

# THE BIG MOAT

## How NRC Rules Suppress Meaningful Public Participation In NRC Regulatory Decision-making

Prepared Statement of  
Christopher Paine<sup>1</sup>  
Nuclear Program Director  
Natural Resources Defense Council

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Chairman McFarlane, members of the Commission, thank you for this opportunity to present the views of the Natural Resources Defense Council regarding the Commission's standing and contention admissibility requirements. In doing so, I will not limit my remarks to these requirements alone, but rather comment on their role within the wider web of restrictive NRC rules that reduce meaningful public participation in the Commission's efforts to ensure nuclear safety, and thereby, I believe, hinder those efforts.

In all candor, my first instinct was to turn down your invitation to appear today, as I found it difficult to summon the conviction that anything I, or any other public interest representative says today will have a beneficial impact. But NRDC has a long history of constructive engagement, even as the Commission in recent decades has come to resemble a medieval fortress, surrounded by a wide and deep moat of rules to keep unruly citizens at bay.

Other meetings like the present one have been held over the years, accompanied by rhetoric about the importance of "public participation" to the Commission's work, but in that period the rules governing public participation have only become *more* exclusionary, the last major revision being in 2004, when the Commission curtailed the use of trial-type procedures in adjudicatory public hearings.

I think we may have divergent views about what the phrase "public participation" means. Judging by their public statements and actions over the last quarter century, the dominant view among Commissioners and Staff seems to be that "public participation" is either a legal necessity foisted on the agency by the vestiges of the original Atomic Energy Act of 1954, or a useful component of an overall public communications strategy geared to reassuring the public that nuclear power plants—even aging obsolescent ones—are safe. In this view, public participation in informational and "limited-appearance" type meetings, where NRC representatives listen and occasionally respond to citizen safety and environmental concerns, is intended to give the public

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<sup>1</sup> For further information, contact: [cpaine@nrdc.org](mailto:cpaine@nrdc.org)

a reassuring glimpse into the regulatory process ongoing in the background, in which the NRC's vigilance and expertise will continue to keep nuclear power plants safe.

Since the plant license holder or applicant usually mobilizes its own employees and boosters in the community to attend such meetings, the NRC can almost always count on a polarized audience voicing generalized and sometimes not terribly well-informed sentiments, pro and con, about nuclear energy. Little if any informed discussion of specific nuclear safety or environmental issues occurs in such meetings. Nor do I believe that NRC Staff leave such meetings with a heightened respect for the contribution of the public to the licensing process.

Unlike many other federal agencies with statutory mandates that include the public—via citizen suit provisions—as a *partner* in achieving compliance with the statute, the Commission's statutory authority does not assign a direct role to the public in enforcing its regulatory requirements, which by law must ensure adequate protection of the public health and safety against radiation hazards from the licensed civilian uses of nuclear energy. Instead, the role envisioned under the AEA is for members of the public, including representatives of state, local, and tribal governments, to bring their concerns regarding compliance with the NRC's statutory mandate and regulatory requirements *into the Commission's licensing and rulemaking processes, where these concerns can be fairly adjudicated*. Unfortunately, as demonstrated by the Staff's near perfect alignment with industry in opposing citizen petitions to intervene in licensing proceedings, the Commission today seems to have strayed quite far from the intent of this statutory framework, which was designed to allow contending views of nuclear hazards and risks to be fully explored and adjudicated in a quasi-judicial proceeding.

### **I. Current NRC Rules are Hostile to Public Participation in Licensing Proceedings**

In setting forth the basis for our view that there is a pervasive bias in NRC rules against public intervenors, I begin with the hearing request process itself. Following the Notice of Opportunity for hearing in the *Federal Register*, a prospective petitioner who believes [s]he may have an affected interest in the proceeding has only *60 days* in which to: (1) study the voluminous license application and draft environmental report; (2) investigate any safety and/or environmental concerns they have identified in the report; (3) document his/her standing to pursue these concerns; (4) draft admissible safety and/or environmental contentions; (5) seek out technical declarations from experts to support these contentions, (6) hire expert legal counsel to frame “with specificity” the contentions and their legal bases in ways that satisfy all the “strict-by-design” pleading requirements of 2.309 (f). All this, within 60 days. It's little wonder that few prospective public intervenors are able to surmount these initial obstacles, and most don't even try.

Meanwhile, long before the hearing notice, the Staff will have been engaged with the Applicant in a multi-month to multi-year iterative coaching process with respect to the forthcoming application, including numerous exchanges of proprietary documents not available to the Petitioner. But despite its superior access to information and expertise regarding the application, the Staff is excused from taking a position on the application until it issues its final environmental report and final safety evaluation, which often occurs *a year or more after* the first notice of opportunity for hearing is filed.

