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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)	
)	
GEORGIA INSTITUTE)	Docket No. 50-160-OM
OF TECHNOLOGY)	
)	ASLBP No. 95-710-01-OM
(Facility License No. R-97))	

NRC STAFF'S RESPONSE TO AMENDED PETITION
FOR LEAVE TO INTERVENE ON CONVERSION ORDER
FILED BY GEORGIANS AGAINST NUCLEAR ENERGY

INTRODUCTION

On June 16, 1995, the NRC Staff ("Staff") issued an Order modifying the operating license held by Georgia Institute of Technology ("Georgia Tech" or "the Licensee"), authorizing the Licensee to convert the Georgia Tech Research Reactor ("GTRR") from the use of high-enriched uranium (HEU) to low-enriched uranium (LEU) fuel ("Conversion Order").¹ On July 6, 1995, an initial request for hearing was filed by Georgians Against Nuclear Energy ("GANE"),² to which answers in opposition were

¹ "Georgia Institute of Technology (Georgia Tech Research Reactor); Order Modifying Facility Operating License No. R-97," 60 Fed. Reg. 32516 (June 22, 1995).

² "Georgians Against Nuclear Energy Request for Hearing on Conversion of Georgia Tech Research Reactor From the Use of High-Enriched Uranium Fuel to Low-Enriched Uranium," dated July 6, 1995 ("Initial Petition").

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filed by the Staff and Licensee.³ On July 31, 1995, the Atomic Safety and Licensing Board ("Licensing Board") issued an Order affording GANE an opportunity to file a further statement in support of its standing to intervene, along with the contentions it seeks to litigate in the proceeding.⁴ On August 21, 1995, GANE filed an amended petition for leave to intervene,⁵ pursuant to the Licensing Board's Order.

The Staff hereby files its response to GANE's Amended Petition. For the reasons set forth below, the Staff submits that GANE has failed to show that it has an interest which may be adversely affected by a proceeding on the Conversion Order or that it has standing to request a hearing in this matter. Further, the Staff submits that GANE has not set forth a legally sufficient contention for consideration in a proceeding on the Conversion Order. Accordingly, the Staff opposes GANE's petition for leave to intervene in this matter and recommends that it be denied.

BACKGROUND

The background for this regulatory action is succinctly described in the Conversion Order, and was previously summarized in the Staff's response to GANE's

³ See "NRC Staff's Response to Request for Hearing on Conversion Order Filed by Georgians Against Nuclear Energy," dated July 26, 1995 ("Staff Response"); and "Georgia Institute of Technology's Response to GANE's Request for Hearing on Conversion Order," dated August 2, 1995.

⁴ "Memorandum and Order (Intervention Petition)," issued July 31, 1995 ("Order").

⁵ "Georgians Against Nuclear Energy Amended Petition for Leave to Intervene in Consideration of Application for Facility License Conversion From High-Enriched Uranium to Low-Enriched Uranium" ("Amended Petition"), dated August 21, 1995.

initial petition.⁶ As set forth in the Conversion Order (60 Fed. Reg. at 32516-17), on February 25, 1986, the Commission promulgated a final rule in 10 C.F.R. § 50.64, limiting the use of HEU fuel in domestic research and test reactors (non-power reactors). The Commission explained the reason for its action, stating that the rule is intended to promote the common defense and security by reducing the risk of theft or diversion of HEU fuel used in non-power reactors and the consequences to public health, safety and the environment [that could result] from such theft or diversion."⁷ In particular, with certain exceptions not relevant to this proceeding, 10 C.F.R. § 50.64 requires non-power reactor licensees to replace their HEU fuel with LEU fuel that is acceptable to the Commission.⁸

As described in the Conversion Order (60 Fed. Reg. at 32517), on January 21, 1993 (as supplemented March 2, March 21, and July 15, 1994), Georgia Tech submitted

⁶ See Staff Response at 2-4. For ease of reference, the Staff reiterates herein the "Background" portion of its response to GANE's initial petition (*Id.*).

