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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of AMERGEN ENERGY COMPANY, LLC (License Renewal for the Oyster Creek Nuclear Generating Station)	Docket No. 50-0219-LR ASLB No. 06-844-01-LR

CITIZENS' PETITION FOR REVIEW OF LBP-07-17 AND THE INTERLOCUTORY DECISIONS IN THE OYSTER CREEK PROCEEDING

Richard Webster
Julia LeMense
Eastern Environmental Law Center
744 Broad Street
Newark, NJ 07102
Counsel for Citizens

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I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.341(b), 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 (collectively "Citizens") hereby petition the Nuclear Regulatory Commission ("NRC" or "Commission") for review of the Atomic Safety and Licensing Board ("ASLB" or "Board") Initial Decision: LBP-07-17[1] and the many interlocutory decisions in this proceeding.

II. Brief Summary Of The Proceeding

This proceeding concerns the future safety of the thin steel containment shell at Oyster Creek Nuclear Generating Station ("Oyster Creek"). LBP-07-17 at 2. The shell is over 100 feet tall and is spherical in its lower portion. *Id.* Towards the bottom of the freestanding part of the shell, there is a region called the sand-bed, which became severely corroded during operation. LBP-07-17 at 3-5. This region is divided into ten odd-numbered bays each of which has a vent pipe coming down from its center. *Id.* at 3. The thickness of this region was nominally 1.154 inches, *id.* at 6, but has corroded to 0.602 inches in at least one area. Citizens' Ex. 61 at 13. The admitted contention is that the frequency of

[1] Initial Decision, In the Matter Of AmerGen Energy Co, LLC (License Renewal for Oyster Creek Nuclear Generating Station, LBP-07-17 (December 18, 2007) (the "Decision")

thickness monitoring proposed by AmerGen Energy Company LLC ("AmerGen") is insufficient to ensure that the required safety margins would be maintained throughout any extended period of operation. Decision at 10. During the proceeding, the Board denied 8 attempts by Citizens to add new contentions on various issues. *Id.* at 10 n. 14. In its Order dated June 19, 2007, the Board divided the contention into three basic issues: the amount of margin, the existence of a corrosive environment, and the potential corrosion rate. Board Memorandum and Order, dated June 19, 2007 slip op. at 7.

III. Errors Made In The Final Decision

A. Identification of Issues Raised

Issue D1: Whether the ASLB misinterpreted the reasonable assurance standard by approving relicensing without a high degree of confidence that Oyster Creek currently complies with all safety requirements?

Issue D2: Whether the Board erroneously decided critical factual issues by making findings that were contradicted by all the evidence, ignored conflicting evidence, or impermissibly shifted the burden of proof onto Citizens?

Issue D3: Whether the Board misinterpreted the scope of the proceeding and, as a consequence, failed to consider critical testimony and other issues concerning compliance with the Continuing Licensing Basis ("CLB")?

B. Appeal Points Related To The Reasonable Assurance Standard (Issue D1)

1. Summary Of The Board's Decision On Reasonable Assurance

The Board found that AmerGen bore the burden of proof to establish that it satisfies the reasonable assurance standard by a preponderance of the evidence. LBP-07-17 at 15. The Board explained that the reasonable assurance standard is satisfied when "sound technical judgment" applied on a "case by case" basis indicates compliance with the Commission's regulations. *Id.* The Board further

found that "AmerGen demonstrated by a preponderance of the evidence that the sand bed region complied with the acceptance criteria."[2] Decision at 22-23.

Judge Baratta was not convinced that there is reasonable assurance that the required factor of safety of two will be met during any extended period of operation. Decision, Additional Statement of Judge Baratta at 1. The Board as a whole, however, found there would be such reasonable assurance, provided the acceptance criteria derived from modeling were met. LBP-07-17 at 19-20.[3] Finally, the Board found that because the thinnest average thickness measured from the inside was 0.800 inches and the acceptance criterion for average thickness was 0.736 inches, the limiting margin is 0.064 inches.[4]

2. The Board Failed To Apply The Requirement For Reasonable Assurance

The Board made a fundamental error when it found that there is reasonable assurance that the required factor of safety of two will be met during any extended period of operation. Both the Federal Courts and the Commission have long recognized that "reasonable assurance" refers to the required degree of assurance that the "adequate protection" standard contained in the Atomic Energy Act ("AEA") is met. For example, the Commission has repeatedly stated that the NRC's regulatory interpretation of the AEA requires the Commission to have "reasonable assurance of adequate protection of public health and safety."[5] In addition, federal courts have quoted this language or similar with approval. *E.g. Power Reactor Development Co. v. Electrical Workers*, 367 U.S. 396, 407 (1961); *North Anna Envtl. Coalition v. NRC*, 533 F.2d 655, 667-68 (D.C. Cir. 1976). Even the Commission decision cited by the Board states that applicants have to "provide 'reasonable assurance' that public health, safety, and environmental

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[2] This finding is based on an error of fact as well as an error of law, because the Board erroneously failed to consider evidence regarding the way the acceptance criteria are applied. This is addressed in Section III.C.2.b.; *see also* Decision, Additional Statement of Judge Baratta at 3-4.

[3] This finding is also based on an error of fact, which is addressed in Section III.C.2.e.

[4] This finding is again based on an error of fact, which is addressed in Section III.C.2.c.

[5] e.g. Draft Statement of Policy on Conduct of New Reactor Licensing Proceedings, 72 Fed. Reg. 32, 139, 32,144 (June 11, 2007); *In the Matter of All Pressurized Water Reactor Licensees; First Revised Order Modifying Licenses*, 69 Fed. Reg. 9,388, 9,389 (February 27, 2004); http://www.nrc.gov/reading-rm/doc-collections/commission/speeches/2000/s00-10.html; http://www.nrc.gov/reading-rm/doc-collections/commission/cvr/1999/1999-191vtr.html.

concerns were protected, and to demonstrate that assurance by 'a preponderance of the evidence.'" *Commonwealth Edison Co.* (Zion Units 1 and 2), ALAB-616, 12 NRC 419, 421 (1980). Thus, "reasonable assurance" refers to the amount of assurance needed that there is "adequate protection" and an applicant has to demonstrate such reasonable assurance by a preponderance.

In general, adequate protection is equated to compliance with the CLB, which includes the applicable Commission regulations. Thus, according to the regulations a renewed license may only be issued if the Commission finds that there is reasonable assurance of future compliance with the CLB. 10 C.F.R. § 54.29. Obviously, where there is a high degree of certainty that a facility complies with the CLB requirements, the exact meaning of "reasonable assurance" does not come into play. *E.g. North Anna Envtl. Coalition*, 533 F.2d at 667-68. The degree of assurance that is reasonable depends on context. In general, courts have found that to be admissible in civil proceedings, scientific facts must be at least 95% certain. Citizens Proposed Conclusions of Fact and Law at 52-55. Common sense indicates that compliance at nuclear power plants should not be based on a "more likely that not" standard. Indeed, NRC staff have suggested in other cases that modeling results should be 95% certain. *Id.* at 55-56. In the more specific context of ongoing corrosion at Oyster Creek, both the reactor operator and the NRC Staff have regarded the 95% confidence level as the equivalent of reasonable assurance. *Id.* at 56-57.

