

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued September 17, 2015

Decided April 26, 2016

No. 14-1225

NATURAL RESOURCES DEFENSE COUNCIL,
PETITIONER

v.

U.S. NUCLEAR REGULATORY COMMISSION AND UNITED STATES
OF AMERICA,
RESPONDENTS

EXELON GENERATION COMPANY, LLC,
INTERVENOR

On Petition for Review of An Order of the
United States Nuclear Regulatory Commission

Howard M. Crystal argued the cause for petitioner. With him on the briefs were *Eric R. Glitzenstein* and *Geoffrey H. Fettus*.

James E. Adler, Senior Attorney, U.S. Nuclear Regulatory Commission, argued the cause for respondents. With him on the brief were *John C. Cruden*, Assistant Attorney General, U.S. Department of Justice, *John E. Arbab*, Attorney, and *Andrew P. Averbach*, Solicitor, U.S. Nuclear Regulatory Commission.

Brad Fagg argued the cause and filed the brief for intervenor Exelon Generation Company, LLC,

Before: ROGERS, BROWN and KAVANAUGH, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* BROWN.

BROWN, *Circuit Judge*: National Resources Defense Council (NRDC) challenges the Nuclear Regulatory Commission's (NRC's) denial of NRDC's request for a hearing and subsequent application for a waiver, asserting this process was inconsistent with the procedural rigor mandated by the National Environmental Policy Act (NEPA). The denial thwarted NRDC's attempt to intervene in the license renewal proceeding for Exelon's Limerick nuclear power station in Pennsylvania. NRDC sought to present "new and significant" information regarding severe accident mitigation alternatives (SAMAs) relevant to Limerick. We find the Commission reasonably concluded NRDC's request to intervene was a challenge to a general rule—10 C.F.R. §51.53(c)(3)(ii)(L) (Rule (L))—improperly raised in an individual adjudication; and, contrary to NRDC's view, while NEPA requires agencies to take a hard look before approving a major federal action, it does not mandate adoption of a particular process for doing so. Having failed to show its contentions were unique to Limerick, NRDC also was not entitled to a waiver. We conclude the Commission's actions were not arbitrary and capricious and deny the petition.

I.

The Atomic Energy Act (AEA) empowers the Commission to issue and renew nuclear power plant licenses. *See* 42 U.S.C.

§ 2133. The Act limits initial licenses to a forty-year term but otherwise grants the Commission wide authority to regulate the license issuance and renewal process. *See id.* at § 2133(c). In 10 C.F.R. Part 54, the Commission laid out the general framework for renewal. The Commission also promulgated 10 C.F.R. Part 51 to deal with its obligations under NEPA. NEPA requires preparation of an Environmental Impact Statement (EIS) before undertaking any “major Federal action[] significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C); *see also New York v. NRC*, 681 F.3d 471, 476 (D.C. Cir. 2012). This requirement ensures each agency “consider[s] every significant aspect of the environmental impact of a proposed action” and “inform[s] the public that it has indeed considered environmental concerns in its decisionmaking process.” *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983). The issuance or renewal of a nuclear power plant license qualifies as a “major federal action” triggering the Commission’s obligations under NEPA. *See New York*, 681 F.3d at 476.

The AEA also provides that “the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding.” 42 U.S.C. § 2239(a)(1)(A). In 10 C.F.R. § 2.309, the Commission laid out the specific procedures an intervening party must follow. The interested party must file a written request listing the specific contentions the party seeks to litigate. *See id.* at § 2.309(a), (f)(1). If a party’s contentions do not meet the Commission’s specificity or relevancy requirements, the agency may deny the hearing request. *See id.* Finally, the AEA subjects all final Commission orders to judicial review. 42 U.S.C. § 2239(b). “Any party aggrieved” by a final order of the Commission may “file a petition to review the order in the court of appeals.” 28 U.S.C. § 2344. This court has “routinely interpreted [the phrase ‘any party aggrieved’] to allow petitions by parties who

were intervenors before the Commission.” *State of Alaska v. FERC*, 980 F.2d 761, 763 (D.C. Cir. 1992). To challenge the Commission’s grant of a license renewal, then, a party must have successfully intervened in the proceeding by submitting adequate contentions under 10 C.F.R. § 2.309.

II.

NRDC here sought to intervene in the relicensing of Exelon’s Limerick power station. To understand how this relicensing process works, a brief history of the power plant at issue is helpful. The Limerick Generating Station is a dual-unit nuclear power plant with two boiling water reactors located in Limerick Township, Pennsylvania, approximately 35 miles outside of Philadelphia. The Commission first licensed Limerick in 1984 after conducting ninety-five days of hearings and “generating a 20,000-page transcript.” *Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 728 (3d Cir. 1989). Various environmental petitioners challenged NRC’s grant of a full power license to Limerick, alleging the Commission failed to adequately consider several environmentally relevant factors in violation of NEPA. Specifically, petitioners contended the Commission improperly declined to consider severe accident mitigation design alternatives (SAMDAs)¹ on the basis of the Agency’s policy statement that read: “[NRC will] exclude consideration of design alternatives as a matter of Commission policy while research into design alternatives [is] ongoing.” *Id.* at 734. SAMDAs are defined as “possible plant design modifications that are intended not to prevent an accident, but to lessen the severity of the impact of an accident should one occur.” *Id.* at 731.

