07-0324-ag(L)

07-1276-ag(CON)

United States Court of Appeals

for the

Second Circuit

ANDREW J. SPANO, as County Executive of the County of Westchester, COUNTY OF WESTCHESTER, NEW JERSEY ENVIRONMENTAL FEDERATION, and NEW JERSEY CHAPTER OF THE SIERRA CLUB,

Petitioners,

- v.-

UNITED STATES NUCLEAR REGULATORY COMMISSION, UNITED STATES OF AMERICA

Respondents.

ON APPEAL FROM THE NUCLEAR REGULATORY COMMISSION

BRIEF FOR PETITIONERS

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Jurisdictional Statement

Petitioners New Jersey Environmental Federation and the New Jersey Chapter of the Sierra Club ("New Jersey Petitioners"), submitted a Petition for Rulemaking to the United States Nuclear Regulatory Commission ("NRC") requesting that the NRC amend certain provisions of the regulations relating to applications for renewal of nuclear power plant licenses to require current licensees to meet the same standards as are required of new licensees. The NRC denied the Petition for Rulemaking in Agency Case No. PRM-54-03 on December 2, 2006.

This Court has subject matter jurisdiction to enjoin, set aside, suspend, or to determine the validity of all final orders of the NRC relating to the issuance or modification of rules and regulations dealing with the activities of licensees. 28 U.S.C. § 2342 (2006); 42 U.S.C. § 2239 (2006).

New Jersey Petitioners timely filed a Petition for Review with the Court of Appeals for the Third Circuit on January 30, 2007, within 60 days of the NRC's denial of the Petition for Rulemaking, which constituted a final order of the NRC in Agency Case No. PRM-54-03. *See* 28 U.S.C. § 2344 (2006). Additionally, venue is proper under 28 U.S.C. § 2343 because New Jersey Petitioners reside and/or maintain their principal offices within the jurisdiction of the Court of Appeals for the Third Circuit and the case was subsequently transferred to this Court pursuant to 28 U.S.C. § 2112(a)(5). On May 7, 2007, the appeal of the final

order of the NRC in Agency Case No. PRM-54-03 was consolidated with the appeal of the final order of the NRC in Agency Case No. PRM-54-02, which dealt with a similar Petition by Andrew J. Spano (the "Westchester Petition"), as County Executive of the County of Westchester, and the County of Westchester ("New York Petitioners").

Statement of the Issues

1. Whether the NRC's decision to deny the Petitions for Rulemaking in Agency Cases No. PRM-54-02 and 03 (the "Petitions") on the basis that the Petitions were deficient without allowing the New Jersey Petitioners and the New York Petitioners (collectively "Petitioners") to supplement the Petitions violated the NRC's own procedures and was thus arbitrary and capricious.

2. Whether the NRC's decision to deny the Petitions on the basis that they had raised no new issues without offering a reasoned explanation of why new issues raised by the Petitioners with respect to emergency planning, ongoing safety monitoring, and risk of terrorism did not need to be considered was arbitrary and capricious.

Statement of the Case[1]

New Jersey Petitioners, together with Mayor Joseph Scarpelli of Brick Township, filed a Petition for Rulemaking on July 25, 2005 (the "New Jersey Petition") with the NRC, docket number PRM-54-03. The New Jersey Petition requested, pursuant to 10 C.F.R. § 2.802, that the NRC amend its license renewal regulations to provide that a renewed license would be issued only if the plant operator demonstrates that the plant meets all criteria and requirements that would be applicable if the plant was being proposed for initial construction. A-187. The New Jersey Petitioners also requested that the NRC amend its regulations to require the NRC to consider demographics, plant siting, emergency evacuation plans, and security when examining a renewal application. A-187-88.

The New Jersey Petition stated that Brick Township had experienced great growth over the past four decades, more than doubling its number of residents from 35,057 in 1970 to over 77,000 in 2005. A-188. The New Jersey Petition also stated that Ocean County is a fast growing population and development area in New Jersey and since 1970, one year after the Oyster Creek Nuclear Generating Station ("Oyster Creek") became operational, the County's population has more than doubled, from 208,470 residents in 1970 to 510,916 in 2000. *Id.* In addition,

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[1] Upon New Jersey Petitioners' request the New Jersey Petition was joined with the Westchester Petition. The NRC agreed that the issues raised in the Petitions were almost identical and decided to evaluate the Petitions together.

because Ocean County is only fifty miles south of New York City and fifty miles east of Philadelphia it has become one of the most popular tourist destinations in the United States. *Id.* The population increase has in turn caused growing traffic congestion in Ocean County. *Id.* The combination of a growing population, increased tourism, and congested infrastructure raises concerns about the ability to evacuate communities surrounding Oyster Creek. *Id.*

The New Jersey Petitioners criticized the current license renewal process because it limits the NRC to only reviewing issues with a sub-set of plant components. *Id.* The New Jersey Petition also set forth a list of "key renewal issues" that should be integrated into the license renewal process for Oyster Creek in particular. A-189. The six identified key renewal issues include:

1. Could a new plant, designed and built to current standards, be licensed on the same site today considering the ongoing growth in Ocean County?
2. Would Oyster Creek receive a license today considering that its reactor design has been prohibited for close to four decades?
3. In light of the September 11, 2001 terrorist attacks, would Oyster Creek's spent fuel storage system, located close to a major highway, be acceptable today?

4. Is the current Oyster Creek evacuation plan realistic, given the tremendous population growth and lack of new infrastructure?
5. Would Oyster Creek receive a license today in light of public opposition to the plant and requests for a thorough review of the relicensing of Oyster Creek by twenty-one municipalities in Ocean County, Congressmen Smith, Saxton and Pallone, the Commissioner of the New Jersey Department of Environmental Protection, and the Ocean County Board of Chosen Freeholders?
6. Whether the license renewal process should take account of two National Academy of Sciences reports, one on nuclear plant security and one on the health effects of low level radiation?

Finally, the New Jersey Petition offered to provide further information on request. A-190. The NRC evaluated the New Jersey Petition in conjunction with the Westchester Petition, which raised very similar issues regarding evacuation, operating problems at other nuclear power plants, and the storage of spent nuclear fuel. A-11-13. The Westchester Petition expressed particular concern about the possible relicensing of the Indian Point Energy Center ("Indian Point"), which contains two operating nuclear power reactors. A-10.

In a decision dated December 2, 2006 (the "Decision"), the NRC denied the Petitions. A-146. NRC justified its denial on the grounds that the Petitions did not

have sufficient supporting data, A-162-3, and, in any event, the issues they raised were not of concern to the NRC for number of reasons. A-147.