So the Petitioner—the prospective party to the proceeding with the least information about the docketed application—is required to demonstrate *in advance*, with “*particularity*,” and *prior to discovery or mandatory disclosures of any kind*, that it has a case of sufficiently substantive merit that it should be allowed to proceed to a hearing. This is a high burden and one that has been contentiously wrangled over in numerous ASLB and Commission decisions. Meanwhile the Staff, which is far better informed about the application, is allowed to withhold *significant elements of its analysis* regarding the application.

While it’s true that once a contention is accepted, the Staff is under obligations to produce documents pursuant to both 10 C.F.R. § 2.336(b) and § 2.1203, such a situation emerges only after Staff has joined industry in opposing admission of the contention in the first instance. And while some of what transpires between applicant and staff prior to the admission of a contention is potentially available, albeit through unreliable searches on ADAMS, the significant burdens of tracking items of interest in a sea of paper rests entirely on the public (and for the long stretch of time when it’s not apparent whether the application will even be filed). And reiterating the point above, the Staff generally joins the Applicant in opposing the petitioners’ proposed contentions for failing to satisfy each of the requirements (i)-vi in §2.309 (f). Further, even when the Staff agrees with the Applicant’s position in all significant respects, Staff is entitled to file its own briefs and motions aimed at excluding the petitioner, to which the petitioner must respond, so it is two-against-one from the very outset.

With the Staff and applicant both working to demonstrate the petitioners’ inability to satisfy the “strict-by-design” contention admissibility requirements of 10 C.F.R. § 2.309(f), the rules of the game as described above place heavy burdens and expense on any citizen petitioner, but especially on those without financial resources and specialized legal representation. Other inequities exist as well. On the one hand, the content of a petitioner’s initial pleading is essentially frozen based on the limited information available to it within the 60-day window (following a hearing opportunity notice), a window that is realistically somewhat shorter given the need to “fly-speck” the petition into final form so that it is not tripped-up by technicalities. On the other hand, it is common that the docketed application continues to evolve, as the applicant responds to Requests for Additional Information (RAIs) from the Staff, and/or the Applicant amends the application to fill gaps in the version that was initially accepted for docketing.

There are no restrictions on when, or how many times, an applicant may file a license amendment, or when the Staff must complete its safety and environmental reviews, or the number of supplements it may file to its environmental analysis. But under the current rules, any admitted or prospective intervenor desiring to take issue with a late-filed license amendment, or additional information supplied by the Applicant, bears the asymmetrical burden of having to file a motion with the Board, typically within ten days of the “triggering event,” justifying each such “late-filed” contention by addressing eight separate factors that the Board must “balance” in determining whether or not it should be admitted.

Assume for a moment that a petitioner surmounts all these hurdles and convinces a licensing board to grant standing and at least one admissible contention – a fairly rare event, statistically

speaking. What happens then? Under current rules, the Applicant is entitled to an immediate interlocutory appeal of the board's ruling to the Commission on the question of whether the petition should have been wholly denied (but the intervenor has no right to appeal unless the entire petition was denied, essentially leaving rejected contentions for review only after the entire hearing process has been completed), and here again the Staff is allowed to weigh-in as though it were a separate party, but invariably, aligning itself with the applicant.

This second round of double-teaming means more briefing and more legal expenses for petitioners who, should they finally prevail on these preliminary matters, still find themselves just at the starting line of a proceeding on the substantive merits of their contention(s), but having already spent many tens of thousands of dollars. All this unproductive procedural wrangling consumes many months or even years, taxing the resources of all parties involved, but especially citizen intervenors, while taxpayers (via applicants' tax-deductible litigation expenses), electricity users, including intervenors (via electricity rates) and mandatory fees from license holders finance a veritable beehive of legal talent to represent nuclear licensees and the Staff.

While it should be obvious that NRDC believes a major reform of NRC rules affecting intervenors is called for, this does not seem a likely prospect. But as a matter of elemental fairness, I commend to you this immediate and simple reform: in matters where the Staff agrees with any other party, including the Applicant, the Staff be compelled to file joint motions and briefs, thus reducing the inequitable burden on the petitioner to respond to multiple slight variations in the same basic arguments for excluding petitioners from the licensing process. This rule already applies to all intervenors, regardless of whether they are private citizens, sovereign states, local governments or Indian Tribes by requiring that they be consolidated for all purposes on any issue on which they take the same position.

## **II. The Commission's NEPA Regulations Deprive States, Local Jurisdictions, Indian Tribes and Ordinary Citizens of the Due Process Rights Guaranteed Them Under NEPA and the APA**

Now I would like to draw your attention to a violation of due process buried within the current rules. It involves the Commission's treatment of the NEPA. In the case of almost every other agency I can think of, draft and final environmental impact statements must be produced on a timetable that allows the environmental considerations explored therein to be commented upon by the public and considered on a schedule that meaningfully informs agency decision-making with respect to the proposed action. CEQ rules prohibit the *ex post facto* use of environmental impact statements to justify decisions already taken.