¹ The terms “severe accident mitigation alternatives” (SAMAs) and “severe accident mitigation design alternatives” (SAMDAs) have the same meaning and are used interchangeably throughout this opinion.

The Third Circuit held NRC's policy statement—unlike a notice-and-comment rulemaking—was not entitled to deference. *See id.* at 729–31. Moreover, the court rejected NRC's Final Environmental Impact Statement (FEIS) for Limerick as inadequate under NEPA because it did not include “the requisite careful consideration of the environmental consequences [of SAMDAs].” *Id.* at 723. But the court did not foreclose the possibility that SAMDAs could be dealt with “generically” through a subsequent rulemaking.² *See id.* (“Although NEPA requires the Commission to undertake ‘careful consideration’ of environmental consequences, . . . it may issue a rulemaking to address and evaluate environmental impacts that are ‘generic,’ i.e. not plant-specific.” (citation omitted)).

Prompted by *Limerick Ecology*, NRC staff conducted a site-specific severe accident mitigation analysis at Limerick and issued a supplemental environmental impact statement (SEIS) summarizing its findings. *See* U.S. Nuclear Regulatory Comm'n, Office of Nuclear Reactor Regulation, *Final Environmental Statement Related to the Operation of Limerick Generating Station, Units 1 and 2*, NUREG-0974 Supplement (Aug. 1989). NRC staff concluded “the risks and environmental impacts of severe accidents at Limerick are

² The Third Circuit did conclude SAMDAs were “unlikely” to qualify for generic treatment based on the record presented. *Id.* at 739. But, as discussed *infra*, NRC ultimately treated SAMDAs as “quasi-generic” (conducting a single site-specific SAMDA analysis for each plant when initially licensed but requiring no new analysis when re-licensed) and, regardless, the Third Circuit's dicta did not eliminate the Commission's ability to treat this issue generically if resolved through notice-and-comment rulemaking on a more extensive record.

acceptably low” and that “no new information” called into question the FEIS’s original severe accident findings. *Id.* at vi.

A. The 1996 Rulemaking

The Commission subsequently accepted the Third Circuit’s invitation to streamline its evaluation of environmental issues during license renewal by resolving many issues generically. *See Environmental Review for Renewal of Nuclear Power Plant Operating Licenses*, 61 Fed. Reg. 28,467 (June 5, 1996). The Commission identified 92 issues material to environmental review of nuclear power plants; of these, it assessed that 68 issues could be adequately addressed generically, whereas 24 “were found to require additional assessment for at least some plants at the time of the license renewal review.” *Id.* at 28,468; *see also* 10 C.F.R. pt. 51 appx. B. The former were classified as “Category 1” issues and the latter as “Category 2.” *See* 10 C.F.R. pt. 51 appx. B. The rulemaking also addressed two related concerns: that interested parties would be denied the opportunity to participate in the license renewal process with respect to “generically” resolved issues and that a generic EIS could not satisfy NEPA’s “hard look” requirement because it would necessarily rely on findings from 20 years prior. *See* 61 Fed. Reg. at 28,470. NRC responded to these concerns by (i) committing to prepare a supplemental site-specific EIS (rather than simply an environmental assessment) for each renewal which would consider comments introducing “new and significant” information regardless of whether the comments were directed to Category 1 or 2 issues; (ii) leaving cost-benefit conclusions and conclusions “relative to the overall environmental impacts including cumulative impacts” entirely to the site-specific supplemental EIS; and (iii) formally reviewing the rule and the generic EIS (GEIS) every 10 years to determine “what, if anything, in the rule requires revision.” *Id.* at 28,470-71.

The Commission formally classified SAMAs as a Category 2 issue, although it included an exception for plants that had previously performed a SAMA analysis. *See* 10 C.F.R. pt. 51 appx. B. (“[A]lternatives to mitigate severe accidents must be considered for all plants that have not considered such alternatives.”). The Commission explained its categorization of SAMAs at length. The GEIS analyzes SAMAs for “each site” using “site-specific estimates for parameters such as population distribution and meteorological conditions.” 61 Fed. Reg. at 28,480. The information incorporated into the GEIS is therefore based on an evaluation of each particular plant. *See id.* (“[T]he analyses performed for the GEIS represent adequate, *plant-specific* estimates of the impacts from severe accidents that would generally over-predict, rather than under-predict, environmental consequences.” (emphasis added)). But NRC concluded that SAMAs could not yet be categorized as a “Category 1” issue because not all plants had conducted a SAMA analysis at the initial licensing stage:

The Commission has determined that a site-specific consideration of alternatives to mitigate severe accidents will be required at the time of license renewal unless a previous consideration of such alternatives regarding plant operation has been included in a final environmental impact statement or a related supplement. . . . Although the Commission has considered containment improvements for all plants . . . [and] has additional ongoing regulatory programs whereby licensees search for individual plant vulnerabilities to severe accidents and consider cost-beneficial improvements, these programs have not yet been completed. Therefore, a conclusion that severe

accident mitigation has been generically considered for license renewal is premature.

