

December 21, 2008 (8:00am)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE COMMISSION

In the Matter of

ENTERGY NUCLEAR VERMONT YANKEE,  
L.L.C. and ENTERGY NUCLEAR)  
OPERATIONS, INC.

(Vermont Yankee Nuclear Power Station)

December 19, 2008

Docket No. 50-271-LR

ASLBP No. 06-849-03-LR

NEW ENGLAND COALITION'S RESPONSE TO  
NRC STAFF'S PETITION FOR REVIEW OF THE  
LICENSING BOARD'S PARTIAL INITIAL DECISION, LBP-08-25

INTRODUCTION

Pursuant to 10 C.F.R. § 2.341(b) (3)<sup>1</sup>, (New England Coalition, Inc (NEC) , through its *pro se* representative, Raymond Shadis, now responds the NRC Staff's Petition for Review of the Licensing Board's Partial Initial Decision, ASLBP of December 9, 2008.

NEC is a non-profit 501C3 corporation registered in the State of Vermont and maintaining offices within 10 miles of Vermont Yankee Nuclear Power Station , a thirty-five year old reactor driven steam-electric generating station seeking a 20 year renewal of its operating license, now due to expire in 2012.

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<sup>1</sup> Any other party to the proceeding may, within ten (10) days after service of a petition for review, file an answer supporting or opposing Commission review.

NEC is the sole intervenor in the above proceeding to bring a contention (in fact, three contentions) through the more than two years of legal and procedural challenge to Evidentiary Hearing, Post-Hearing Brief, and Initial (Partial) Decision.

As of December 17, 2008, NEC has taken exception to the ASLBP's ("Board") Partial Initial Decision of November 24, 2008 and has duly (in accordance with the Board's Order of December 15, 2008, granting extension of time, filed a Motion for Reconsideration of the Initial Partial Decision.

The staff of the U.S. Nuclear Regulatory Commission ("Staff") has petitioned for review of the Atomic Safety and Licensing Board's ("Board") Partial Initial Decision (Ruling on Contentions 2A, 2B, 3 and 4), LBP-08-25, 68 NRC \_\_\_ (Nov. 24, 2008) (slip op.) ("PID" or "LBP-08-25").

NEC opposes granting of the Staff's Petition for Review. For good reasons stated in the remainder of the Introduction and in the Discussion and in the Conclusion herein, NEC moves the Board to reject the Staff's Petition for Review, or in the alternative, to stay or withhold decision on the Staff's Petition for Review until it can be addressed in a way that does not result in overlapping, confused, and duplicative litigation; and until NEC has exhausted its allotted time in which to file a Petition for Review. That time, set by the Order of the Secretary, December 11, 2008, , is within fifteen days of the ASLP Order responding to NEC's December 17, 2008 Motion for Reconsideration), or, whichever is greater, 45 days after Entergy's submission and NRC Staff's acceptance of

complete Time Limited Aging Analyses (“TLAA”) of metal fatigue in certain reactor components, per the Board’s order of November 24, 2008.

The Staff has submitted that Commission review is warranted because the Board’s decision regarding Contentions 2, 2A and 2B raises substantial questions of law and policy that are without governing precedent, and the Board makes clearly erroneous findings of fact.

Furthermore, says the Staff, Commission review is in the public interest because this decision raises issues that could affect pending and future license renewal determinations.

Specifically, says the Staff:

- (1) (t) The Board’s decision raises substantial legal questions with regard to the proper interpretation and application of 10 C.F.R. §§ 54.3, 54.21(c)(1), and 54.29.

And says the Staff,

- (2) (t) The Board’s ruling also made a number of clearly erroneous findings regarding the contents of Vermont Yankee’s license renewal application, including amendments thereto, that are not supported by the record viewed in its entirety.

