

April 11, 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

_____)	
In the Matter of)	
)	
AMERGEN ENERGY COMPANY, LLC)	Docket No.
(Oyster Creek Nuclear Generating Station))	50-219-LR
_____)	

MOTION BY NUCLEAR INFORMATION AND RESOURCE SERVICE; JERSEY SHORE NUCLEAR WATCH, INC.; GRANDMOTHERS, MOTHERS AND MORE FOR ENERGY SAFETY; NEW JERSEY PUBLIC INTEREST RESEARCH GROUP; NEW JERSEY SIERRA CLUB; AND NEW JERSEY ENVIRONMENTAL FEDERATION TO STAY LICENSE RENEWAL PROCEEDINGS FOR OYSTER CREEK NUCLEAR POWER PLANT PENDING RESOLUTION OF THE SIGNIFICANT NEW ISSUE NOTIFIED BY STAFF

Submitted by:

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I. PRELIMINARY STATEMENT

Pursuant to the Atomic Energy Act (“AEA”), 42 U.S.C. §§ 2133(d), 2201(b) and (c), 2232(a), and 2239(a)(1)(A); and implementing regulations 10 C.F.R. §§ 2.323 and 54.29, Nuclear Information and Resource Service; Jersey Shore Nuclear Watch, Inc.; Grandmothers, Mothers and More for Energy Safety; New Jersey Public Interest Research Group; New Jersey Sierra Club; and New Jersey Environmental Federation (“Citizens”) hereby request the U.S. Nuclear Regulatory Commission (“NRC” or “Commission”) to stay the currently pending license renewal proceedings for the Oyster Nuclear Generating Station (“Oyster Creek”) because the NRC Staff have notified the Commission of a significant new issue concerning the analysis of metal fatigue for safety-critical parts of the reactor pressure vessel, including the recirculation nozzles. In addition, New Jersey Sierra Club and New Jersey Environmental Federation request a stay pursuant to 10 C.F.R. § 2.802(d) or other authority because judicial review of the Commission’s rejection of their petition for rulemaking regarding relicensing is currently pending.

Because Oyster Creek’s safety depends on the resolution of the metal fatigue issue (among others), the Commission cannot make the required findings that there is reasonable assurance that the reactor can operate within NRC requirements for another 20 years.¹

Thus, the Commission should stay these proceedings until the metal fatigue issue is fully

¹ In bringing this motion, Citizens do not concede that compliance with the current NRC regulations for renewal of nuclear power plant operating licenses is sufficient to provide adequate assurance that public health and safety will be protected during the license renewal term. In fact, New Jersey Sierra Club and New Jersey Environmental Federation have appealed a decision by the Commission refusing to expand the scope of its license renewal program to include such issues as the adequacy of the evacuation plans and the vulnerability of spent fuel storage systems to terrorist attack. *New Jersey Sierra Club et al. v. NRC*, No. 07-1276 (2d Cir.). Nevertheless, compliance with the current license renewal rules is minimally and absolutely essential to any assurance of safety during the license renewal term.

resolved. Furthermore, safety at Oyster Creek is a matter of great general importance and intense interest for Citizens. Despite the sparse nature of the notification provided by the NRC Staff on April 3, 2008, Citizens now know that the Staff failed to spot a deficiency in AmerGen Energy Co. LLC's ("AmerGen") methodology for calculating the metal fatigue factors until the problem was highlighted in the license renewal proceeding concerning the Vermont Yankee Nuclear Generating Station ("Vermont Yankee"). To minimize any potential for such an omission to recur, Citizens respectfully request the Commission to order AmerGen to transmit a non-proprietary version of the confirmatory analysis to the parties in this proceeding. Finally, to prevent Citizens' hearing rights under the AEA being curtailed by the timing of the NRC Staff's notification, Citizens request that the Commission delay any final decision on licensing until after Citizens are afforded a reasonable time to review the confirmatory analysis and decide whether to move to add a new contention in this proceeding.²

The Motion also serves to further illustrate that, as previously alleged in Citizens' Petition, dated January 3, 2007, the license renewal safety reviews conducted by the NRC Staff have failed to identify and fully resolve safety issues associated with operating degraded nuclear plants for 20 years beyond their initial 40 year life and so license renewal proceedings should be suspended while the reviews are repeated in a manner that assures that they are of acceptable quality.