Id. at 28,480–81. In its rulemaking, NRC also specifically enumerated the plants, including Limerick, which had already completed an adequate SAMA analysis at licensing and so were not required to conduct further analysis at relicensing. *See id.* at 28,481 (“NRC staff considerations of [SAMAs] have already been completed and included in an EIS or supplemental EIS for Limerick, Comanche Peak, and Watts Bar. Therefore, [SAMAs] need not be reconsidered for these plants for license renewal.”).

The Commission codified its treatment of SAMAs at 10 C.F.R. § 51.53(c)(3)(ii)(L) (Rule (L)), which states: “If the staff has not previously considered severe accident mitigation alternatives for the applicant’s plant in an environmental impact statement or related supplement or in an environmental assessment, a consideration of alternatives to mitigate severe accidents must be provided.” Rule (L) thus constitutes a generic determination, via rulemaking, that one SAMA per plant is sufficient to “uncover most cost-beneficial measures to mitigate both the risk and the effects of severe accidents, thus satisfying [the Commission’s] obligations under NEPA.” *In the Matter of Exelon Generation Co., LLC* (Limerick Generating Station, Units 1 and 2), 2013 WL 5872241, at *5 (Oct. 31, 2013). For plants like Limerick where a SAMA analysis was performed when the plant was initially licensed, reliance on that earlier site-specific analysis is sufficient: The Commission relies on both the site-specific SEIS and the GEIS to conduct its severe accident analysis under NEPA. So although SAMAs are a “mixed” general and site-specific issue, the Commission has described Rule (L) as the functional equivalent of a Category 1 designation for severe accident impacts at plants such as Limerick.

B. The Relicensing Process

The categorization of SAMAs directly impacts a licensee's obligations during relicensing. Under 10 C.F.R. § 51.53(c)(1) – (2), every applicant for renewal of a power plant license must submit an Environmental Report (ER), which describes “in detail the affected environment around the plant, the modifications directly affecting the environment . . . , and any planned refurbishment activities.” The applicant need only submit plant-specific information for Category 2 issues, *id.* § 51.53(c)(3)(ii), as the Category 1 GEIS findings can generally be incorporated wholesale, *id.* § 51.53(c)(3)(i). Although Rule (L) exempts an applicant from conducting another plant-specific SAMA analysis if one has previously been completed, that applicant is still required to report “any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware,” including information about SAMAs. 10 C.F.R. § 51.53(c)(3)(iv); *see Massachusetts v. United States*, 522 F.3d 115, 120 (1st Cir. 2008) (“The NRC concedes that this [requirement] applies even to ‘new and significant information’ concerning Category 1 issues.”).

After an applicant has submitted its ER, the NRC staff produces a draft supplemental EIS for license renewal. 10 C.F.R. § 51.95(c). “This plant-specific SEIS addresses Category 2 issues and complements the GEIS, which covers Category 1 issues. *Id.* § 51.71(d). When the GEIS and SEIS are combined, they cover all issues NEPA requires be addressed in an EIS for a nuclear power plant license renewal proceeding.” *Massachusetts*, 522 F.3d at 120. The public then has an opportunity to comment on the draft SEIS, and NRC staff prepare a final SEIS only after reviewing the comments. *See* 10 C.F.R. § 51.95(c)(3).

For parties seeking to challenge the staff's findings, the process varies by issue category. Because Category 2 issues are site-specific, they can be challenged directly during the relicensing proceeding. The Commission has established a different mechanism for challenging generic Category 1 findings during individual license renewal proceedings. If a party submits comments on a Category 1 issue during the public comment period, the NRC staff has three potential avenues for response. If it deems the existing generic analysis adequate, it can provide an explanation of that view (including, if applicable, consideration of the significance of the new information). *See* 61 Fed. Reg. at 28,470. However, if a commenter provides new information that calls into question the validity of a generic Category 1 finding, "the NRC staff will seek Commission approval to either suspend the application of the rule on a generic basis . . . or delay granting the renewal application" until the GEIS is updated and the rule amended. *Id.* If the commenter provides site-specific information indicating the rule is incorrect with respect to that particular plant, the NRC staff will petition the Commission to "waive the application of the rule with respect to that analysis in that specific renewal proceeding." *Id.*

A party who remains dissatisfied by the Commission's response to its Category 1-related comment has two final alternatives: that party can (i) petition for a waiver of the NRC regulation (such as Rule L) with respect to that proceeding, *see* 10 C.F.R. § 2.335(b); or (ii) petition the agency for a rulemaking to amend the GEIS, *see* 61 Fed. Reg. at 28,470. "This divergent treatment of generic and site-specific issues is reasonable and consistent with the purpose of promoting efficiency in handling license renewal decisions." *Massachusetts*, 522 F.3d at 120.

