resolved initially and separately.

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<sup>1</sup>To be timely under this schedule, a discovery request must be filed or a deposition noticed on or before Friday, August 18, 1995.

<sup>2</sup>We establish this date based on the Staff's previous representation that it intends to file a dispositive motion on the issue of jurisdiction once discovery on that question is completed. See Tr. 241. If the Staff intent in this regard should change, it should notify the Board promptly.



3. The parties shall conduct discovery and file any additional motions for summary disposition on the issue of the agency's regulatory jurisdiction to impose joint and several liability upon GA for providing site remediation funding and decommissioning financial assurance in accordance with the schedule set forth on p. 487, *supra*.

THE ATOMIC SAFETY AND  
LICENSING BOARD

James P. Gleason, Chairman  
ADMINISTRATIVE JUDGE

Jerry R. Kline  
ADMINISTRATIVE JUDGE

G. Paul Bollwerk, III  
ADMINISTRATIVE JUDGE

Bethesda, Maryland  
June 30, 1995

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

## OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

Carl J. Paperiello, Director

In the Matter of

Docket No. 70-364

**BABCOCK AND WILCOX COMPANY**(Pennsylvania Nuclear Services  
Operations, Parks Township,  
Pennsylvania)

June 26, 1995

The Director of the Office of Nuclear Material Safety and Safeguards grants in part two requests for action under 10 C.F.R. § 2.206 (initially raised as concerns by Citizens' Action for a Safe Environment and the Kiski Valley Coalition to Save Our Children in their joint request for an informal hearing pursuant to 10 C.F.R. Part 2, Subpart L) referred, pursuant to 10 C.F.R. § 2.1205(k)(2), by the Presiding Officer in the Initial Decision, dated January 3, 1995.

The Petitioners, based on a concern about radioactive releases from the Babcock & Wilcox Company's (B&W) Apollo facility, request the Commission to test for radioactive contamination in the general vicinity of Kepple Hill and Riverview in Parks Township. This request has been granted insofar as the Nuclear Regulatory Commission (Commission) Staff calculated the potential airborne uranium concentration and potential contamination of soil, reviewed the environmental monitoring and aerial radiological survey data, and concluded that the radioactive releases from the Apollo facility have been within regulatory limits and have not resulted in concentrations of radioactivity in the soil greater than the Commission's current release criteria for uranium.

The Petitioners, based on a concern about the past operations of the B&W Parks Township facility, request the Commission to investigate radiological contamination on the Farmers Delight Dairy Farm. This request has been granted insofar as the Commission Staff has reviewed the environmental monitoring data collected from the area of the Parks Township facility since 1969, as well as soil samples from the area, and concluded that there has been no significant increase

in background levels outside of the immediate site area of the Parks Township facility.

**REGULATIONS: CONCENTRATION VALUES OF  
10 C.F.R. PART 20, APPENDIX B**

The values set forth in 10 C.F.R. Part 20, Appendix B, Table II, are regulatory limits applicable at the site boundary, not at the stack discharge point.

**DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206**

**I. INTRODUCTION**

By Petition dated January 5, 1994, Citizens' Action for a Safe Environment (CASE) and the Kiski Valley Coalition to Save Our Children (the Coalition) (together referred to as Intervenors or Petitioners) filed a joint request for an informal hearing pursuant to 10 C.F.R. Part 2, Subpart L, with regard to Babcock & Wilcox Company's (Licensee) application for renewal of Special Nuclear Material (SNM) License SNM-414 issued to the Licensee by the U.S. Nuclear Regulatory Commission (NRC or Commission) for the Pennsylvania Nuclear Service Operations facility located in Parks Township, Armstrong County, Pennsylvania (Parks Township facility). In a Memorandum and Order dated April 22, 1994, the Presiding Officer granted the request for hearing and admitted the Petitioners as Intervenors.<sup>1</sup> An informal hearing was conducted pursuant to Subpart L of the Commission's procedural regulations. In the Initial Decision, dated January 3, 1995, authorizing the renewal of the materials license, the Presiding Officer, pursuant to 10 C.F.R. § 2.1205(k)(2), referred to the Commission's Executive Director for Operations for consideration, as a request for action under 10 C.F.R. § 2.206, twelve areas of concern raised in that proceeding by the Intervenors.<sup>2</sup> These concerns were referred to my office for review. Each of these concerns was reviewed with respect to the requirements of section 2.206. Two concerns<sup>3</sup> (Sections Q and X) were found to satisfy the requirements of section 2.206. On March 7, 1995, a letter was sent to the

<sup>1</sup> LBP-94-12, 39 NRC 215 (1994).

