

May 27, 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF'S EXPLANATORY PLEADING AND AFFIDAVIT

INTRODUCTION

The Staff of the U.S. Nuclear Regulatory Commission ("Staff") hereby responds to the Board's Order (Directing Parties to Submit Explanatory Pleadings and Affidavits) (May 21, 2008) (unpublished) ("May 21 Order"). As explained below and in the attached Affidavit of John R. Fair, AmerGen's May 1, 2008 response to the Staff's April 29, 2008 request for additional information supports the Staff's position that Citizen's April 18, 2008 motion to reopen and to file a new contention should be denied.

BACKGROUND

On April 18, 2008, Citizens¹ filed a motion "Reopen the Record and for Leave to File a New Contention, and Petition to Add a New Contention" ("Motion to Reopen"). On April 28, 2008, the Staff and AmerGen responded to Citizens' Motion to Reopen. On May 5, 2008, Citizens filed a reply to AmerGen's Opposition to their petition to add a new contention. Also on May 5, 2008, counsel for AmerGen sent a letter to the Chairman of the Commission enclosing AmerGen's May 1, 2008 Response to the NRC Staff's request for additional information ("RAI")

¹ "Citizens" comprise Nuclear Information and Resource Service ("NIRS"), 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.

concerning the reactor recirculation outlet nozzle fatigue analysis. See Letter from Alex S. Polonsky, Counsel for AmerGen, to Dale E. Klein, Chairman of the U.S. Nuclear Regulatory Commission (May 5, 2008) (“RAI response”). On May 6, 2008, Citizens filed “Motion for Leave to File a Reply to NRC Staff’s Opposition to Citizens’ Motion to Reopen.” On May 9, 2008, the Commission referred the matter regarding whether to reopen the record to the Board for appropriate action. On May 15, 2008, the Staff filed “NRC Staff’s Response in Opposition to Citizens’ Motion for Leave to File a Reply to the NRC Staff’s Opposition to Citizens’ Motion to Reopen.”² On May 21, 2008, the Board issued an order directing the parties to submit expert affidavits discussing the significance of AmerGen’s RAI response and a pleading explaining the impact, if any of the RAI response on Citizens’ Motion. Order at 2.

DISCUSSION

One of the key criteria before this Board is whether Citizens’ Motion to Reopen addresses a significant safety issue. See 10 C.F.R. 2.326(a)(2); *Public Serv. Co. of New Hampshire* (Seabrook Station, Units 1 & 2), ALAB-940, 32 NRC 225, 243-244 (1990) (stating that the most important requirement for a motion to reopen is that it address a significant safety issue). Only if the Board determines that Citizens have met their burden of addressing a significant safety issue (as well as the other requirements of 2.336(a)) should the admissibility of their proposed contention be considered.

² This filing was omitted from the Board’s recitation of existing pleadings and motions in the May 21 Order.

In their Motion to Reopen, Citizens claimed that the Staff's April 3, 2007 Notification to the Commission³ raised a significant safety issue. See Motion to Reopen at 7-9. To support their assertion, Citizens relied on the results of a confirmatory analysis performed by Vermont Yankee for its feedwater nozzle, which were approximately 40% greater than the environmentally adjusted cumulative usage factors ("CUFens") calculated using the simplified method. Motion to Reopen at 7. Citizens assumed that if Vermont Yankee's confirmatory analysis of its feedwater nozzle resulted in 40% higher CUFens, a confirmatory analysis of Oyster Creek's reactor recirculation nozzle would likely be 40% higher too, making the 60-year CUFen for Oyster Creek's recirculation nozzle greater than 1.0 and posing a significant safety issue.

The effect of AmerGen's RAI response on Citizens' Motion to Reopen is to contradict Citizens' assumption that the confirmatory analysis would result in higher CUFens and further illustrate why Citizens' Motion to Reopen does not raise a significant safety issue. Instead of resulting in a higher CUFen, AmerGen's confirmatory analysis of Oyster Creek's reactor recirculation outlet nozzle resulted in a decrease in the CUFen: from 0.9781 to 0.1366. RAI response at Table 1. Thus, AmerGen's RAI response does not support Citizens' assumption and undermines their assertion that they have raised a significant safety issue.

In his attached affidavit, Mr. John R. Fair states that Table 1 of AmerGen's RAI response shows a 60-year CUF for Oyster Creek's reactor recirculation outlet nozzle that is well within the allowable limit and shows that the CUF will remain within acceptable limits for the period of

³ Memorandum from Samson S. Lee, Acting Director of the Division of License Renewal, to the Commission, the Atomic Safety and Licensing Board, and the Parties, Board Notification 2008-01 (April 3, 2008) (ADAMS Accession No. ML080930335) ("Notification").

extended operation. Affidavit of John R. Fair at ¶¶5-6. Mr. Fair states that the Staff will review the confirmatory analysis and report the results of its review in a supplement to NUREG-1875 “Safety Evaluation Report Related to the License Renewal of Oyster Creek Generating Station” (Apr. 2007). *Id.* at ¶¶5. Mr. Fair further states that AmerGen’s RAI response is consistent with the Staff’s conclusion that the use of the simplified method to calculate the CUF does not present a significant safety issue. *Id.* at ¶¶6.