III.

This litigation spans many years and many volumes. In June 2011, Exelon Generation Company, LLC (Exelon) filed an application to renew its initial 40-year operating licenses for Limerick Generating Station, Units 1 and 2, for an additional 20 years. Because of Rule (L)'s carve-out for plants that previously conducted a SAMA analysis, Exelon's ER supporting its license renewal application did not contain a new SAMA analysis but merely noted such an analysis had been completed for the initial operating licenses. *See* Exelon Generation Co., *Environmental Report—Operating License Renewal Stage, Limerick Generation Station, Units 1 and 2*, at 4-49 (June 2011). Although Exelon relied on Rule (L) to conclude no updated site-specific analysis was legally required, it still included a detailed consideration of whether “new and significant” information had identified “a significant environmental issue not covered in the GEIS” or an issue excluded from the GEIS that could lead to “an impact finding different from that codified in the regulation.” *Id.* at 5-2. Exelon concluded that it had discovered no such new or significant information. *See id.* at 5-4 to 5-9.

After NRC staff published a Notice of Opportunity for Hearing on Exelon's relicensing application, *see* 76 Fed. Reg. 52,992 (Aug. 24, 2011), NRDC submitted a petition to intervene and a hearing request. Perhaps anticipating that its SAMA-related contentions would be precluded by Rule (L), NRDC framed its arguments in terms of NEPA, alleging that NEPA requires an EIS to contain “high quality” information and “accurate scientific analysis,” meaning an agency cannot possibly comply with NEPA if it relies on “outdated, inaccurate, or incomplete” environmental analyses. *See Natural Resource Defense Council Petition to Intervene and Notice of Intention to Participate*, Nos. 50-352-LR, 50-353-LR,

at 48 (Nov. 22, 2011). In its petition, NRDC specifically contended that Exelon's ER "erroneously conclude[d] that new information related to its SAMDA analysis [was] not significant." *Id.* at 16. The Atomic Safety and Licensing Board ("Board") admitted only this contention. *In the Matter of Exelon Generation Co., LLC* (Limerick Generating Station, Units 1 and 2), 75 N.R.C. 539, 570–71 (2012). In doing so, the Board rejected Exelon's argument that Rule (L) absolved it of any responsibility to conduct an updated SAMA analysis. *See id.* at 543.

Both NRC staff and Exelon appealed the Board's admission of NRDC's contention as an impermissible challenge to Rule (L) in the context of an individual adjudication. Exelon acknowledged its obligation to evaluate "new and significant" information related to SAMAs but argued no party could challenge the adequacy of its evaluation as it relates to the prior Limerick SAMA analysis, absent a waiver. *See Exelon's Brief in Support of the Appeal of LBP-12-08*, Nos. 50-352-LR, 50-353-LR, at 7 (Apr. 16, 2012). The Commission agreed and reversed the Board's ruling, concluding that NRDC's contention, "reduced to its simplest terms, amounts to a challenge to [Rule (L)]." *See In the Matter of Exelon Generation, Co.*, 76 N.R.C. 377, 386 (Oct. 23, 2012) ("The assumption underlying [NRDC's contention] is that Exelon's 1989 SAMDA analysis is out-of-date, which Exelon then must remedy in its [ER], even though this is something [Rule (L)] otherwise exempts Exelon from having to do.").

However, because the Commission conceded it had not yet faced this precise factual scenario, it found NRDC could potentially challenge the adequacy of Exelon's ER by seeking a waiver of Rule (L). *See id.* The Commission therefore remanded the case to the Board to afford NRDC an opportunity to file a petition for waiver. *Id.* at 388. The Commission also

noted NRDC could file a petition for rulemaking to rescind Rule (L)'s exception. *Id.* at 387. NRDC declined to do so.

On remand, the Board concluded Rule (L) could not be waived but referred the decision back to the Commission for further review given the complex interplay between Rule (L) and 10 C.F.R. §2.335(b).³ The Commission ultimately affirmed the Board's decision to deny the waiver but did so on different grounds. In doing so, it justified its stringent waiver standard by explaining:

When we engage in rulemaking, we are “carving out” issues from adjudication for generic resolution. Therefore, to challenge the generic application of a rule, a petitioner seeking waiver must show that there is something extraordinary about the subject matter of the proceeding such that the rule should not apply.

Exelon Generation Co., LLC, 2013 WL 5872241, at *3. To qualify for waiver, four factors must be met. *See In the Matter of Dominion Nuclear Connecticut, Inc. (Millstone)*, 62 N.R.C. 551, 559–60 (2005). The Commission found NRDC failed to meet its burden since it could not demonstrate that its challenge rested on “issues that [were] legitimately unique to the proceeding” rather than issues of “broader concern[] about the rule’s general viability or appropriateness.” *Exelon Generation Co.*, at *4. Because NRDC was not relying on information that set “Limerick apart from other plants undergoing license renewal whose previous SAMA analyses purportedly also

³ Under section 2.335(b), “[t]he sole ground for petition of waiver . . . is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.” *Id.*

would be in need of updating,” the Commission denied the waiver. *Id.* at *8. Nevertheless, the Commission directed the Staff to review the significance of any new SAMA-related information raised by NRDC. *Id.* at *9.