At minimum, the effect of the notification will be to delay the outcome of this proceeding. This delay provides an opportunity for the Commission to make its final

² Citizens are currently deciding whether it is necessary to file a new contention prior to the completion of the confirmatory analysis to protect their hearing rights. Irrespective of this decision, Citizens request that the Commission enable them to review whether the confirmatory analysis contains new information that would justify reopening the hearing record and allowing the admission of a new contention.

licensing decision more certain by awaiting the outcome of the long-pending judicial review of the Commission's decision to reject a rulemaking petition from New Jersey Sierra Club and New Jersey Environmental Federation to expand the scope of the license renewal program to include such issues as the adequacy of the evacuation plans and the vulnerability of spent fuel storage systems to terrorist attack. *See New Jersey Sierra Club et al. v. NRC*, No. 07-1276 (2d Cir.). New Jersey Sierra Club and New Jersey Environmental Federation therefore request the Commission to grant a stay of the licensing decision for Oyster Creek until the litigation regarding their petition is resolved.³

II. SUMMARY OF RELEVANT FACTS

On April 3, 2008 the NRC Staff notified the Commission that use of a simplified method to calculate cumulative usage factors for recirculation nozzles at Oyster Creek may not be conservative. Memorandum from Samson S. Lee to the Commission, dated April 3, 2008 *available at* ML080930335. The Staff therefore announced its intention to ask AmerGen to perform a confirmatory analysis consistent with the methodology in Section III of the ASME Code. *Id.* A newspaper article about the notification quoted NRC's spokesman, stating that if a recirculation nozzle breaks, "it could lead to a severe accident, it would be a challenging situation for the control room operators." Todd Bates, *NRC Want Nuclear Plant's Water Nozzles Rechecked*, Asbury Park Press, April 7, 2008. NRC's spokesman continued by stating that the nozzle is "one of those components that needs to be carefully monitored." *Id.* When Citizens sought additional information from the Staff regarding the Notification, the Staff told them to look at the filings regarding metal fatigue

³ Citizens have consulted counsel for AmerGen and the NRC Staff regarding this motion. AmerGen has not yet taken a position at the time of filing. NRC Staff stated that "the Staff cannot take a position on your proposed motion. File your motion and the Staff will respond as it deems appropriate."

in the proceeding concerning Vermont Yankee. E-mail from Mary Baty, Esq. to Richard Webster, Esq., dated April 7, 2008.

In the Vermont Yankee proceeding, the NRC Staff concluded that a simplified method used to calculate the ability of certain components to withstand repeated transients was inadequate. Transcript of 549th ACRS Meeting on February 7, 2008 at 8-10 *available at* ML080500208. It therefore required the applicant, Entergy Nuclear Operations, Inc., to carry out a more sophisticated calculation in accordance with the requirements of Section III of the ASME code. *Id.* at 10-11; Transcript of 550th ACRS Meeting on March 6, 2008 at 119-121 *available at* ML080740427. This more sophisticated calculation yielded a cumulative usage factor (“CUF”) that was approximately 40% greater than the simplified method. *See* Seventh Declaration of Dr. Joram Hoppenfeld at 3, Table 1, filed on March 17, 2008 *available at* ML080810285 (CUF increased from 0.0636 to 0.0889).

Using a similar simplified method,⁴ Oyster Creek’s owner, AmerGen has concluded that the fatigue usage factor corrected for environmental effects for the recirculation outlet nozzle is 0.978, which is only 0.022 from the maximum allowable factor of 1. AmerGen Response to Request For Additional Information, dated May 1, 2006 at 6-7 *available at* ML061240217; Memorandum from Samson S. Lee to the Commission, dated April 3, 2008. Any increase of over 2.2% in this factor would yield a result that is greater than is allowable. Because the reanalysis in Vermont Yankee produced an estimate of the CUF that was 40% greater, the confirmatory analysis at

⁴ Citizens have not yet been able to obtain the analysis conducted by AmerGen for Oyster Creek. However, it was carried out by the same contractor as did the calculations at Vermont Yankee, AmerGen Response to Request For Additional Information, dated May 1, 2006 at 6 *available at* ML061240217, and the Staff have pointed to the Vermont Yankee proceeding as illustrating the precise nature of the issue raised by the notification.

Oyster Creek will likely exceed the acceptable level, if the assumptions about the environment stay the same.

III. ARGUMENT

A. The Staff's Notification Is Deficient

As has long been recognized, excessively cryptic notifications of new and significant information do little to aid the adjudicatory body. If the notification procedure is to serve its intended purpose, the notification must contain an exposition adequate to allow a ready appreciation of (1) the precise nature of the addressed issue and (2) the extent to which the issue might have a bearing upon the particular facility before the adjudicatory body. *Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3)*, ALAB-732, 17 NRC 1076, 1114 n.59 (1983), *citing* Virginia Electric & Power Co. (North Anna Nuclear Power Station, Units 1 & 2), ALAB-551, 9 NRC 704, 710 (1979); *Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3)*, ALAB-786, 20 NRC 1087, 092 n.8 (1984). Here, the notification provides no explanation of how the Staff came to discover the problem with the metal fatigue calculations and does not make any mention of the Vermont Yankee proceeding. Thus, it fails to explain the precise nature of the issue.