Statement of Facts

The NRC's current regulations for the relicensing of commercial nuclear power plants were promulgated in 1991 and later amended in 1995. Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943 (December 13, 1991) ("1991 Rulemaking") and Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461 (May 8, 1995) ("1995 Amendments"). The regulations allow nuclear power plants to renew their original 40 year licenses in a manner that allows the plants to operate for up to 20 years longer. 10 C.F.R. § 54.31. The NRC discussed the regulations at length in its Decision and took the position that the license renewal process only considers issues that are uniquely relevant to protecting public health and safety and preserving common defense and security. A-157. The NRC argued that the current ongoing regulatory processes ensure that existing plants provide and maintain acceptable standards of safety except possibly for detrimental effects of aging on long-lived passive components and components that are subject to time limited aging analysis. 60 Fed. Reg. at 22,468. Thus, according to the NRC, current safety issues such as emergency planning and nuclear plant security are managed by existing regulatory processes, rendering additional reviews at the time of license renewal both unnecessary and wasteful.

A-158. The NRC also decided that the relicensing process would not revisit design basis issues that could have been raised when the plant was originally licensed. *Id.*

After explaining the origin and scope of the relicensing rules, NRC's Decision then discussed some of the issues raised by the Petitions. NRC explained that the license renewal rulemakings had excluded emergency planning from license renewal because ongoing regulatory requirements for periodic testing and updates were considered sufficient to ensure the emergency plan stays current. A-161. The NRC denial also addressed in varying degrees of detail issues raised by the Petitions regarding security, storage of spent nuclear fuel, changes to state law, advances in knowledge of potential problems, and the need to consider a "worst-case scenario." A-164-69. Broadly, NRC stated that the license renewal rulemaking had found that ongoing regulations were sufficient to deal with all of these issues, and, in the case of spent fuel issues, that they had already been excluded from the scope of the relicensing rules by other rulemakings. *Id.*

In response to a public notice about the Petitions, the NRC also received many public comments on the issues raised by the Petitions. A-14-103, A-194-253. In the Decision, NRC discussed some of the issues raised by the public comments separately. A-169-78. The NRC dismissed public concerns about the need to review aging of active as well as passive components, the need to use current scientific knowledge to determine how plants should be upgraded, the

adequacy of seismic hazard analysis, the provisions for public participation, the outdated design of older plants, the need for site-specific environmental analysis, and nuclear waste management. A-171-78. Once again, the NRC stated that the license renewal rulemaking had found that ongoing regulations coupled with the license renewal rules were sufficient to deal with all of these issues. A-178.

A number of facts have emerged since the 1995 Amendments that call into question the NRC's assertion that detailed reviews at the relicensing stage of issues that are addressed by ongoing regulatory processes would be wasteful. In particular, two detailed reviews of the evacuation plan for the area around Indian Point found major deficiencies in a plan that had been in place for many years and had been subject to ongoing regulatory processes. A-337-532, A-658-96. In addition, ongoing regulatory processes failed to identify a major safety problem at Davis-Besse nuclear power plant until it was far too late. A-560, A-556-57. Subsequent reviews by the Government Accountability Office and the NRC Office of Inspector General highlighted many deficiencies in the implementation of the ongoing regulatory processes, including a strong desire by NRC to minimize regulatory burdens on licensees at the expense of safety. *E.g.* A-556. Finally, in 2006 the National Academy of Sciences completed a review of the vulnerability of spent fuel storage facilities to terrorism. The review found that as a result of the increased risk of terrorism, the NRC needed to urgently complete a review of the

vulnerability of spent fuel storage facilities, should move quickly to implement short-term mitigation measures, and should consider emphasizing dry storage of spent fuel over wet storage, where possible. A-264-68.

Summary Of Argument

The rules of the NRC on the relicensing of nuclear power plants are extraordinary. The NRC may grant an additional 20 years of operating life to 40 year old nuclear power plants even though no plant in the world has operated for longer than 47 years. Even more surprising is that the NRC has decided that a comprehensive review of safety programs is not needed when NRC considers whether a particular plant should have its life extended beyond 40 years. Instead, the review of safety programs is limited to a narrow sub-set of issues concerning age-related degradation of long-lived passive components. This is based on an assumption that ongoing regulatory processes deal adequately with other issues, which is tantamount to assuming that there are no significant regulatory gaps or implementation difficulties with the current regulations. Believing this level of review to be inadequate, Petitioners petitioned the NRC to make the review carried out at license renewal much more comprehensive. The NRC rebuffed Petitioners, summarily stating that the Petitions were inadequate and that the Petitions raised no new issues.

The NRC's rejection of the Petitions was arbitrary for two main reasons. First, the NRC violated its own procedural regulations. If the NRC finds a petition to be inadequate in the manner it did here, its procedural regulations require the agency to invite petitioners to submit further information. Contrary to those regulations, instead of providing this opportunity to Petitioners, the NRC rejected the Petitions on the merits. This failure to follow lawful procedure was straightforwardly arbitrary and amounts to little more than a subterfuge by the NRC to avoid a difficult decision on the genuine issues raised by the Petitions. This procedural violation deprived Petitioners of their right to a decision that considered the issues that they were, at minimum, attempting to raise. The only way to cure this violation is to vacate the Decision and remand the Petitions back to the NRC for further deliberation.

Second, the NRC's decision that the Petitions were facially deficient and did not contradict findings made when the NRC promulgated the license renewal rules in 1991 and 1995 was itself arbitrary. In fact, the NRC entirely failed to take account of at least three highly significant new events that Petitioners raised, which in turn raised a host of issues that severely undermine the premises upon which the NRC based the license renewal rules.

First, the NRC failed to recognize that an in-depth review of emergency planning for Indian Point showed that the evacuation plan in place in 2003 would

not have adequately protected the public if an accident occurred. This review and the response to it highlighted many regulatory gaps and implementation deficiencies. Second, the NRC failed to recognize that the worst safety problem at a US nuclear reactor since the near meltdown at Three Mile Island occurred in 2002 at the Devis-Besse Nuclear Power Plant. This incident revealed major gaps in ongoing regulations and their implementation that led to serious safety problems going unaddressed until far too late. Third, the NRC failed to recognize that the increased threat of terrorism since September 2001 had legal and factual implications for license renewal that required close analysis. Specifically, a review of spent fuel storage facilities in 2005 revealed that they continued to be vulnerable to terrorist attack and that the NRC had not taken certain recommended steps to mitigate the associated risk, including some structural changes. Thus, the review indicated that the NRC's ongoing regulatory processes had not fully dealt with the increased risk of terrorism.