⁷ Statement of Consideration, "Limiting the Use of Highly Enriched Uranium in Domestically Licensed Research and Test Reactors," 51 Fed. Reg. 6514 (Feb. 25, 1986).

⁸ The rule indicates that this requirement is contingent upon the availability of sufficient Federal government funding for conversion-related costs, and that conversion is not be required if the Commission determines that the reactor has a unique purpose. The rule requires non-power reactor licensees (a) to avoid acquiring additional HEU fuel if acceptable LEU fuel is available, (b) to replace all HEU fuel in their possession with acceptable LEU fuel, in accordance with a schedule developed under § 50.64(c)(2), and (c) to submit a written proposal to the NRC for compliance with the rule, which meets the specific requirements of § 50.64(c)(2). The rule further provides that upon receipt of a licensee's proposal, the Director of the Office of Nuclear Reactor Regulation shall review the proposal and its supporting safety analyses, confirm the status of government funding for conversion, determine a final schedule for conversion, and issue an appropriate "Enforcement Order" directing the conversion and any necessary changes to the license, facility or procedures. 10 C.F.R. §§ 50.64(c)(2)(iii), 50.64(c)(3).

a proposal to convert the GTRR from HEU to LEU fuel in accordance with 10 C.F.R. § 50.64.⁹ As required, the Licensee's proposal contained descriptions of modifications, supporting safety analyses and plans for conversion, which indicated that the HEU fuel would be replaced with LEU fuel enriched to less than 20 percent uranium-235 (U²³⁵).

The Staff reviewed the Licensee's proposal for conversion to LEU fuel, and determined that the public health and safety and the common defense and security support a conversion of the GTRR from HEU to LEU fuel as summarized in the Conversion Order. 60 Fed. Reg. at 32517-18. Accordingly, the Staff issued the instant Conversion Order,¹⁰ specifying the terms under which the conversion is to be accomplished, and providing an opportunity for the Licensee and any person whose interest is adversely affected by this enforcement order to request a hearing. *Id.* In response, GANE filed its request for hearing, as supplemented by its Amended Petition.

DISCUSSION

GANE has not demonstrated that it or any of its members have an interest which could be adversely affected by the Conversion Order or that it has standing to intervene in this matter, nor has it complied with the Licensing Board's request for

⁹ See Letter from Dr. R. A. Karam (Georgia Tech) to Director, Office of Nuclear Reactor Regulation, dated January 21, 1993; and letters from Dr. R. A. Karam (Georgia Tech) to Marvin M. Mendonca (NRC), dated March 2, 1994, March 21, 1994, and July 15, 1994.

¹⁰ See Letter from Marvin M. Mendonca (NRC) to Dr. Ratib A. Karam, dated June 16, 1995, and attachments thereto, including (1) Order Modifying Facility Operating License No. R-97, (2) revised technical specifications, and (3) "Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting the Order Modifying Facility Operating License No. R-97 to Convert From High-Enriched to Low-Enriched Fuel" ("SER").

GANE to show that the GANE member upon whose standing it relies (Mr. Robert Johnson) wishes GANE to represent his interests in this proceeding. Further, GANE has failed to submit a legally sufficient contention for consideration in this proceeding. For these reasons, as more fully set forth below, GANE's request for hearing in this matter should be denied.

A. GANE Has Not Established Its Standing to Intervene.

The legal standards governing an intervenor's burden of establishing its standing to intervene or request a hearing are well known. In sum, as the Licensing Board held in the ongoing GTRR license renewal proceeding, an organization that requests a hearing must show that it or at least one of its members has an interest which could be adversely affected by the results of this proceeding. In this regard, the requestor must show an "injury in fact" to one of its interests; that the interest arguably lies within the "zone of interests" sought to be protected by statute; that the injury is fairly traceable to the challenged action; and that the injury is likely to be redressed by a favorable decision in the proceeding. Further, an organizational group that relies upon the interests of its member to establish standing must show that its member has standing and has authorized the organization to represent it in the proceeding; and the organization must show that it has authorized the particular representative to represent the group in the proceeding.¹¹ Such a showing is essential to demonstrate that a membership

¹¹ *Georgia Institute of Technology* (Georgia Tech Research Reactor), LBP-95-6, 41 NRC 281, 286 (April 26, 1995); *Id.*, "Memorandum and Order (Intervention Petition)," dated November 23, 1994 (unpublished), at 3-5.

organization like GANE has standing to seek a hearing on any particular licensing or enforcement action.