IV.

The Administrative Procedure Act governs our review of an agency’s rule or licensing decision. *See* 5 U.S.C. § 500 *et seq.* This court is authorized to set aside the Commission’s relicensing decision only if it was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *Id.* § 706(2)(A). Our general posture of deference toward agency decision-making is particularly marked with regards to NRC actions because “the [AEA] is hallmarked by the amount of discretion granted the Commission in working to achieve the statute’s ends.” *Massachusetts v. NRC*, 878 F.2d 1516, 1523 (1st Cir. 1989) (quoting *Pub. Serv. Co. of N.H. v. NRC*, 582 F.2d 77, 82 (1st Cir. 1978) (alterations omitted)).

Moreover, to the extent NRC’s technical judgment is before the court, we “must generally be at [our] most deferential.” *Balt. Gas & Elec. Co.*, 462 U.S. at 103. In the NEPA context “determining what constitutes *significant* new information” is “a factual question requiring technical expertise,” and so the agency’s determination is “owe[d] considerable deference.” *Town of Winthrop v. FAA*, 535 F.3d 1, 8 (1st Cir. 2008). Still, we must ensure NRC “examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made.” *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

Finally, we evaluate the Commission’s interpretation of the AEA’s hearing requirement under the familiar two-step

Chevron analysis. This court is “obliged to defer to the operating procedures employed by an agency when the governing statute requires only that a ‘hearing’ be held,” as does the AEA. *Union of Concerned Scientists v. NRC*, 920 F.2d 50, 54 (D.C. Cir. 1990). And the Commission’s interpretation of its own regulations is given “controlling weight” unless that interpretation is “plainly erroneous or inconsistent with the regulation.” *City of Idaho Falls v. FERC*, 629 F.3d 222, 228 (D.C. Cir. 2011).

V.

Before delving into the law, it is helpful to lay out in plain terms what is at stake in this case from both parties’ perspectives. For NRDC, the existence of Rule (L) ostensibly creates a “regulatory blackhole” that prevents the organization from intervening in the relicensing adjudication to challenge the adequacy of Limerick’s 1989 SAMA analysis in light of advancements in technology. Because NRDC is barred from intervening, the organization is not entitled to an evidentiary hearing on its claims. *See* 10 C.F.R. § 2.310. Moreover, even though the Commission directed NRC staff to consider NRDC’s “new and significant” information, that consideration is shielded from substantive judicial review because NRDC was prevented from intervening in the adjudication. *See State of Alaska*, 980 F.2d at 763.

NRDC alleges both alternative routes to a challenge—seeking a waiver or submitting a petition for rulemaking—are merely illusory. As the Commission conceded at oral argument, it has rarely, if ever, granted a petition for waiver. And rulemaking is a lengthy process, often taking years. A party that has submitted a rulemaking petition can seek to suspend the relicensing process while its petition is considered. However, it is unclear under Commission regulations whether

NRDC would qualify to request suspension: a petitioner may request suspension of “any licensing proceeding *to which the petitioner is a participant*.” 10 C.F.R. § 2.802(e) (emphasis added). “Participant” is defined by the Commission as “an individual or organization . . . that has petitioned to intervene in a proceeding or requested a hearing but has not yet been granted party status by the [Board].” *Id.* § 2.4. Even if NRDC qualifies under this definition—having been definitively denied intervenor status—it would still have to satisfy the Commission’s three-pronged test for suspension of licensing proceeding. *See In the Matter of Private Fuel Storage, LLC*, 54 N.R.C. 376 (2001).

At first glance, NRDC’s predicament is worrisome given the decades that elapse between licensing and relicensing and the advances in mitigation technology that inevitably occur in the interim. Concern is especially understandable in light of the Fukushima tragedy. In March 2011, the world watched in horror as, following a Magnitude 9 earthquake off the coast of Japan, the tsunami it generated crashed ashore—killing thousands, flooding cities, destroying homes, schools and factories, and overwhelming the ten meter seawalls protecting Fukushima’s Dai-Ichi Nuclear Power Plant. All six of the boiling water reactors at the plant were damaged, and three experienced meltdowns. The profound human cost of this event is a powerful reminder that these issues demand our most careful attention.