Additionally, says the Staff,

- (3) ...the Board’s finding that the use of an aging management program (“AMP”) consistent with the Generic Aging Lessons Learned (GALL) Report, NUREG-

1801, does not satisfy the Commission's regulations, raises important questions of policy and is a clear departure from Commission precedent. 1

Therefore, the Staff says, it,

- (4) respectfully requests that the Commission reverse the Board's decision with respect to NEC Contentions 2, 2A and 2B.

### DISCUSSION

The staff's arguments are without merit and are in this section addressed seriatim, followed by some observations of NEC.

- (1) The Board's decision raises substantial legal questions with regard to the proper interpretation and application of 10 C.F.R. §§ 54.3, 54.21(c)(1), and 54.29.
- (2) (t) The Board's ruling also made a number of clearly erroneous findings regarding the contents of Vermont Yankee's license renewal application, including amendments thereto, that are not supported by the record viewed in its entirety.

**Response:**

With respect to the Staff's arguments under (1) and (2), these legal points have been litigated and settled before the ASLB Panel in this proceeding.

The Commission is obligated to show some deference to the presiding officer and panel members in as much as they have been close to this case for many months.<sup>2</sup>

NRC Staff fails to provide a compelling case as to why the judgment of the Board should be set aside and overturned with respect to its PID regarding the appropriate application of NRC regulation, precedence and guidance. If the ASLBP needed the NRC Staff's guidance in interpreting NRC regulation, or somehow misunderstood NRC Staff's Briefs on the subject, NRC Staff has been slow in providing that guidance; less than astute in not providing its opinions in full on the subject in post-hearing briefs.

Further, NRC Staff had the opportunity to bring its complaints to the Board and did so in pre-hearing briefs. NEC then amply answered Staff and the licensee through NEC's counsel (at the time, Karen Tyler of Shems, Dunkiel, Kassel, and Saunders of Burlington, Vermont). NEC's Briefs on the subject are attached (NEC RES EXHIBITS 1,2) and NEC wishes to incorporate them here by reference for what they may offer the Commission. The Staff's questions and concerns have already been asked, raised, and answered. The Staff's questions and concerns would have been much more properly raised with the

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<sup>2</sup> the likelihood that a reviewing body will rely on the presumption of correctness of a trial court's factual determinations tends to increase when trial judges have lived with the controversy for weeks or months instead of just a few hours; CLI-05-19, 62 NRC 403 (2005)

ASLBP in a Motion for Reconsideration; a much less adversarial, more collegial, and more efficient approach between branches of the same agency.

Further, the Commission should consider that the challenged Board PID grants the intervenors one only small accommodation regarding assurance of adequate protection of public health and safety, which is that calculation of fatigue factors in reactor nozzles should be based on a sample of several rather than on one that is alleged, albeit without adequate substantiation, to be the bounding sample; and that this be done while the record is open and before the License Renewal Amendment is granted.

NEC asks the Commission to weigh whether that one concession on undeniably a concession, albeit small, on the side of assurance of public health and safety is entirely offset by any perceived loss in NRC Staff's in justifiable discretion.

With respect to NRC Staff's review and enforcement discretion, NEC respectfully submits that sooner or later, in NRC's court, or one higher, the Commission will eventually have to answer the question of what becomes of intervenor's hearing rights when, following the admission of a safety-related contention, the NRC Staff can, in a side-deal, barter away the relevant defects in the licensee's application on agreement that the defects will be addressed later; after the record in the proceeding is closed.

It is clear from the record that what has the Staff's attention is not to assist in providing a fair hearing process, a fair assessment of the facts, or even fair and predictable regulation,

but rather preserving some free-range scope on the prairie of arbitrary and capricious administration of NRC regulation, essentially unfettered discretion.

These conditions, fair hearing process, a fair assessment of the facts, or even fair and predictable regulation, are important to reactor host communities, to host states, to public health and safety advocates like NEC, to integrity of the process (redress under administrative procedures), to the integrity of the license renewal process, and to sustaining the NRC goal of maintaining public confidence.<sup>3</sup>

Here, in this proceeding, an intervenor, supported entirely by free will donations, with a membership in the hundreds and a constituency in the thousands, has brought to bear the testimony of preeminent experts in the physical, chemical, and engineering phenomena to be considered in pushing an aging nuclear power beyond its license anticipated power and design life; experts whose credentials and life technical experience meet and largely exceed that of any and all experts witnesses (or consults opinionating second-hand) proffered by the licensee or NRC Staff.