As you know, this requires the agency to determine—early in the agency's decision process and with public input—the appropriate scope of its required environmental analysis, after which it prepares a draft statement for public comment outlining various reasonable alternatives for implementing its proposed action that would either prevent, reduce, or mitigate harmful environmental impacts, and identifying the agency's preferred alternative, if it has one. Then typically at least 30 days prior to any formal "Record of Decision" to move forward with implementing the proposed action, the Agency must issue a final environmental impact

statement that responds to the public comments received, and identifies any changes to the draft analysis or preferred alternative.

In contrast to this typical federal agency procedure—which guarantees, to those who can show they might be harmed by an agency action predicated on a flawed NEPA analysis, the right to challenge it in federal district court—the Commission’s rules *routinely deny this right* to any state or local jurisdiction, membership organization, or private citizen who has not *previously gained party status at the outset of the licensing proceeding* with at least one admissible contention based on a “genuine dispute” with the *applicant’s environmental report* on a “material issue of law or fact.” The obvious logical and legal difficulty here is that the applicant is not bound by NEPA, and thus all arguments regarding the admissibility of the contention must be framed *as though* the Licensee’s environmental report were *the future draft* of an EIS prepared by NRC Staff.

Aside from broadcasting the rather unflattering impression that *licensees* rather than NRC staff are actually the ones preparing the regulator’s own “hard look” at the environmental consequences of its licensing actions, this onerous requirement compels already overcommitted and underfinanced state and local officials, and others who are primarily concerned about local and regional environmental impacts, to commit significant legal resources to gain entry into the licensing process at the outset—in some case years earlier than necessary—if they want to protect their future appeal rights under NEPA. Comments on the EIS from non-parties to the proceeding, who are boxed out of pursuing their environmental concerns in the Court of Appeals, are particularly susceptible to being ignored by the Commission

While State and local officials and tribes, within whose jurisdictions the license applicant’s facility is located, are granted standing by rule, this does not help them that much, as they and all other persons with environmental concerns must still surmount all the previously enumerated procedural hurdles to achieving an admissible contention, even if they have less interest or expertise or resources to expend in the nuclear safety aspects of the proceeding. But once again, this is only the beginning of their burden.

When an actual draft or final EIS is eventually produced by NRC Staff, parties to the proceeding may file new or amended contentions regarding this new document only to the extent that there are “data and conclusions in the NRC draft or final [EIS], environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant’s documents.” This requirement would appear to put a potentially *error-inducing* premium on the Staff’s EIS to demonstrate *consistency* with an Applicant’s flawed environmental report, thereby insulating the EIS from further challenges. In other words, flaws not previously identified by intervenors in the ER *may actually be preserved and replicated* in the EIS, with the official endorsement of the NRC’s own rules.

If they fail to satisfy this (dysfunctional) criterion, public intervenors may file new or amended contentions “only with leave of the presiding officer,” upon a showing that the contention is based on information that was not “previously available,” is “materially different than information previously available,” and has been submitted “in a timely fashion based on the

availability of the subsequent information.”<sup>2</sup> We fail to see the beneficial purpose to be served by such nit-picking exclusionary rules. Why does the Commission require exclusionary rules that sweep issues off the table before your ASLB panels can adjudicate them? Indeed, such rules artificially constrain adjudication of the merits of environmental issues surrounding the start-up or extended operation of nuclear power plants and other production and utilization facilities. A proliferation of procedural rules designed to bat away issues before they can be considered on their merits lends credence to the supposition that the Commission is afraid to let ASLB judges do the work that Congress envisioned for them.

### **III. Current NRC Rules Infringe Upon the Letter and Clear Legislative Intent of the Atomic Energy Act (AEA)**

Twenty-four years have passed since the Commission adopted rules curtailing the public’s access to the reactor licensing process. A number of public interest organizations objected to these rule changes and challenged them at the time, leading to a unanimous Court of Appeals ruling in 1989 that the Part 52 rules contravened the plain language of Sections 185 and 189 of the Atomic Energy Act (AEA), by illegally depriving the affected public of the right to be heard on significant new safety issues before newly-constructed power plants are permitted to operate.

This unanimous panel decision was later reversed by a split 6 – 4 vote of the full Court of Appeals in 1991, with five of the six majority votes coming from Reagan-Bush appointees to the Court. The majority found that because the AEA “provides no unambiguous instruction as to how the ‘hearing’ is to be held,” the Commission therefore has broad discretion to determine what issues should be heard at each stage of the licensing process, and can rely on prior administrative determinations that a plant is safe as the basis for eliminating public hearing rights. In the majority’s view, this discretion to deny a public hearing extends even to consideration of significant new safety issues that the Commission itself determines could not have been raised in prior proceedings. Such consideration can be ensured, the majority reasoned, because “Part 52 employs § 2.206 not as a means for requesting enforcement,” [where the court agreed petitions “do fall within the unreviewability presumption of *Heckler v. Chaney*”] “but as an integral part of the licensing process itself.” Thus, “we think that Commission action on § 2.206 petitions authorized by Part 52 is judicially reviewable.”<sup>3</sup> Because we have not yet reached the post-construction phase for a reactor with a COL license, this unusual feature of the court’s ruling has yet to be tested.