Notwithstanding these clear requirements, GANE has failed to show that it or its members possess standing to intervene in this matter.¹² GANE has not sought to intervene in this proceeding on the basis of its own standing, but asserts representational standing: GANE states that it "represents in this proceeding, Robert Johnson" (Amended Petition at 1). However, GANE has not shown that Mr. Johnson wishes or authorizes GANE to represent him herein, or that Mr. Johnson even wishes to contest the Conversion Order. Thus, GANE has failed to comply with the Licensing Board's explicit requirement that GANE "advise us that Mr. Robert Johnson wishes GANE to represent his interest in this . . . proceeding" (Order at 4). It is not enough for an organization to show that it has a member -- like Mr. Johnson -- who resides or works near (or otherwise is in proximity to) a facility. Rather, the petitioner must show that it has been authorized to represent that member in the proceeding, and that the proceeding could result in harm to that member's interests. Absolutely no showing of this nature has been

¹² As the Licensing Board in the license renewal proceeding stated, the standing of an organizational group must be demonstrated by showing that "its interests, or those of its members" could be adversely affected by the proceeding. Order of November 23, 1994, at 4.

made by GANE.¹³ Thus, GANE has not established its representational standing to intervene in this proceeding.

B. The Request Fails to Demonstrate That GANE Could Be Adversely Affected by the Conversion Order.

In accordance with § 189(a) of the Atomic Energy Act (the "Act"), a potential intervenor must show it has an interest which may be "affected by the proceeding." The Commission's Rules of Practice, in 10 C.F.R. § 2.714(a)(2), similarly require that a request for hearing "shall set forth with particularity the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding, including the reasons why petitioner should be permitted to intervene, with particular reference to the factors in [10 C.F.R. § 2.714(d)(1)]."¹⁴ Similarly, the notice published in the *Federal Register* for this Order stated:

In accordance with 10 CFR 2.202, the licensee or any other person adversely affected by this Order may submit an answer to this Order, and may request a hearing on this Order within 20 days of the date of this Order. . . . Unless the answer

¹³ In contrast, in the license renewal proceeding, GANE filed numerous affidavits, including (1) an affidavit by Mr. Johnson, which indicated that he works about one-half mile from the GTRR and "in the event of a serious release of radiation from the facility, my personal health would suffer serious consequences" (*see* Amended Petition of December 30, 1994), (2) a supplemental affidavit by Mr. Johnson, filed January 13, 1995, which indicated that he was a member in good standing of GANE and authorized GANE to represent his interests in that proceeding, and (3) affidavits by two officers of GANE who authorized Ms. Carroll to represent GANE in the license renewal proceeding.

¹⁴ Section 2.714(d)(1) requires, *inter alia*, that the presiding officer consider (1) the nature of the requestor's right under the Atomic Energy Act to be made a party to the proceeding, (2) the nature and extent of the requestor's property, financial, or other interest in the proceeding, and (3) the possible effect of any order that may be entered in the proceeding on the petitioner's interest.

consents to this Order, the answer shall, in writing and under oath or affirmation, set forth the matters of fact and law on which the licensee or other person *adversely affected* relies and the reasons as to why the Order should not have been issued. . . . If a person other than the licensee requests a hearing, that person shall set forth with particularity *the manner in which the person's interest is adversely affected by this Order* and shall address the criteria set forth in 10 CFR 2.714 (d). . . .