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<sup>3</sup> Boards should make it a paramount concern to accord intervenors and other parties the fundamental right of fair treatment. *See Skull Valley Band of Goshute Indians v. Nielson*, 376 F.3d 1253, 1254 (10th Cir. 2004).

852/999 It bears noting that a fair adjudicatory hearing process, whereby members of the public are afforded the opportunity to raise, and have resolved, appropriate challenges to safety and technical aspects of a proposed licensing action, helps to promote NRC's mission to protect the public against unreasonable risks to health and safety, and is itself a key "statutory function" of the agency. *See* 42 U.S.C. § 2239(a).

John M. Kelley, *Audi Alteram Partem*, 9 Natural Law Forum 103 (1964) intervenors and other parties have the fundamental right of fair treatment; LBP-05-29, 62 NRC 698 (2005)

The intervenor's case is assaulted by the licensee and, more importantly, the NRC Staff, and given short shrift by the ASLBP. It truly begs the question of just how does this rough handling of the public's legitimate, scientifically verifiable concerns serve, if nothing else, the NRC's self-serving basic goal of "increasing public confidence". It does not. How does it serve the less hierarchically placed goal of "maintaining adequate assurance of public safety? It does not.

If anything, regarding the factual, material basis, the Board through the PID is ahead of the curve at NRC in recognizing and addressing a concern brought forward first by NEC and then by NRC Staff in 7590-01 Proposed Generic Communication – "Fatigue Analysis of Nuclear power Plant Components" (ML08108052) wherein the Staff proposes advice that several; not just one stress sample should be considered in reactor component metal fatigue analysis. Further, NEC understands that, by letter, the NRC Staff requested Oyster Creek to perform similar analysis following approval of its License Renewal Application earlier this year. How is it that NRC should balk at a similar provision attached as precondition, rather than an after-thought, in the matter of Vermont Yankee, coming as it does after prudent (and late) consideration at Oyster Creek?

In any case, by the Commission's Order of December 10, 2005, NEC has until 15 days after the ASLBP's issuance of a decision regarding NEC's now pending Motion for Reconsideration of the Partial Initial Decision. When that issuance will come has yet to be determined. However, in the event that the Board is unreceptive in whole or in part to

NEC's Motion, NEC reserves the right to exhaust its administrative remedies including a Petition for Review to the Commission.

What is more, the Board Partial Initial Decision is not stayed merely because a party, in this case, has filed Petition for Review. The PID remains in effect. Therefore, if Entergy wants certainty and closure regarding its License Renewal Application, it will simply and promptly do the analytical work required; something that Entergy asserts will take relatively little effort over a short period; and something Entergy has publicly stated it already has underway.

For NEC's purposes the PID contains two particularly relevant and helpful elements:

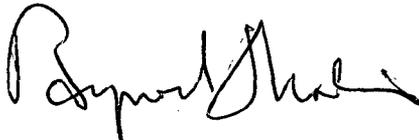
(1) It increases assurance of public health and safety in as much as Entergy is to complete analyses of all of the designated reactor nozzles. Entergy estimated that this would take nine to twelve man-weeks per nozzle several weeks; with five engineers on the project, this time would now have approximately lapsed since the Board's Order of November 24<sup>th</sup>.

(2) It makes a clear statement supporting intervenor's rights to be heard on the issues in a meaningful way; one in which NRC Staff cannot make a "side-deal" with the applicant to effectively remove issues that are in litigation to resolution at a time outside of hearing space.

