

November 5, 2007

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 ANSWER TO  
CITIZENS' MOTION TO STRIKE ERRONEOUS TESTIMONY

INTRODUCTION

Pursuant to 10 C.F.R. §§ 2.1204 and 2.323, the Staff of the U.S. Nuclear Regulatory Commission ("Staff") hereby answers Citizens' "Motion to Strike Erroneous Testimony" (Oct. 26, 2007) ("Motion"). For the reasons set forth below and in the attached Affidavit of James A Davis, PhD, the Staff opposes Citizens' motion.

DISCUSSION

Citizens move to strike "erroneous" portions of AmerGen's testimony based upon statements made in the NRC Office of the Inspector General's (OIG) September 6, 2007 "Audit of NRC's License Renewal Program," which discusses failure of a coating at Oconee Nuclear Station" ("IG Report") (ML072490486), as well as other documents,<sup>1</sup> selected by Citizens, which discuss Oconee's coating failure. Motion at 3. Citizens' arguments and assertions are incorrect, unsupported, and untimely.

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<sup>1</sup> These documents are the Oconee License Renewal Application; the Oconee Corrective Action Audit (ML071790169); and an Inspection Report dated April 26, 2004 (ML042050511). See Motion at 2-3.

I. Oconee's Coating Failure is Irrelevant

Citizens' assertion that the coating failure at Oconee is relevant to this proceeding is incorrect. First and foremost the coating failure at Oconee was not an end-of-life failure. See Davis Aff. ¶ 4 (stating: "End-of-life failure means that the coating has been altered by time such that it no longer functions as a protective coating"). Second, the type of coating used at Oconee is not at all similar to the coating used at Oyster Creek. Oconee's containment liner is coated with Carbo Zinc 11 primer and a Phenoline 305 top coat. See Davis Aff. ¶ 5. Oyster Creek's coating system consists of a pre-prime of Devoe Pre-Prime 167-Rust Penetrating Sealer and two top coats of Devran-184 epoxy. See Applicant Exh. B, Part 5 at A6; Applicant Exhs. 34-35 (containing the product specifications for the pre-prime and the top coats). The coatings are produced by different manufacturers, have different surface preparation, application, and curing specifications. Davis Aff. ¶ 5. Oyster Creek carefully followed the manufacturer's specifications for surface preparation, application, and curing, while Oconee did not. Davis Aff. ¶ 5.

Contrary to Citizens' assertion, the failure of Oconee's coating was not an end-of-life failure. Instead, it occurred because of a combination of factors: improper application and curing of the primer, the presence of air in the top coat, and exposure of the system to high humidity during replacement of steam generators and the reactor vessel head. See Davis Aff. ¶¶ 2, 8.

II. Jon Cavallo's Statement is Not Erroneous

The statements by Jon Cavallo that Citizens seek to strike based on the coating failure at Oconee are not inaccurate. Citizens take issue with Mr. Cavallo's pre-filed testimony that "to the best of [his] knowledge, not a single epoxy coating in an atmospheric environment applied at a nuclear power plant has reached its end of life." Applicant Exh. B, Part 5 at 9. Citizens also take issue with Mr. Cavallo's testimony at hearing that "[w]e have not seen end of life failure in epoxy coating in nuclear power plants due to age." Tr. 457, lines 11-12.

Mr. Cavallo's statements are not inaccurate because, as explained above and in Dr. Davis' Affidavit, the coating failure at Oconee was not an end-of-life failure. The coating failure at Oconee was due to a series of factors stemming from improper application, compounded by exposure to excessive humidity. Davis Aff. ¶ 6. It was the primer that failed, not the epoxy. See Davis Aff. ¶ 5. Thus, Citizens are wrong to assert that Mr. Cavallo's statement is erroneous. In addition, Citizens have cherry-picked Mr. Cavallo's hearing testimony, stripping it of its context. Mr. Cavallo was responding to Judge Abramson's question whether, in his experience, Mr. Cavallo had seen rapid deterioration of epoxy coatings. Tr. 457, lines 5-8. Mr. Cavallo responded, "Not applied properly with the degree of care and inspection that these coatings were applied to. We have not seen end of life failure in an epoxy coatings in nuclear power plant *due to age*." Tr. 457, lines 10-12 (emphasis added). Taken in context, Mr. Cavallo did not make the bold assertion Citizens now suggest. Rather, Mr. Cavallo testified that he is unaware of a sudden failure of a properly applied epoxy coating due to age. This is not an erroneous statement. See Davis Aff. ¶ 7