All of these events occurred after 1995, when the rulemaking for license renewal was complete. Therefore, these events could not have been considered during the making of the license renewal rules. Thus, when the Petitions raised them, the NRC needed to take a hard look at these events and decide whether they called into question the assumptions made in 1991 and 1995 that, apart from aging of certain components, a review of ongoing safety programs during relicensing

would be superfluous and structural changes to old nuclear plants were unnecessary. To assist the NRC in this task, Petitioners and commenters referenced authoritative independent reviews of some of the issues raised by each of the new events cited in the Petitions. These reviews highlighted gaps in NRC's regulations and failures in their implementation.

Taken separately, each of the identified gaps and failures invalidates NRC's blanket rejection of the Petitions. Taken together, they contradict the fundamental factual predicates behind the original rulemaking: that most issues that are covered by ongoing regulations need not be reviewed at license renewal and no structural changes are required to old nuclear plants. Thus, the Petitions were adequate, but the NRC arbitrarily failed to consider the most important issues raised by the Petitions and consequently failed to provide a reasoned public explanation of why the issues raised did not require a change to the relicensing rules.

To rectify the situation, this Court should at minimum instruct the NRC to afford Petitioners the opportunity to supplement the record, hold a hearing on the Petitions, and take a hard look at the material on the record.

Argument

I. The NRC Failed To Follow Its Own Procedures

According to the NRC's own procedural rules, whether or not the NRC was correct in ultimately deciding that the Petitions were inadequate, Petitioners should

have been given the opportunity to submit additional information. However, instead of following the required procedures when it made its deficiency determination, the NRC violated them by denying the Petitions outright. This procedural violation is straightforwardly arbitrary.

A. Standard of Review of Decisions Taken In Violation Of Lawful Procedure

Generally, reviewing courts give some deference to administrative agencies in areas such as factfinding and policy making. *Powell v. Heckler*, 789 F.2d 176, 178 (3d Cir. 1986). However, "no such tolerance . . . is required in matters pertaining strictly to an agency's observance and implementation of its self-prescribed procedures." *Id.* It is a "well-settled rule that an agency's failure to follow its own regulations is fatal to the deviant action." *Mine Reclamation Corp. v. FERC*, 30 F.3d 1519, 1524 (D.C. Cir. 1994) *quoting Union of Concerned Scientists v. Atomic Energy Commission*, 499 F.2d 1069, 1082 (D.C. Cir. 1974); *see also Service v. Dulles*, 354 U.S. 363 (1957); *Kelly v. Railroad Retirement Bd.*, 625 F.2d 486, 491-92 (3d Cir. 1980). If the agency fails to scrupulously follow its own promulgated regulations and procedures the agency's decision must be overturned by the reviewing court as arbitrary and capricious. *Sierra Club v. Martin*, 168 F.3d 1, 4 (11th Cir. 1999); *see also Vitarelli v. Seaton*, 359 U.S. 535, 546-47 (1959) (Frankfurter, J., concurring in part and dissenting in part) (if the

agency's action "is based upon a defined procedure . . . that procedure must be scrupulously observed").

All federal agencies must follow their own regulations, procedures, and guidelines. *See National Conservative Political Action Comm. v. FEC*, 626 F.2d 953, 959 (D.C. Cir. 1980) (holding an advisory opinion invalid, because the FEC failed to follow past practice of providing notice, thus denying interested parties an opportunity to comment as required by the Federal Election Campaign Act and the FEC's own regulations). A court is not to award the agency any deference if the agency failed to follow the procedural steps required by their rules or regulations. For example, in *Way of Life Television Network, Inc. v. FCC*, the FCC failed to publish a cut-off date for filing an application in the Federal Register in accordance with the Commission's rules. *Way of Life Television Network, Inc. v. FCC*, 593 F.2d 1356 (D.C. Cir. 1979). The court held that the Commission's denial of the applicant's request for waiver of the cut-off date was arbitrary and capricious because the Commission failed to perform its "affirmative duty to ensure that the date ha[d] been promulgated in accordance with the Commission's rules and applicable statutes." *Id.* at 1358-1360.

B. The Decision Violated Lawful Procedure

The Decision states that the Petitions were rejected pursuant to 10 C.F.R. § 2.803 because the NRC did not believe sufficient reason existed to require

rulemaking. A-156-57. However, this finding was founded upon a determination that the Petitions were deficient. In support of that finding, the NRC stated "these broad conclusory statements without a factual or technical basis are insufficient to support a petition for rulemaking." A-162. It therefore found the Petitions deficient pursuant to 10 C.F.R. § 2.802(c)(3). A-162-63.

In fact, the Petitions and the comments went far beyond raising issues without providing a proper factual basis. However, leaving aside whether it was reasonable for the NRC to draw such a conclusion about the Petitions, where the NRC finds petitions deficient, its own regulations require the NRC to allow petitioners an opportunity to cure such deficiencies. The regulations state unequivocally that "if it is determined . . . that the petition does not include the information required by paragraph (c) of this section and is incomplete, the petitioner *will be* notified of that determination . . . and *will be* accorded an opportunity to submit additional data." 10 C.F.R. § 2.802(f) (emphasis added). Here, in direct contravention of its own regulations, the NRC determined that the Petitions did not include some of the information required by paragraph 2.802(c). However, instead of affording Petitioners the opportunity to submit additional data, as the regulations required, the NRC denied the Petitions outright. Such straightforward failure to follow proper procedure is a classic hallmark of an arbitrary decision which this Court must correct.

Whether or not this Court agrees with the NRC that the Petitions were deficient in form, the Court should remand the Petitions back to the NRC to allow Petitioners the opportunity to submit additional data and the NRC to reconsider its decision in light of all the information submitted.

II. NRC Failed To Take A Hard Look At The Petitions And Failed To Provide A Reasoned Explanation For Its Decision

The Decision was based on the conclusion that "neither the petition nor the comments raised any new issue" to justify modifying the scope of the issues to be considered during license renewal. A-145. However, the Decision fails to even mention a number of critical documents in the record, generated since 1995, that provided new insight into the usefulness of critical *de novo* review of ongoing programs. These documents show that ongoing regulatory processes had failed to identify critical safety issues concerning emergency planning and reactor vessel corrosion in two specific instances. In addition, the documents showed that the threat of terrorism had not been fully addressed by ongoing regulatory processes.