However, instead of addressing this issue in its Decision, the Board erroneously conflated reasonable assurance with adequate protection by accepting AmerGen's showing of compliance with various acceptance criteria by a preponderance of the evidence. Decision at 22-23. In fact, the Board should have required a preponderance of the evidence to show *reasonable assurance of compliance* with all the acceptance criteria and the other relevant CLB requirements. In committing this error, the Board contradicted a number of its own earlier rulings. For example, the Board stated it would consider information related to the uncertainties in the measurements to determine how much actual thickness values could differ from the measured values. Board Memorandum and Order, dated June 19, 2007 slip op. at 7 n.10. The Board later indicated that to satisfy its burden in this proceeding AmerGen had to show to a 95% confidence level that the drywell shell will not violate the minimum thickness requirements in

the interval between UT inspections taking into account the variance of the data. Board Memorandum and Order dated July 11, 2007 slip op. at 4. The Board's August 9, 2007, Memorandum and Order, however, suggested that 95% confidence was merely an example, not necessarily the level of assurance required in this matter. Board Memorandum and Order, dated August 9, 2007 slip op. at 11 n. 11. In the final analysis the Board took no account of the variance of the mean derived from the measurements and merely determined whether compliance was shown by a preponderance. Decision at 22-23. This error is directly attributable to the Board's failure to address what degree of assurance is reasonable in this particular case.

Judge Baratta, one of the Board members, is concerned with the remaining uncertainty. He stated that he believes that the licensee failed to "fully" show that "there is reasonable assurance that the factor of safety required by the regulations will be met throughout the period of extended operation . . . ." LBP-07-17, Additional Statement of Judge Baratta at 1.[6] This is because "to date . . . no analysis of the actual condition of the drywell has been done." *Id.* at 4 (emphasis in original). Therefore, "we do not know what the actual safety factor is." *Id.* Adding to the uncertainty caused by this lack of analysis is "a very limited knowledge of the actual thickness of the shell" because "there are large areas of the drywell that do not have any recent measurements at all." *Id.* at 5. Therefore, "it is essential to have a conservative best estimate analysis of the drywell shell before entering the period of extended operation." *Id.* at 4. In addition, that analysis must take account of the uncertainty. *Id.* at 5. Therefore, the applicant should be required to perform a series of sensitivity analyses. *Id.* at 6. One required analysis should be to use an extrapolation method to determine the thickness between measured locations. *Id.* This could use the approach suggested by Citizens' expert and use contour plots generated from known thickness points. *Id.*

Nonetheless, Judge Baratta believed that future compliance with the safety factor requirement was "likely." *Id.* at 4. It appears therefore, that the Board's finding of reasonable assurance of adequate

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[6] Although Judge Baratta did not style his "statement" as a dissent, he states that he differs with his colleagues on whether the licensee has shown reasonable assurance that the factor of safety, a CLB requirement, will be met. Because such reasonable assurance is required before license renewal can proceed, Judge Baratta's statement is effectively a dissent.

protection was based on an erroneous legal finding that AmerGen only had to prove that it was more likely than not that it met the CLB requirements. In fact, Judge Baratta certainty did not find the existing degree of assurance reasonable, because he felt additional analyses are essential to fully show reasonable assurance of adequate protection. Thus, Judge Baratta's statement clearly indicates that it is essential to have considerably more than 50% certainty of compliance with CLB requirements to provide reasonable assurance of adequate protection. Here the Commission must decide what level of confidence is needed in this case to provide reasonable assurance and must determine whether a preponderance of the evidence submitted to date provides that level of confidence of compliance with CLB requirements. On the latter issue, the Commission should agree with Judge Barrata that because there is no analysis that provides a showing of current compliance with the buckling criterion in the CLB to a high degree of confidence, reasonable assurance of adequate protection is lacking.[7]

C. Appeal Points Related To The Board's Fact-finding Errors (Issue D2)

1. Summary Of The Board's Decisions Regarding Key Facts

The Board's conclusion that AmerGen could ensure CLB compliance if Oyster Creek met the acceptance criteria derived from the General Electric ("GE") modeling, Decision at 19-20, is directly contradicted by the evidence. Judge Baratta recognized this error when he stated that his colleagues "failed to appreciate" that "the [GE] analysis did not show the shell was acceptable with both a thinning to 0.736 inch [thick] and localized regions that satisfy the local buckling criteria." Decision, Statement of Judge Baratta at 3. The Board acknowledged that severely corroded areas of greater than 18 inches by 18 inches could affect the buckling margin. Decision at 25 n. 25. However, the Board made another fundamental factual error when it stated that "no data has been presented to this Board indicating that such a large area in the sand bed region is degraded to 0.800 inches on average." *Id.* To establish the current margin above the mean acceptance criteria, the Board used the mean results from the internal grids to derive a minimum margin of 0.064 inches. Decision at 22-26. The Board then erroneously

[7] As shown below in Section III.D.2., although current safety is excluded from license renewal proceedings, current compliance is required because the drywell shell will only get thinner over time. Thus, if it already fails the CLB it will also fail at the start of any extended period of operation.

decided that it could not use the results from the external measurement points to determine margin above the mean or local area acceptance criteria, because the results contained significant selection bias of between 0.1 to 0.2 inches. *Id.* at 26-27, n.30. Finally, on many other issues, the Board consistently shifted the burden of proof to Citizens or overweighted the oral testimony of the NRC Staff and AmerGen witnesses over the evidence of Citizens' expert, even where the Staff and AmerGen witnesses had contradicted themselves.

2. Reasons Why The Decisions Are Erroneous

a) Acceptance Criteria Defined By The Board Do Not Ensure CLB Compliance

The Board properly rejected NRC Staff's attempt to exclude compliance with the ASME code from the CLB. Decision at 19 n. 20. However, the acceptance criteria are based on modeling carried out by GE. NRC Staff Ex. C1 at A42, A48; Decision at 21, 22 n. 22. The GE modeling shows that corrosion in the pattern modeled by GE upon which the local area acceptance criteria are based would result in a 9.5% reduction in the safety factor from 2.0. Citizens' Ex. C A6; NRC Staff Ex. C1 A54; Tr. at 401-402. The Board adopted the areas modeled by GE as the local acceptance criterion. Decision at 21-22. Thus, the acceptance criteria could allow corrosion that would result in a safety factor of 1.81. NRC Staff Ex. C1 A54. The decision is therefore clearly erroneous when it finds compliance with the stated acceptance criteria will ensure that the factor of safety will remain greater than 2, as required by the CLB. In fact, compliance with the acceptance criteria is necessary, but not sufficient, because use of the acceptance criteria alone could allow the CLB to be violated.

As Judge Baratta recognized, it is therefore critical to focus on the CLB requirement that a safety factor of 2.0 is maintained. The Board as a whole completely failed to adjudicate this point, because it assumed that compliance with the acceptance criteria was sufficient. Further, as Judge Baratta also recognized, there is insufficient analysis to provide reasonable assurance that this requirement is met. Indeed, NRC's testimony at one point suggested that the safety factor is now around 1.9, NRC Staff Ex. C A28, although, as discussed in more detail below, NRC Staff contradicted themselves on this point.