III. The Staff Did Not Have a Duty to Disclose Information Regarding Oconee

A petitioner in an NRC proceeding has an "ironclad obligation" to examine publicly available evidence in support of its contention. See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 338 (1999). Citizens now attempt to transfer this obligation to other parties and the Staff. Citizens had ample time to find this information and the IG Report prior to the hearing and the close of the record in this proceeding. However, the Staff agrees with Citizens that it, like all parties to this proceeding, has a duty of candor to the Board with respect to relevant and material facts relating to the proceeding. See Motion at 5.

Nevertheless, Citizens' assertion that the Staff should have disclosed the "Oconee documents"<sup>2</sup> to Citizens is erroneous. In accordance with Memorandum and Order (Prehearing Conference Call Summary, Case Management Directives, and Final Scheduling Order) (Apr. 17, 2007) ("April 17 Order") at 8, the Staff ceased mandatory disclosures pursuant to 10 C.F.R. § 2.336(b) with its May 2007 supplement. The Staff, in accordance with § 2.1203, continued to update the hearing file, which includes the license renewal application (and supplements), any environmental impact statement or assessment, any NRC report related to the proposed action, and any correspondence with the applicant/licensee that is relevant to the proposed action.

In Commission proceedings, beyond the hearing file requirements, all parties, including the Staff, are under a duty to notify the Board of new, relevant and material information that may bear on its decision in the proceeding. *Duke Power Co.* (William B. McGuire Nuclear Station, Units 1 & 2), ALAB-143, 6 AEC 623, 625 (1973). Not every change in circumstances, however, requires Board notification. *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1, 2 & 3), ALAB-677, 15 NRC 1387, 1394 (1982). Parties only have an "absolute obligation" to reveal "(i) new information that is relevant and material to the matters being adjudicated; (ii) modifications and rescissions of important evidentiary submissions; and (iii) errors [involving 'reliance on incorrect information.']" *Id.* & n.6.

The Oconee coating problems are neither new, nor relevant and material with respect to Citizens' drywell contention. The IG Report was publicly available on September 7, 2007. Although its release might have escaped the attention of Citizens and Citizens' expert, the coating issues at Oconee were well established and publicly available prior to this proceeding.

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<sup>2</sup> Citizens are vague at best with regard to which document or documents they think NRC staff should have disclosed. Citizens first refer to this problem with respect to coming "into possession" of the IG Report. However, Citizens then go on to refer to various other documents related to Oconee, like the License Renewal Application, a Corrective Action Audit, and several 2004 Inspection Reports.

See Motion at 3 (referencing documents from 1998, 2004, 2006, and January 2007). The IG Report also does not fall within the purview of § 2.1203, rather, the IG Report is about the adequacy of the Staff's review of license renewal applications, an issue that is not within the scope of this proceeding. See Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, Final Rule, 54 Fed Reg. 33,168, 33,171 (Aug. 11, 1989) (*citing Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 807, review declined, CLI-83-82, 18 NRC 1309 (1983)*). The Oconee-related documents referenced in Citizens' Motion are similarly beyond the scope of the proceeding, and so do not fit within the meaning of § 2.1203.

Under the standard for Board notification, the Staff was not obligated to “correct” the testimony Citizens now seek to strike by disclosing<sup>3</sup> the IG Report or the other Oconee documents referenced in Citizens' Motion, because Mr. Cavallo's testimony is not erroneous and the Oconee failure is irrelevant. Dr. Davis' Affidavit demonstrates that the Oconee coating failure is neither relevant nor material to this proceeding. It also demonstrates that Mr. Cavallo's statements were not inaccurate or based on incorrect information. Modification or rescission of evidentiary submissions is not warranted and disclosure is not necessary to prevent the Board from relying on outdated or incorrect information. Furthermore, information regarding the coating failure at Oconee was not “new” at the time of this proceeding. Motion at 3 (referencing documents from 1998, 2004, 2006, and January 2007).