These documents called into question the assumption that ongoing regulatory processes adequately address safety issues and showed in practice that a *de novo* review of such issues could identify gaps in both the existing regulations and in their implementation. Therefore, the NRC needed to evaluate whether these documents contradicted positions taken by the NRC when the license renewal rules were first established. Because there is scant reference to these documents or the

issues that they raise in the Decision, the inevitable conclusion is that the NRC entirely failed to consider the most important issues raised by these documents when making its decision and consequently failed to provide a reasoned explanation for its decision.

A. Standard of Review

An agency's denial of a petition for rulemaking is subject to judicial review in the absence of a "clear and convincing legislative intent to negate review." *WWHT, Inc. v. F.C.C.*, 656 F.2d 807, 815 (D.C. Cir 1981). Under the Administrative Procedure Act ("APA") a reviewing court may set aside an agency action if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A) (1982). The agency's action is arbitrary and capricious "if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Ass'n v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). Although *State Farm* involved the rescission of a rule, in *Maier v. EPA*, 114 F.3d 1032, 1044 (10th Cir. 1997) the court recognized that this general principle extended to denials of rulemaking petitions. Furthermore, an agency's authority is limited in so far as it "may not act

precipitously or in an irrational manner." *Citizens Awareness Network, Inc. v. United States*, 391 F.3d 338, 352 (1st Cir. 2004). Therefore, the reviewing court is required to undertake a "substantial inquiry" subjecting the agency's action to "a thorough, probing, in-depth review." *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1972).

A denial of a petition for rulemaking is "subject to special formalities, including a public explanation." *Massachusetts v. EPA*, 127 S. Ct. 1428, 1459 (2007). The reviewing court is required to determine whether the agency "has adequately explained the facts and policy concerns it relied on" and, if so, to ensure "that those facts have some basis in the record." *WWHT*, 656 F.2d at 817. In addition, the court "must consider whether the agency's decisionmaking was reasoned." *American Horse Protection Assoc., Inc. v. Lyng*, 812 F.2d 1, 5 (D.C. Cir. 1987). Furthermore, if an agency has denied a petition for rulemaking, "its reasons for action or inaction must conform to the authorizing statute." *Mass. v. EPA*, 127 S.Ct. at 1462.

Judicial review is particularly critical where new facts have emerged that undermine the original basis of the agency's rules. For example, in *Mass. v. EPA*, the Supreme Court found the EPA's denial of a petition for rulemaking seeking to regulate the emissions of greenhouse gases from new motor vehicles under the Clean Air Act arbitrary and capricious. The Court determined that the EPA needed

to "refine . . .[its] preferred approach and develop a more nuanced understanding of how best to proceed" since the scientific understanding of climate change had progressed and a number of environmental changes associated with climate change had already inflicted significant harms. *Mass. v. EPA*, 127 S.Ct. at 1455-1457.

Prior cases reveal that the holding in *Mass. v. EPA* that an agency cannot merely continue to rely on outdated policies if new facts come to light that undermine those policies is not novel. *See e.g. American Horse*, 812 F.2d at 5 ("A refusal to initiate a rulemaking naturally sets off a special alert when a petition has sought a radical modification of a rule on the basis of a radical change in its factual premises"); *Maier v. EPA*, 114 F.3d 1032, 1040 (10th Cir. 1997) ("Changes in factual and legal circumstances may impose upon the agency an obligation to reconsider a settled policy or explain its failure to do so").

B. The NRC Has Dramatically Restricted The Scope of Relicensing Review

The Atomic Energy Act of 1954 limits the original license of commercial nuclear power plants to forty years. 42 U.S.C. § 2011. Beyond the original license duration, nuclear power plant owners may seek a renewal license for up to twenty years with no limits on the number of times a license is renewable. 10 C.F.R. § 54.31. In making licensing decisions, the NRC is required by Section 103(d) of the Atomic Energy Act to ensure that licensing of nuclear power plants would not be inimical to common defense and security or public health and safety:

> [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.

42 U.S.C. § 2133(d) (2005). This "not inimical" standard also governs license renewal of operating nuclear reactors. 56 Fed. Reg. at 64,961.

In the early 1980s, the NRC first started to address the standards for license renewal. As a result of that effort the agency decided in 1991 that license renewal only required a plant-wide review of age-related degradation. 56 Fed. Reg. at 64,960. The NRC excluded other issues, like emergency planning or updates to the current licensing basis ("CLB"), because the NRC believed they were adequately addressed by other existing regulations. *Id.* at 64,959.

Then, in 1995, the Commission further narrowed the scope of the review at relicensing. It decided that with the possible exception of age-related degradation of long-lived passive components, the effects of aging are adequately managed by the ongoing regulatory scheme. 60 Fed. Reg. at 22,464. It therefore decided to narrow the scope of the review at relicensing to only deal with age-related degradation of long-lived passive components. *Id.* at 22,481. Thus, in two steps, the Commission excluded many safety issues from the relicensing process. Ostensibly, the intent behind the 1995 amendments was to base license renewal on a "predictable and stable regulatory process" that permits licensees "to make

decisions about license renewal without being influenced by a regulatory process that is perceived to be uncertain, unstable, or not clearly defined." 60 Fed. Reg. at 22462.

The NRC claims that a broader review at the license renewal stage is redundant because the ongoing regulatory schemes, particularly the current licensing basis, the maintenance rule, and corrective actions provide sufficient protection against safety and health hazards. 60 Fed. Reg. at 22466. Each plant's CLB is required to be maintained during the renewal term in the same manner and to the same extent as during the original licensing term. A-158. The maintenance rule requires that nuclear power reactor licensees monitor equipment against licensee-established goals to "provide reasonable assurance" of its functionality. 60 Fed. Reg. at 22,470. The regulations call for immediate corrective actions when "conditions adverse to quality" such as "failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformance" are detected. 10 C.F.R § 50, Appendix B, Criterion XVI. Thus, in theory, there should be few issues to deal with at license renewal.

Even the minimal requirement of reviewing aging of passive, long-lived, safety related equipment is subject to exceptions. When the renewal applicant can "demonstrate that their facility has specific programs or processes in place to detect ongoing degradation" the NRC permits some covered structures and

components to be "generically excluded from further aging management review" at license renewal. 60 Fed. Reg. at 22,486. In fact, the nuclear industry has requested that the NRC narrow the license renewal rule even further, which the NRC has promised to do once it "gains more experience with the effect of aging during the period of extended operation." *Id.* at 22,487.