After closer inspection, however, we are persuaded that the issue is less problematic than it first appears. SAMAs represent only a minor portion of the Commission’s overall regulatory regime—separate and apart from its safety requirements. A SAMA is simply “a cost-benefit analysis that addresses whether the expense of implementing a mitigation measure not mandated by the NRC is outweighed by the expected reduction

in environmental cost it would provide in a core damage event.” *Massachusetts v. NRC*, 708 F.3d 63, 68 (1st Cir. 2013). Potential benefits include “averted costs such as public exposure, offsite property damage, occupational exposure costs, cleanup and decontamination costs, and replacement power costs.” *Id.* at 68 n.5. Put simply, SAMAs are not meant to *prevent* an accident but rather to mitigate the severity should one occur. The Commission relies on a myriad of other safety mechanisms to prevent accidents. For example, plants are required to maintain “up-to-date” emergency plans that are evaluated on a site-specific basis during license renewal. *See* 61 Fed. Reg. at 28,480. The Commission also uses ongoing programs to evaluate mitigation alternatives including the Containment Performance Improvement program, the Individual Plant Examination program, and the Individual Plant Examination for External Events programs. *See id.* at 28,481. These site-specific programs have considered a range of potential mitigation measures, resulting in the adoption of several “plant procedural or programmatic improvements” apart from the relicensing process. *Id.* As plants like Limerick implement these changes, the relative benefits of adopting additional mitigation alternatives diminish.⁴

The Commission—and the plants themselves—are thus constantly evaluating new mitigation alternatives through channels other than the relicensing process. Exelon has in fact implemented several additional mitigation measures at

⁴ The ongoing nature of many mitigation measures reinforces this dynamic. One SAMA adopted by Exelon, for example, was the creation of an accident management program to develop “procedures that promote the most effective use of available plant equipment and staff in the event of an accident.” *Limerick Environmental Report*, at 5-5. This management program continues to exist and so, presumably, continues to develop relevant procedures to mitigate damage in the event of an accident.

Limerick since its 1989 SAMA analysis. *See Limerick 2014 Supplemental EIS, supra*, at 5-4 to 5-9. The Commission has also evaluated the safety of all plants in light of events at Fukushima; immediately after the earthquake, the Commission convened a task force to consider its ramifications. The Task Force issued its preliminary findings only four months after the accident. *See* U.S. Nuclear Regulatory Comm’n, *Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident* (July 12, 2011). It concluded “a sequence of events like the Fukushima accident is unlikely to occur in the United States and some appropriate mitigation measures have been implemented, reducing the likelihood of core damage and radiological releases.” *Id.* at vii. Notably, SAMA analyses had long assumed that a sequence of events similar to Fukushima “could yield devastating consequences” and so had accounted for such circumstances. *See Limerick 2014 Supplemental EIS, supra*, at 5–8. The Task Force’s report thus confirmed the Commission’s “twin expectations” that “future SAMA analyses would not likely find major plant improvements cost-beneficial” and that risk reduction could be adequately accomplished through “ongoing safety oversight.” *Id.*

But the relicensing process *also* includes means for NRC to consider “new and significant” information related to Category 1 issues—even if it does not guarantee a hearing. As discussed previously, if a party raises relevant “new and significant” information regarding a generic finding, NRC staff have the option to suspend the rule and relicensing until the GEIS is updated or to waive application of the rule to that particular plant. *See* 61 Fed. Reg. at 28,470. And in this case, NRC staff actually considered and explained its treatment of NRDC’s “new and significant” information. *See Limerick 2014 Supplemental EIS, supra*, at 5-25 to 5-26.

From the Commission's perspective, then, it is both effective and efficient to resolve certain issues through generic findings. The relicensing process is already lengthy, as NRC staff must evaluate all relevant information, respond to public comment, and hold evidentiary hearings on challenges to site-specific issues. If any party could also challenge every generically resolved issue, the number of hearings would increase dramatically—even though those hearings would be unlikely to identify measures not already considered by the Commission. The agency has therefore wisely chosen to focus its limited resources in other more availing areas, while still building in several safety valves to ensure that truly significant new information is not overlooked.

Having explained the regulatory framework—and defined the issues at stake—we now turn to the legal questions.

A.

This case's complicated procedural background obscures the relatively straightforward legal issue at play. The key question is whether NRDC is seeking a hearing on an issue generically resolved through rulemaking via an individual adjudication. Commission regulations preclude such collateral attacks, absent a waiver. *See* 10 C.F.R. § 2.335(a) (“[N]o rule or regulation of the Commission, or any provision thereof, concerning the licensing of . . . facilities . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding subject to this part.”). Moreover, “it is ‘hornbook administrative law that an agency need not—indeed should not—entertain a challenge to a regulation’ in an individual adjudication.” *New Jersey Dep’t of Env’t Protection v. NRC*, 561 F.3d 132, 143 (3rd Cir. 2009) (quoting *Tribune Co. v. FCC*, 133 F.3d 61, 68 (D.C. Cir. 1998)).

From the outset, NRDC's contentions have focused on the inadequacy of Limerick's 1989 SAMA in light of changes over the past three decades. Rule (L) forecloses this approach. NRDC is arguably correct in arguing that Rule (L)'s language, on its face, does not preclude the Commission from requiring plants that have already undergone a SAMA analysis to conduct an additional analysis. But here, NRC has reasonably concluded that Rule (L) means SAMAs can be treated generically for plants like Limerick that have once completed a SAMA analysis. Given how extensive the first SAMA analysis is, the Commission found a second analysis would not provide enough value to justify the resource expenditure. This determination is reasonable and so is entitled to deference. *See Ames Constr., Inc. v. Fed. Mine Safety & Health Review Comm'n*, 676 F.3d 1109, 1112 (D.C. Cir. 2012).