#### IV. Citizens' Motion is Not Timely

Citizens' motion is untimely. Pursuant to 10 C.F.R. §§ 2.1204 and 2.323, motions must

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<sup>3</sup> All of the documents referenced in Citizens' Motion were publicly available through the NRC's searchable Agencywide Document Access and Management System. (“ADAMS”). No information was withheld by the NRC. Citizens had access to information regarding Oconee's coating issues throughout this proceeding.

be made no later than ten days after the occurrence of the event or circumstances giving rise to the motion. The testimony Citizens wish to strike was filed on July 17, 2007, and offered orally on September 25, 2007. All of the documents referenced in Citizens' Motion, with the exception of the IG Report, which was publicly available on September 7, 2007, were publicly available prior to July 17, 2007. All of the referenced documents were publicly available prior to the close of the record of this proceeding on September 26, 2007. Therefore, had Citizens believed that these documents were relevant and been diligent, they could have proposed to offer the documents as exhibits, presented testimony, or proposed questions on the Oconee failure prior to the close of the record. Nevertheless, Citizens represent that they did not "[come] into possession" of the IG Report until October 12, 2007. Motion at 2. Notwithstanding this representation, Citizens' Motion is untimely because it was not filed within ten days of "[coming] into possession" of the IG Report.

V. The Board Cannot Take Official Notice of Documents Proffered By Citizens

Citizens assert that the Board should take official notice of the "NRC-generated documents" relating to Oconee. Motion at 7. Although the NRC created the documents in question, this by itself is insufficient, and Citizens have failed to meet the standard for official notice.

Generally, the Board may take official notice of any fact of which a federal court could take judicial notice, or of any technical or scientific fact within the Commission's knowledge as an expert body. 10 C.F.R. § 2.337(f). For example, the Board may take official notice of the agency's own records and documents as coming within its own knowledge. See *Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2), LBP-74-22, 7 AEC 659, 667 & n.9 (1974). Records of which the Board may take official notice include records on file in the agency's Public Document Room. See *Consumers Power Co.* (Midland Plant, Units 1 & 2), ALAB-123, 6 AEC 331, 332 (1973).

However, this is not the end of the inquiry. In order for the Board to take official notice of a fact, the fact must be “beyond reasonable controversy” and be “capable of immediate and accurate determination by resort to easily accessible sources of indisputable accuracy.” *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 75 (1991) (citing *Government of Virgin Islands v. Gereau*, 523 F.2d 140, 147 (3rd Cir. 1975), *cert. denied*, 424 U.S. 917 (1976)), *reconsid. denied on other grounds*, CLI-91-8, 33 NRC 461 (1991); see also FED. R. EVID. 201. Furthermore, although a court may take judicial notice of the “general meaning of words, phrases, and legal expressions,” documents are only noticeable for determining the statements contained within, not for proving the truth of the contents or “any party’s assertion of what the contents mean.” *United States v. S. Cal. Edison Co.*, 300 F. Supp. 2d 964, 975 (E.D. Cal. 2004).

Finally, any fact officially noticed must be specified with “particularity”, and each party adversely affected by the decision “shall be given the opportunity to controvert the fact.” 10 C.F.R. § 2.337(f).

Citizens assert, without citing any legal authority, that the Board should take official notice of several Oconee-related documents.<sup>4</sup> It is not disputed that the documents referenced in Citizens’ Motion are publicly available in ADAMS, and that under *Duke Power Co.* and *Consumers Power Co.* these documents would be noticeable because they are within the agency’s knowledge as an expert body.