Furthermore, AmerGen's proposed aging management regime for the shell uses the acceptance criteria to determine whether the thickness measurements are adequate, *see e.g.* AmerGen Ex. B A29 (available margin for buckling is calculated by comparing bounding remaining thickness to the acceptance criteria). Thus, as Judge Baratta recognized,[8] if further deterioration of the shell occurs, it is quite possible that the safety factor could fall below 2.0 while AmerGen still passes the measurements as compliant with the acceptance criteria.[9] This means that the currently proposed aging management regime for the drywell shell is inadequate for a number of reasons. As Judge Abramson recognized during the hearing, "we don't have an analysis of how much . . . degradation this shell can take before it approaches buckling." Tr. at 510:19-21. Because there is currently no assessment of how much more corrosion, if any, would be acceptable, it is impossible to determine an appropriate monitoring frequency. In addition, if future results show further thinning, there will be no way of knowing whether they are consistent with the CLB. Finally, without this limiting margin, it is impossible to determine how accurate future estimates of thickness need to be.

b) Local Area Acceptance Criterion Is Probably Violated

The Board based its finding of compliance with the local acceptance criterion, Decision at 25-26, on its finding that "no data has been presented to this Board indicating that such a large area [18 inches by 18 inches] in the sand bed region is degraded to 0.800 inches on average." Decision at 25 n. 25. This finding is patently erroneous. In fact, Citizens' Expert Dr. Hausler testified that after correction AmerGen's own assessment showed an area larger than 3 ft by 3 ft. in Bay 1 that had an average thickness of 0.699 inches. Citizens' Ex. C1 at A7.[10] Even the uncorrected assessment shows an area in

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[8] Decision, Additional Statement of Judge Baratta at 3-4.

[9] Indeed, as is shown in the next Section, the Board erred when it failed to compare the external thickness measurements to the local area acceptance criterion. Had it done so, it would have found that the drywell shell already fails the local area acceptance criterion.

[10] Indeed, AmerGen's witness admitted this, but characterized it as a mistake. Tr. at 509-10

Bay 1 that is 3 ft by 3 ft and is 0.696 inches thick. AmerGen Ex. 16 at 26, 34. Thus, the Board's finding of compliance with the local buckling criterion was straightforwardly erroneous.[11]

The Board failed to compare the external results with the local area acceptance criterion to derive the margin above this criterion, Decision at 27 n.30, even though the external data were designed to determine compliance with this criterion. Tr. at 633. Instead the Board compared the external results to the criterion for single points. Decision at 28. Thus, the Board failed to adjudicate the evidence on the critical point of whether there was compliance with the local area bucking criteria and, if so, what was the margin, despite this being one of the main issues discussed at the hearing. In fact, because the local area acceptance criterion limits the extent of contiguous areas thinner than 0.736 inches thick to 9 square feet or less, Decision at 25, Citizens presented evidence that this criterion was violated. *See* Citizens' Proposed Conclusions of Fact and Law at 30-31. Citizens' even showed that AmerGen's assessment, which was supposed to show compliance with the local acceptance criteria, actually showed noncompliance. *Id.* at 27-30. Even if the Board did not fully credit that testimony, or somehow believed that the criterion did not so limit the areas thinner than 0.736 inches, it needed to determine whether the margin above the local thickness criterion was the most limiting margin. It was unable to do this because AmerGen repeatedly stated that it was unable to calculate the margin above the local area acceptance criterion. *E.g.* AmerGen Ex. B Part 3 at A29. Thus, instead of requiring AmerGen to carry the burden of calculating the margin above the local area acceptance criterion, as the Board's pre-hearing rulings indicated, *e.g.* Board Memorandum and Order dated July 11, 2007 slip op. at 4, the Decision allowed AmerGen to avoid presenting any assessment of this margin. NRC Staff similarly failed to evaluate the margin above the local area acceptance criterion. *See* NRC Staff Ex. B at A9 (stating the staff had not reviewed the latest copy of the AmerGen report on compliance with the local area acceptance criterion).

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[11] As discussed in detail in Section II.D.2., the Board erroneously decided to disregard the contour plot evidence set forth by Dr. Hausler post-hearing, even though it previously denied a motion in limine by AmerGen to exclude this evidence. Moreover, even if the contour plot evidence is disregarded, the Board's finding regarding compliance with the local area acceptance criterion remains clearly erroneous.

Thus, the Board should have either decided that the local area acceptance criterion had been violated or, at minimum, that AmerGen had failed to meet its burden to establish the most limiting margin.

c) The Internal Grid Data Was Insufficient To Define The Margin Above The Mean Acceptance Criterion In The Most Corroded Bays

Although the Board used the internal grid data alone to establish the most limiting margin, this was an error, because according to AmerGen's own assessment, the internal grids in some of the most corroded bays lie above the severely corroded area, and so are not representative of the condition of the shell. Citizens' Proposed Conclusions of Fact and Law at 16-18 *citing* Citizens' Ex. 45 & 46 (both AmerGen documents). AmerGens documents clearly show that Bays 11, 13, 15, 1, and 19 are the five most corroded and that the internal grids are not representative in three of these five Bays. This is hardly surprising because the grids, which are 6 inches by 6 inches, represent only a miniscule fraction of the total area of each Bay. The Board completely failed to adjudicate this issue, even though AmerGen had the burden to prove that the sampled Bays were representative of all Bays. Because, AmerGen's own documents show that these grids were not representative of three critical Bays, it is impossible to determine the limiting margin above the mean area thickness criterion by reference to the internal grids alone. The Board should therefore have determined that AmerGen had failed to carry its burden of establishing this margin.

d) There Was No Probative Evidence Of Significant Systematic Bias In The External Measurements

Contrary to the evidence presented, the Board decided that it could not use the results from the external measurement points to determine margin above the mean criterion, because the results contained significant selection bias of between 0.1 to 0.2 inches. Decision at 26-27, n.30. In fact, using Table 1, Citizens showed that for Bays 5, 17, 11, and 19 the mean thickness estimates agree to within the margin of error. Citizens' Proposed Conclusions of Fact and Law at 18-21. In contrast, the only evidence alleging such a large bias cited by the Board was the oral testimony of an AmerGen witnesses, who suggested that the amount of material removed by grinding from the measurement points on the drywell was approximately 100 mils based on micrometer measurements. Tr. at 604-5. This was inconsistent

with AmerGen's pre-filed testimony in which AmerGen conceded that the grinding did not cause significant bias in the external results. AmerGen Ex. C1 at A17. These oral statements were also entirely without foundation, Citizens Proposed Conclusions of Fact and Law at 86-87, and Citizens' counsel objected at the time they were made. Tr. at 604.

e) The Board's Finding That There Is Reasonable Assurance That The ASME Code Is Met Is Unsupported By The Evidence

In finding that the CLB requirement for a safety factor of 2.0 was met, the Board cited NRC Staff expert Dr. Hartzman's testimony that the safety factor could be greater than 2, Decision at 19 n.20, but ignored his previous testimony stating that it could be 1.9. In fact, during the course of the proceeding Dr. Hartzman repeatedly changed his position on this issue. Initially, on August 17, 2007, Dr. Hartzman stated baldly that "Based on the currently available corrosion data of the sand bed region, the Staff estimates that the EFS [effective factor of safety] in the sand bed shell is 1.9." Affidavit of Mark Hartzman, dated August 17, 2007. However, the Staff then amended the pre-filed testimony to read: "Assuming that the corrosion is as extensive and severe as depicted by Dr. Hausler's contour plots in Citizens Exhibit 13, the Staff estimates that the EFS in the sand bed shell is 1.9." *See* NRC Staff Ex. C at A28. Subsequently on September 24, 2007, Dr. Hartzman testified orally that based on his expert interpretation of AmerGen's data that current factor of safety is "probably about two, even greater than two." Tr. 453:12-16.