While Citizens have been able to piece together a brief summary of the situation, this summary should have been provided by NRC Staff in the notification. Even now, much information is missing on how the issue could affect license renewal for Oyster Creek. For example, the notification provides no guidance in terms of when the Staff expect to ask AmerGen to do the analysis, when they expect that the analysis will be complete, and when the Staff expect to complete their review of the issue. Furthermore,

the notification provides little guidance on how Staff reached their conclusion regarding the safety significance of the issue. The Commission should therefore consider whether to ask the Staff to improve the notification so that it is more explicit in terms of the issue raised, the expected time period for resolution, and how the Staff reached their conclusion regarding safety significance.

B. The Commission Should Await Final Resolution Of The Metal Fatigue Issue

In part, this Motion constitutes another request to the Commission to exercise its supervisory authority over this proceeding to first ensure that it will satisfy the AEA requirements to protect public health and safety, and also to ensure that the NRC Staff provides a meaningful opportunity for public participation in its licensing decisions. *Consolidated Edison Co. of N.Y., Inc.* (Indian Point, Units 1, 2 and 3), CLI-75-8, 2 NRC 173 (1975) (holding that the Commission has an “overriding responsibility for assuring public health and safety in the operation of nuclear power facilities”). *See also Pacific Gas and Electric Company* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 236-237 (2002) (holding it appropriate for the Commission to exercise its “ultimate supervisory control” over NRC proceedings).

Section 103 of the Atomic Energy Act, 42 U.S.C. § 2133, grants the Commission authority to issue licenses for the commercial exploitation of special nuclear material. It states that such licenses “may be renewed upon the expiration of” the initial licensed period. 42 U.S.C. § 2133(c). However, the Commission is required to find that the authorized utilization of special nuclear material is “in accord with the common defense and security and will provide adequate protection to the health and safety of the public.” 42 U.S.C. § 2232(a). *See also* 42 U.S.C. § 2133(d) (“[N]o license may be issued to any

person within the United States if . . . in the opinion of the Commission, the issuance of a license to such person would be inimical to the common defense and security or to the health and safety of the public.”).

The NRC Staff has a legal responsibility to make safety findings on all relevant issues before a license or renewed license may issue. *Commonwealth Edison Co.* (Byron Nuclear Power Station, Units 1 and 2), ALAB-678, 15 NRC 1400, 1420 n.36 (1982), *citing South Carolina Electric and Gas Co.* (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881, 895-96 (1981). Furthermore, as the Commission has stated, “the NRC may not issue a license until all appropriate safety findings have been made.” 69 Fed. Reg. at 2,202 (citations omitted). Accordingly, the Commission must at minimum stay any decision in this proceeding until the issues raised by the Staff’s notification memorandum are resolved.

Generally, parties in proceedings before the Commission have an obligation to promptly notify adjudicatory bodies of significant new information. Such information consists either of new information that is relevant and material to the matter being adjudicated or modifications to evidence that is already before the adjudicatory body. *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1, 2 & 3), ALAB-677, 15 NRC 1387, 1388, 1394 (1982). Because the new information does not concern any of the evidence related to the admitted contention, the metal fatigue issue must be material to the licensing decision for Oyster Creek that is before the Commission. Furthermore, the facts strongly suggest that the requested reanalysis could well find that the metal fatigue would go beyond its allowable limits during any period of extended operation if no further action is taken. Therefore, the Commission should allow Citizens the opportunity to request a

hearing on this issue. *Union of Concerned Scientists v. NRC*, 735 F.2d 1437, 1438-50 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 1132 (1985). *See also Union of Concerned Scientists v. NRC*, 920 F.2d 50, 53 (D.C. Cir. 1990) (holding that “Section 189(a) [of the Atomic Energy Act, 42 U.S.C. 2239(a),] prohibits the NRC from preventing all parties from ever raising in a hearing a specific issue it agrees is material to [a licensing]. . . decision.”).