Fortunately for the public, the *en banc* majority did not rule on the validity of a Staff-proposed interpretation of Sec. 189—that the affected public receives a “hearing” within the meaning of Sec. 189 whenever a 2.206 petitioner sends a letter to the Commission and receives a response back!

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<sup>2</sup> 10 C.F.R. § 2.309 (f) (2), (i) – (iii).

<sup>3</sup> *Nuclear Information and Resource Service v. NRC*, 969 F.2d 1178-80 (D.C. Cir. 1992) (*en banc*), cited in E. R. Glitzenstein, “The Role of the Public in the Licensing of Nuclear Power Plants,” in *Controlling the Atom in the 21st Century*, D.P. O’Very, C. E. Paine, and D.W. Reicher, eds. Westview Press, 1994, at 173-174.

NRDC's view is that both the letter and legislative history of the AEA of 1954 establish that, in partial compensation for the exclusive authority granted the federal government to regulate the radiation hazards from licensed civilian nuclear power generation, Congress intended Sec. 189 (a) (1) (a) to confer upon states, municipalities, and indeed "any person whose interest may be affected by" the Commission's licensing and rulemaking proceedings, an opportunity upon request to be admitted as parties to those proceedings in order to adjudicate their concerns.

"In *any* proceeding under this chapter, for the granting, suspending, revoking or amending of any license or construction permit, or application to transfer control, and in *any* proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees...the Commission *shall* grant a hearing upon the request of any person whose interest may be affected by the proceeding, and *shall* admit any such person as a party to such proceeding."<sup>4</sup>

The italicized portions of the excerpt clearly indicate that Congress intended this public hearing opportunity to be a *non-discretionary duty* of the Commission. The provision does not say the Commission "may" grant hearing requests from persons whose interests may be affected by its licensing and rulemaking proceedings. And it does not say the Commission "may" admit them as parties to licensing proceedings. In both instances it says the Commission "shall" do so.

Moreover, if Congress had intended to give the Commission unlimited discretion to pile up exclusionary rules transforming the plain language meaning of the word "request" into "a request meeting any and all tests that the Commission chooses to apply," *thereby effectively denying persons with affected interests access to licensing proceedings*, why would Congress have specifically authorized [Sec. 192] the creation of "one or more atomic safety and licensing boards" to assist the Commission in conducting these very proceedings?

Can any Commissioner today honestly opine that in authorizing creation of the ASLB structure, the intent of Congress was to have the boards spend a large part of their time adjudicating, not the merits of substantive nuclear safety issues, but rather the public's inability to surmount an ever expanding series of procedural obstacles to gaining a hearing? Such an interpretation of the Commission's statutory mandate makes no historical or political sense, and is contrary to the plain language of the statute.

Congress further directed that on each panel, one member "shall be qualified in the conduct of administrative proceedings," and the other two "shall have technical or other qualifications as the Commission deems appropriate to the issues to be decided." Clearly, Congress intended these boards to be conducting the important work of adjudicating substantive contested safety issues brought to the Commission's attention via the public hearing process created under Sec. 189. Instead, boards today are compelled to spend much of their time determining what part, if any, of a prospective party's petition will fit through the eyes of multiple procedural needles.

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<sup>4</sup> 42 U.S.C. 2239

#### IV. The Myth of the Vampire Intervenor

The arguments above notwithstanding, we are obviously cognizant of the fact that, responding to the economic, managerial and regulatory failures of the first nuclear build-out in the 1980's, Congressional nuclear power proponents in the early 1990's adopted the mistaken view that the root cause of these failures was protracted delay in plant licensing caused by public intervention in the hearing process. As documented in your own General Counsel's background memo prepared for this meeting, members and staff of the Commission at the time did much to promote this fashionable, but factually and historically incorrect view.

Specifically, the memo fails to cite a single documented historical instance in which the number of public hearing days occasioned by public intervention in a license proceeding significantly delayed the granting of a license. Instead, tagging public intervenors as the root cause of delay is stipulated as an onerous reality to which the Commission was forced to respond, as though it were irrefutable truth. We suggest today that it's high time to dispense with the myth of the vampire intervenor.