Not only have Citizens failed to demonstrate a significant safety issue, AmerGen’s RAI response moots Citizens’ proposed new contention. As currently stated, Citizens contend: “The predictions of metal fatigue for the recirculation nozzles at Oyster Creek are not conservative. A confirmatory analysis using a conservative method is required to establish whether these nozzles could exceed allowable metal fatigue limits during any extended period of operation.” Reply by [Citizens] to AmerGen’s Opposition to Their Petition to Add a New Contention (May 5, 2008). AmerGen’s RAI response reports that results of its confirmatory analysis using the methodology described in ASME Code Section III, Subsection NB-3200. The method described in ASME Code Section III, Subsection NB-3200 utilizes all six stress components whereas the simplified method uses only one. RAI Response at 2 (quoting Staff RAI 4.3.4-1). Using the ASME Code method instead of the simplified method, AmerGen has now submitted to the Staff, under penalty of perjury, that the CUFen for the reactor recirculation nozzle is 0.1366, which is less than previously calculated. AmerGen RAI Response. Thus Citizens’ contention that AmerGen should be required to perform a confirmatory analysis using a conservative method has been rendered moot by the Staff’s RAI and AmerGen’s performance of a confirmatory analysis showing that Oyster Creek’s reactor recirculation outlet nozzle will not exceed allowable metal fatigue limits during the period of extended operation.

CONCLUSION

For the reasons explained above and in the attached Affidavit of John R. Fair, AmerGen's RAI response demonstrates that Citizens' Motion to Reopen does not address a significant safety issue and renders their proposed new contention moot.

Respectfully submitted,

/RA/

Mary C. Baty
Counsel for NRC Staff

Dated at Rockville, Maryland
this 27th day of May 2008

May 27, 2008

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AFFIDAVIT OF JOHN R. FAIR

I, John R. Fair, do hereby declare under penalty of perjury that the following statement is true and correct to the best of my knowledge and belief:

1. My name is John R. Fair. I am employed by the U.S. Nuclear Regulatory Commission as a Senior Mechanical Engineer in the Office of Nuclear Reactor Regulation's Division of Engineering. A statement of my professional qualifications was attached to my April 28, 2008 Affidavit that was included in the NRC Staff's April 28, 2008 "Response in Opposition to Citizens' Motion to Reopen the Record and for Leave to File and Add a New Contention" ("April 28 Response").

2. The purpose of this affidavit is to address the Board Order dated May 21, 2008, directing the parties to submit an affidavit that discusses with particularity the significance of the AmerGen Response attached to Mr. Polonsky's May 5 letter, accompanied by a pleading that explains the impact (if any) of that Response on the proper disposition of Citizens' motion to reopen the record and add a new contention.

3. I have read the Citizens' April 18, 2008, Motion, including the Declaration of Dr. Joram Hopenfeld and prepared the Affidavit attached to NRC Staff's April 28 Response. I have also read AmerGen's May 1, 2008, Response to NRC Request for Additional Information on Metal Fatigue Analysis Related to Oyster Creek Generating Station License Renewal

Application which provided a summary of the results of a confirmatory fatigue analysis of the reactor vessel recirculation outlet nozzle.

4. Citizens' April 18, 2008, Motion seeks, in part, to reopen the Record because AmerGen used a simplified analysis method to demonstrate that the reactor pressure vessel recirculation outlet nozzles had acceptable fatigue usage (CUF) for the period of extended operation, and that this simplified analysis method could be non-conservative. Citizens' Motion contended that the confirmatory analysis was likely to find that that the CUF of the recirculation outlet nozzle would go beyond its allowable limit ($CUF < 1.0$) during the proposed period of extended operation if no further action is taken.

5. The Staff has requested that AmerGen perform a confirmatory analysis of the recirculation outlet nozzle to demonstrate the adequacy of simplified analysis method. AmerGen's May 1 Response provided a summary of the results of the confirmatory analysis. Table 1 of the Response provides a comparison of the CUF obtained using the simplified analysis method (Original Analysis) and the CUF obtained from the confirmatory analysis (New Analysis). The table shows that the CUF obtained from the confirmatory analysis of the recirculation outlet nozzle is projected to be well within the allowable limit of 1.0 for the period of extended operation. The NRC Staff intends to perform a review of the confirmatory analysis and report the results of its review in a supplement to the Safety Evaluation Report Related to the License Renewal of Oyster Creek Generating Station.

6. The NRC Staff's April 28 Response concluded that the use of a simplified method to calculate the CUF for the reactor recirculation nozzle did not present a significant safety issue. AmerGen's May 1 Response is consistent with the Staff conclusion that the use of a simplified method to calculate the CUF does not present a significant safety issue. The

AmerGen confirmatory analysis still shows the CUF of the recirculation outlet nozzle is projected to remain within acceptable limits for the period of extended operation.

/Original Signed By/

John R. Fair

Executed in Rockville, Maryland
this 27th day of May, 2008

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S EXPLANATORY PLEADING AND AFFIDAVIT" in the above-captioned proceeding have been served on the following by electronic mail with copies by deposit in the NRC's internal mail system or, as indicated by an asterisk, by electronic mail, with copies by U.S. mail, first class, this 27th day of May 2008.

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/RA/

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