It is difficult to make sense of Dr. Hartzman's contradictory testimony. NRC Staff have shown no errors in Dr. Hausler's contour plots. Indeed, on sur-rebuttal, Dr. Hausler showed that the plots he had presented previously did not show the full extent of corrosion because they were confined to the measured area as provided by AmerGen. Dr. Hausler then presented additional plots showing even more extensive corrosion. Citizens' Ex. 61 at 14-17. Thus, if Dr. Hartzman had continued to rely on Dr. Hausler's plots it appears that the predicted factor of safety should have been less than 1.9. Furthermore, Dr. Hausler showed that his plots were merely more refined versions of AmerGen's estimates regarding severely corroded areas. Citizens Ex. 61 at 4. It is also unclear how Dr. Hartzman was able to estimate a factor of

safety of greater than 2 without using AmerGen's latest analysis of the severely corroded areas, which NRC Staff repeatedly stated they had not reviewed in detail. NRC Staff Ex. B at A9 (page 13); Tr. 415:16-21; Tr. 420:4-10. Somewhat similarly, Dr. Mehta of GE testified that the factor of safety coming out of the actual thicknesses would be "greater than two," but not much greater than two, but failed to state exactly how he had interpreted the thickness measurements to reach this conclusion. Tr. 441:11-24. Thus, the most that the Board could conclude from this testimony is that the current safety factor is uncertain and is, at best, right on the edge of what is required by the ASME code.

Finally, although the Board tried to use the Sandia Study to support its conclusion, Decision at 19 n. 20, Citizens showed that the Sandia Study found that the drywell was severely degraded and the current buckling strength is approximately 44% lower than when it was built. Citizens' Proposed Conclusions of Fact and Law at 34. Furthermore, the Sandia Study was not fully conservative because it assumed the drywell is thicker than was measured most recently and made other unrealistic assumptions. Citizens' Proposed Conclusions of Fact and Law at 34-35. It is therefore not surprising that Judge Baratta fails to find reasonable assurance that this CLB requirement is met, Decision, Statement of Judge Baratta at 1, and that a similar analysis must be repeated using a conservative approach to projecting current thickness, such as that used by Dr. Hausler. *Id.* at 6.

f) The Board Failed To Require AmerGen To Meet Its Burden Of Proof On Many Issues

Because AmerGen had the burden of proof in this matter, Citizens used their expert and the record to point out the sub-issues to the contention that were inadequately dealt with in the available documents. It was then up to AmerGen to provide evidence refuting these points during the hearing. The systematic bias issue discussed above is a microcosm of the way in which Citizens approached the matter and the way in which the Board mistreated the evidence. Even though Citizens properly pointed to considerable record evidence that there was no significant bias, the Board seized upon unsupported oral statements of AmerGen experts to justify its conclusion that there was such bias, even though AmerGen's pre-filed testimony contradicted these statements. Similar examples include:

i) The Board accepted Mr. Cavallo's unsupported and unfounded statement that the degraded epoxy on the floor of the shell exterior was not designed to prevent moisture penetration. Decision at 46 n. 48. In fact, Citizens showed by reference to AmerGen's own documents that the lower portion of the sand bed is protected only by this floor coating. Citizens' Proposed Conclusions of Fact and Law at 37. Furthermore, the floor coating failed in 1996. *Id.* at 38. Thus, if the floor coating deteriorates further, as is likely as it ages, and water penetrates through it, corrosion of the lower sandbed could result. *Id.* at 38-39. For these reasons Dr. Hausler's testimony regarding the deterioration of the floor was far from "ill-conceived." Decision at 46 n. 48. In fact, it highlighted an essential issue, which the Board failed to adjudicate.

ii) The Board unjustifiably criticized Dr. Hausler's testimony with respect to the modeling of the local areas of severe corrosion. Decision at 22 n. 22. Although Dr. Hausler failed to note that the effect of symmetry was to place an area twice the modeled size *every other* Bay, NRC Staff Ex. C1 at A.48, he candidly disclosed his lack of structural engineering expertise. Decision at 22 n. 22. In contrast, Mr. Gallagher, AmerGen's witness, incorrectly testified the GE sensitivity analysis modeled a 9 sq. ft. severely corroded area straddling *every* Bay boundary. Tr. 406:11-15.

iii) The Board also improperly disregarded Dr. Hausler's testimony that an equation for evaporation of open ponds should not be used in the area outside the drywell shell. Decision at 32 n. 35. In fact, the ongoing corrosion in the upper drywell shows that evaporation rates must be small and AmerGen failed to provide any evidence for the evaporative air flow its witnesses speculated about. Citizens' Proposed Conclusions of Fact and Law at 43-44. Thus, the Board should have found that AmerGen had failed to meet its burden to show that water would not collect in the exterior of the drywell.

iv) The Board found that Dr. Hausler failed to show that the trough capturing the water could deteriorate in the future. Decision at 34. In fact, because Dr. Hausler showed that such deterioration had occurred in the past, *id.*, it was AmerGen's burden to prove why deterioration in the future would be negligible.

The Board made similar burden-shifting errors with respect to future leakage, where Dr. Hausler showed that the proposed leakage prevention measures had failed in the past. Decision at 35. Although AmerGen showed they did not fail in the last outage, *id.*, this does not meet the required burden, which is to prove how often they could fail in the future. Another issue where the Board made a similar mistake is regarding the age of the water found in the drains from the exterior sandbed region in 2006. *Id.* at 36 n. 37.

D. Appeal Points Related To The Board's Failure To Consider Relevant Issues Related To The Current Licensing Basis (Issue D3)

1. Summary Of The Board's Decisions Concerning The Current Licensing Basis

The Board found that Citizens may not challenge the CLB in this proceeding. LBP-07-17 at 14 n.17. The Board also decided that compliance with the CLB is similarly beyond the scope, citing 10

C.F.R. § 54.30. *Id.* In addition, the Board made a finding that the acceptance criteria for drywell thickness are part of the CLB. LBP-07-17 at 18 n.19. Because a challenge to the CLB is generally excluded from the scope of relicensing proceedings, the Board then decided that the derivation of the acceptance criteria was not open to challenge. *Id.* Finally, the Board found Citizens could not rely on contour plots of the measurements of thickness to determine compliance with the CLB because using them was "effectively an attack on the CLB." *Id.* at 28 n.30.

2. The Board Erroneously Excluded Many Issues Related To The Current Licensing Basis

The Decision takes a number of erroneous legal steps concerning the CLB. First, compliance with the CLB during the extended period of operation is a proper subject for review during license renewal. As Citizens repeatedly argued, aging is a one way street. Therefore, if an aging component is already violating the CLB at the time of the safety review, it will violate the CLB on day one of license renewal. The Board apparently recognized the force of these arguments before the hearing when it refused to exclude testimony regarding current compliance with the CLB. Board Memorandum and Order, dated September 12, 2007 slip op. at 12-13.