<sup>2</sup> LBP-95-1, 41 NRC 1, 35 (1995).

<sup>3</sup> As the Commission recently noted, there were three concerns (Sections Q, R, and X). However, one of the concerns (Section R) was included within Section Q. See CLI-95-4, 41 NRC 248, 252 (1995).

Intervenors acknowledging the treatment of the Intervenors' Sections Q and X as requests for action under section 2.206.<sup>4</sup>

Section Q has been interpreted as a request for the Commission to test for radioactive contamination in the general vicinity of Kepple Hill and Riverview in Parks Township. The apparent concern is that this area is downwind of the Apollo facility, which the Intervenors assert had been releasing radioactivity at a rate above regulatory limits. The Intervenors rely on letters dated April 20, 1966, and May 26, 1969, concerning the need for experimental data for an air surveillance program at the Apollo plant and authorization by the Commission's predecessor, the Atomic Energy Commission (AEC), for the discharge of radioactive materials in concentrations exceeding 10 C.F.R. Part 20 limits.

Section X has been interpreted as a request for the Commission to investigate radiological contamination on the Farmers Delight Dairy Farm (apparently located in Parks Township). The apparent concern is that past operations of the Parks Township facility caused radioactive contamination of the farm. As basis for this request, the Intervenors assert that there is information in a 1966 U.S. Department of Agriculture (USDA) study that indicates that the cattle on the farm were having thyroid problems and that radionuclides were showing up in the cows' milk.

I have completed my evaluation of the matters raised by the Intervenors and have determined that, for the reasons stated below, no further action by the Commission is warranted.

## II. BACKGROUND

The Nuclear Material and Equipment Company (NUMEC) began operations at the Apollo and Parks Township facilities in the late 1950s. The Atlantic Richfield Company (ARCO) purchased the stock of NUMEC in 1967. In 1971, Babcock & Wilcox (B&W) purchased NUMEC and is the current owner of the Apollo and Parks Township facilities.

The primary function of the NUMEC Apollo facility was the conversion of low-enriched (less than 5 wt % U-235) uranium hexafluoride to uranium oxide for use in fuel for light-water-moderated power reactors and to produce high-enriched (greater than 93 wt % U-235) nuclear fuel material for use in naval reactors. The B&W Apollo facility ceased manufacturing nuclear fuel in 1983

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<sup>4</sup> In the acknowledgment letter it was noted that the other concerns (Sections B, H, I, M, P, S, T, U, W, and Y) had been addressed by the Commission Staff in affidavits of Michael A. Lamastra and Heather M. Astwood. These affidavits were submitted to the Atomic Safety and Licensing Board in the Subpart L proceeding on September 22, 1994.

and has completed site decommissioning. The Commission Staff expects to terminate the Apollo facility license in 1995.

The primary function of the NUMEC Parks Township facility was the fabrication of plutonium fuel, the preparation of high-enriched uranium fuel, and the production of zirconium/hafnium bars. The Parks Township facility ceased fuel fabrication activities in 1980 and is currently conducting decontamination and refurbishment of nuclear reactor components and equipment. The Parks Township license was last renewed on May 16, 1984, with an expiration date of May 31, 1989, and the license is currently under timely renewal.<sup>5</sup>

### III. DISCUSSION

The NRC Staff has evaluated the Intervenor's two requests for action pursuant to section 2.206. The evaluation and my disposition for each request are discussed below.

#### *1. Test for Radioactive Contamination in the General Vicinity of Kepple Hill and Riverview Areas in Parks Township*

The Intervenor's request is based on their interpretation of letters dated April 20, 1966, and May 26, 1969, from Roger D. Caldwell, Manager, Health, Safety and Licensing, of NUMEC concerning the need for experimental data for an air surveillance program at the NUMEC Apollo plant<sup>6</sup> and authorization by the Atomic Energy Commission for the discharge of radioactive materials in concentrations exceeding 10 C.F.R. Part 20 limits.<sup>7</sup>

By application dated November 13, 1968, and supplement dated March 5, 1969, and pursuant to section 20.106(b), NUMEC requested that License SNM-145 be amended to permit concentrations up to 100 times the limits specified in Part 20, Appendix B, Table II, in any stack effluent, provided that concentrations at the roof edge and in the local environment complied with Part 20 limits. By License Amendment 31, dated May 26, 1969, the AEC authorized NUMEC to

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<sup>5</sup>The Commission on April 26, 1995, denied the Intervenor's petition for review of the Presiding Officer's January 3, 1995 Initial Decision (License Renewal), LBP-95-1, 41 NRC 1 ("Initial Decision"). The Staff expects to renew the license in 1995.