NRDC attempts to wriggle out from under this regulatory bar by asserting that its right to a hearing on "new and significant" information derives from the AEA and NEPA's hearing requirements. But neither statute does the work NRDC asks of it. The organization points, at times, to the AEA's mandate that, "the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding." 42 U.S.C. § 2239(a). Yet the AEA "does not confer the automatic right of intervention upon anyone." *Union of Concerned Scientists*, 920 F.2d at 55. Because the AEA itself "nowhere describes the content of a hearing or prescribes the manner in which this 'hearing' is to be run," *id.* at 53, we must defer to the operating procedures adopted by the agency, *see id.* at 54. Indeed, the Supreme Court has recognized "time and again" that "even where an agency's enabling statute expressly requires it to hold a hearing, the agency may rely on its rulemaking authority to determine issues that do not require case-by-case consideration." *Nuclear Info. Res. Serv. v. NRC*,

969 F.2d 1169, 1176 (D.C. Cir. 1992) (en banc). Indeed, “a contrary holding would require the agency continually to relitigate issues that may be established fairly and efficiently in a single rulemaking proceeding.” *Id.*

Similarly, with respect to NEPA, that statute “does not, by its own terms or its intent, alter the Commission’s hearing procedures The Supreme Court has been clear that ‘the only procedural requirements imposed by NEPA are those stated in the plain language of the Act.’ NEPA does not mandate particular hearing procedures and does not require hearings.” *Beyond Nuclear v. NRC*, 704 F.3d 12, 18–19 (1st Cir. 2013) (quoting *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 548 (1978)). And though NEPA “does impose a requirement that the NRC consider any new and significant information regarding environmental impacts before renewing a nuclear power plant’s operating license,” it “does not require agencies to adopt any particular internal decisionmaking structure.” *Massachusetts*, 522 F.3d at 127 (quoting *Baltimore Gas & Electric Co.*, 462 U.S. at 100). Because neither the AEA nor NEPA guarantees an absolute right to a hearing and neither dictates how the Commission should determine who receives a hearing, NRDC’s reliance is misplaced. If every party challenging a generically resolved issue on the basis of “new and significant information” were guaranteed a hearing, the Commission would have no ability to streamline its relicensing process via generic rulemaking. And “the Supreme Court has found agency reliance on prior [generic] determinations to be perfectly acceptable, even when the statute before it plainly calls for individualized hearings and findings.” *Nuclear Info. Res. Serv.*, 969 F.2d at 1175 (listing Supreme Court cases).⁵

⁵ NRDC’s reliance on *Union of Concerned Scientists v. NRC (USC I)* also fails. 735 F.2d 1437 (D.C. Cir. 1984). In that case, the

Existing precedent further bolsters the Commission's position that generically resolved issues need not be fully reconsidered at relicensing to comply with NEPA's "hard look" requirement. For instance, in *New Jersey Department of Environmental Protection v. NRC*, the Third Circuit considered whether the NRC, when reviewing a relicensing application, had to examine the environmental impact of a hypothetical terrorist attack on a particular plant. The court concluded "[e]ven if NEPA required an assessment of the environmental effects of a hypothetical terrorist attack on a nuclear facility, the NRC has already made this assessment The NRC rules codify these generic findings, and by regulation, license renewal applications are excused from discussing generic issues in their environmental reports." 561 F.3d at 143. The appellant in that case still attempted to argue that NRC's generic findings did not properly account for the unique risks borne by that particular plant. But the Third Circuit rejected these arguments as "collateral attacks on the licensing renewal regulations" and concluded "the proper way to raise them would have been in a petition for rulemaking or a petition for a waiver based on 'special circumstances.'" *Id.*

Commission postponed its evaluation of emergency preparedness exercises to the post-adjudicatory phase of licensing and, in doing so, removed the public's ability to seek a hearing on that issue. This court reversed, holding the Commission had lacked authority to eliminate hearings on issues it conceded were material to its licensing decision. *See id.* at 1447. But the regulation in that case prohibited hearings *without* resolving the underlying issue in a generic rule—a process which affords the public an opportunity to comment during the rulemaking. Because the *USC I* framework is inapt here, we rely instead on precedents that address the Commission's authority to resolve material issues generically rather than on a case-by-case basis. *See, e.g., Nuclear Info. Res. Serv.*, 969 F.2d at 1176; *Massachusetts*, 522 F.3d at 127.

For all practical purposes, this case cannot be distinguished. Here, an NRC regulation excludes plants like Limerick from conducting a subsequent SAMA analysis; NRDC argues that this general regulation does not account for new circumstances. Such an argument similarly amounts to a collateral attack on the agency's regulation—an attack which should properly have been brought through a rulemaking petition or via the waiver process.