To reiterate, the text of the regulations clearly shows that the obligation to comply with the CLB during the *current* license term is excluded from a renewal review, but the issue of compliance with the CLB during the extended term of the renewed license must be reviewed. Section 54.30(a) emphasizes this point by referring to the current license three times. 10 C.F.R. § 54.30(a). Section 54.30(b) then exempts the measures taken pursuant to paragraph (a) from renewal review and again refers to the current license. 10 C.F.R. § 54.30(b). In contrast a renewed license can only be issued if there is reasonable assurance that the CLB will be met during the renewed license term. 10 C.F.R. § 54.29. Thus, compliance with the CLB during any extended term of operation is an essential part of the hearing, but one with which the ASLB erroneously dispensed. Indeed, in addition to contradicting this finding prior to the hearing, the Board also contradicted itself in the Decision by stating that the touchstone of reasonable assurance is "compliance with Commission regulations." Decision at 15.

The acceptance criteria derived by GE are not part of the CLB because they were only referred to in a reference to a reference and the work deriving them was not approved by the NRC Staff at the time they were allegedly added. Citizens Proposed Conclusions of Fact and Law at 58-65. As discussed above, the Board erroneously placed the derivation of the acceptance criteria off-limits in pre-trial rulings. This may have been in part because the Board reached a premature and erroneous conclusion about the nature of the CLB.

In the Decision, the Board went further and refused to consider contour plots that compared the measured thickness of the containment wall with the acceptance criteria. Decision at 28 n. 30. This decision directly contradicted an earlier ruling denying a motion to strike the contour plots. Board Memorandum and Order dated August 9, 2007, slip op. at 4. As discussed in Section III.C.2.b., those plots showed that the extent of some the severely corroded areas of the containment wall went beyond the local area acceptance criteria. Presenting such plots is clearly not a challenge to the acceptance criteria. Even if those criteria are part of the CLB, the applicant must demonstrate compliance with the criteria with reasonable assurance. The contour plots provide a useful means to judge such compliance. The Board should therefore have considered these plots.

IV. Errors Made Regarding Petitions For New Contentions

A. Issues Raised

Issue P1: Whether the Board erred in its decisions about the timeliness of Citizens' proposed new contentions?

Issue P2: Whether the Board erred by making factual assumptions without having any evidence on which to base those decisions?

Issue P3: Whether the Board unreasonably restricted the scope of the admitted contention by excluding relevant issues?

B. Appeal Points Related To The Timeliness Of Citizens' New Contentions (Issue P1)

1. Summary Of The Decisions On Timeliness

On June 6, 2006 the Board decided that Citizens' initial contention concerning a lack of thickness monitoring had been rendered moot by AmerGen's new commitment to take such measurements. Decision at 10. However, the Board gave Citizens the opportunity to file a new contention regarding the new monitoring program for the sand bed region, provided they met the pleading requirements of 10 C.F.R. §2.309(f)(1) and the timing requirements of 10 C.F.R. §2.309(f)(2). LPB-06-16, 63 NRC 737 (2006). In response to this invitation, Citizens sought to raise seven discrete, but interconnected, issues in a contention challenging the acceptance criteria, the monitoring frequency, the protocol for the monitoring of moisture, the proposed response to wet conditions, the spatial scope of the proposed measurements, and quality assurance program for the measurements, and the methods for analyzing the UT results. *In the Matter Of AmerGen Energy Co*, LLC (License Renewal for Oyster Creek Nuclear Generating Station, LBP-06-22, __ NRC __ (2006) slip. op. at 9.

The Board admitted a contention concerning the monitoring frequency, but excluded all the other issues. *Id.* at 36. The Board admitted that contention because it was based on materially different new information in testing plans submitted by AmerGen on April 6, 2006 and June 6, 2006 and therefore satisfied the timing requirements of 10 C.F.R. §2.309(f)(2). *Id.* at 14-15. In addition, Citizens satisfied all other requirements. *Id.* at 15-20. The Board dismissed all the other issues on timeliness grounds. *Id.* at 11-14, 21-23, 25, 26-27, 28-31, 33-36. The Board also rejected proposed a contention regarding a newly created monitoring program for the embedded region and the need to enhance the scope of the exterior monitoring of the sand bed as untimely. Board Memorandum and Order dated December 20, 2006 at 8, 16. Finally, the Board rejected as untimely a contention alleging that the acceptance criteria were overly optimistic and new acceptance criteria needed to be developed based upon realistic three dimensional modeling of the shell. Board Memorandum and Order dated April 10, 2007, slip op. at 4, 6.

2. Reasons Why The Decisions Are Erroneous

The Board should have admitted a contention or contentions concerning all the issues related to the UT measurements raised by Citizens in response to AmerGen's April and June 2006 commitments, because AmerGen did not even agree to take any UT measurements at all in the sand bed region during

any period of extended operation until April 4, 2006. More specifically, the Board erred when it stated that Citizens should have challenged the acceptance criteria for the UT results at the time of the initial petition. LBP-06-22 at 12-14. At that time, such a challenge to a non-existent measurement program would have been entirely speculative.

Similarly, the Board clearly erred when it found that the appropriate time to challenge the scope of the UT testing was promptly after AmerGen had docketed its December 9 Commitments to take one more round of measurements before the end of the licensed period of operation. LBP-06-22 at 29-30. Most obviously, this is directly contradicted by a later ruling of the Board that stated Citizens could not challenge UT monitoring that occurs prior to any period of extended operation. Board Memorandum and Order dated July 11, 2007, slip op. at 2. In addition, Citizen's initial contention alleged a failure on the part of AmerGen to propose UT testing of the sand bed during the license renewal period. AmerGen did not correct this failure until April 4, 2006. Thus, in December 2005 or January 2006, Citizens could not have alleged that the scope of the then non-existent UT testing program for any license renewal period was inadequate. Thus, the challenge regarding the spatial scope of the UT monitoring was timely. Finally, with regard to the challenge to the methods for analyzing the UT results to be taken during any extended period of operation, AmerGen did not state until June 20, 2006 how it would do this. Thus, this challenge was clearly timely.

Furthermore, the Board invented a novel legal test when it decided that enhancements to existing programs cannot constitute new information upon which new contentions can be based. LBP-06-22 at 23. This is directly contrary to the text of the regulations that allow contentions to be added based upon materially different new information 10 C.F.R. § 2.309(f)(2). The policy reason invented by the Board to justify this approach merely reveals its institutional bias. The Board reasoned that allowing Citizens to base contentions upon enhancements to existing programs would discourage applicants from making such enhancements. LBP-06-22 at 23. In fact, policy considerations support precisely the opposite finding. Enhancements to existing programs are only needed when applicants submit inadequate renewal applications. Allowing Citizens to base contentions upon such enhancements would encourage applicants

to submit adequate applications, which is surely a desirable goal.

The Board made similar errors when it rejected a proposed contention regarding a newly created monitoring program for the embedded region and the need to enhance the scope of the exterior monitoring of the sand bed as untimely. Board Memorandum and Order dated December 20, 2006 slip op. at 8, 16.