60 Fed. Reg. at 32517 (emphasis added).

Notwithstanding these requirements, GANE failed to provide any indication as to how it or its members could be adversely affected by the issuance of the Conversion Order or by this proceeding. To the contrary, GANE has stated that it favors conversion of the reactor from HEU to LEU fuel.¹⁵ The sole issue raised in its Amended Petition involves its unsupported concern that the current configuration of the reactor may not be

¹⁵ GANE states, in pertinent part (Amended Petition at 1-2):

GANE acknowledges that we consider it responsible on the part of Georgia Tech to follow through on its mandate to convert from high-enriched uranium to low-enriched uranium as a fuel in an effort to make the reactor less of a security risk

* * *

GANE agrees, in general, with the statement on page 4 of the Order Modifying Facility Operating License No. R-97: ". . . the public health and safety and the common defense and security support a conversion of the facility from the use of HEU to LEU fuel."

appropriate for use in connection with LEU fuel (Amended Petition at 2-3).¹⁶ Such a generalized concern, bereft of supporting fact or analysis, fails to provide any reason to believe that the Conversion Order could result in harm to GANE or its members' interests. Accordingly, its request for hearing should be denied.

C. GANE Has Not Submitted A Legally Sufficient Contention.

1. Legal Standards Governing the Admission of Contentions

It is well established that contentions may only be admitted in an NRC adjudicatory proceeding if they fall within the scope of issues set forth in the *Federal Register* notice of hearing and comply with the requirements of 10 C.F.R. § 2.714(b) and applicable Commission case law.¹⁷ Pursuant to 10 C.F.R. § 2.714(b)(1), a petitioner for leave to intervene is required to file a list of the contentions it seeks to have litigated in the proceeding, at least one of which must satisfy the requirements of § 2.714(b)(2). Section 2.714(b)(2) requires that each contention "must consist of a specific statement of

¹⁶ GANE appears to have abandoned its earlier stated concerns that (1) the Order should not have been issued until the issue of license renewal is resolved, (2) the Order would permit HEU to remain onsite during the Olympics, posing a "tempting target" for terrorists, and (3) the Order should have been broader and required the removal of all radioactive materials from the facility during the Olympics (Initial Request at 1-2). The Staff has previously indicated that those concerns fail to state a factually correct or legally sufficient basis for hearing, and constitute matters which are beyond the proper scope of this proceeding. See Staff Response at 4-12.

¹⁷ See, e.g., *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170-71 (1976); *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974); *Duquesne Light Co.* (Beaver Valley Power Station, Unit 1), ALAB-109, 6 AEC 243, 245 (1973); *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188, 194 (1973), *aff'd sub nom. BPI v. Atomic Energy Commission*, 502 F.2d 424, 429 (D.C. Cir. 1974).

the issue of law or fact to be raised or controverted," and that the following information must be provided for each of the contentions:

(i) A brief explanation of the bases of the contention.

(ii) A concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing, together with references to those specific sources that and documents of which the petitioner is and on which the petitioner intends to rely to establish those facts or expert opinion.

(iii) Sufficient information . . . to show that a genuine dispute exists with the applicant on a material issue of law or fact. This showing must include references to the specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report. . . .

See generally, Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), CLI-91-12, 34 NRC 149, 155 (1991); *Long Island Lighting Co.*

(Shoreham Nuclear Power Station, Unit 1), LBP-91-35, 34 NRC 163, 167-68 (1991).¹⁸

¹⁸ These requirements are intended, *inter alia*, to ensure that a petitioner reviews the application and supporting documentation prior to filing contentions; that the contention is supported by at least some facts or expert opinion known to the petitioner at the time of filing; and that there exists a genuine dispute between the petitioner and the applicant before a contention is admitted for litigation -- so as to avoid the practice of filing
(continued...)

The Commission has recognized that, in amending this rule in 1989, it "raise[d] the threshold for the admission of contentions."¹⁹ Under the revised rule, a petitioner must provide a "clear statement as to the basis for the contentions and the submission of more supporting information and references to specific documents and sources that establish the validity of the contention. *Palo Verde, supra*, 34 NRC at 155-56. The Commission has summarized the revised rule as follows (*Id.* at 155):

These sections demand that all Petitioners provide an explanation of the bases for the contention, a statement of fact or expert opinion upon which they intend to rely, and sufficient information to show a dispute with the applicant on a material issue of law or fact. If any one of these requirements is not met, a contention must be rejected.