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<sup>4</sup> The case Citizens assert supports the proposition that the Board can take official notice of a document does not in fact do so. The case Citizens cite, *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit No. 3), LBP-01-01, 53 NRC 75 (2001), involved a motion to reopen. The Board stated that while an expert affidavit is not necessary for the Board to take notice of the existence of a document, an expert affidavit attesting to the significance of the document is necessary. *Id.* at 78. The Board denied the motion to reopen but granted a motion for reconsideration of the denial, which was accompanied by expert affidavits. See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit No. 3), LBP-01-17 53, 53 NRC 398 (2001).

Citizens, however, are not simply asking the Board to take notice of the existence of the documents, but also the information contained within them based solely on argument of counsel. This is not a permissible use of the official notice function. Citizens' assertion that the documents in question rebut the testimony of Mr. Cavallo is not "beyond reasonable controversy," and is certainly not "capable of immediate and accurate determination," as Dr. Davis' affidavit clearly demonstrates. Any comparison between the Oconee coating that Citizens seek to rely on and the epoxy coating at Oyster Creek must involve a reopening of the record and presentation of evidence in support of and in opposition to Citizens' proposition. Because Citizens have failed to meet the burden for official notice, the motion should be denied

VI. Citizens Have Not Met the Standard For Reopening the Record

Citizens argue that the Board should "use its discretion to reopen the record" for additional testimony on the relevance of the Oconee coatings.<sup>5</sup> Motion at 8. Citizens have not met the standard for reopening the record.

A motion to reopen the record must meet the following criteria:

- (1) The motion must be timely. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented.
- (2) The motion must address a significant safety or environmental issue, and
- (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

10 C.F.R. § 2.326(a). See also *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit No. 3), LBP-01-01, 53 NRC 75, 78, 79 (2001). Furthermore, the motion must be accompanied by affidavits, given by competent individuals with knowledge of facts alleged or by experts in the discipline appropriate to the issue, setting forth the factual or technical basis for

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<sup>5</sup> The Staff recognizes Citizens' statement could be seen as a request for alternative relief. The Staff feels compelled to address Citizens failure to meet the standard for reopening because the Staff believes that the Board cannot take official notice of the IG Report or any of the other documents.

the movant's claim. See 10 C.F.R. § 2.326(b). The basis provided to support the conclusion must be something "other than the opinion of counsel." See *Northeast Nuclear Energy Co.*, LBP-01-01, 53 NRC at 80.

Citizens rely on the Board's flexibility regarding the formal affidavit requirement, discussed in *Northeast Nuclear Energy Co.*, in an attempt to avoid the fact that they have failed to meet the standard to reopen the record. In that case, as Citizens assert, the Board stated that "an affidavit to the effect that [the intervenor] discovered the reports . . . would consist of little more than unnecessary paperwork." LBP-01-01, 53 NRC at 78. Citizens omitted the very next sentence of the opinion, which states that "the demonstration of the significance of the new information and the likelihood of its causing a change in the result . . . previously reached might well have benefited from the affidavit of a competent witness." *Id.* The Board continued by applying the § 2.326(a) criteria for reopening the record, *id* at 78-79, and ultimately concluded that the petitioner had not established a "sufficient basis" for reopening the record. *Id.* at 80-81. Citizens have failed to meet even the barest procedural requirement for reopening the record. Even if the Board were to overlook the affidavit requirement of § 2.326(b), however, the three regulatory criteria would still apply. Citizens have not demonstrated that a materially different result would occur, or be likely to occur, and so their motion to reopen the record should be denied.

#### CONCLUSION

For the reasons stated above, the Staff opposes Citizens' Motion should be denied.

**/RA/**

Mary C. Baty  
Counsel for NRC Staff

Dated at Rockville, Maryland  
this 5th day of November, 2007

November 5, 2007

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

AFFIDAVIT OF JAMES A. DAVIS, PH.D

I, James A. Davis, do hereby state as follows:

1. The purpose of this affidavit is to address Citizens' "Motion to Strike Erroneous Testimony," dated October 26, 2007 ("Motion"), with respect to Citizens' assertion that, in light of the coating failure at Oconee Nuclear Power Station ("Oconee") (a pressurized water reactor), testimony provided by Jon Cavallo on behalf of AmerGen that there have been no end-of-life failures of epoxy coatings in atmospheric conditions at nuclear power plants is erroneous and should be stricken from the record. I have read Citizens' Motion and the documents referenced therein, including the "Audit Report of NRC's License Renewal Program," dated September 6, 2007.