Thus, in 1991 and 1995 the NRC effectively determined that, apart from the possible exception of age-related degradation of long-lived passive components during the license extension period, there are no gaps in the current regulations that ensure safe operation of nuclear power plants or in their implementation. It excluded all other issues from license renewal proceedings, despite the potential for gaps to exist in implementation of the regulations and for unidentified regulatory gaps to emerge through thorough reviews of how the regulations have been applied at specific sites.

C. The Decision Failed To Adequately Address Emergency Planning Issues

The Petitions showed that local officials were skeptical about the effectiveness of the evacuation procedures that are in place at Indian Point and Oyster Creek. A-11-12, A-188-189. In addition, the information referenced in the Petitions and the comments shows that thorough reviews of the evacuation plan for Indian Point turned up many problems. Instead of recognizing that this information called into question the assumption that the ongoing regulatory

process is sufficient to keep the evacuation plan current, the Decision merely used that assumption to dismiss the concerns in general terms, without even discussing the detailed information submitted. Thus, the Decision failed to take a hard look at the emergency planning information submitted and failed to provide a reasoned basis for ignoring it.

1. The Record Contains Extensive Documentation Regarding Emergency Planning

Both the Petitions and the comments contained specific information regarding emergency planning issues. For example, the New Jersey Petition showed that the county in which Oyster Creek is located has experienced population growth of over 245% since 1969, when the plant first opened. A-188. Furthermore, the Westchester Petition referenced criticism of emergency planning by James A. Witt, a former head of FEMA. A-12. Public comments submitted to the NRC by Riverkeeper developed this theme and specifically referenced studies published by James Lee Witt Associates and KLD Associates. A-23-25.

The Riverkeeper comments stated that the emergency plan for the Indian Point plant was unworkable and unfixable. A-24. It quoted the Witt Report stating that the plan was inadequate "to protect the people from an unacceptable dose of radiation in the event of a release from Indian Point." *Id.* It further showed that the KLD Associates study found that the previous estimate of 5.5 hours for complete evacuation was incorrect, and that, even if the population followed

instructions, the evacuation could actually take between 9.5 and 12 hours, depending on weather conditions. Riverkeeper's comments further noted that counties within the emergency planning zone around Indian Point had refused to submit their Annual Certification Letters for the emergency plan. *Id.*

The Witt Report is an independent review of the Indian Point emergency evacuation plan commissioned by the Governor of New York. The review, released in 2003, concluded that the then current radiological response system and capabilities were inadequate to protect people from unacceptable doses of radiation, especially if the release were faster or larger than the design basis release. A-532.

More specifically, the Witt Report found that the emergency preparedness plans were built on compliance with regulations and not on a realistic strategy. For example, the plan did not consider the possibility of terrorist attack and did not consider voluntary evacuation, but instead assumed that people would obey all instructions. A-338-39, 493. In addition, the exercises meant to test the plans were ineffective in identifying inadequacies and improving subsequent responses. A-338. Furthermore, the exercises did not use the more performance-based approach that FEMA developed in 2001. A-339.

Subsequent to the 2003 Witt Report, Entergy, the owner of Indian Point, instructed KLD Associates to undertake a study to update the existing Evacuation

Time Estimates ("ETE"). The KLD study concluded that previous ETEs were unrealistically low. For example, the ETE for a winter midweek midday event during good weather was nine hours and 25 minutes as opposed to the previous ETE of five hours and 30 minutes. A-671. The difference in time estimates was due to changes in assumptions to make the plan more realistic. The important changes to the assumptions included updating the population estimates, A-668, including the impact of voluntary evacuation, *Id.*, and assuming parents will pick up their children from school. A-669.

Thus, as a result of the thorough review of the Indian Point emergency plan by Witt Associates, the reactor operator was able to make its emergency plan considerably more realistic. There is every reason to believe that such failures could be present at other reactors, but they have not been highlighted because no-one has paid for a thorough review and the NRC has decided not to undertake such a review in the license renewal process. The many flaws identified by the Witt Report also illustrate that the NRC's reliance on the ongoing regulatory process to ensure that emergency plans stay current and are realistic is misplaced.

The Witt Report demonstrates that an in-depth review at relicensing could not only improve the quality of individual emergency plans, but it could also provide NRC with valuable information on the failings of its ongoing regulations or their implementation. This information could then be used to improve

compliance with the regulations and the regulations themselves. In short, far from being wasteful and duplicative, an in-depth review of emergency planning at the relicensing stage would be highly useful and instructive on a number of levels.

2. The Decision Failed To Address The Most Important Evidence Concerning Emergency Planning

Although the Decision acknowledges that both Petitions raised emergency planning concerns, A-152-53, 161, it failed to mention the most specific information provided. The Decision makes no mention of the Witt Report, except in a quotation from the New York Petition, A-152, and does not mention the KLD Associates Report at all. The Decision also completely failed to mention the public comments submitted to the NRC by Riverkeeper, which, as discussed above, were substantive.

3. The Rejection of the Emergency Planning Concern Was Arbitrary

An agency must take a hard look at all the material in the record and if an agency entirely fails to consider an important issue, its decision is arbitrary. Furthermore, as the Supreme Court has recently confirmed in *Mass. v. EPA*, a reasoned analysis of the key issues is essential when agencies deny rulemaking petitions. Here the Decision shows that the NRC dismissed the material in the record concerning emergency planning as insignificant, without recognizing that

the material called into question the underlying assumption that ongoing regulatory processes are sufficient to ensure safety. Thus, at minimum, the NRC failed to provide the required reasoned public explanation of its decision.

The flaws identified in the Witt Report and acknowledged in the KLD Associates Report are highly significant because they undermine the fundamental factual predicate that underlies the license renewal rules: that a full *de novo* review at relicensing of an issue that is being addressed by ongoing regulatory processes is unnecessary and duplicative. Directly contradicting this premise, Witt's review of the Indian Point evacuation plan identified many questionable assumptions in the regulations and gaps in the implementation of those regulations.

Thus, the NRC's finding that "you did not present any new information that would contradict positions taken by the Commission when the regulation was established" is directly contrary to the record. A-145. Moreover, the NRC denied the Petitions on the basis that they did not raise sufficient reason to hold a hearing, because they were deficient. A-156, 158-59. This finding is rendered arbitrary by the NRC's complete failure to take a hard look at the reports from Witt Associates and KLD Associates.