The Board made another obvious error when it ruled that a contention based upon new thickness measurements taken in October 2006 and on a January 2007 study by Sandia National Laboratories (the "Sandia Report"), was untimely because it was not based on new information. Board Memorandum and Order dated April 10, 2007 slip op. at 2, 5-8. The Board erred by focusing on one element of the proposed contention concerning the uniform thickness criterion, rather than the most important part discussing the need for an accurate realistic finite element analysis, and by placing an unreasonably high burden on Citizens. *Id.* at 6-8. The Board argues that Citizens could have discovered the deficiencies in the previous modeling of the shell done by GE through reviewing GE's work themselves. *Id.* at 7. This view is entirely speculative. Actually, Citizens did not have any information about the deficiency highlighted by the Sandia Report. In addition, the Sandia Report showed using the shell thicknesses taken in 1992, that the shell strength had degraded by 44% compared to the as-built condition and was close to the minimum requirement. Citizens' Proposed Conclusions of Fact and Law at 34-35. Because the October 2006 results were generally thinner than the 1992 results used by Sandia, they triggered the need for further modeling.[12] Thus, the October 2006 results combined with the Sandia Report provided materially different new information to Citizens that they used as the basis for a new contention. The Board's decision rejecting that contention as untimely should therefore be reversed.

The extremely exacting view taking by the Oyster Creek Board regarding timing stands in sharp contrast to a more recent Board decision regarding the Vermont Yankee Nuclear Power Plant. As that decision recognized, the time to file initial contentions is placed at a very early stage, when the renewal

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[12] Confirming the validity of this view, Judge Baratta reached precisely the same conclusion at the end of the hearing. Decision, Additional Statement of Judge Baratta.

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). 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). The Board 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. In contrast to the Oyster Creek decisions, this language indicates that enhancements to aging management programs proposed in the application allow new contentions to be filed. The Board in Vermont Yankee, therefore, admitted a new contention based on a new analysis by the applicant. *Id.* at 10. Citizens should have been given the same opportunity based on the Sandia Report combined with the new measurements taken in late 2006.

C. Appeal Points Related To Premature Factual Adjudication When Rejecting Contentions (Issue P2)

1. Summary Of Decisions That Prematurely Adjudicated Facts

The Board took an even more convoluted route to dismissing Citizens June 2006 challenge to AmerGen's quality assurance program, which Citizens alleged was inadequate based on systematic errors found in the 1996 UT results, obtained by Citizens in April 2006. LPB-06-22 at 31. To find this challenge untimely, the Board decided that Citizens should have obtained these results from AmerGen *before* they filed their Petition, *id.* at 32, even though Petitioners stated in their reply brief that they had tried to do so, but AmerGen "consistently refused to provide the 1996 data to Citizens." *Id.* at 31-32, n. 27. As discussed in the next Section, here the Board should have construed the facts in favor of Citizens and found the challenge timely.

2. Reasons Why The Decisions Are Erroneous

With regard to Citizens challenge to AmerGen's quality assurance program, Citizens made a request for the 1996 data to AmerGen on September 6, 2005. AmerGen denied that request on October 10, 2005 on the erroneous grounds that the data were proprietary. Thus, Citizens found themselves in the untenable position of being accused by the ASLB of failing to make a timely request for the information,

when in fact they made such a request and were improperly denied by AmerGen. Here, the only information the ASLB initially had on the matter was Citizens pleading that AmerGen had denied their request for the data. Instead of construing the facts in favor of Citizens, as is legally required, the ASLB here actually misconstrued them against Citizens without any support whatsoever. This was clearly erroneous. On reconsideration, Citizens provided exhibits showing that the request had in fact been denied by AmerGen, as Citizens had alleged previously. However, the Board merely clarified that Citizens should have stated in their Petition that they had been unable to obtain the 1996 results. Board Memorandum and Order, dated November 20, 2006 at 7-8. This finding was wholly without precedent and elevates form over substance. The regulations on timing make no reference to such onerous requirements.

Because dismissal of a petition is dispositive and the Board is not in a position to make factual findings about issues that are beyond the record, it should construe the facts in favor of petitioners in a similar manner to judges deciding on motions to dismiss. The rationale for this approach is that errors of fact in favor of the petitioners can be corrected at a later stage in the proceeding, whereas dismissals based on erroneous findings of fact are much harder to correct. Reinforcing this view, applicants are in possession of the critical information and decide whether to include it in licensing applications. Therefore, where there is a lack of essential information in the renewal application, it should be construed against applicants, not against petitioners.

The Board made a similar error when it rejected a proposed contention regarding the embedded region by essentially adjudicating the issue instead of analyzing whether the basis set forth by Citizens was adequate. Board Memorandum and Order dated December 20, 2006 at 10-13. The Board made the same error when it rejected proposed a contention regarding the need to enhance the scope of the exterior monitoring of the sand bed as untimely. *Id.* at 17-19.

D. Appeal Points Related To Improper Exclusion Of Twice Raised Issues (Issue P3)

1. Summary Of The Decisions Excluding Twice Raised Issues

In response to repeated AmerGen motions to strike, the Board placed very severe restrictions

upon matters that could be litigated. Board Memorandum and Order dated June 19, 2007 slip op. at 5-9. For example the Board restricted Citizens from arguing about the derivation of the acceptance criteria or whether the established methods for analyzing the UT results are inadequate. *Id.* at 5. Citizens were not even permitted to argue that additional uncertainties had to be taken into account in the analysis of the UT results. Board Memorandum and Order dated July 11, 2007 at 4.

2. Reasons Why The Decisions Are Erroneous

The Board appeared to adopt AmerGen's argument that raising a sub-issue twice, once in a timely manner and once in a non-timely manner, should lead to its exclusion. However, this argument is entirely illogical and unsupported by precedent. For example, the admitted contention implicitly raised the sub-issues of how the acceptance criteria were derived and how the UT results should be analyzed. These sub-issues were also explicitly raised by the proposed contention, but were rejected on timeliness grounds. The net result should have been that because these sub-issues were properly raised in a timely manner as part of the admitted contention, they could not be excluded by a simultaneous or subsequent failure to get a separate contention admitted. Therefore, the Board should have allowed all the sub-issues raised by the admitted contention to be fully litigated.

V. Errors That Pervaded The Proceeding

A. The Board Ignored Statutory And Constitutional Requirements

Whether the Board's formalistic application of the Part 2 rules ignored the requirements of the Atomic Energy Act and the Administrative Procedure Act, and failed to provide due process?

B. Legal Background

Operating licenses may only be renewed if the Commission finds that the license requirements are "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."). To implement these requirements, the Commission has promulgated regulations that lay out the specific requirements for relicensing. As the Commission explained "The license renewal review is intended to identify any additional actions that will be needed to maintain the functionality of the systems, structures, and components in the period of extended operation." Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,464 (May 8, 1995).

The AEA requires NRC to offer a chance for intervenors to request an adjudicatory hearing on all material aspects of license review. 42 U.S.C. § 2239(a) (AEA § 189(a)). In 2004, NRC changed its procedural rules governing hearings on nuclear power plant licensing and other issues. 69 Fed. Reg. 2,182 (January 14, 2004). Among other things, the new rules restricted intervenors' rights with respect to discovery and cross-examination. *Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 344-45 (1st Cir. 2004). The Circuit Court found that the rules provided the procedural safeguards required by the Administrative Procedure Act ("APA"). *Id.* at 350. In particular, the Court found that provided NRC interpreted the rules on cross-examination to meet the APA requirement that cross-examination be available when necessary for a full and fair adjudication of the facts, the rules would satisfy the APA. *Id.* at 351. However, the Court cautioned that "the APA does require cross-examination to be available when necessary for a full and true disclosure of the facts. If the new rules are to comply in practice with the APA, cross-examination must be allowed in appropriate instances. Should the agencies administration of the new rules contradict its present representations or otherwise flout this principle, nothing in this opinion will inoculate the rules against further challenges." *Id.* at 354 (citations omitted).

