

**IN THE UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT**

**NEW JERSEY ENVIRONMENTAL FEDERATION;
SIERRA CLUB; NUCLEAR INFORMATION AND
RESOURCE SERVICE; NEW JERSEY PUBLIC
INTEREST RESEARCH GROUP; GRANDMOTHERS,
MOTHERS AND MORE FOR ENERGY SAFETY**

Petitioners,

v.

**UNITED STATES NUCLEAR REGULATORY
COMMISSION, UNITED STATES OF AMERICA, and
EXELON GENERATION COMPANY, L.L.C.**

Respondents.

No. 09-2567

**SUPPLEMENTAL SUBMISSION BY
EXELON GENERATION COMPANY, L.L.C.,
IN RESPONSE TO INQUIRY BY THE COURT DATED MARCH 21, 2011**

On March 21, 2011, the Clerk of the Court issued a letter directing the Nuclear Regulatory Commission (“NRC” or “Commission”) “to advise the Court what impact, if any, the damages from the earthquake and tsunami at the Fukushima Daiichi Nuclear Power Station have on the propriety of granting the license renewal application for the Oyster Creek Generating Station.” The letter also authorized Exelon Generation Company, LLC (for these purposes, “Exelon”) to “submit any additional relevant information,” and established a due date of Monday, April 4, 2011 for both the NRC and Exelon’s submissions.

The additional information that Exelon wishes to submit relates to two essential points. First, the events in Japan are unquestionably serious, and Exelon is responding and treating them accordingly. That is consistent with the swift and uniform reaction of the industry in this country, and of the NRC.

Second, while tragic and well publicized, the crises in Japan does not change the law, nor justify a precipitous or *ad hoc* departure from the application of well-settled rules that—after all—have their genesis in efforts to maximize the effectiveness of our governmental institutions. The United States has the safest nuclear reactors in the world, for reasons that include strict regulation and oversight by an expert agency, demonstrated commitment by both industry and the regulator to ascertaining and implementing lessons learned, and a pervasive culture of review and self-assessment. Application of well-defined and commonly understood rules regarding judicial review and intervention are another important part of the effective functioning of that overall scheme.

With respect, the systematic and methodical review and response to the unfolding events in Japan would not be aided by piecemeal litigation that departs from those well-settled administrative processes and rules. It is certain that there will be substantial regulatory scrutiny and review as a result of the events at Fukushima, but this appeal and this proceeding are not the venues within which those reviews should occur. The events in Japan at the Fukushima Daiichi Nuclear

Power Station do not impact the propriety of the renewal of the Oyster Creek operating license. The Commission's approval of that renewal should be affirmed by this Court for the reasons previously explained by Exelon.

1. EXELON, THE INDUSTRY, AND THE NRC ARE RESPONDING IN A COMPREHENSIVE MANNER TO THE EVENTS IN JAPAN

A. Even while the crises is still unfolding, Exelon has been a leader in developing and implementing a proactive response, not just with respect to the Oyster Creek plant, but with respect to the other sixteen nuclear power units owned and operated by Exelon. Operators are conducting walkdowns and reviewing safety systems at all of Exelon's nuclear units, including Oyster Creek. Unlike the Fukushima reactors, General Electric Mark I boiling water reactors in the United States, including Oyster Creek, underwent extensive modifications in the early 1990's at the request of the NRC, including design changes to control hydrogen and pressure through venting containment. Neither Oyster Creek nor any other Exelon plant is located in major earthquake zones, nor subject to danger from tsunamis, but the plants are nevertheless designed to withstand substantial earthquakes and severe flooding.

The Oyster Creek Nuclear Generating Station is located more than five miles inland from the Atlantic Ocean—tsunami events are not typical on the East Coast—and is further shielded by barrier islands five miles away, which would limit the energy of a tsunami. Oyster Creek is elevated 23 feet above mean sea

level, and the maximum recorded high tide along the Barnegat Bay beachfront (approximately two miles away) is approximately seven feet above mean sea level. (Note, again, that it is over 5 miles to the Atlantic Ocean beachfront). Oyster Creek is hardened against floods, including elevation of equipment above potential flood levels, and elevated diesel generator exhausts and electrical switchgear. Oyster Creek has multiple systems to provide water to the reactor core during an emergency, including independent subsystems powered by multiple redundant power sources. Oyster Creek effectively has a minimum of six ways to put water into the core during an emergency. In an offsite power loss, safe shutdown is ensured through multiple redundant systems specifically designed to maintain electric power when electricity is lost from the grid off site. If the used fuel pool were to lose water, even in significant quantities, Oyster Creek also has a portable, diesel driven, high capacity pump to ensure that the pool remains filled. All of these systems are constantly tested, challenged or simulated to ensure safe operation.