D. The Decision Ignored The Lessons From The Davis-Besse Incident In 2002

The information on emergency planning is not the only new material generated since 1995 that undermined NRC's logic that the implementation of

ongoing regulation renders superfluous a *de novo* review of most issues at license renewal. In 2002, the NRC discovered the most serious safety issue at a nuclear power plant since the near meltdown of the Three Mile Island reactor in 1979. A-563. This incident should have shaken the NRC's optimistic assumptions that implementation of ongoing regulations would prevent any serious problems at the nation's nuclear power plants, not only for the current 40 year period of licensed operation, but also for a further 20 years.

However, instead of acknowledging that this incident occurred and reviewing its significance for the license renewal rules, the NRC completely failed to review its significance. This is precisely what an agency may not do. Therefore this Court must overturn the Decision and order NRC to belatedly consider whether the Davis-Besse incident indicates that safety at the nation's nuclear plants would be enhanced by a comprehensive review of safety programs once in each plant's estimated 60 year operating life.

1. The Davis-Besse Incident

In 2002, the NRC discovered that the reactor vessel at the Davis-Besse nuclear power facility had corroded to the point where its failure was imminent without the problem being noticed. A-580-81. Making matters worse, the NRC had allowed the plant to delay inspection of its vessel to avoid financial hardship to FirstEnergy, the reactor operator. A-549.

The delayed inspection revealed a total of 24 cracks in five of the plant's 69 vessel head penetration nozzles. *Id.* On March 7, 2002, while repairing the damaged nozzles, inspectors discovered a severe "pineapple-sized" cavity formed by corrosion in the plant's carbon steel reactor vessel head. A-549, 563, 578. At the time of the corrosion's discovery, a mere 3/8 inch of stainless steel cladding was the only barrier preventing radioactive coolant from escaping from the reactor pressure vessel. A-549.

An NRC-dispatched inspection team later found that the corroded cavity had resulted from continual and long-term leakage of boric acid from a cracked nozzle carrying fluid into the reactor vessel head. A-580. This serious safety impairment had gone undetected for at least four years, even though there were several strong indications of potential leakage problems. A-580, 583. Unfortunately, because each separate indicator was insufficient to trigger an alarm, and neither NRC nor FirstEnergy connected the indicators, the NRC disregarded them as insufficient to warrant further inspection.

More specifically, the NRC knew in 1999 that the unidentified leakage rate of Davis-Besse's reactor coolant system had ballooned over several years to a level significantly higher than the historical average, but it chose not to aggressively investigate the matter because the rate was still technically below its regulatory limit of 1 gallon per minute. A-584. The NRC also failed to recognize the

significance of FirstEnergy's need to alter maintenance procedures to respond to significantly increasing levels of boric acid deposits in the containment building. *Id.*

For example, prior to 1998, the containment air coolers at Davis-Besse had seldom required cleaning, but between late 1998 and May 2001, they required 28 cleanings due to increased boric acid build-up. *Id.* In addition, filters for radiation monitors used to detect radiation in air from the containment building became clogged and disabled due to boric acid, and required hundreds of replacements between 1998 and 2002, whereas previously, monthly filter replacements had been sufficient. *Id.* Operating under the assumption that FirstEnergy had effectively dealt with the increased boric acid deposits when it implemented a revised maintenance routine, the NRC again concluded that the situation did not require further inspection. *Id.* Thus, at Davis-Besse, the NRC missed the forest for the trees. By focusing on individual maintenance issues, the more serious underlying problem was overlooked. *Id.*

The Davis-Besse facility subsequently underwent $640 million in major repairs and improvements over the course of two years before the NRC finally permitted operations to resume in March 2004. A-581-82. FirstEnergy was forced to remove and replace the corroded reactor vessel head, replace management at the

facility, and overhaul key procedures that should have prevented or detected the damage. A-581.

Though the Davis-Besse experience did eventually induce the NRC to reevaluate and improve the flawed regulatory processes that led, in part, to the narrowly-prevented disaster, the NRC has ultimately failed, and continues to fail, to address core systemic issues that may lead to a similar incident at another power plant. A-607. For example, while the NRC has made improvements in staff training and inspection standards in an effort to more correctly identify which plants are in fact safe or unsafe, it has neglected to address its inability to spot weaknesses in FirstEnergy's own safety culture, to recognize the need for a refined decision-making process for deciding on a shutdown, and to correct the lack of systematic measures to track the long-term effectiveness of its own actions. *Id.*

Perhaps the most disturbing fact brought to light by the Davis-Besse experience, was the NRC's willingness to prioritize the reduction of regulatory burden upon licensees over public health and safety. A-556. Although by August 2001, the NRC had identified Davis-Besse as a "highly susceptible" facility to which it then issued an order for mandatory shutdown and safety inspection, it nonetheless agreed to postpone inspections for nearly two months because of considerations of financial impact upon FirstEnergy. A-550.1, 556. As the Inspector General found, "while the decision by the staff to allow Davis-Besse to

continue to operate was in keeping with the NRC performance goal to reduce unnecessary regulatory burden, it was contrary to the goal of NRC Bulletin 2001-01 to have at-risk plants conduct timely inspections to ensure regulatory requirements related to reactor coolant leakage were met." A-556. Furthermore, the goal of maintaining safety at Davis-Besse was frustrated by the NRC's own informal establishment of an "unreasonably high burden of requiring absolute proof of a safety problem, versus lack of reasonable assurance of maintaining public heath and safety, before it will act to shut down a power plant." *Id.*

The near-catastrophe at Davis-Besse illustrates the profound need for periodic review and revaluation of ongoing regulatory processes. Historically, the NRC had consistently considered FirstEnergy a "good performer" by regulatory standards. A-589. Consequently, the Commission informally allowed an underlying presumption to develop that all required regulatory processes were being adequately implemented and that no previously unforeseen safety issues had arisen at the facility. A-582. The valuable lesson learned from the Davis-Besse incident, therefore, is that normal ongoing regulatory processes may be inadequate in some respects, and those inadequacies could go undetected while having major safety implications.

Because ongoing processes may be inadequate to ensure safety, an in-depth review of the implementation of those processes at individual reactors would

highlight deficiencies and make a repeat of an incident like Davis-Besse less likely. Although periodic in-depth reviews during the license term would probably be ideal, the NRC should also do a very thorough review during relicensing to enable the NRC to take a comprehensive view of safety issues to identify any safety problems that ongoing processes may have missed. Indeed, the Davis-Besse incident suggests that in the absence of an in-depth review of all safety-related issues, the NRC may be allowing license renewals to proceed when it cannot be certain that it is meeting the statutory requirement that such renewals not be inimical to public health and safety.