C. The Board's Decisions And Conduct Violated the APA

Citizens repeatedly attempted to secure the right to cross examine AmerGen witnesses. First, in their motion of May 5, 2006, Citzens requested that the proceeding be conducted under Subpart G rules, which would allow for full cross-examination by the parties rather than interrogation by the judges. Board Memorandum and Order, dated June 5, 2006 at 2. In resolving this issue the Board rigidly applied the standard that unless Citizens showed that the credibility of an eyewitness was at issue, no cross examination would be warranted. *E.g. Id.* at 7. Furthermore, although Citizens raised an issue regarding

AmerGen's technical credibility by showing that the results that AmerGen and the NRC has relied upon to establish the safety of the drywell shell were overly optimistic, the Board erroneously and prematurely assumed that no fact witness would be presented by AmerGen this issue. *Id.*

Second, Citizens attempted to secure a limited right to cross-examine Peter Tamburro, one of AmerGen's witnesses, on the basis that it was necessary to develop an adequate record for decision. Board Memorandum and Order, dated September 12, 2007 at 3. In particular, Citizens pointed to errors and inconsistent statements that the witness had made in documents and claimed that the Board would not have sufficient detailed knowledge of the record to fully examine the witness on these issues. *Id.* In addition, Citizens claimed that the panel format of the witness questioning would "effectively deny Citizens the ability to find out why . . . [Mr. Tamburro] has been so inconsistent." *Id.* at 4.

In denying the motion, the Board acknowledged that Citizens had provided a thorough cross examination plan for the witness, *id*, and stated that the Board "is fully capable of eliciting testimony from Mr. Tamburro and resolving any inconsistencies in his prior statements." *Id.* In addition, the Board pointed out that it was not obliged to follow the panel format. *Id.* However, when the Board actually conducted the hearing, it showed little interest in discovering why Mr. Tamburro had been so inconsistent.[13] The Board also stuck to the panel format and did not question Mr. Tamburro in depth about the critical inconsistencies highlighted by Citizens.

The Board's approach to questioning other witnesses was also inadequate. For example, the Board failed to ascertain the basis of Dr. Hartzman's revised opinions about the actual factor of safety exhibited by the drywell shell.[14] The Board also seldom followed up when testimony was inconsistent with the record developed in three rounds of filings of written testimony.[15] Indeed, Judge Abramson

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[13] *E.g.* Tr. at 509-10, the panel failed to follow up on Mr. Tamburro's admission that his assessment contained an error.

[14] See discussion in Section III.C.2.e, *supra*.

[15] For example when Mr. Gallagher testified that there was a bias introduced by grinding of approximately 100 miles, Tr. at 604-4, and Citizens' counsel objected on the basis of foundation, the Board failed to verify that the cited foundation was actually what the witness claimed: a comparison of

appeared to use the hearing as an opportunity to show that Citizens' contention should be rejected.[16] Thus, in practice, the panel's level of examination of witnesses was insufficient to satisfy the requirements of the APA, because important issues of fact were not fully explored and Citizens were denied the ability to cross examine witnesses.

D. Granting The Renewed License Would Violate The AEA

If left uncorrected, the Board's interpretation of the rules on new contentions would violate AEA. As shown in Section IV.B., there was no time at which Citizens have obtained a hearing regarding the spatial scope of the thickness measurements, the derivation of the acceptance criteria, and a number of other issues. Because all the issues Citizens raised are material to safety, the Commission may not completely deny Citizens the opportunity to obtain a hearing on these issues. *Union of Concerned Scientists v. NRC*, 920 F.2d 50, 53 (D.C. Cir. 1990). Therefore, the Commission must grant Citizens a hearing on these issues prior to making any decision on relicensing.

In addition, as Judge Baratta's statement makes clear, the Commission does not currently have sufficient information to decide whether the current state of the Oyster Creek drywell provides reasonable assurance of adequate protection of public health and safety because a conservative analysis of the actual current state of the shell has not yet been done, even though it is "essential" to "fully" show "that there is reasonable assurance that the factor of safety required by the regulations will be met throughout the period of extended operation." Decision, Additional Statement of Judge Baratta, 4, 1. Furthermore, the Board has failed to establish the limiting margin and has made numerous other errors. Therefore, completing the finite element analysis and correcting the Board's errors are additional pre-requisites to a Commission decision to grant the license renewal application for Oyster Creek.

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the prepared surface vs. the unprepared surface. *Id.* at 604-05. In fact reference to the cited measurements shows that there are no such results and the testimony is indeed without foundation. AmerGen Ex. 16 at 101-02.

[16] Clearly signaling pre-disposition and lack of effective cross-examination, at one point Judge Abramson presaged his summary of some of AmerGen's testimony by stating: "See if I can put that in terms that an appellate court might understand." Tr. at 476.

E. Granting The Renewed License Would Violate Due Process

Finally, the net result of the hearing, if affirmed, would violate Citizens right to due process because it would allow Oyster Creek to be relicensed without full consideration of Citizens' concerns that there is insufficient confidence that the reactor meets the safety requirements designed to protect Citzens' lives and property.

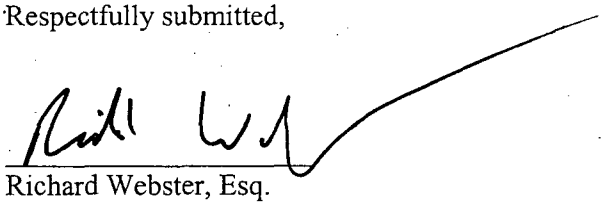
VI. Reasons Why Commission Review Should Be Exercised

The legal errors of the Board identified in this Petition either lacked governing precedent or misinterpreted governing precedent. 10 C.F.R. § 2.341(b)(4)(ii). Indeed, the Board contradicted itself on a number of issues. The factual and legal errors raise substantial and important questions of law and policy because they unreasonably limited the scope of the hearing and they lead to a lack of sufficient confidence that the CLB will be maintained as required. 10 C.F.R. § 2.341(b)(4)(iii). The identified errors were prejudicial and were contrary to the public interest because they unreasonably excluded a number of issues from the hearing process and allowed license renewal to proceed, even though there is no reasonable assurance that the CLB will be maintained. 10 C.F.R. § 2.341(b)(4)(iv); 10 C.F.R. § 2.341(b)(4)(v). Failing to correct these errors made would lead to a violation of federal statutes.

VII. Conclusion

For the foregoing reasons, the Commission should review the Decision and either deny the license renewal application or remand the matter to the Board for further proceedings after the Commission has corrected the many legal and factual errors contained in the Decision.

