

January 4, 2002

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

**DOCKETED
USNRC**

In the Matter of)

DUKE COGEMA STONE & WEBSTER)

(Savannah River Mixed Oxide Fuel)
Fabrication Facility))

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OFFICE OF THE SECRETARY
RULING MAKINGS AND
ADJUDICATIONS STAFF

Docket No. 0-70-03098

ASLBP No. 01-790-01-ML

**GEORGIANS AGAINST NUCLEAR ENERGY'S
PETITION FOR INTERLOCUTORY REVIEW**

Georgians Against Nuclear Energy ("GANE") hereby petitions the Commission for interlocutory review of the Licensing Board's Memorandum and Order (Ruling on Motion to Dismiss) (December 20, 2001) ("Memorandum and Order"), which denies GANE's motion to dismiss or hold in abeyance the pending proceeding for the authorization of construction of Duke Cogema Stone & Webster's ("DCS's") proposed Mixed Oxide Fuel Fabrication Facility ("MOX Facility").¹

I. FACTUAL AND PROCEDURAL BACKGROUND

A. Regulatory Framework

NRC regulations in 10 C.F.R. Part 70 contemplate that an entity seeking to build and operate a plutonium processing plant will file a single application that is complete with respect to both construction and operation. *See* 10 C.F.R. §§ 70.21, 70.22(f). The regulations make it quite clear that for a plutonium processing plant like the MOX

¹ *See* Georgians Against Nuclear Energy's Motion to Dismiss Licensing Proceeding or, In the Alternative, Hold It In Abeyance (August 13, 2001) ("Motion to Dismiss").

Facility, the license application must include information related to *both* construction/design and operation. *See* 10 C.F.R. § 70.22(f). Moreover, the completed license application must be submitted at least *nine months* before construction begins. 10 C.F.R. § 70.21(f).

The standard for approval of a special nuclear materials license application is found in 10 C.F.R. § 70.23(a), which provides that an application will be approved if the Commission determines that the facility meets various requirements for safe operation. *See* 10 C.F.R. 70.23(a)(1)-(12).² For plutonium processing and fuel fabrication plants, § 70.23 establishes an additional licensing requirement related to the safe design and construction of the facility. Section 70.23(b) requires prior NRC approval of the construction of “the principal structures, systems, and components” of the plant, when:

the Commission has determined that the design bases of the principal structures, systems, and components, and the quality assurance program provide reasonable assurance of protection against natural phenomena and the consequences of potential accidents.

After construction, the NRC must then determine that “construction of the principal structures, systems, and components approved pursuant to paragraph (b) of this section has been completed in accordance with the application.” 10 C.F.R. § 70.23(a)(8). Section 70.23(a)(7) also requires that, before construction of a processing and fuel fabrication facility begins, the NRC must complete its environmental review.

B. Factual and Procedural Background

On April 18, 2001, the NRC noticed the docketing of something called a “Construction Authorization Request” that had been filed on February 28, 2001, by

² Other provisions require the NRC to approve measures for preventing criticality accidents and financing decommissioning. *See* 10 C.F.R. §§ 70.24 and 70.25.

DCS.³ The CAR contained information related to the design and construction of the proposed MOX Facility, but did not address NRC requirements for operation. The notice does not refer to the CAR as a license application. Indeed, the NRC Staff subsequently clarified that: "the Applicant is not currently seeking an SNM license."⁴

The April 18 Federal Register notice also offered the public an opportunity to request a hearing with the following scope:

In order to approve the CAR, the NRC must find that the design bases of the proposed MOX fuel fabrication facility's principal structures, systems, and components, together with the DCS quality assurance plan, 'provides reasonable assurance of protection against natural phenomena and the consequences of potential accidents.' 10 CFR 70.23(b). Additionally, to meet the NRC's responsibilities under the National Environmental Policy Act (NEPA), the NRC's environmental review of the proposed licensing action must determine whether 'the action called for is the issuance of the proposed license.' 10 C.F.R. 70.23(a)(7).

In response to the Notice of Hearing, GANE filed a petition to intervene and request for hearing on May 17, 2001.

³ See Notice of Acceptance of Application for Docketing, and Notice of Opportunity for a Hearing, 66 Fed. Reg. 19,994, 19,995. In addition, the NRC docketed an Environmental Report and Quality Assurance plan submitted by DCS.