Further, pursuant to 10 C.F.R. § 2.714(d)(2), a contention must be rejected if:

- (i) The contention and supporting material fail to satisfy the requirements of [§ 2.714(b)(2)]; or
- (ii) The contention, if proven, would be of no consequence in the proceeding because it would not entitle petitioner to relief.

See generally, Palo Verde, supra, 34 NRC at 155; *Shoreham, supra*, 34 NRC at 167.

¹⁸(...continued)

contentions which lack any factual support and seeking to flesh them out later through discovery. *Shoreham, supra*, LBP-91-35, 34 NRC at 167, *citing Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 468 (1982), *rev'd in part on other grounds*, CLI-83-19, 17 NRC 1041 (1983).

¹⁹ *See* Statement of Consideration, "Rules of Practice for Domestic Licensing Proceedings - Procedural Changes in the Hearing Process," 54 Fed. Reg. 33,168 (Aug. 11, 1989), *as corrected*, 54 Fed. Reg. 39,728 (Sept. 28, 1989).

It is well established that the purpose for the basis requirements of 10 C.F.R. § 2.714(b)(2) is (1) to assure that the contention raises a matter appropriate for adjudication in a particular proceeding; (2) to establish a sufficient foundation for the contention to warrant further inquiry in the assertion; and (3) to put other parties sufficiently on notice of the issues so that they will know generally what they will have to defend against or oppose. *Peach Bottom, supra*, 8 AEC at 20-21; *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), LBP-91-19, 33 NRC 397, 400 (1991).²⁰

In addition, where, as here, a petitioner seeks to intervene in an NRC enforcement proceeding, it is well established that (a) the issues in the proceeding are limited to those set forth in the order, (b) the issues in such a proceeding may properly be limited to whether the facts stated in the order are true and whether the selected remedy is supported by those facts, and (c) an intervenor in an enforcement proceeding

²⁰ Further, a contention must be rejected if:

- (1) it constitutes an attack on applicable statutory requirements;
- (2) it challenges the basic structure of the Commission's regulatory process or is an attack on the regulations;
- (3) it is nothing more than a generalization regarding the petitioner's view of what applicable policies ought to be;
- (4) it seeks to raise an issue which is not proper for adjudication in the proceeding or does not apply to the facility in question; or
- (5) it seeks to raise an issue which is not concrete or litigable.

Peach Bottom, supra, 8 AEC at 20-21.

may not seek to impose a stricter remedy than the NRC seeks to impose; rather, any such demand should properly be made in a petition filed pursuant to 10 C.F.R. § 2.206.²¹

An application of these principles to the issues raised by GANE in its Amended Petition demonstrates that it has failed to submit a legally acceptable contention for litigation in this proceeding.

2. The Admissibility of GANE's Contention.

GANE has not set forth precisely any particular contention which it seeks to litigate in this proceeding. Rather, GANE has set forth the following discussion, which appears to constitute the sole "contention" it wishes to litigate herein:

GANE contends that Georgia Tech is risking the public health and safety in its conversion plan. The optimum method for Georgia Tech to convert its reactor from high-enriched fuel to low-enriched fuel requires a core reconfiguration which costs several million dollars. In lieu of a straightforward, albeit expensive, approach to conversion, Georgia Tech has submitted various theories and paper proofs that the reactor as currently configured will operate, and operate safely, by inserting extra LEU into the reactor.

GANE refers you to section 2.15 *Reactor Startup Testing* on p. 11 of the aforementioned Safety Evaluation which states, "The licensee is to submit a startup report to the NRC on the results of this startup testing. This startup testing will provide

²¹ See, e.g., *Sequoyah Fuels Corp.* (Gore, OK site), CLI-94-12, 40 NRC 64, 69-70 (1994); *Sequoyah Fuels Corp.* (UF₆ Production Facility), CLI-86-19, 24 NRC 508, 513-14 (1986); *Boston Edison Co.* (Pilgrim Nuclear Power Station), CLI-82-16, 16 NRC 44, 45 (1982), *aff'd*, *Bellotti v. NRC*, 725 F.2d 1380 (D.C. Cir. 1982); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441-42 (1980).

verification of key LEU reactor functions, and, therefore, is acceptable."