Motion

For all of the good reasons stated above, New England Coalition now respectfully moves the Commission to reject the Staff's Petition for Review, or in the alternative, to stay or withhold decision on the Staff's Petition for Review until it can be addressed in a way that does not result in overlapping, confused, and duplicative litigation; and until NEC has exhausted its allotted time in which to file a Petition for Review. That time, set by the Order of the Secretary, December 11, 2008, , is within fifteen days of the ASLP Order responding to NEC's December 17, 2008 Motion for Reconsideration), or 45 days after Entergy's submission and NRC Staff's acceptance of complete Time Limited Aging Analyses ("TLAA") of metal fatigue in certain reactor components, per the Board's order of November 24, 2008, whichever is greater.

Respectfully Submitted,



Raymond Shadis  
Pro se Representative  
New England Coalition  
Post Office Box 98  
Edgecomb, Maine 04556  
207-882-7801  
[shadis@prexar.com](mailto:shadis@prexar.com)

**NEC RESPONSE EXHIBIT 1**

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
ENTERGY NUCLEAR VERMONT YANKEE, LLC ) Docket No. 50-271-LR  
and ENTERGY NUCLEAR OPERATIONS, INC. ) ASLBP No. 06-849-03-LR  
 )  
(Vermont Yankee Nuclear Power Station) )

**NEW ENGLAND COALITION, INC**  
**SUPPLEMENTAL PREHEARING BRIEF**

New England Coalition, Inc. ("NEC") submits this supplemental prehearing brief pursuant to the Board's Order of June 27, 2008.<sup>1</sup>

**I. Issue 1A:** Does a license condition that requires the performance of certain CUFen TLAAAs after the license renewal is issued comply with the law?

No. The Nuclear Regulatory Commission (NRC) Staff's interpretation of 10 CFR §§ 54.21(c)(1) and 54.29(a) to permit a license renewal applicant to perform analyses to project TLAAAs to the end of the period of extended operation after a license is issued as an element of an aging management program pursuant to 10 CFR § 54.21(c)(1)(iii) is inconsistent with the language, structure and intent of these rules, and with NRC precedent defining the appropriate use of "conditions subsequent" to satisfy licensing requirements. The NRC Staff's interpretation of its regulations would also curtail NEC and other intervenors' hearing rights concerning issues material to the licensing decision in violation of Section 189(a) of the Atomic Energy Act, 42 USC 2239(a)(1)(A).

A. The NRC Staff's interpretation of its regulations is inconsistent with their language, structure and intent.

<sup>1</sup> Licensing Board Order (Regarding the Briefing of Certain Legal Issues) (June 27, 2008).

Time-limited aging analyses are defined as analyses and calculations a licensee has performed under its current license, which (1) involve time-limited assumptions defined by the current operating term, and (2) were used to make a safety determination concerning the effects of aging on systems, structures or components within the scope of license renewal. 10 C.F.R. § 54.3 (a).

Section 54.21 plainly states that a license renewal application must contain an “evaluation” of time-limited aging analyses. 10 C.F.R. § 54.21(c). The intent of this requirement is to ensure that the license renewal application contains the information the NRC needs to make findings material to its licensing decision under both its own regulations, 10 CFR § 54.29, and the Atomic Energy Act, 42 U.S.C. § 2232(a).<sup>2</sup> As the NRC explained in the preamble to Section 54.21(c) published in the Federal Register:

The Commission’s concern is that [TLAAs] do not cover the period of extended operation. Unless the analyses are evaluated, the Commission does not have assurance that the systems, structures, and components addressed by these analyses can perform their intended function(s) during the period of extended operation.

Nuclear Regulatory Commission, Nuclear Power Plant License Renewal; Revisions, Final Rule, 60 FR 22461-01, 22480-22481 (May 8, 1995).

