

# ***RUTGERS ENVIRONMENTAL LAW CLINIC***

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VIA E-MAIL AND US MAIL

The United States Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406-1415

ATTENTION: Mr. Richard J. Conte, Chief  
Engineering Branch 1

March 2, 2007

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REGION 1

**Re: Violations of NRC Regulations at Oyster Creek Nuclear Power Plant**

Dear Mr. Conte:

Thank you for your November 9, 2006 letter in response to my inquiries regarding the failure of American Energy Company ("AmerGen") to take committed corrective action and AmerGen's questionable conduct when NRC inspectors identified this deficiency in March 2006. On behalf of my clients, the Coalition to Stop the Relicensing of Oyster Creek ("STROC"), I am following up on your letter for two main reasons. First, further research by this office calls into question the explanation offered in your letter for failing to cite AmerGen for a violation of NRC's regulations. Second, conflicting accounts of the incident in which AmerGen disposed of water that had drained from the sandbed region of the drywell shell without measurement or analysis suggest that AmerGen may have misled the NRC, elected officials, and the public about this incident.

In addition, I also want point out that, in violation of NRC's regulations, AmerGen failed to submit full and accurate information in its License Renewal Application regarding the water that is present in the interior of the drywell. Finally, I am also taking the opportunity to follow up on an ongoing issue concerning a torus inspection commitment.

With regard to the water disposal incident, according to your letter dated November 9, 2006, AmerGen's failure to monitor water leakage from sandbed region drains was not a violation of the NRC's regulations. However, we believe this conclusion is contradicted by the regulations and by previous Notices of Violations

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(“NOVs”) issued by the NRC. A “condition adverse to quality” is defined in the regulations as: “failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformance.” The regulations regarding corrective action state that:

Measures shall be established to assure that conditions adverse to quality...are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported to appropriate levels of management.

10 C.F.R § 50, Appendix B, Criterion XVI. Thus, a violation of 10 C.F.R § 50, Appendix B occurs when a licensee fails to take appropriate corrective action to resolve a significant condition adverse to quality.

Past NOVs confirm this interpretation. For example, on March 15, 2004 NRC issued NOV EA-04-33 to AmerGen for “failure to identify and take prompt and appropriate corrective actions” at Oyster Creek Nuclear Generating Station (“Oyster Creek”). NRC issued this NOV after an electrical cable, which was affected by water intrusion and cable insulation breakdown, failed causing Oyster Creek to shutdown. Similar problems had previously been identified in 1996 and 2001. NRC regarded these problems as significant conditions adverse to quality. The NRC issued the NOV when the problems recurred because AmerGen failed to take appropriate corrective action to prevent their recurrence.

Turning to the circumstances at issue here, the operator of Oyster Creek committed in correspondence with the NRC that it would monitor a water leakage problem that was first identified around 1980 and caused severe corrosion of the drywell shell over time, particularly in the sandbed region. There is little doubt that the ongoing corrosion of the shell was a significant condition adverse to quality, because it was a major deviation from the original design. Thus, the reactor operator was obliged to take corrective action. Confirming this view, the operator of the reactor undertook extensive corrective action in 1992 by removing sand from the outside of the shell, coating the shell exterior in the sandbed region with epoxy, and then agreeing to monitor the thickness of the shell periodically for the lifetime of the plant.

Thereafter, there was an exchange of correspondence concerning the appropriate further corrective action. In a letter dated December 5, 1990 to NRC the reactor operator stated that the drywell sand bed drains were inspected by routine walkdowns to identify any changes in a leakage. In addition, the reactor operator, in a letter dated December 15, 1995, committed to investigate the source of any leakage not associated with refueling. Then, in a letter dated February 15, 1996, the NRC communicated to Mr. Michael B. Roche, the Vice President and Director of Oyster Creek, agreed with the reactor operators proposal that additional thickness monitoring would only be required if water leakage

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was discovered during power operation between scheduled drywell inspections or if the leakage during refueling was greater than 12 gallons per minute. Thus, the reactor operator effectively traded the need to take thickness measurements for the requirement to regularly monitor the water coming from the sandbed drains.

However, during an inspection in March 2006, the NRC found that no monitoring of the drains had been carried out since 1998. In the November 9 letter, the NRC stated: "AmerGen indicated that the bottles [which captured leakage from the sandbed drains] were improperly emptied without measurement or analysis and that it was unable to locate any documentation that showed prior surveillance of the water drains had been completed." The monitoring was designed to prevent further unmonitored corrosion of the drywell shell and the tracing of the source of the water was designed to allow leakage to be prevented. Thus, AmerGen's failures to monitor the drains and to take samples before disposing of the collected water are failures to take corrective actions to ensure a significant condition adverse to quality did not recur. AmerGen has therefore violated 10 C.F.R. § 50, Appendix B, Criterion XVI, and should be issued a Notice of Violation by the NRC. Please clarify whether NRC disagrees with this reasoning, and if so, why.