GANE finds it unacceptable to operate a reactor in the middle of a large population center. To experiment with the reactor's function in the middle of downtown Atlanta is definitely unacceptable. Until the last fuel rod is inserted, how the reactor will operate remains theory. In that telling moment, there is the possibility of a criticality accident. To impose upon Atlanta an experiment with a critical mass in a 30-year old reactor is unsafe and an unnecessary risk. At the minimum, we call on Georgia Tech [to] configure its reactor properly to receive and use the low-enriched uranium fuel.

Amended Petition at 2-3.

As is apparent from the above statement, GANE questions whether the Licensee has sufficient information at this time to support its continued use of the current reactor configuration with the LEU fuel. Nowhere, however, does GANE provide any reason to believe that the reactor configuration, authorized by the Conversion Order, is unsafe for use with the LEU. Further, while GANE claims that "Georgia Tech is risking the public health and safety in its conversion plan," no fact or expert opinion is provided to support such a claim. Similarly, no basis is provided to support GANE's personal opinion that "the optimum method" for conversion of the reactor "requires a core reconfiguration which costs several million dollars." While GANE contends that Georgia Tech's proposal is based on "various theories and paper proofs that the reactor as currently configured will operate, and operate safely," it fails to provide any reason to believe that the Licensee's analyses and conclusions (or the Staff's SER) are deficient,

or that the Conversion Order should not be sustained. Similarly, while GANE asserts that use of the existing configuration for LEU constitutes an "experiment" based on untested "theory," it fails to provide any "statement of fact or expert opinion" upon which it intends to rely, nor does it provide "sufficient information to show a dispute with the applicant on a material issue of law or fact," as it is required to do pursuant to 10 C.F.R. § 2.714(b)(2). See *Palo Verde, supra*, CLI-91-35, 34 NRC at 155-56. As the Commission has stated, "[i]f any one of these requirements is not met, a contention must be rejected." *Id.*

In its contention, GANE refers to section 2.15 of the Staff's SER, entitled "Reactor Startup Testing," in which the following statement appears:

The licensee plans to make sub-critical measurements for the LEU fuel loading. The startup testing program also includes control rod and power calibrations, and temperature coefficient, flux distribution, shutdown margin, excess reactivity, and void coefficient measurements. *The Licensee is to submit a startup report to the NRC on the results of this startup testing. This startup testing will provide verification of key LEU reactor functions, and, therefore, is acceptable.*

SER at 11; emphasis added. GANE focuses upon the last sentence of this statement, claiming that "until the last fuel rod is inserted, how the reactor will operate remains theory," and that the Staff's requirement of a report on the results of this startup testing shows that the use of this core configuration at the GTRR is an "experiment."

In making these assertions, however, GANE appears to have misinterpreted the portions of the SER upon which it relies. Thus, GANE fails to recognize that the

purpose of the startup report is only to "verify" what has already been predicted by past experience at other reactors and by the applicable safety analyses -- *i.e.*, startup testing is performed (here, as at all reactors) to provide additional assurance that the reactor will operate as designed, consistent with previously established design characteristics.²²

Contrary to GANE's suggestion, the Staff's SER indicates that the use of this LEU fuel design in the GTRR (as currently configured) has already been determined to be acceptable, not on the basis of startup testing but on the basis of past experience and design analyses. The SER explicitly states that the GTRR fuel design is within the bounds of fuel designs that have been used previously and found to be acceptable at other converted reactors:

Prototypes of these fuel plates were tested extensively in the Oak Ridge Research Reactor under operational and hostile environmental conditions that would be extreme for most NPRs, including the GTRR, and demonstrated acceptable fuel performance. The NRC staff approved the use of this type of fuel in NUREG-1313 (Reference 2). The characteristics of the fuel proposed for the LEU conversion at the GTRR are within the boundaries of the tested fuel evaluated in NUREG-1313. This fuel design is also similar to designs previously found acceptable and operating successfully at