While I am certain an examination of the historical record can turn up examples of frivolous or ill-informed contentions, I think everyone in this room is aware that the vast preponderance of delays encountered in the last nuclear build-out were the result of: (1) real and significant problems with the design and construction of the units; (2) the filing of incomplete applications, thereby triggering numerous revisions, amended contentions, and long delays while the applicants supplied information responsive to the Staff's queries and filled intervenor-identified gaps in the license applications; (3) chaotic record-keeping of inspection and test results essential to a determination that the plant would be safe to operate; (4) the need to incorporate post-TMI safety upgrades; (5) the Commission's insistence on postponing resolution of emergency planning issues to the operating license phase (6) managerial incompetence on a grand scale by TVA and other utility organizations with no prior experience with nuclear power. One could go on and list even more reasons, *none of which have to do with the basic mechanics and scheduling of public participation in the licensing process.*

Far from obstructing Commission efforts to ensure nuclear safety, public intervenors have made, and—if allowed renewed meaningful opportunities to participate—would continue to make significant contributions to nuclear safety. A number of ASLB judges have gone on record over the years in support of this exact point.<sup>5</sup>

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<sup>5</sup> A former chief of the Atomic Safety and Licensing Board, B. Paul Cotter, Jr., outlined the value of public participation in 1981: "(1) Staff and applicant reports subject to public examination are performed with greater care; (2) preparation for public examination of issues frequently creates a new perspective and causes the parties to reexamine or rethink some or all of the questions presented; (3) the quality of staff judgments is improved by a hearing process which requires experts to state their views in writing and then permits oral examination in detail...and (4) Staff work benefits from [prior] hearings and Board decisions on the almost limitless number of technical judgments that must be made in any given licensing application." "Memorandum to Commissioner Ahearne on the NRC Hearing Process," May 1, 1981, at 8. as quoted in E. R. Glitzenstein, "The Role of the Public in the Licensing of Nuclear Power Plants," in

## V. Legislating the Part 52 Rules – A Self-Inflicted Wound for Nuclear Safety

While the vampire intervenor is a myth, proponents in the Senate in the early 1990's correctly perceived that absent new statutory authority, a future Court of Appeals might find the *combined effect* of then recent Commission rule changes – the tightened Part 2 rules on contention admissibility (August 1989) and Part 52 rules limiting public opportunities to contest construction and operation of new power plants (April 1989) – to be in violation of Sec. 189 (a). So they used the Energy Policy Act of 1992 to amend Sec. 189 to conform it to Part 52's curtailment of the public's right to a post-construction hearing, with respect to "all proceedings involving a combined license for which an application was filed after May 8, 1991."<sup>6</sup>

There is no doubt that the 1992 *Energy Policy Act* modifications to the AEA altered the public's ability to get an adjudicatory hearing on contested issues when the matter involves the suitability for operation of new reactors constructed pursuant to a COL license.<sup>7</sup> The bar to adjudication of *nuclear safety issues* in this context is now so high that the rules actually jeopardize adequate protection of the public health and safety.

Once again, *within only 60 days* from the publication of a notice of intended operation in the Federal Register, a person seeking a hearing must not only meet all the Commission's usual "strict by design" contention admissibility requirements, but must also, *before discovery of any kind*, "show, *prima facie*, that one or more of the acceptance criteria in the combined license have not been, or will not be met, and the specific operational consequences of nonconformance that would be contrary to providing reasonable assurance of adequate protection of the public health and safety."

Even if the unlikely event a petitioner is able to surmount these demanding hurdles, the amended statute says the Commission is free nonetheless to "either deny or grant the request" for a hearing—a decisive departure from the original hearing mandate under Section 189 (a)—and the statute itself contains no additional criteria on which to base a claim that the Commission has abused its discretion in rejecting such a request.

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Controlling the Atom in the 21st Century, D.P. O'Very, C. E. Paine, and D.W. Reicher, eds. Westview Press, 1994, at 161. In 2008, Judge Michael Farrar, an NRC Judge for over thirty years, reaffirmed the valuable contribution public participation can make to the licensing process: "The Petitioners were instrumental in focusing the Board's attention on the troubling matters discussed above. That they did so is a testament to the contribution that they, and others like them, can make to a proceeding. Moreover, in doing so they often labor under a number of disadvantages." In the Matter of Shaw Areva Mox Services (Mixed Oxide Fuel Fabrication Facility), LB-08-11, Docket No. 70-3098-MLA, at 49 (June 27, 2008) (Farrar, J., concurring).

<sup>6</sup> 42 U.S.C. 2235.

<sup>7</sup> Public hearing opportunities for all other licensing proceedings remain governed by the provisions of Section 189 (a) (1) A, which opportunities the Commission seems determined to erode by prejudicial employment of its rulemaking powers.

The Part 2 contention admissibility rules continue where the statute leaves off, further specifying that any request for a post-construction COL hearing “must include the specific portion of the report [from the licensee to the Commission] required by 10 CFR § 52.99 (c) which the requestor believes is inaccurate, incorrect, and/or incomplete. If the requestor identifies a specific portion of the § 52.99 (c) report as incomplete, and the requestor contends that the incomplete portion prevents the requestor from making the necessary *prima facie* showing, then the requestor must explain why this deficiency prevents the requestor from making the *prima facie* showing.”<sup>8</sup>

There are a number of obvious Catch 22’s with this particular requirement. The content of the §52.99c report is not specified by statute, and is only vaguely described in the rule, so it is difficult to imagine how a requestor could objectively demonstrate that any “specific portion” of the report is “incomplete,” other than to claim that certain ITAAC results are entirely missing from the “report.” In fact, § 52.99 (c) actually refers to this “report” merely as a “notification” that “must contain sufficient information to demonstrate that the prescribed inspections, tests, and analyses have been performed and the prescribed acceptance criteria have been met.”