⁴ See NRC Staff Answer to Georgians Against Nuclear Energy's Motion to Dismiss Licensing Proceeding Or, In the Alternative, Hold It In Abeyance at 6 (August 28, 2001). This statement contradicts previous correspondence from the Staff to DCS, in which the Staff stated that the CAR would be considered to be "part of" a license application." See letter from Andrew Persinko, NRC, to Peter S. Hastings, DCS at 1 (January 17, 2001). A copy of the letter is attached to GANE's Motion to Dismiss as Exhibit 1. The same letter also informed DCS that under a schedule proposed by DCS for review of the CAR and issuance of a construction permit, the NRC intended to treat the filing of the CAR and Environmental Report as complying with the requirement of 10 C.F.R. § 70.21(f) that the license application must be filed at least nine months prior to the commencement of construction. *Id.*

On May 25, 2001 the NRC Staff issued a revision to a detailed proposed schedule for the MOX Facility review⁵ and published the schedule on its former MOX website:

| | |
|--------------------|--|
| February 28, 2002 | Staff issues Draft EIS for public comment |
| April 30, 2002 | Staff issues draft Safety Evaluation Report ("SER") for construction of MOX Facility |
| July 31, 2002 | DCS submits license application for operation of MOX Facility |
| September 30, 2002 | Staff issues Final EIS |
| September 30, 2002 | Staff issues SER for construction of MOX Facility |
| July 31, 2004 | Staff issues final SER for operating license |
| October 31, 2004 | Hearing on operating license begins |

This schedule shows that the Staff intends to allow construction to begin two months after DCS submits its license application, rather than the nine months required by 10 C.F.R. § 70.21(f). It also shows that the Staff does not intend to begin, let alone complete, the safety review for operation of the MOX plant until after the EIS is issued.

On June 14, 2001, the NRC Commissioners referred this case to the Atomic Safety and Licensing Board ("ASLB"), and confirmed the scope of the CAR review proceeding as defined in the Notice of Hearing.⁶ On July 17, 2001, the ASLB issued a Memorandum and Order setting a litigation schedule and hearing procedures.

On August 13, 2001, GANE filed its Motion to Dismiss.⁷ The other parties responded, GANE replied, and the ASLB heard oral arguments in a prehearing

⁵ A hard copy of the schedule is attached as Exhibit 3 to the Motion to Dismiss.

⁶ *Duke, COGEMA, and Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-13, 53 NRC 478 (2001). The Commission also directed the ASLB to establish a schedule for the hearing, based on a goal of issuing an initial decision on the CAR within two years of the submission of the CAR. *Id.*, 53 NRC at 484.

⁷ Simultaneous with its Motion to Dismiss, GANE also filed a set of contentions regarding the CAR. On December 6, 2001, the ASLB issued a decision ruling that GANE has standing, and admitting the majority of GANE's contentions. LBP-01-35, Memorandum and Order (Ruling on Standing and Admissibility of Contentions).

conference on September 21, 2001.⁸ On December 20, 2001, the ASLB denied GANE's Motion to Dismiss, without ruling on the merits of the motion. Memorandum and Order (Ruling on Motion to Dismiss). The ASLB also refused to certify the issue to the Commission. *Id.*⁹

II. ARGUMENT

The ASLB has refused to address the merits of GANE's Motion to Dismiss, on the ground that either the issues already have been decided by the Commission or it lacks authority to do so.¹⁰ Therefore, GANE requests that the Commission immediately revisit the directives in the hearing notice and CLI-01-13 with respect to the docketing of the CAR, the decision to approve construction before the license application has been completed, and the decision to complete the NEPA environmental review before the Staff has finished its safety review of the completed license application. These decisions violate both the letter and the spirit of the Atomic Energy Act and its implementing regulations governing the licensing of plutonium processing facilities, and the National Environmental Policy Act ("NEPA"). They also violate GANE's hearing rights by

⁸ See Duke Cogema Stone & Webster's Answer to Georgians Against Nuclear Energy's Motion to Dismiss, Etc. (August 21, 2001); GANE's Reply to DCS and NRC Staff's Oppositions, etc. (September 7, 2001). NRC Staff Answer to Georgians Against Nuclear Energy's Motion to Dismiss Licensing Proceeding Or, In the Alternative, Hold It In Abeyance (August 28, 2001); Transcript of Prehearing Conference at 371-410.

⁹ GANE anticipated that the ASLB might not find it had the authority to rule on the motion, but believed the issue was unclear. Therefore, and in accordance with 10 C.F.R. §§ 2.1237(a) and 2.730(a), GANE filed the motion with the ASLB in the first instance.