Exelon fully recognizes the severity of the crises in Japan and its implications for the ongoing operation of Exelon's nuclear reactors, including, but not limited to, Oyster Creek. Exelon is absolutely committed to implementing lessons learned from the events in Fukushima in a systematic and methodical manner.

B. As we expect the NRC will confirm, the NRC has, under its ongoing regulatory authority, directed the establishment of a senior level agency task force to conduct both near term and longer term analyses of nuclear power plant safety in the aftermath of the earthquake and tsunami in Japan. The task force will “conduct a methodical and systematic review of [NRC’s] processes and regulations to determine whether the agency should make additional improvements to [its] regulatory system” NRC Tasking Memorandum – COMGBJ-11-0002 – NRC Actions Following the Events in Japan (March 23, 2011) (included as Attachment 1 to this submission).¹ In addition, the NRC has already issued an initial Information Notice, under its ongoing regulatory authority pursuant to 10 C.F.R. Part 50, informing licensees of the earthquake, tsunami, loss of on-site and offsite power, evacuations, and related events at the Fukushima Daiichi plant. *See* NRC Information Notice 2011-05 (March 18, 2011) (Attachment 2). The NRC has further issued a Temporary Instruction (TI) 2515/183 (March 23, 2011), instructing

¹ The NRC’s Tasking Memorandum does identify one issue for review which is nominally within the scope of NRC’s license renewal reviews under the National Environmental Policy Act (NEPA): “severe accident mitigation,” which is a factor described and defined by a comprehensive regulatory framework, including an extensive series of technical guidance documents. *See* 10 C.F.R. § 51.53(c)(3)(ii)(L); 10 C.F.R. Part 51, Table B-1. Petitioners, however, did not raise any NEPA claims before the agency, let alone one related to severe accident mitigation, and do not raise any such claims in their appeal to this Court. That aspect of license renewal therefore has nothing to do with the Oyster Creek matters at issue in this proceeding.

NRC inspectors at all operating plants to independently assess the adequacy of licensee actions taken in response to the Fukushima events. After providing background on the events, the NRC TI calls for immediate action to assess and take corrective actions to address potential vulnerabilities that would challenge a response to certain beyond-design-basis events. (Attachment 3). All of these actions and reviews are to be carried out under the NRC's ongoing regulatory authority over the safety of operations at all plants, including Oyster Creek.

C. The nuclear industry has also initiated actions to verify that U.S. reactors could respond to events that may challenge safe operation. *See* Attachment 4 (statement from Nuclear Energy Institute website). In particular, member companies (including Exelon) are taking steps to verify each plant's capability to manage major challenges such as losses of large areas of the plant due to natural events, including testing and inspecting equipment required to mitigate such events, verifying each plant's capability to manage a total loss of off-site power, verifying the capability to mitigate flooding and the impact of floods on systems inside and outside of the plant, and performing walkdowns and inspections of important equipment needed to respond successfully to extreme events like fires and floods. *Id.*

2. THE EVENTS IN JAPAN RELATE TO ISSUES THAT THE NRC ADDRESSES THROUGH ITS ONGOING REGULATORY PROCESS, AND ARE NOT RELEVANT TO LICENSE RENEWAL GENERALLY NOR TO THE SPECIFIC MATTERS BEFORE THE COURT IN THIS CASE

A. As explained in Exelon's (and the NRC's) initial briefs, the scope of safety issues considered in an NRC license renewal proceeding is limited to age related degradation, while all other safety issues are separately subject to the NRC's ongoing regulatory oversight. *See* Exelon Brief at 5 (citing *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 N.R.C. 3, 7 (2001)); NRC Brief at 3-4. The NRC uses its ongoing regulatory process and authority to ensure that the "current licensing basis" of operating plants provides and maintains an acceptable level of safety under the Atomic Energy Act. *See* Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,946 (Dec. 13, 1991). The agency's ongoing authority applies equally under the original operating license and during the period of extended operation under a renewed license. The safety reviews for a license renewal application, therefore, focus exclusively on whether there is reasonable assurance that the effects of *aging* will be managed, such that plant components will continue to perform their intended functions consistent with the current licensing basis. *See* Exelon Brief at 5-6 (citing CLI-09-07 at 35 (A.117)); NRC Brief at 3-4.