Respectfully submitted,



Richard Webster, Esq.
Julia LeMense, Esq.
EASTERN ENVIRONMENTAL LAW CENTER
Attorneys for Citizens

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges
E. Roy Hawkens
Dr. Paul B. Abramson
Dr. Anthony Baratta

In the Matter of	)	
	)	Docket No. 50-0219-LR
AMERGEN ENERGY COMPANY, LLC	)	
	)	ASLB No. 06-844-01-LR
(License Renewal for the Oyster Creek Nuclear Generating Station)	)	
	)	

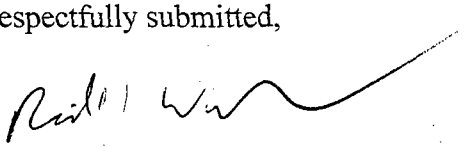
Amended NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. In accordance with 10 C.F.R. § 2.314(b), the following information is provided:

Name:	Richard Webster
Address:	Eastern Environmental Law Center 744 Broad Street, Suite 1525 Newark, NJ 07102
Telephone Number:	973-424-1166
Fax:	973-710-4653
E-mail Address:	rwebster@easternenvironmental.org
	Admissions: U.S. Court of Appeals, Second Circuit; U.S. Court of Appeals, Third Circuit; U.S. District Court, S.D.N.Y

Name of Party: 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")

Respectfully submitted,



Richard Webster
Counsel for Citizens

Dated at Newark, New Jersey
this 14th of January 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges
E. Roy Hawkens
Dr. Paul B. Abramson
Dr. Anthony Baratta

In the Matter of	)	
	)	Docket No. 50-0219-LR
AMERGEN ENERGY COMPANY, LLC	)	
	)	ASLB No. 06-844-01-LR
(License Renewal for the Oyster Creek Nuclear Generating Station)	)	
	)	

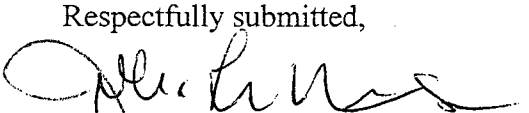
Amended NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. In accordance with 10 C.F.R. § 2.314(b), the following information is provided:

Name:	Julia LeMense
Address:	Eastern Environmental Law Center 744 Broad Street, Suite 1525 Newark, NJ 07102
Telephone Number:	973-424-1166
Fax:	973-710-4653
E-mail Address:	jlemense@easternenvironmental.org
	Admissions: U.S. Supreme Court; U.S. Court of Appeals, Third Circuit, U.S. Court of Appeals, Tenth Circuit; U.S. District Court, D. Vermont; U.S. District Court, D. Minnesota

Name of Party: 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")

Respectfully submitted,



Julia LeMense
Counsel for Citizens

Dated at Newark, New Jersey
this 14th of January 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of	)	
	)	Docket No. 50-0219-LR
AMERGEN ENERGY COMPANY, LLC	)	
	)	ASLB No. 06-844-01-LR
(License Renewal for the Oyster Creek	)	
Nuclear Generating Station)	)	January 14, 2008
	)	

CERTIFICATE OF SERVICE

I, Richard Webster, of full age, certify as follows:

I hereby certify that on January 14, 2008, I caused Citizens' Petition for Review and Notices of Appearance for Richard Webster and Julia LeMense to be served via email and U.S. Postal Service (as indicated) on the following:

Secretary of the Commission (Email and original and 2 copies via U.S Postal Service)
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Rulemaking and Adjudications Staff
E-mail: HEARINGDOCKET@NRC.GOV

Office of Commission Appellate Adjudication
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Rulemaking and Adjudications Staff
Email: OCAAMail@nrc.gov

Administrative Judge
E. Roy Hawkens, Chair (Email and U.S. Postal Service)
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: erh@nrc.gov

Administrative Judge
Dr. Paul B. Abramson (Email and U.S. Postal Service)
Atomic Safety and Licensing Board Panel

Mail Stop – T-3 F23
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: pba@nrc.gov

Administrative Judge
Dr. Anthony J. Baratta (Email and U.S. Postal Service)
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: ajb5@nrc.gov

Law Clerk
Emily Krause (Email and U.S. Postal Service)
Atomic Safety & Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: DAW1@nrc.gov

Office of General Counsel (Email and U.S. Postal Service)
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: OGCMAILCENTER@NRC.GOV

James E. Adler (Email and U.S. Postal Service)
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop: O-15 D21
Washington, DC 20555-0001
E-mail: jea1@nrc.gov

Mary C. Baty (Email and U.S. Postal Service)
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop: O-15 D21
Washington, DC 20555-0001
E-mail: mcb1@nrc.gov

Alex S. Polonsky, Esq. (Email and U.S. Postal Service)
Morgan, Lewis, & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004
E-mail: apolonsky@morganlewis.com

Kathryn M. Sutton, Esq. (Email and U.S. Postal Service)
Morgan, Lewis, & Bockius LLP

1111 Pennsylvania Avenue, NW
Washington, DC 20004
E-mail: ksutton@morganlewis.com

Donald Silverman, Esq. (Email and U.S. Postal Service)
Morgan, Lewis, & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004
E-mail: dsilverman@morganlewis.com

J. Bradley Fewell (Email and U.S. Postal Service)
Exelon Corporation
200 Exelon Way, Suite 200
Kennett Square, PA 19348
E-mail: bradley.fewell@exeloncorp.com

John Covino, DAG (Email and U.S. Postal Service)
State of New Jersey
Department of Law and Public Safety
Office of the Attorney General
Hughes Justice Complex
25 West Market Street
P.O. Box 093
Trenton, NJ 08625
E-mail: john.corvino@dol.lps.state.nj.us

Valerie Gray (Email)
State of New Jersey
Department of Law and Public Safety
Office of the Attorney General
Hughes Justice Complex
25 West Market Street
P.O. Box 093
Trenton, NJ 08625
E-mail: valerie.gray@dol.lps.state.nj.us.

Paul Gunter (Email and U.S. Postal Service)
c/o Nuclear Information and Resource Service
6930 Carroll Ave., Suite 340
Takoma Park, MD 20912-4446
E-mail: paul@beyondnuclear.org

Edith Gbur (Email)
Jersey Shore Nuclear Watch, Inc.
364 Costa Mesa Drive. Toms River, New Jersey 08757
E-mail: gburl@comcast.net

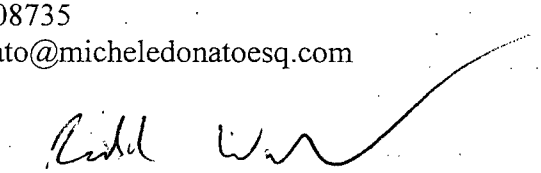
Paula Gotsch (Email)

GRAMMIES
205 6th Avenue
Normandy Beach, New Jersey 08723
E-mail: paulagotsch@verizon.net

Jeff Tittel (Email)
New Jersey Sierra Club
139 West Hanover Street
Trenton New Jersey 08618
E-mail: Jeff.Tittel@sierraclub.org

Peggy Sturmfels (Email)
New Jersey Environmental Federation
1002 Ocean Avenue
Belmar, New Jersey 07319
E-mail: psturmfels@cleanwater.org

Michele Donato, Esq. (Email)
PO Box 145
Lavalette, NJ 08735
E-mail: mdonato@micheledonatoesq.com

Signed: 

Richard Webster

Dated: January 14, 2008