<sup>6</sup>One of the subareas of concern accepted as an issue in the informal hearing was "[w]hether B&W Management practices as manifested by the management of the Apollo facility threaten offsite releases of radiation from the Parks Township facility." LBP-94-12, 39 NRC 215, 222-23 (1994).

<sup>7</sup>Prior to January 1994, NRC regulations for radioactivity in effluents to unrestricted areas were contained in 10 C.F.R. § 20.106. The current requirements are found in 10 C.F.R. § 20.1302. Section 20.106(a) limited radioactivity in air effluents to unrestricted areas to less than those listed in Appendix B, Table II, except as authorized in 10 C.F.R. § 20.106(b). Section 20.106(b) allowed licensees to propose limits higher than those specified in section 20.106(a), if certain conditions were met. Section 20.106(d) clarified that the limits listed in Appendix B, Table II, apply at the boundary of the restricted area and not at the stack discharge point.

discharge radioactive material from any stack, in concentrations up to 100 times the values specified in Appendix B, Table II, of Part 20<sup>8</sup> subject to the following conditions:

(a) concentrations of radioactive material measured by the continuously operating air samplers positioned at the plant roof perimeter shall not exceed the values specified in Appendix B, Table II, of 10 C.F.R. Part 20; and

(b) an environmental air sampling program shall be conducted in the neighboring unrestricted areas<sup>9</sup> of the plant.

Accordingly, even though NUMEC was authorized to discharge *at the stack* up to 100 times the values specified in Appendix B, Table II, NUMEC was still required to meet the limits *at the site boundary* (see note 8). Moreover, NUMEC was required to meet these same values at the plant roof perimeter.

To evaluate the intervenors' concern about the alleged contamination in the general vicinity of the Kepple Hill and Riverview areas of Parks Township, the Staff estimated the average airborne uranium concentrations using the results from the environmental monitoring program, which was a condition of the license. The NRC Staff calculated the average airborne uranium concentrations to be  $3.6 \times 10^{-13}$   $\mu\text{Ci}/\text{cm}^3$ .<sup>10</sup> This calculated value is less than one tenth of the maximum permissible concentration in air for insoluble uranium-238 and uranium-235; the requirement for unrestricted air effluent set forth in Part 20, Appendix B, Table II. Accordingly, the releases from the facility were within Part 20 requirements for unrestricted release and, therefore, were not a safety concern.

The NRC Staff also estimated the potential contamination of soil outside the plant boundary from facility operations.<sup>11</sup> Using conservative assumptions, the Commission Staff calculated a maximum concentration of 12 pCi per gram of soil. This is less than the Commission's current release criteria for uranium.<sup>12</sup>

The Commission Staff also reviewed environmental radiation monitoring data collected during the facility's period of operation. Environmental radiation mon-

<sup>8</sup>The values set forth in Part 20, Appendix B, Table II, are the regulatory limits applicable at the site boundary, not at the stack.

<sup>9</sup>Section 20.1003 of 10 C.F.R. defines "unrestricted area" as "an area, access to which is neither limited nor controlled by the licensee." Prior to January 1, 1994, an unrestricted area was defined as "any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, and any area used for residential quarters."

<sup>10</sup>An estimate of the average airborne uranium concentration can be calculated using a uranium deposition rate of 20 pCi/ft<sup>2</sup> per week (measured by NUMEC during plant operation) and assuming a gravitational settlement rate of 0.001 meter per second.

<sup>11</sup>An estimate of the soil uranium concentration can be calculated using a uranium deposition rate of 20 pCi/ft<sup>2</sup> per week (measured by NUMEC during plant operation) and assuming a 3-centimeter depth, a soil density of 1.5 g/cm<sup>3</sup>, and a 15-year operating period at Apollo.

<sup>12</sup>The current release criteria for uranium, which is 30 pCi per gram, is set forth in the Commission's "Branch Technical Position" (BTP) published in the *Federal Register*, October 23, 1981.

itoring has been conducted at the Apollo site since 1968. Monitoring programs included measurements of radioactive materials in the environment (river water, and sediment, air, soil, and vegetation) and thermoluminescent dosimetry (TLD) measurements of direct radiation in the environment. Radiological monitoring stations have been active in the Apollo facility area for as long as three decades, monitoring the Allegheny and Kiskiminetas Rivers and various tributaries, as well as other surface waters and groundwater. These include Commission, state, and B&W stations. Based on its review of these data, the Commission Staff concludes that operation of the Apollo facility did not result in any significant changes to normal background levels outside the immediate site area.