B. In general, the adequacy of protections against seismic events, tsunamis, and station blackout events, and the adequacy of emergency plans are

current licensing basis issues that are not at issue or subject to litigation in license renewal proceedings under 10 C.F.R. Part 54. *See, e.g.*, 10 C.F.R. Part 50, Appendix A (“General Design Criteria for Nuclear Power Plants,” Criterion 2, requiring plant structures, systems and components that are important to safety to be designed to withstand the effects of natural phenomena such as earthquakes, floods, and tsunamis with loss of capability to perform their safety functions); *id.* § 50.63 (specifying requirements for plants to withstand and recover from a loss of all alternating current power, or “station blackout”); *id.* § 50.47 (specifying emergency planning requirements). The requirements for licensees to address such issues are part of each plant’s current licensing basis. The NRC ensures the adequacy of the current licensing basis and enforces compliance with it through the agency’s ongoing regulatory authority, not as part of its license renewal reviews.

C. If Petitioners believe that the events in Japan should lead to a new evaluation of the safety of the Oyster Creek plant, or any other plant, beyond the evaluations that the NRC is already undertaking, then they do have recourse. An avenue exists for review, and that avenue is a petition for agency action under 10 C.F.R. § 2.206, or, for generic issues, a petition for rulemaking under Section 2.802. *See* NRC Brief at 40 n.16 (*citing Connecticut Coalition Against Millstone 3 v. NRC*, 2004 WL 2603567, *3 (2d Cir. 2004); *Riverkeeper, Inc. v. Collins*, 359 F.3d 156, 158 (2d Cir. 2004)). Again, in this country there is a carefully crafted

regulatory and statutory scheme, and well-founded doctrines of judicial deference to the NRC's expert implementation of that scheme. As serious as the events in Japan are, Exelon respectfully suggests that it would be a mistake for this Court to jettison those well-settled principles, substitute its judgment for that of the NRC, and remand the matter for Oyster Creek-specific administrative proceedings in a context not designed to address such issues. The result could well be a distraction from the systemic and methodical review of the crises and of any implications for the U.S. nuclear industry.

D. The events at the Fukushima Daiichi plant are plainly substantial and significant for the general ongoing operation and regulation of the nuclear industry, but it is well settled that, in this case, the NRC's decisions on the matters before it must "be judged by the information then available" to the agency at the time of its decisions. *See Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council*, 435 U.S. 519, 553 (1978). In *Vermont Yankee*, the Supreme Court considered, among other questions, whether the NRC was required to consider new information that appeared after the issuance of a final environmental impact statement for a nuclear plant's construction permit. The Court held that it was not, and reversed the Court of Appeals' decision on this point. In so ruling, the Court went on to explain:

Administrative consideration of evidence . . . always creates a gap between the time the record is closed and the time the

administrative decision is promulgated [and, we might add, the time the decision is judicially reviewed] If upon the coming down of the order litigants might demand rehearings as a matter of law because some new circumstance has arisen, some new trend has been observed, or some new fact discovered, there would be little hope that the administrative process could ever be consummated in an order that would not be subject to reopening. . . .

435 U.S. at 554-55 (*quoting ICC v. Jersey City*, 322 U.S. 503, 514 (1944))

(alteration in original). While the *Vermont Yankee* ruling arose in the context of the National Environmental Policy Act (“NEPA”), the Court’s holding on this point relied upon general administrative law principles that predate NEPA. *See ICC v. Jersey City*, 322 U.S. at 514. *See also, Glass Packaging Institute v. Regan*, 737 F.2d 1083, 1093 (D.C. Cir. 1984) (rejecting argument that, after the close of the agency comment period, “highly publicized incidents” revealed a potential new issue for the agency to consider).

E. A brief review of the arguments raised by Petitioners before the NRC and this Court confirms that the matters at issue in this proceeding have been fully addressed, are unrelated to the events in Japan, and should now be resolved:

i. *Late-Filed Drywell Contentions*: The events in Japan have no factual or legal connection to Petitioners’ claims regarding the alleged impropriety of the denial of hearings on their various late-filed drywell-related contentions. As explained in Exelon’s and the Commission’s briefs, these claims were rejected as

untimely, as outside the scope of the license renewal proceeding, as inadequately supported, or for some combination of these reasons. *See generally* Exelon Brief at 32-40. The events in Japan have no relevance to, or bearing upon, the Court's analysis of whether the NRC's denials of these claims were arbitrary and capricious.