²² See generally, 10 C.F.R. § 50.34(b)(6)(iii) (requiring applicants to submit "plans for preoperational testing and initial operations" in the Final Safety Analysis Report); 10 C.F.R. Part 50, Appendix B, Section XI (requiring nuclear reactor licensees to establish test programs including preoperational and operational testing); Reg. Guide 1.68, "Initial Test Programs for Water-Cooled Nuclear Power Plants" (Rev. 2, August 1978), at 1.68-3, and 1.68-13 *et seq.*; Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), DD-88-11, 28 NRC 49, 56 (1988).

several converted reactors. Therefore, the proposed fuel construction and geometry are acceptable.²³

In addition, the SER expressly considered the GTRR's core configuration, and found it to be acceptable for use with the LEU fuel (SER at 3); the SER found that the calculated changes in critical and operating masses of U_{235} under the proposed conversion are "consistent with previous experience with reactors converted from HEU to similar LEU fuel," and are acceptable (*Id.* at 4-5); and the SER indicated that other non-power reactors have considerable experience with this type of fuel. *Id.* at 3.²⁴

²³ SER at 3, *citing* "Safety Evaluation Report Related to the Evaluation of Low-Enriched Uranium Silicide-Aluminum Dispersion Fuel for Use in Nonpower Reactors," NUREG-1313 (July 1988). NUREG-1313 provides a discussion of numerous tests and examinations that were considered by the Staff, including extensive irradiation and operational verifications of the LEU fuel design proposed for the GTRR, materials properties, and irradiation behavior. *See* NUREG-1313 at 3-8, and Appendices A and B thereto.

²⁴ Similarly, the SER considered other aspects of GTRR operation using the LEU fuel, and concluded that the Licensee's analyses, past experience at other non-power reactors, and/or extensive testing demonstrated such operation to be acceptable. *See, e.g.,* SER § 2.5 (reactor physics parameters); § 2.7 (excess reactivity); § 2.8 (control rod worths and shutdown margin); § 2.9 (D_2O Reflector Worth); § 2.10 (core power characteristics); § 2.11 (thermal hydraulics); § 2.12 (reactivity feedback coefficients); § 2.13 (fission product inventory and containment); and § 2.14 (potential accident scenarios). The SER concluded:

The operational and safety factors that could be impacted by the use of the NRC-accepted LEU fuel in place of HEU fuel in the GTRR have been reviewed and evaluated. The conversion, as proposed, would not reduce any safety margins, would not introduce any new safety issues, and would not lead to increased radiological risk to the public or the environment. Therefore, the conversion of the GTRR to the use of LEU fuel is acceptable.

GANE altogether fails to address these SER findings. Further, it provides no basis for its contrary claim that the GTRR's use of this fuel design constitutes an untested "experiment" or "theory," and it fails to provide any "statement of fact or expert opinion" upon which it intends to rely, or "sufficient information to show a dispute with the applicant on a material issue of law or fact" as is required pursuant to 10 C.F.R. § 2.714(b)(2).

Finally, no basis has been provided to support GANE's assertion that the use of this design "in a 30-year old reactor is unsafe and an unnecessary risk," or that conversion to LEU "requires a core reconfiguration which costs several million dollars," nor did GANE provide any rationale to support its view that Georgia Tech should configure its reactor in a different manner than has been proposed (*i.e.*, "properly") (Amended Petition at 3). No basis has been provided to suggest that the proposed configuration is inadequate, or that the findings and conclusions in the SER are incorrect.

Even if GANE had presented a legally admissible contention asserting that the Licensee's proposal is unsafe, the Licensing Board could not consider whether some other design should be imposed, as suggested by GANE. The Licensing Board may only consider whether the instant Order should be sustained, not whether some alternate Order should be issued. Thus, in *Sequoyah Fuels, supra*, the Commission denied several hearing requests filed in connection with an order imposing a number of restrictions on a facility license, where the requestors' stated concerns were found to "fall outside the scope of the proceeding as it is properly defined by the order." *Id.*, CLI-86-19, 24 NRC at 512. In particular, the Commission stated that the proper scope of the proceeding was

limited to determining whether the facts stated in the order are true and sufficient to sustain the remedy selected. *Id.* at 513. The Commission rejected the intervenors' attempt to question "whether other, more stringent requirements might be warranted," and whether other remedies beyond those stated in the order might make the facility safer. *Id.* at 513-14.