While this “notification” is supposed to be provided no later than 225 days before the scheduled date for initial fuel loading, it might easily be comprised of just a table or checklist showing when the required “inspections, test, and analyses” were conducted, and a brief comparison of the quantitative or qualitative results obtained with the agreed acceptance criteria. In other words, it may convey very little substantive information about *how* the ITAAC were satisfied, the specific inspection, test, and analytical methods used, or the sensitivity of these allegedly “passing” results to plausible variations in input parameters that could be experienced in real world reactor operation – for example, the specific gas pressures and mixtures of nitrogen-to-hydrogen used to leak-test piping or penetration seals in the primary containment may not match the gas/pressure conditions that would be experienced in an accident.

Moreover, under § 52.99 (c) (2), the required “notification” need only describe the “specific procedures and analytical methods” *to be used* in completing all necessary “inspections, test, and analyses” by any date “*prior to operation*” [emphasis added]. However, any petitioner, meanwhile, must file a hearing request within 60 days of a notice of intended operation, which in turn by statute must be filed “not less than 180 days before the date scheduled for initial loading of fuel into the plant.”

So in the best case, a petitioner for a hearing will have an additional  $225 - 180 = 45$  days to make sense out of the ITAAC “notification” report, on top of the usual 60 days to surmount all the other various hurdles to presenting an admissible contention by the hearing request deadline at 120 days prior to scheduled initial loading of the fuel. However, some or possibly even a large number of ITAAC results (that by rule must be specifically contested to gain a hearing) need only be completed “prior to operation,” and thus *may not even be available to the petitioner within the 60-day window for preparing a request.*

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<sup>8</sup> 10 C.F.R. §2.309 (f) (1) (vii)

Moreover, by rule a post-construction hearing request *may not be granted* if it is predicated on demonstrating nonconformance with an ITAAC that the Commission previously found, when it issued a COL license, to have been met earlier in a “referenced early site permit or standard design certification,” which itself may have been granted 15 years before the COL license.<sup>9</sup>

Under these rigidly constrained terms, the Commission is free to *bypass any post-construction hearing request raising a safety issue that is either outside the scope of acceptance criteria specified in the COL, or invokes criteria that the Commission has previously deemed to have been satisfied in a standardized design or early site permit proceeding*. This blinkered approach ignores an obvious and crucial variable – the passage of time can decisively alter both site environmental and emergency planning zone conditions, as well as our technical understanding of nuclear safety and security vulnerabilities.

For example, under current rules, *years-to-decades may elapse between the original design certification or grant of an Early Site Permit, and any notice of intended operation*. In the intervening years, significant new information might well have emerged showing that some modification to the site or the design is needed to ensure adequate protection of public health and safety or (in the face of terrorist threats) the common defense and security.

But in such a case, members of the public seeking to adjudicate their safety concern before a licensing board are invited to submit a 2.206 petition for enforcement action to the Staff, in response to which the Staff is obliged, “before the licensed activity allegedly affected by the petition commences,” to “determine whether any immediate action is required.” Even if the requestor’s petition is *granted*, the rule provides that “fuel loading and operation under the combined license will not be affected...unless the order is made immediately effective.”<sup>10</sup>

In sum, the Commission’s legal framework for contested post-construction hearings for COL-licensed facilities is designed to *discourage* and *prevent* “public involvement” in the licensing proceeding, even in the face of serious safety concerns.

## **VI. Boxing Out the States**

The “strict-by-design” contention admissibility requirements, combined with the Commission’s significant curtailment in 2004 of the right to employ trial-type procedures in adjudicatory hearings, raise an interesting question regarding the Commission’s hearing obligations to the States.

Under Sec. 274 (1) of the AEA, the Commission is directed to “afford reasonable opportunity for State representatives to offer evidence, interrogate witnesses, and advise

<sup>9</sup> 10 C.F.R. 52.103, referencing 52.97 (a) (2)

<sup>10</sup> 10 C.F.R. 52.103 (f)].

the Commission as to the [pending license] application without requiring such representatives to take a position for or against the granting of the application.” Of course, state officials can only engage in such activities if *there is* an adjudicatory hearing process in which to exercise their “reasonable opportunity,” the hearing opportunity includes “witnesses,” and State representatives are allowed to “interrogate” them.