2. The coating failure at Oconee was not an end-of-life failure, but rather was an early life failure due to a series of other factors, most of which relate to misapplication of the coating: improper curing of the inorganic zinc primer; too thick an application of the inorganic zinc primer; entrapment of air in the modified epoxy top coat; and exposure of the defective coating system to high humidity during the replacement of the reactor vessel head and the steam generators. Prior to the observation of coating failure, in about 2004, there had been indications of misapplied coating and coating failures. In discussions with a former resident inspector at Oconee and a Region II regional inspector, coating failures had been observed starting shortly after the plant started operating, although these failures were not documented

until 1997. Further, Oyster Creek's and Oconee's coatings differ significantly: they were produced by different manufacturers; they cure in different manners; and the coatings at Oyster Creek were applied under carefully controlled conditions, whereas the coatings at Oconee were not. Thus, the coating failure at Oconee has no bearing on the service life of the coatings at Oyster Creek and Mr. Cavallo's statement concerning epoxy coating failures in atmospheric conditions is accurate.

3. A coating system consists of multiple layers of coating applied in such a manner that each layer is permitted to cure before the next layer is applied.

4. End-of-life failure means that the coating has been altered by time such that it no longer functions as a protective coating. This may occur as a result of exposure of the coating over time to stressors such as ultraviolet light, heat, or high oxygen levels.

5. The coating at Oconee consists of an inorganic zinc rich primer, Carbozinc 11, and a modified epoxy top coat of Phenoline 305. The inorganic zinc primer is a moisture-cured layer that requires a relative humidity of at least 40 percent within 4 hours of application to properly cure. The modified epoxy topcoats are a two-part coating consisting of a resin and a curing agent that begins curing when the two components are mixed together. The Oconee staff determined that the failure occurred within the inorganic zinc rich coatings, which were not used at Oyster Creek. There were no cases in which the modified epoxy coating failed. The coating at Oyster Creek consists of an epoxy primer of Devoe Pre-Prime 167-rust Penetrating Sealer and one top coat each of Devran-184 and Devran-142 epoxy. At Oyster Creek, the licensee carefully followed the manufacturer's recommendations for surface preparation, application of the primer, and application of the top coats.

6. In accordance with NRC requirements, Oconee conducted its first documented inspection of containment coatings in 1997; however, soon after startup there was anecdotal evidence of coating problems. The Oconee staff gave three primary reasons for the coating

failure:

- (1) The inorganic zinc rich primer coating was applied too thickly;
- (2) The inorganic zinc primer was applied in a gas heated facility where the humidity was too low to allow proper curing of the inorganic zinc coating. Proper cure of the inorganic zinc rich primer requires that there be a minimum of 40 percent humidity within 4 hours of applying the coating;
- (3) The two-part modified epoxy top coat was improperly mixed and air was entrapped in the coating. The coating failure occurred because, when the vessel head and steam generators were replaced at Oconee, moist air was absorbed into the top coat. This caused the primer to split because of its under-cured condition. This cannot be considered an end-of-life condition because of aging of the coating.

7. Based on my knowledge, Mr. Cavallo's testimony that there has not been an end-of-life failure of a coating at a nuclear power plant in atmospheric conditions is not erroneous because the failure at Oconee was not an end-of life-failure.

8. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

***/original signed by/***

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James A. Davis, PhD

Executed in Rockville, MD  
this 5th day of November 2007.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of the "NRC STAFF ANSWER TO CITIZENS' MOTION TO STRIKE ERRONEOUS TESTIMONY" and "AFFIDAVIT OF JAMES A. DAVIS, PHD" 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 5th day of November, 2007.

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