The Supreme Court in *Baltimore Gas & Electric Co.* considered a similar issue: there, NRC had chosen to generically evaluate the impact of fuel cycles and to inform licensing boards of its evaluation through a published table. This process was challenged as improperly forgoing any plant-specific analysis. But the Court upheld NRC's determination: "The generic method chosen by the agency is clearly an appropriate method of conducting the hard look required by NEPA." 462 U.S. at 101. The Court noted that generic resolution furthers "[a]dministrative efficiency," and cautioned "[i]t is not our task to determine what decision we, as Commissioners, would have reached. Our only task is to determine whether the Commission has considered the relevant factors and articulated a rational connection between the facts found and the choice made." *Id.* at 105. Here, NRC considered whether additional site-specific SAMAs would be efficacious, concluding that they would not. This decision was rational, supported by facts, and similarly sufficient to satisfy the Commission's "hard look" obligation under NEPA with respect to plants like Limerick.

Finally, in *Massachusetts v. United States*, the First Circuit confronted a challenge to NRC's global findings regarding the storage of spent fuel on site at a nuclear plant. The Commonwealth contended, as NRDC does here, that "it may raise [this] issue in the re-licensing proceeding and that [the

company's] report violated NEPA and 10 C.F.R. § 51.53(c)(3)(iv) because it failed to address 'new and significant information' regarding the risk of on-site spent fuel storage." 522 F.3d at 122. Because on-site storage was classified as a Category 1 issue under its regulations, NRC denied the Commonwealth intervenor status and encouraged it to pursue the issue via a petition for rulemaking. The court held "the Commission's decision to deny party status to the Commonwealth in the . . . license renewal proceedings [was] reasonable in context, and consistent with agency rules." *Id.* at 127. The court also emphasized that, as here, NRC regulations "provide channels through which the agency's expert staff may receive new and significant information, namely from a license renewal applicant's environmental report or from public comments on a draft SEIS." *Id.*

NRDC brushes aside these cases as distinguishable because the issues there fell squarely under a "Category 1" classification. But, at bottom, NRDC is challenging Rule (L) itself as the organization has raised only issues precluded by this regulation. Whether the SAMA analysis is considered as a proper "Category 1" issue for plants like Limerick or rather as a "functional equivalent," the principle remains the same: NRDC cannot challenge an agency's rulemaking via collateral attack, absent a waiver. Moreover, NRDC has not been denied full access to litigate these issues; no party has an unequivocal right to a hearing on any terms before the Commission, and NRDC has been free all along to seek a waiver (as it did) or to pursue its contentions through rulemaking. The Commission has spoken to NRDC's precise contentions through a notice-and-comment generic rule concerning a matter squarely within the agency's expertise. We therefore uphold the Commission's interpretation and invocation of Rule (L).

B.

Having concluded the Commission's interpretation of Rule (L) is reasonable and NRDC can only proceed if it receives a waiver, we now consider whether NRDC's petition for waiver was properly denied. The Commission's determination is entitled to deference as long as it was not arbitrary and capricious. *See, e.g., Baltimore Gas & Electric Co.*, 462 U.S. at 98. Under 10 C.F.R. § 2.335(b), a party is entitled to waiver only if it can prove "special circumstances" justify suspension of the rule. The Commission has adopted a four-factor test for assessing special circumstances. A movant must show "that (i) the rule's strict application would not serve the purposes for which [it] was adopted; (ii) the movant has alleged special circumstances that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived; (iii) those circumstances are "unique" to the facility rather than common to a large class of facilities; and (iv) a waiver of the regulation is necessary to reach a significant safety problem. . . . For a waiver request to be granted, *all four factors* must be met." *Millstone*, 62 N.R.C. at 559–60.

Here, the Commission's decision rested on the third factor of "uniqueness." In *Millstone*, the Commission found that considerations such as proximity of the plant to an adjoining state and changes in demographics and roadways around the plant were "hardly unique" as these were "important but common problem[s] addressed by the NRC's ongoing regulatory program." *Id.* at 562. Other circuits have upheld the Commission's denial of waivers on a similar basis. *See, e.g., Massachusetts*, 708 F.3d at 74 (holding that, because the concerns raised by spent fuel cell storage "applied to all nuclear power plants," the claims were best handled through rulemaking).

In this case, NRDC raised claims of newer, more efficacious technology developed since 1989 for boiling water reactors like Limerick. It also pointed to demographic changes around the plant (such as increased population and changed economic circumstances). But—as in *Millstone*—these concerns are applicable to many, if not all, other plants that would be seeking relicensing after a twenty-year period. **[JA 393]** The Commission therefore denied the petition for lack of “unique” application. That reasonable determination is entitled to deference from this court.

As a final note, NRDC’s aims are ultimately best served by pursuing a rulemaking to challenge Rule (L), as the Commission has urged. Although rulemaking is far from the fastest route, it has transparency, extensive public input, and broad application to recommend it. As it stands, however, we conclude the Commission’s interpretation and application of Rule (L) in the Limerick relicensing proceeding was reasonable and cannot be challenged through NRDC’s collateral attack.

V. Conclusion

For the foregoing reasons, the petition is

Denied.