It would be interesting to know how many state officials today would agree that the contention admissibility requirements in § 2.309 (f) afford them a “reasonable opportunity” to participate in the type of adjudicatory hearing that Congress under this paragraph *was clearly assuming would be available to State representatives pursuant to Sec. 189 (a)*. Indeed, the current requirement under § 2.309 (d) (2) that a State desiring to participate as a party in a licensing proceeding must “show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact” *contradicts the right of States under Sec. 274 (l)* of the AEA to participate “without requiring such representatives to take a position for or against the granting of an application.”

Moreover, should the State representatives become admitted parties to an NRC proceeding, under the Administrative Procedures Act (APA), “a party is entitled to present his case or defense *by oral or documentary evidence, to submit rebuttal evidence, and to conduct such cross-examination as may be required for a full and true disclosure of the facts*” (emphasis added).<sup>11</sup>

The complicated NRC rules adopted in 2004, endowing the presiding officer with increased discretion to determine when and which trial type procedures may be used in a contested proceeding, could well conflict in their concrete application with this simple guarantee of a party’s rights under the APA.

## VII. Conclusion

The compartmentalized, tightly-choreographed, and exclusionary character of the current licensing process—in which critical safety determinations are made in disparate, narrowly-focused proceedings with multiple trails of cross-referenced documentation, separated in time, space, and never holistically revisited—increases the risk that serious issues will be overlooked, forgotten, or indeed never identified. But unlike the last big nuclear build out, today’s accretion of exclusionary rules ensures that few if any public interveners will be positioned within the process to force consideration of important safety issues that, for whatever reason, have slipped through the cracks in the Commission’s regulatory scheme.

Madam Chairman, members of the Commission, your licensing Boards are there for a reason. Let them do their work, probing the work of the Applicant and the Staff with the aid of informed and conscientious public intervenors. This was the AEA’s original design, and it is still the right one.

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<sup>11</sup> APA 5 USC 556.

## Acknowledgements

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## Appendix

### The Big Lockout

#### Disempowering Citizens from Acting on Their Own Behalf through the Licensing Process Reduces Society's Capacity to:

- **Uncover and Eliminate Potential Precursors to a Nuclear Accident;**
- **Identify and Adopt New Measures to Limit an Accident's Severity and Mitigate Its Consequences; and**
- **Avoid, Contain, or Mitigate Harmful Environmental Impacts from Routine Operations.**

One way to grasp the potential cumulative impact of the NRC's rules restricting public participation is to consider a hypothetical licensing situation at a particular site as it plays out over an extended period of time. The point of this thought experiment is not to assert that the hypothesized sequence of events *will* happen or is even *likely* to happen. The NRC has monitoring and enforcement mechanisms outside the licensing process that are designed to avert such worst-case outcomes.

Rather the point is to demonstrate how the NRC's demanding contention admissibility and other requirements for participation in the licensing process, in concert with the segmented Part 52 licensing process itself, undermine the public's right to meaningfully participate in NRC licensing proceedings, up to and including judicial review of the agency's decisions, and that abetting this participation would make the scenario *less likely* to happen. In other words, the current suite of NRC rules *disempowers citizens* who are concerned enough about protecting their communities and natural resources that they seek to have their concerns adjudicated within the NRC's licensing process.

Let us stipulate that in the year 2013, "ABC Nuclear Engineering, Inc." receives a "standard design certification" in a generic rulemaking for a new modular multi-unit nuclear plant design that has never been constructed before. It is strictly a conceptual design, defined by computer simulations of core behavior and CAD modeling of its major design elements. No utility or merchant generator has either ordered or expressed any intention to build this design. The design certification expires in 2028, but can be "renewed" for another 15 year period, and stays in effect while a renewal is under review. But natural gas prices plummet and ABC puts its certified design on the shelf and waits for a more favorable price environment for nuclear.

*Let us further stipulate that five years earlier, in 2008,* merchant generator “DEF Nuclear, LLC” sought and received an Early Site Permit to locate a new unit at its existing site on Lake Arabella, an artificial cooling lake somewhere in the mid-South that already has two older nuclear units coming up for license extension within the next 15 years. DEF Nuclear negotiated with several vendors at the time who were seeking standard design certification, but could not come to terms on price, and some of the vendors looked incapable of delivering a producible certified design in any case. Natural gas prices plummeted and looked to stay low for a long time, so DEF Nuclear filed away its ESP, which is good until 2028. It can be renewed for another 20 year term, and the existing permit stays in effect while the renewal request is under NRC review.

*Skip ahead 15 years.* Natural gas prices are on the rise again, and DEF Nuclear dusts off its ESP at Lake Arabella and shops around for a unit that fits within the “environmental envelope” approved for the site 15 years earlier. Lake residents are already on edge and reeling from a peculiar experience. The two nearly 40 year old reactors have recently experienced tritium leaks, breaks in steam generator tubing, and numerous unplanned shutdowns due to faulty electrical systems that triggered the startup of backup power systems that failed to operate properly. To their surprise, when they sought a public hearing on the problems at the plant in connection with license renewal, they were told that *their safety concerns had nothing to do with the license renewal proceeding and would not get a hearing*, but they were encouraged to write letters drawing the NRC’s attention to their concerns. The letters were duly written, but nothing in particular happened in response, and the operating licenses for the two older units were duly extended for 20 years, *without any requirement or commitment to install new safety equipment*. Instead, the company pledged to vigorously pursue multiple programs for “aging management” of its safety-related systems and components. DEF Nuclear was pleased with the outcome, as it freed up corporate funds that could be directed toward building a new unit at the site.