2. The Decision Failed To Consider The Significance Of The Davis-Besse Incident

The Westchester Petition specifically mentioned the Davis-Besse incident as a reason to change the current relicensing process. A-11. In addition, public comments submitted to the NRC by the Nuclear Information Resource Service, Inc. ("NIRS") discussed the Davis-Besse incident in some detail and showed that many age management issues had been largely excluded from relicensing by the limitations on the review of aging management programs that confirm to generic standards. A-82. NIRS specifically cited two government reports on the incident, one by the Government Accountability Office ("GAO") and one by the NRC Office of Inspector General ("OIG"). *Id.* NIRS further pointed out that even though Davis-Besse was following a generic age management program for the

reactor vessel head, it was inadequate, because it failed to detect the severity of the corrosion that was later found and failed to ensure the ongoing safety of the reactor. *Id.*

Despite the authoritative sources cited and the importance of the incident, the Decision failed to even mention Davis-Besse or NIRS' comments about the need for site-specific reviews of generic aging management plans. Instead, contrary to the record, NRC decided that "neither the petition nor the comments raise any new issue." A-145.

3. The Davis-Besse Incident Illustrates That Periodic Critical Review Of Ongoing Programs Improves Public Safety

Like the Witt Report, the reviews of the Davis-Besse incident showed that the ongoing regulations may be implemented badly or not at all and new information at specific plants can come to light that undermines general regulatory presumptions. Thus, license renewal could act as a review of whether ongoing regulatory processes are being adequately implemented and whether any new information has come to light that indicates there is a potential safety issue that has not been addressed by the existing regulations.

The Commission's unyielding assertion that the continuous regulatory process, particularly the current licensing basis and maintenance rule, is sufficient to address all safety concerns, relies on the assumption that function failure is at all

times predictable and that regulations governing current operations contain no gaps and are being perfectly implemented. The experience at Davis-Besse has shown that this assumption is not always true, undermining the foundation of the license renewal rule.

4. The Failure To Analyze The Significance of the Davis-Besse Incident Was Arbitrary

Here, the NRC did precisely what Courts have decided it should not. The Davis-Besse incident was raised by the Petitions and the public comments. However, instead of carefully evaluating the significance of the material related to the Davis-Besse incident submitted by the Petitioners and in the comments, the NRC failed to even mention the incident in the Decision. The material submitted raised serious questions about the underlying foundation of the relicensing rules. Thus, the NRC entirely failed to consider this important issue and failed to provide a reasoned public explanation of why the Davis-Besse incident did not prompt NRC to commence a review of its relicensing rule. These stark failures illustrate the arbitrary nature of the NRC's decision to deny the Petitions in this case.

E. The Decision Failed To Properly Address The Increased Threat of Terrorism

There is no doubt that the terrible events of September 11, 2001 raised the bar on security for nuclear power plants. The Decision makes it plain that NRC has taken a number of steps to respond to this increased risk. A-165. However,

the Decision failed to address whether the relicensing rules could be used as an additional mechanism to respond to this increased risk, failed to adequately address concerns about the vulnerabilities of spent fuel pools, and failed to take account of a recent circuit court ruling indicating that security issues must be considered as part of licensing decisions.

1. The Decision Gave Limited Consideration To Potential Terrorist Threats

The Westchester Petition raised the issue of whether the increased terrorist risk required modifications to the evacuation plans. A-12. The New Jersey Petition raised a similar question about the vulnerability of spent nuclear fuel storage facilities to terrorist attack. A-189. The New Jersey Petition also cited to a National Academy of Sciences report about nuclear plant security and asked whether the issues raised by the report should be considered at license renewal. *Id.*

In response the NRC stated that it has strengthened security at nuclear plants since September 11, 2001, but that security is not required to be part of the license renewal process because it is dealt with on an ongoing basis. A-164-65. The NRC further stated that it has decided by rule that the storage of spent fuel is safe. A-177-78. The Decision mentioned the National Academy of Sciences report on the issue, *id.*, but failed to mention that the NRC has yet to complete its analysis of the vulnerabilities of spent nuclear fuel storage facilities and that the NRC has not implemented recommended short or long term measures to reduce this

vulnerability. A-333. The Decision provided no analysis of the failings in the ongoing regulatory process highlighted by the National Academy of Sciences.

2. The Decision Failed To Consider The Effect Of The Increased Terrorist Threat On The Relicensing Rules

Although the Decision gave a cursory summary of the changes NRC has made to the ongoing regulations, it gave no consideration whatsoever to whether the increased terrorist threat gives rise to a need to change the relicensing regulations. For example, NRC did not address whether the additional ongoing requirements put in place since the September 11th attacks would benefit from in-depth review of compliance with those requirements at the license renewal stage. Nor did it recognize that the National Academy of Sciences report showed that, at best, the ongoing regulatory process was responding very slowly to specific known vulnerabilities, suggesting that the license renewal process could be used to enhance the ongoing regulatory process. It also failed to consider whether license renewal could present a good opportunity to update the CLB to require more structural protection from a terrorist attack during the extended operating period.

From a regulatory perspective, license renewal presents a very attractive point in time to require structural improvements to a nuclear power plant. During the period of an operating license, the NRC's ability to require structural changes to nuclear plants is severely constrained by the backfit rule of 10 C.F.R. § 50.109. 56 Fed. Reg. 64,943, 64,965 (December 13, 1991). For a structural improvement

to be justified, this analysis explicitly requires "a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection." 10 C.F.R. § 50.109(a)(3). However, for changes imposed during relicensing the backfit rule does not apply. 56 Fed. Reg. 64,943, 64,966 (December 13, 1991). Thus, relicensing provides an opportunity for the NRC to require structural changes that it could have difficultly justifying under the backfit rule, but it nonetheless believes are necessary to protect public safety or common defense and security.

The NRC should at least have considered whether the constraints on ongoing regulatory processes imposed by the backfit rule could hinder the implementation of necessary measures to combat terrorism. This issue is of particular importance because it is very difficult to estimate the risk of a terrorist attack and the consequences of such an attack. A-264, 266. Therefore, the NRC could face difficulty showing compliance with the backfit rule for structural measures to ensure nuclear plants are protected from scenarios like aircraft attack. This may be the reason that to date the NRC has not taken such an approach.