The Commission Staff also reviewed the results of an aerial radiological survey to measure gamma radiation<sup>13</sup> levels in the area of the Apollo facility. At the request of the Commission, the survey was conducted by EG&G Energy Measurement Group from June 15-19, 1981. The survey data identified only background levels of radiation.

In summary, the Commission Staff calculated the potential airborne uranium concentration and potential contamination of soil, reviewed the environmental monitoring and aerial radiological survey data, and concluded that the radioactive releases from the Apollo facility have been within regulatory limits and have not resulted in concentrations of radioactivity in the soil greater than the NRC release criteria stated in the Branch Technical Position (*see* note 12). In reaching this conclusion, the Staff took into account the fact that in 1969, the AEC authorized NUMEC to release at the stack, radioactive materials in concentrations up to 100 times the values (applicable at the site boundary) listed in Appendix B of Part 20. The Intervenor's request that the Commission test for radiological contamination in the general vicinity of Kepple Hill and Riverview in Parks Township is granted to the extent of the review described above. However, the Intervenor has failed to raise any substantial health or safety issues. Therefore, no further action is warranted.

## ***2. Investigate Potential Radiological Contamination on the Farmers Delight Dairy Farm Located in the Vicinity of the Parks Township Facility***

In its request for the Commission to investigate radiological contamination on the Farmers Delight Dairy Farm, the Intervenor asserts that information contained in a U.S. Department of Agriculture (USDA) report entitled NUMEC-1966 indicates that cattle on the farm are having thyroid problems and that radionuclides are showing up in the cows' milk. The Intervenor indicates that

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<sup>13</sup> Gamma radiation is electromagnetic photons originating from the nucleus of an atom. Gamma rays are similar to x-rays.

the report was read to them over the telephone by a reference librarian at the USDA Library in Beltsville, Maryland. The Intervenor also asserts that the report "vanished" from that Library.

To evaluate the NUMEC-1966 report, the Commission Staff searched its files, requested both B&W and ARCO to search their files, and requested the USDA to check its files for a copy of the report. No copy was found. However, the USDA did confirm that the only copy in its system was missing from the USDA Beltsville, Maryland library. It was also determined that NUMEC-1966 was not a USDA report but a NUMEC-published document. The Commission Staff again searched its files and requested that B&W and ARCO search their files for a NUMEC report entitled NUMEC-1966. Again, no copy was found.

Since the Commission Staff was unable to evaluate the NUMEC-1966 report, the Staff reviewed environmental radiation monitoring data collected from the area of the Parks Township facility. Environmental radiation monitoring has been conducted at the Parks Township site since 1969. The monitoring program includes measurements of radioactive materials in the environment (air, soil, and vegetation) and TLD measurements of direct radiation in the environment. These include Commission, state, and B&W monitoring stations. The NRC Staff has also taken soil samples from private residences and other locations in the Parks Township area.<sup>14</sup> The NRC Staff has reviewed the environmental monitoring data, including the soil samples, and concluded that there has been no significant increase in background levels outside of the immediate site area of the Parks Township facility. The Intervenor's request that the Commission investigate potential radiological contamination on the Farmers Delight Dairy Farm is granted to the extent of the review described above. The Intervenor has, however, failed to raise a substantial health or safety concern; therefore, no further action is warranted.

#### IV. CONCLUSION

The institution of proceedings pursuant to section 2.206 is appropriate only where substantial health and safety issues have been raised. See *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175-76 (1975), and *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). This is the standard that I have applied to determine whether the actions requested by the Intervenor are warranted. Since no substantial health and safety issues have been raised by

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<sup>14</sup>The NRC soil sampling results were reported in NRC combined Inspection Reports Nos. 70-135/93-01 and 70-364/93-02, 70-135/93-02 and 70-364/93-03, 70-135/93-03 and 70-364/93-04, 70-135/94-01 and 70-364/94-01, and 70-135/94-02 and 70-364/94-02.



the Intervenor and for the reasons discussed above, no basis exists for taking any further action in response to the requests beyond that described above. Accordingly, in this matter, the Commission is taking no further action pursuant to section 2.206.

As provided by 10 C.F.R. § 2.206(c), a copy of this Decision will be filed with the Secretary of the Commission for the Commission's review. The Decision will become the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes a review of the Decision.

FOR THE NUCLEAR  
REGULATORY COMMISSION

Carl J. Paperiello, Director  
Office of Nuclear Material Safety  
and Safeguards

Dated at Rockville, Maryland,  
this 26th day of June 1995.

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