*It’s now 2023.* ABC Nuclear Engineering, Inc. has gone out of business, but a small group of its former employees retain the rights to its “certified design,” which DEF Nuclear LLC manages to license for a song. DEF Nuclear then submits a COL application to the NRC *referencing this 10 year old design*, which it plans to build at its Lake Arabella site, *referencing its 15 year old ESP*.

Lake residents who are concerned about the construction of a third nuclear plant in their community, right next door to the old nuclear units, seek to intervene in the COL proceeding. They are relying on the concerns expressed by a retired nuclear engineer who lives at the lake, who has done some back-of-the-envelope calculations regarding the safety of this little known and never-built design. But when they seek a hearing, they are told the NRC made a final design decision certifying the safety of this design a decade ago, and *the matter of its safety cannot be reopened in a COL proceeding*.

When other experts, from the State DEQ, advise Lake residents that an additional nuclear unit drawing water from the lake for cooling will overtax its heat dissipation capacity—leading to unhealthful elevated lake temperatures during the summer months when their children are most likely to be in the water, as well as low lake levels during drought conditions that could jeopardize competing downstream uses—they are told that *this issue was resolved 15 years and is no longer a suitable subject for a contested hearing*.

When the local county board points to a significant increase in year-round population around the lake, and a major influx of summer residents, and suggests the existing county road network may not be able to handle the sudden traffic flow required for timely evacuation in a severe accident, *they are told this issue too was “resolved” many years ago in the ESP proceeding, and cannot be reopened now.*

*In 2025*, the NRC issues DEF Nuclear, LLC a combined license to construct and operate a new plant at the Lake Arabella site, which license “references” the design certified 12 years before and the ESP approved 17 years earlier. All the members of the NRC team that worked on the safety certification of this particular design have since retired or left the agency. Ditto for the ESP, which had progressed through so many post-docketing iterations en route to approval that public intervenors had given-up trying to keep-up with the changes. But the new design fits within the “environmental envelope” approved by the ESP, so there is no fresh consideration of the suitability of this site to accommodate *the particular characteristics* of the certified design. Construction of the new units goes ahead, but deployment is in individual silos without the massive reinforced concrete “base mat” that the 17-year old ESP assumed would mitigate the seismic hazards of this particular site.

*In 2030*, five years into construction, the aforementioned retired nuclear engineer hears from a Chinese colleague regarding a similar prototype design that has just started-up in China. The colleague’s information raises concerns regarding the safety characteristics of the Lake Arabella units in certain off-normal operating conditions. But when Lake residents request a hearing on these safety concerns, prior to operation of the plant, they are told that they have no right to a hearing on these issues because *they have not demonstrated that the completed plant fails to meet any of the “acceptance criteria” specified in its combined license.*

The first-of-a-kind commercial plant goes into operation, but the Chinese operational test data suggests that the neutronic behavior of modular cores subjected to sudden changes in coolant flow may have been incorrectly modeled in the original design certification. Soon after connection to the grid, this lack of understanding fatefully intersects with the failure to review the plant’s specific geotechnical compatibility with the ESP-approved site without the previously assumed thick concrete base mat. During a local strong local seismic event, this regulatory gap leads to local ground liquefaction, followed by immersion and shorting of buried safety-related electrical cables. This in turns triggers a loss of power to key safety systems, inability to control coolant flow, and a power surge in the reactor, followed by overheating of the core, runaway fuel-cladding oxidation, and a hydrogen explosion.

The final blow is a break in the 50 year-old dam that forms the cooling lake, the seismic resistance of which *was never reevaluated in connection with either the granting of the ESP, the license extensions for the existing units, or the combined license for the new modular plant.* A potential dam break was considered a “beyond design basis” event and outside the scope of any of *these multiple segmented license approvals extending over decades.* The dam break swiftly drains the cooling lake, triggering a loss of ultimate heat sink, and the severe nuclear accident spreads to all units at the site.

An evacuation is ordered, but the Lake area is packed with summer visitors, and evacuation routes below the dam are washed out. Boat trailers and RV's clog the remaining narrow roadways leading away from the Lake, the capacity of which was never reevaluated in light of the ESP's early "resolution" of emergency planning issues. Thousands are caught in the plume exposure pathway of the accident, and receive harmful radiation doses. The plant is destroyed, and the lake area, state park, and surrounding farmlands severely contaminated. Compensation costs to individuals and economic damage to the site and region exceed \$100 billion.