¹⁰ *Id.*, slip op. at 3. In denying GANE's Motion to Dismiss, the ASLB concluded that the Commission "already has effectively decided the issue raised by GANE" in the April 18 hearing notice and CLI-01-13. *Id.*, slip op. at 2. It is not apparent from these documents, however, that the Commission was aware that the Staff's proposal to docket the CAR violated NRC's Part 70 and NEPA requirements. Indeed, on the surface, the Staff's approach has a deceptive appearance of legitimacy, because it imitates the

forcing GANE to define the scope of the hearing it seeks, without the benefit of a completed license application.¹¹

GANE submits that immediate review is warranted under 10 C.F.R. §§ 2.786(b) and (g), because this proceeding is being conducted far outside the bounds of the law. Moreover, the illegal actions in this proceeding affect the basic structure of the proceeding in a pervasive and unusual manner, by establishing a process for decisions about the safety of design and construction and compliance with NEPA, without the benefit of a complete license application. In the apparent interest of expediting construction of a new MOX facility, regulations that were designed to ensure a particularly integrated and rigorous safety and environmental review of design/construction and operational issues for plutonium processing plants have been twisted to achieve a piecemeal safety review and an incomplete environmental review, overseen by an ineffective hearing process. These violations are particularly egregious in the face of the stated purpose of the MOX facility, which is to safeguard 38 tons of the nation's weapons plutonium. These violations demand immediate review.

A. The CAR Should Not Have Been Docketed for a Hearing.

As discussed above in Section I.A, NRC regulations require that at least nine months before construction begins, any entity seeking to build or operate a plutonium processing facility must file a completed license application that addresses *both* construction/design and operation. The history of the regulations shows that before 1971,

statutorily authorized two-step licensing process for nuclear power plants. *See* note 14, *infra*.

¹¹ Space constraints do not permit GANE to address, in this petition, the additional legal violations that are incident to these three principal errors. They are discussed in detail in GANE's Motion to Dismiss at pages 23-27.

the NRC reviewed only operation, and not design and construction of plutonium processing plants. In 1971, the Commission proposed new regulations whose purpose was to "provide for Commission review of the site and design bases for plutonium processing and fuel fabrication for which a license is sought, prior to the beginning of plant construction."¹² The Commission clearly contemplated that the review of the operating license application and design bases would take place simultaneously, not sequentially as proposed in this case. See 36 Fed. Reg. at 17,574. Thus, an important element of the new rule was the requirement that the entire application must be filed at least six months¹³ before commencement of construction:

Under the proposed amendments, an application for a license to possess and use special nuclear material in a plutonium processing and fuel fabrication plant would have to be filed at least 6 months before the beginning of plan construction. Such an application would be required to contain, *in addition to other required information*, a description of the plant site, a description and safety assessment of the design bases of the principal plant structures, systems and components and a description of the quality assurance program to be applied to the design, fabrication, construction, testing and operation of structures, systems and components of the plant.

¹² Proposed Rule, Plutonium Processing and Fuel Fabrication Plants, 36 Fed. Reg. 9,786 (May 28, 1971). The Commission's heightened concern for the safety of plutonium processing facilities is evident in the statement of considerations for the Final Rule, which directs applicants to "select sites which are at reasonable distances from densely populated areas." Final Rule, Plutonium Processing and Fuel Fabrication Plants, 36 Fed. Reg. 17,573, 17,574 (September 2, 1971). In addition, the Commission considered the rule to be so important "in regard to the public health and safety" that it made the rule immediately effective on publication. *Id.*

¹³ The time for filing a license application was subsequently lengthened to nine months, "[i]n order to assure that an opportunity is provided for full consideration of environmental effects before site preparation is begun." Final Rule, Prohibition of Site Preparation and Related Activities, 37 Fed. Reg. 5,745 (March 21, 1972). Again, this change shows an intention by the Commission to permit sufficient time for review of the entire license application, including newly required environmental documents, before construction began.

Id. (emphasis added). Accordingly, the Commission's purpose in providing for pre-licensing approval of plutonium plant designs was to strengthen the safety requirements for a particularly dangerous type of facility, not to provide a short-cut for early construction before completion of a license application.

Rather than follow the Commission's regulatory prescription for a rigorous and integrated licensing review that includes both construction/design and operation, the April 18 hearing notice set forth an *ad hoc* two-step review process for the MOX facility, under which construction may be approved on the sole basis of the CAR which is not a lawful or valid application.¹⁴ Under this plan, the Staff will not finish its review of the information related to how DCS will operate the plant until after construction is underway. Not until 2004, long after the construction permit and Final EIS have been issued, does the NRC Staff plan to issue findings regarding the safety of operating the MOX Facility. At that point, in the reasonably foreseeable event that design changes are deemed necessary in order to meet requirements for safe operation, the plant will have been built thus precluding changes or making them prohibitively expensive.