In sum, the Staff opposes the admission of this contention on the grounds that it fails to comply with 10 C.F.R. § 2.714(b)(2)(ii) and (iii): Nowhere does GANE present any expert opinion or analysis to support the credibility of its assertion that the existing reactor configuration is improper for use with LEU, and nowhere does it provide sufficient information to demonstrate the existence of a genuine dispute on a material issue of fact or law. Rather, GANE provides only a series of its own unsupported opinions, bereft of any supporting fact or expert opinion. While GANE urges the Licensing Board to find that the Conversion Order is based on unacceptable "theory," it does not provide any reason to believe that the Licensee's analyses or the Staff's SER are incorrect or that the Conversion Order (which modifies the license to authorize implementation of the Licensee's proposal) presents a serious safety concern. Accordingly, its contention should be rejected.

3. Other Assertions by GANE.

In addition to the generalized "contention" discussed above, GANE includes in its Amended Petition several requests for independent action by Georgia Tech, that do not constitute contentions. For example, GANE "encourages Georgia Tech to reconsider its premise of continuing to operate an aged reactor on its campus in downtown Atlanta";

it "encourage[s] Georgia Tech to document its fuel removal effort and distribute the documentation to other educators"; and it "beg[s] Georgia Tech to reorient its nuclear focus following fuel removal on dry-cask development and other nuclear waste needs." Amended Petition at 3.

These matters, along with the explanatory statements which accompany them, are not proper subjects for consideration in this proceeding. Rather, as set forth above, the proper issue(s) for consideration in a proceeding on an enforcement order, such as the instant proceeding, is whether the Order should be sustained -- indeed, the Conversion Order, itself, states that if a hearing is held, "the issue to be considered is whether this Order should be sustained." *Id.*, 60 Fed. Reg. at 32517.²⁵ Accordingly, these other statements and requests for independent action by Georgia Tech are inappropriate for consideration in this proceeding and should be disregarded.²⁶

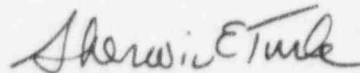
²⁵ See, e.g., *Marble Hill*, *supra*, CLI-80-10, 11 NRC at 441 (upholding an enforcement order's statement that the issues in the proceeding would be limited to whether the facts stated in the order are true and whether the order should be sustained).

²⁶ Pursuant to *Peach Bottom*, *supra*, 8 AEC at 20-21, a contention must be rejected, *inter alia*, if it is nothing more than a generalization regarding the petitioner's view of what applicable policies ought to be, if it seeks to raise an issue which is not proper for adjudication in the proceeding, or if it seeks to raise an issue which is not concrete or litigable.

CONCLUSION

For the reasons set forth above and in the Staff's Response of July 28, 1995, the Staff submits that GANE has failed to demonstrate its standing to intervene in this proceeding, and it has failed to submit an acceptable contention for litigation in this proceeding. Accordingly, the Staff opposes GANE's request for hearing, and recommends that its Amended Petition be denied.

Respectfully Submitted,



Sherwin E. Turk
Counsel for NRC Staff

Dated at Rockville, Maryland
this 11th day of September 1995

DOCKETED
USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'95 SEP 12 P4:10

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)
)
GEORGIA INSTITUTE OF TECHNOLOGY) Docket No. 50-160-OM
)
(Georgia Tech Research Reactor)) ASLBP No. 95-710-01-OM
)
(Facility License No. R-97))

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO AMENDED PETITION FOR LEAVE TO INTERVENE ON CONVERSION ORDER FILED BY GEORGIANS AGAINST NUCLEAR ENERGY" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system on this 11th day of September 1995.

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Washington, D. C. 20555

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Office of the Secretary* (2)
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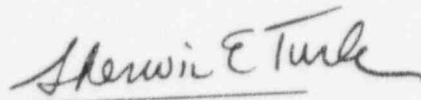
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