The NRC could avoid this difficulty if it brought consideration of the need for additional security into the scope of license renewal. For example, the National Academy of Sciences report found that elevated spent fuel pools at certain reactors

are vulnerable to aircraft attack and such an attack could release very large quantities of radiation. A-261, 307, 314-15. The report also stated that "specific vulnerabilities can be understood only by examining the characteristics of spent fuel storage at each plant." A-316. This vulnerability could be reduced by either enhancing structural protection or significantly reducing the amount of spent fuel in the pool.

For reasons that are not entirely clear, the NRC has not yet required nuclear plants to take either measure. A-333. Instead, it has relied upon the waste confidence rule, which states generically that storage of spent fuel at nuclear plants is safe. A-165-66. However, that conclusion was reached before September 11, 2001 and the Petitioners questioned the ongoing validity of that rule. It defies logic to deny a rulemaking petition on the basis that it asks for a change to the existing rules, because the precise purpose of rulemaking petitions is to ask for changes in the rules. That the NRC took such an illogical approach merely illustrates that the NRC failed to consider the Petitions seriously. Moreover, because it is clear that plant-specific analyses are needed and that the backfit rule makes it more difficult to implement structural security measures outside of the relicensing context, it is imperative that the NRC consider whether to include a review of the vulnerability to terrorism of nuclear plants in general, and spent fuel storage facilities in particular, within the scope of license renewal. The NRC also

needs to consider whether omitting such a review could lead to relicensing decisions that are inimical to common defense and security, in violation of the Atomic Energy Act.

Another example of a structural security vulnerability is that at many older plants the redundant backup generators are located close together. If the threat of sabotage is low, this presents few problems, but now that the threat of terrorism is higher, NRC should review whether it should impose higher standards at the relicensing stage. Finally, because the details of each plant's design are different, the NRC cannot generically determine how to deal with all structural security issues at each reactor. To solve these problems and also to avoid problems with the backfit rule, the NRC should require a plant-specific in-depth review at the relicensing stage to evaluate potential structural security improvements.

The need for a review of security measures during relicensing is further reinforced by the slow pace of NRC's generic security review. In 2005, when the National Academy of Sciences Report was written, the NRC had not completed its analyses of spent fuel storage vulnerabilities. A-333. As far as the New Jersey Petitioners are aware, it is still not complete. NRC's failure to complete a generic analysis of spent fuel storage security vulnerabilities indicates that plant-specific analyses during relicensing would serve two purposes. First, it would ensure that required security requirements could be implemented during relicensing without

waiting for a generic analysis. Second, an accumulation of plant-specific reviews carried out for the purposes of relicensing could inform the generic review.

Furthermore, the Witt Report found that terrorism creates specific problems for emergency planning which are not dealt with by general requirements, including a greater risk of a voluntary evacuation and the need to deal with a criminal investigation as well as the evacuation. A-341. In addition, deliberate acts could lead to more severe radioactive release scenarios, which could in turn lead to a need to evacuate more people more quickly. A-493. The regulatory changes required to take account of the unique emergency challenges posed by terrorism could have been affected by changing the ongoing rules or by making review of such additional scenarios mandatory at relicensing. Having failed to do the former, the NRC had to at least consider whether the latter was required in order to adequately protect the public and meet the standards of the Atomic Energy Act.

Moreover, in 2006, the Court of Appeals for the Ninth Circuit determined that the NRC erred when it did not analyze the impact of terrorist attacks on the safety of nuclear power plants when it was granting a license to operate a major nuclear facility. *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Commission*, 449 F.3d 1016, 1030 (9th Cir. 2006). Petitioners specifically notified

NRC of this ruling. A-254. However, the Decision gives it no consideration whatsoever.

Finally, an illustration of how a thorough review of terrorism issues at the relicensing stage would enhance security is provided by an NRC analysis of the Individual Plant Examinations of External Events ("IPEEE") Program. This program required each licensee to review vulnerabilities to external events such as earthquakes, floods, and fires, but it specifically excluded sabotage or terrorism. A-637. As a result of this review 90 per cent of licensees identified and implemented or proposed plant improvements to address concerns revealed in the IPEEE program. A-653. Having found and addressed plant-specific vulnerabilities to various other external events through the IPEEE program, NRC could have extended that program to include terrorism. However, for reasons that remain obscure it has not done this. In the absence of such a program and in the absence of any up to date generic finding that plants can withstand foreseeable terrorist attacks, it is currently unclear whether NRC has met the requirement of the Atomic Energy Act that the relicensing of nuclear plants is not inimical to common defense and security.

Thus, in the absence of an extension of the IPEEE program to include terrorism or a comprehensive generic assessment of the issue supplemented by the required plant-specific assessments, the NRC should carefully consider whether it

should or must review vulnerabilities to terrorism at the license renewal stage. Furthermore, even if the IPEEE program or a generic assessment covered terrorism, it would still be useful to review it at the relicensing stage. Such a review would ensure that promised plant improvements were actually carried out or that the generic assessment was truly comprehensive and its requirements had been implemented. A review at relicensing could also go beyond the rather cursory review undertaken within the IPEEE program, which did not go beyond the licencee's analysis document, unless there were obvious deficiencies. A-639.

3. NRC's Failure To Consider How The Increased Risk Of Terrorism Affected Relicensing Was Arbitrary And Capricious

Petitioners squarely raised the issue of how the increased threat of terrorism affected the relicensing rules. As discussed above, the considerations involved are somewhat complex and involve both legal and factual issues. However, while the NRC offered a cursory explanation of how it had changed its ongoing requirements, it refused to analyze whether the increased risk of terrorism required changes to the relicensing rules. A-18-20.

This refusal to even carry out any review of the factual and legal repercussions of the increased risk of terrorism on the relicensing rules is straightforwardly arbitrary under the standard in *Mass. v. EPA*, which at minimum requires a reasoned explanation of why a rulemaking petition is rejected. The

NRC completely failed to analyze the implications of the National Academy of Sciences report, the Witt Report, and the Ninth Circuit ruling on the relicensing rules. Furthermore, NRC also arbitrarily failed to provide a reasoned public explanation for its finding that no changes to the relicensing rules were necessary to respond to the increased terrorist risk.

In any event, the decision to reject the Petitions on the basis that they raised no new issues was obviously unreasonable because there is no doubt that the increased threat of terrorism after September 2001 is highly significant and should have been closely analyzed by the NRC, not dismissed without proper explanation or consideration.

Conclusion

For the foregoing reasons, this Court should remand the Petitions back to the NRC for further consideration in accordance with proper procedure and grant such further relief as this Court may see fit.

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