For example, Petitioners' admitted contention involved application of the drywell thickness acceptance criteria. Some of these criteria involve an analysis of a bounding scenario for a potential seismic event at Oyster Creek, in that they are based on a postulated set of extreme conditions where "the reactor is shut down and the refueling cavity is filled with water, an earthquake occurs, and the drywell is under a negative pressure of 2 psi." CLI-09-07 at 37 n.158 (A.119); LBP-07-17 at 20 (A.794). As we have explained, however, the acceptance criteria are part of the Oyster Creek current licensing basis. *See* Exelon Brief at 35. Therefore, those criteria, under the law, were never subject to revision or challenge during the license renewal proceeding. CLI-09-07 at 49 n.209 (A.131). Indeed, if Petitioners believe that the events in Japan raises questions about the adequacy of the current seismic design basis for Oyster Creek or the drywell shell thickness acceptance criteria developed from that design basis, then they may file a petition under 10 C.F.R. § 2.206. The current licensing basis is never set in stone: one of the NRC's actions may well be to revisit industry or plant-specific requirements. But

no facts about the earthquake in Japan would require reconsideration of the characteristics of a design basis earthquake for Oyster Creek in the context of a license renewal proceeding, nor substitution of this Court's judgment for that of the NRC. *E.g., Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 103 (1983); *Limerick Ecology Action v. NRC*, 869 F.2d 719, 744 (3d Cir. 1989), *reh'g denied* (Apr. 25, 1989).

ii. *The Drywell Hearing and Decisions:* The events in Japan also have no factual or legal connection to Petitioner's challenges to the NRC's technical judgments following the evidentiary hearing on the drywell contention. The factual and technical issues raised before the NRC—including the existing margin to the acceptance criteria (*i.e.*, the existing thickness of the drywell shell), the adequacy of measures to remove a corrosive environment from the drywell, the adequacy of the epoxy coating system, and the expected rate of future potential corrosion of the Oyster Creek drywell in comparison to the frequency of UT inspections—simply do not relate in any way to the events in Japan. *See* Exelon Brief at 14-15. Nor do the events in Japan impact the propriety of the Commission's judgments in denying Petitioners' motion to reopen the record on the drywell issues. *See* Exelon Brief at 41-47.

iii. *Metal Fatigue Claims:* Similarly, the events in Japan appear to have no factual or legal connection to Petitioners' recirculation outlet nozzle metal

fatigue claims. Petitioners' appeal asserts that its late-filed metal fatigue claims implicate the propriety of the Commission's rules on reopening a closed adjudicatory record. The earthquake or tsunami in Japan appear to have nothing to do with metal fatigue of recirculation outlet nozzles, nor any relation to these assertions by Petitioners or the issues before this Court.

iv. *The "Supervision" Petition:* Finally, the events in Japan have no factual or legal connection to Petitioners' claims related to their "supervision" petition. The supervision petition demanded a "comprehensive overhaul" of the Commission's license renewal review process, based on a report from the NRC Inspector General which had identified some deficiencies in the NRC Staff's license renewal reviews. *See* Exelon Brief at 58-60. Petitioners allege that the denial of their supervision petition was arbitrary and capricious. But, once again, the events in Japan do not have any relationship to the supervision petition or to the arguments regarding it raised before the Court.

CONCLUSION

For the reasons set forth in Exelon's and the NRC's prior briefs, the Court should deny the petition for review, and affirm the Commission's issuance of the license renewal for the Oyster Creek Nuclear Generating Station.

Respectfully Submitted,


s/ Brad Fagg

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Dated: April 4, 2011

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CERTIFICATE OF SERVICE

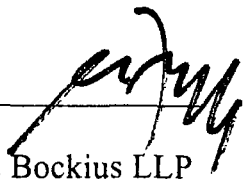
Pursuant to Rule 25 of the Federal Rules of Appellate Procedure and Circuit Rules 25.1 and 113.4 of this Court, I hereby certify that I have this 4th day of April, 2011, served "Supplemental Submission By Exelon Generation Company, L.L.C. in Response to Inquiry by the Court dated March 21, 2011," through the electronic filing system, with copies via U.S. Mail, upon all the parties set forth below.

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