As the Atomic Safety and Licensing Board (“ASLB”) recently recognized, the time to file contentions is placed at a very early stage, when the renewal application is docketed. *Entergy Nuclear Vermont Yankee L.L.C. and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-07-15, ___ NRC ___, slip op. at 6 n. 12 (November 7, 2007). After the initial time to present contentions has expired, new contentions must meet a timeliness test. When significant new information becomes available this test should be a relatively simple matter to meet. *Id.* at 5; 10 C.F.R. § 2.309(f)(2). However, in the absence of new information the applicable test is more stringent. LBP-07-15 at 6. The ASLB also noted that “normally a great deal of new and material information becomes available to the public after the docketing” through application amendments or the safety evaluation report. LBP-07-15, slip op. at 6 n. 12. This information can then be used to file new contentions, satisfying the AEA requirement. *Id.*

As Congress no doubt knew and the Vermont Yankee proceeding has now confirmed, vigorous citizen involvement can lead to intense scrutiny of difficult issues, which inevitably leads to better decision-making. At this stage, to ensure that Citizens’ AEA hearing rights are fully preserved, the Commission should order AmerGen to make the confirmatory analysis available to the parties and should delay any final decision on the

license renewal until after Citizens have had a reasonable opportunity to review the new analysis and decide whether to file a new or amended contention. In addition, Citizens are currently deciding whether to move to file a new contention based on the currently available information in order to ensure that their request is timely.

C. The Commission Should Await Final Resolution Of The Rulemaking Petition

Although in Agency Case PRM-54-03, decided on December 2, 2006, the Commission rejected a Petition for Rulemaking regarding the relicensing rules filed by New Jersey Sierra Club and New Jersey Environmental Federation, judicial review of that decision is now pending in the Second Circuit Court of Appeals under Docket Number 07-1276. The case is fully briefed and the parties are awaiting a schedule for oral argument.

A petitioner may request the Commission to suspend all or any part of any licensing proceeding to which the petitioner is a party, pending disposition of the petition for rulemaking. 10 C.F.R. § 2.802(d). Here, the judicial review of such a petition for rulemaking is still pending, but a judicial decision is likely to be rendered before the expiration of the current license in April 2009. As is clear from the text and timing of the Petition, New Jersey Sierra Club and New Jersey Environmental Federation were particularly interested in the Oyster Creek proceeding. The Petition was filed on July 25, 2005, three days after the Oyster Creek operator submitted its application for licensing extension. *See* 70 Fed. Reg. 54,310 (2005). The Petition requested the NRC to amend its license renewal regulations to provide that a renewed license would issue only if the facility operator demonstrates that the plant meets all criteria and requirements that would be applicable if the plant was being proposed for initial construction. The Petition also requested the NRC to amend its regulations so that it would also consider emergency

evacuation plans, security against terrorist threats, demographics and plant sitings when examining renewal applications.

To minimize any uncertainty caused to all parties by this pending case, New Jersey Sierra Club and New Jersey Environmental Federation respectfully request the Commission to stay its final licensing decision pending judicial review of their Petition for Rulemaking. To minimize this delay, New Jersey Sierra Club and New Jersey Environmental Federation would be pleased to discuss with the Commission how to expedite the ongoing judicial review.

D. The Notification Confirms That Relicensing Reviews Must be Improved

In a petition dated January 3, 2008, Citizens and other groups requested the Commission to suspend four ongoing license renewal proceedings because the NRC Staff's reviews of applications for license renewal were demonstrably inadequate. The belated discovery by Staff that the metal fatigue analysis at Oyster Creek may not be conservative, when the margin from the acceptable value is very small, further illustrates that the Staff's reviews are missing safety-critical issues. It appears that Staff's attention was directed to this problem by intervenors in the Vermont Yankee proceeding.

As discussed in the pending Petition, because Citizen intervention is an arduous and difficult process, very few issues will get to a hearing. The Commission must therefore ensure that Staff safety reviews are fully comprehensive. High quality reviews can only be secured by putting in place the kind of quality assurance procedures discussed in the pending Petition. Furthermore, this instance illustrates that the Staff must make licensees fully justify why their calculations conform to the ASME Code and must not allow licensees to make unjustified simplifications.

IV. CONCLUSION AND REQUEST FOR RELIEF

For the foregoing reasons, the Commission should stay its final decision in this proceeding until the Staff has resolved the metal fatigue issue and Citizens have had a reasonable opportunity to request a hearing on the issue. To facilitate participation by the public, the Commission should also order AmerGen to provide the requested confirmatory analysis to the parties in this proceeding. In addition, New Jersey Sierra Club and New Jersey Environmental Federation request a stay pursuant to 10 C.F.R. § 2.802(d) or other applicable authority until judicial review of the Commission's rejection of their petition for rulemaking regarding relicensing is complete

Respectfully submitted,

/s

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