In addition to the substantive failures to take committed actions, AmerGen may have also failed to keep required records. For example, your November 9 letter states that NRC has not received any AmerGen reports or data documenting visual inspections of the epoxy coating prior to October 2006. This is surprising because 10 C.F.R. § 50, Appendix B, Criterion XVII requires Oyster Creek to keep records of corrective action and states:

Sufficient records shall be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: Operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses... Inspection and test records shall, as a minimum, identify the inspector or data recorder, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted.

The epoxy coating was applied to protect the drywell shell from further corrosion. The visual inspections are designed to ensure this coating is in good condition. Thus, the coating inspections are activities affecting quality. If records of the visual inspections prior to October 2006 have not been kept at Oyster Creek that is a violation of 10 C.F.R. § 50, Appendix B, Criterion XVII. Please clarify whether the required records of the visual inspections were kept.

Furthermore, for the water inspections, AmerGen has admitted that, at minimum, it failed to maintain adequate records. A department review performed by Mr. Robert J. Barbieri on July 13, 2005 clearly stated that: "A commitment was made to the NRC to perform periodic walkdowns to inspect for leakage. These walkdowns were performed and documented up to refueling outage 17R. No documentation exists after 17R." Thus,

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at minimum AmerGen failed to maintain adequate records of the water leakage monitoring and should be issued a NOV for failure to maintain quality assurance records.

Another major concern regarding the water disposal incident is that the NRC, New Jersey, and AmerGen have all offered differing accounts of what happened. Your November 9 letter refers to NRC inspectors overhearing an AmerGen technician talking about emptying some bottles of water. In contrast, AmerGen has stated that the “missed commitment was self-identified.” (Letter of Rausch to Various Congressmen, dated September 28, 2006). Furthermore, New Jersey stated that the bottles were “in some instances overflowing,” (Letter from Lipoti to Collins dated Septmeber 13, 2006), while your letter states that the technician responsible for emptying the bottles indicated that there was no overflow. Finally the updated Safety Evaluation Report, dated December 2006 (“SER”), states that the initial inspection of the bottles was done by the “system engineer” and not a technician. SER at 4-48. To resolve these apparent inconsistencies, please clarify the title of the individual who decided to empty the water collection jugs, whether they were overflowing, and whether the failure to monitor these jugs was self-identified by AmerGen.

In addition, we are concerned that AmerGen incorrectly characterized the finding of water on the interior of the drywell below the concrete floor in October 2006 as a new condition that was not included in the License Renewal Application. Letter from Gallagher to NRC, dated December 3, 2006 at 2 (“as a result of performing planned inspections [in October 2006] of the internal surface of the drywell trenches . . . AmerGen identified an environment/material/aging effect combination that was not included in the LRA.”). In fact, inspection report 05000219/2006013 attached to a letter from NRC to Crane dated January 17, 2007 stated that this condition had been previously identified, but not addressed:

The inspectors noted that the presence of water in the bay 5 and bay 17 trenches inside the drywell had been reported in Structural Inspection Reports in 1992 and 1994. The Structural Inspection Report from 1994 (dated January 3, 1995) indicates that the rectification of the situation will require prevention of water from reaching the trenches with proven material(s). However, this condition and the evaluation were not addressed by the corrective action process in effect at the time.

Id. at 9. This observation highlights two potential violations. First, it appears that corrective action was not taken when a significant condition adverse to quality was first identified in 1992. Second, it appears that AmerGen failed to include any mention of this known condition adverse to quality in its License Renewal Application.

The regulations concerning license renewal require License Renewal Applications to be “complete and accurate in all material respects.” 10 C.F.R. § 53.13(a). Because AmerGen has now instituted an aging management program for interior corrosion, it has effectively admitted that the condition is material. Thus, by omitting this material fact

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from the License Renewal Application, we believe AmerGen violated the requirements of 10 C.F.R. § 53.13(a). Please confirm whether you agree.

Finally, I would like to follow up on a commitment that AmerGen made on May 1, 2006 to update the acceptance criteria for the torus inspections, first raised in my letter of January 16, 2007 to the Advisory Committee on Reactor Safeguards ("ACRS"). In response AmerGen incorrectly states that the NRC inspection during the fall of 2006 "confirmed that the commitments on the torus were satisfied." (Letter from Gallagher to the ACRS, dated January 31, 2007 at 6). In fact, as I have confirmed with you, the scope of the inspection did not cover the May 1, 2006 commitment. AmerGen further stated that this commitment was met by Revision 3 to Specification SP-1302-52-120. In response to my previous enquiry, I understand that you have not reviewed this document and cannot confirm its date. Because AmerGen's ability to meet commitments is an issue of public concern, we respectfully request that NRC review this document and decide whether it implements the May 1, 2006 commitment. I would appreciate a copy of your conclusions.

Thank you for your attention to these matters. If you have any questions please feel free to contact me at 973-353-3189.

Yours sincerely,



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cc: Mitzi Young, Esq.  
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