The weakening effect of the NRC's bifurcated approach on the rigor of the NRC's safety review is readily apparent. Under 10 C.F.R. § 70.23(b), in order to approve construction, the NRC must find that "the design bases of the principal structures,

¹⁴ The Staff's *ad hoc* approach appears to be modeled on the two-step process for the licensing of a nuclear power plant. However the Staff has no legal basis for a model. While two-step reactor licensing is permitted by both the Atomic Energy Act and its implementing regulations [*see* 42 U.S.C. § 2235, 10 C.F.R. §§ 50.34(a) and (b), 10 C.F.R. § 2.101(a)(3)], neither the Atomic Energy Act nor NRC regulations authorize two-step licensing of plutonium processing plants. To the contrary, the Part 70 regulations specifically provide for the filing of a single license application at least nine months before construction may commence. The "Construction Authorization Request" is a pure invention of the NRC Staff that lacks any basis in the Federal Code.

systems, and components and the quality assurance program provide reasonable assurance of protection against natural phenomena and the consequences of accidents.” Without the benefit of details about the proposed operation and procedures as required by 10 C.F.R. § 70.22(a)(8), however, it is impossible to fully assess the manner in which natural phenomena may affect the plant, and what kinds of accidents may occur. As a result, it is therefore impossible, to make a full and fair determination regarding the applicant’s satisfaction of 10 C.F.R. § 70.23(b).¹⁵

B. The Schedule for Review of the MOX Application Violates NEPA.

As provided by 10 C.F.R. § 70.22(a)(7), the NRC Staff must complete its environmental review of the entire license application, from construction through termination of the license, before allowing any construction to begin on the MOX Facility. In conducting its environmental review for the proposed MOX Facility, however, the NRC Staff apparently has no intention of reviewing DCS’s compliance with NRC requirements for safe operation of the MOX Facility. Under the Staff’s schedule, at the time the Final EIS is issued (September 30, 2002), the Staff will have completed its safety review only for the construction of the facility.¹⁶

¹⁵ This difficulty is illustrated in GANE’s Contentions 1 and 2, regarding the adequacy of the design of the MOX Facility to comply with NRC safeguards and security requirements. In evaluating DCS’s satisfaction of 10 C.F.R. § 70.23(b), GANE has found that it is extremely difficult to assess the adequacy of the facility’s design in the absence of a Material Control and Accounting Plan or a security plan. *See* GANE’s Contentions (August 13, 2001). In addition, as discussed in Section B. below, the incompleteness of the license application frustrates a complete environmental review.

¹⁶ The proposed date for submission by DCS of the license application for operation of the MOX Facility is not until July 31, 2002, two months before issuance of the Final EIS. The Staff does not plan to issue an SER for operation until July 31, 2004, almost two years *after* issuance of the Final EIS.

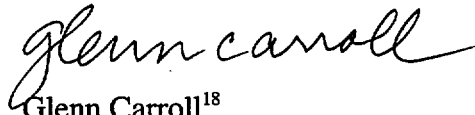
In an EIS, the NRC must comply with NEPA "to the fullest extent possible" by taking a "hard look" at environmental impacts.¹⁷ With respect to the operation of nuclear facilities, the health and environmental impacts of greatest concern are the radiological impacts incurred during normal operations and accidents. These impacts are controlled chiefly through the imposition of regulatory limits on the design and operation of the facilities. The NRC Staff cannot possibly be deemed to have taken a "hard look" at the impacts of the proposed MOX Facility if its evaluation does not include a rigorous assessment of whether the applicant will minimize risks to public health and the environment by complying with safety and safeguards regulations during operation. Yet, this is exactly what the NRC Staff proposes to do in the MOX proceeding, by issuing an EIS before it has had an opportunity to review the adequacy of the license application to support the safety of operation of the MOX Fuel Facility.

III. CONCLUSION

For the foregoing reasons, the Commission should take immediate review of the issues raised in GANE's Motion to Dismiss.

¹⁷ *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 838 (D.C. Cir. 1972). See also *Citizens for Safe Power v. NRC*, 524 F.2d 1291, 1299 (D.C. Cir. 1975) (the requirements of the Atomic Energy Act cannot "be viewed separate and apart from NEPA considerations").

Respectfully submitted,

A handwritten signature in cursive script that reads "Glenn Carroll".

Glenn Carroll¹⁸
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Dated January 4, 2002
in Decatur, Georgia

¹⁸ This petition for review was prepared with substantial assistance from GANE's legal adviser, Diane Curran.

CERTIFICATE OF SERVICE
by Georgians Against Nuclear Energy
(Docket # 70-3098, ASLBP # 01-790-01-ML)

I hereby certify that copies of GANE's Petition for Interlocutory Review and Request for Stay of Hearing were sent to the following by e-mail with paper copies served via U.S. First Class Mail.

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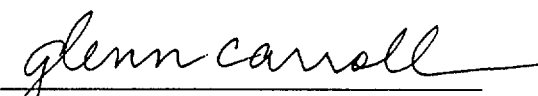
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