Section 54.21(c)(1) provides that the “evaluation” of a TLAA that must be included in the License Renewal Application may consist of any one of the following three things: (1) a demonstration that the TLAA analyses are valid for the period of extended operation

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<sup>2</sup> Section 54.29 provides that the Commission may issue a renewed license if it finds that “there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the [current licensing basis]. . . .” 10 CFR § 54.29(a). United States Code Section 2232(a) provides that operating licenses may be renewed only if the NRC finds that the license requirements are “in accord with the common defense and security and will provide adequate protection to the health and safety of the public.” 42 U.S.C. § 2232(a). Both the Federal Courts and the NRC have recognized that the “reasonable assurance” standard stated in 10 CFR 54.29 refers to the required degree of assurance that the “adequate protection” standard contained in the Atomic Energy Act, 42 U.S.C. § 2232(a) is satisfied. *Commonwealth Edison Co. (Zion Units 1 and 2), ALAB-616, 12 NRC 419, 421 (1980)*.

pursuant to § 54.21(c)(1)(i); (2) a projection of the TLAA analyses to the end of the period of extended operation pursuant to § 54.21(c)(1)(ii); or (3) an aging management plan pursuant to § 54.21(c)(1)(iii).<sup>3</sup>

Under this three-tiered approach, an applicant may avoid the obligation to develop an aging management plan under § 54.21(c)(1)(iii) if it satisfies § 54.21(c)(1)(i) or 54.21(c)(1)(ii) by including a demonstration that the TLAA is either valid or can be projected for the period of extended operation in the license renewal application. The validation or projection of the TLAA cannot be performed as a component of the aging management plan after the renewed license is issued. As the NRC clearly explained in the preamble to Section 54.21(c) published in the Federal Register:

The applicant for license renewal will be **required in the renewal application** to –

- (1) Justify that these analyses are valid for the period of extended operation;
- (2) Extend the period of evaluation of the analyses such that they are valid for the period of extended operation, for example, 60 years; **or**
- (3) **Justify that the effects of aging will be adequately managed for the period of extended operation if an applicant cannot or chooses not to justify or extend an existing time-limited aging analysis.**

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<sup>3</sup> Section 54.21 reads in relevant part as follows:

Each application **must contain** the following information:

- (c) An evaluation of time-limited aging analyses.
  - (1) A list of time-limited aging analyses, as defined in § 54.3, must be provided. The applicant shall demonstrate that –
    - (i) The analyses remain valid for the period of extended operations;
    - (ii) The analyses have been projected to the end of the period of extended operation; or
    - (iii) The effects of aging on the intended function(s) will be adequately managed for the period of extended operations.

10 C.F.R. § 54.21(c)(emphasis added).

Nuclear Regulatory Commission, Nuclear Power Plant License Renewal; Revisions, Final Rule, 60 FR 22461-01, 22480 (May 8, 1995)(emphasis added).

Under the NRC Staff's construction of Section 54.21(c)(1), parts 54.21(c)(1)(i) and 54.21(c)(1)(ii) collapse into part 54.21(c)(1)(iii): that is, the TLAA demonstration becomes a component of the aging management plan, instead of a means to avoid the obligation to develop an aging management plan. The Staff's construction is therefore invalid. *See*, *Kungys v. US*, 485 US 759, 788 (1988) (It is a "cardinal rule of statutory interpretation that no provision should be construed to be entirely redundant."); *DirectTV Inc. v. Hoa Huynh*, 503 F.3d 837, 853 (9<sup>th</sup> Cir. 2007)("We must make every effort not to interpret a provision in a manner that renders other provisions of the same statute inconsistent, meaningless or superfluous," and therefore "reject DirecTV's attempt to collapse the distinction between subsections (a) and (e) [of the Federal Communications Act].").

Under § 54.29 of the NRC relicensing rules, an applicant's TLAA "evaluations" are material to the NRC's licensing decision. The Commission may issue a renewed license only after it finds that: "Actions have been identified and have been or will be taken with respect to . . . [time-limited aging analyses that have been identified to require review under § 54.21(c)], such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the CLB . . . ." 10 C.F.R. § 54.29 (emphasis added). The use of both the past and future tense in the phrase "have been or will be taken" reflects the fact that an applicant may satisfy its obligation to "evaluate" TLAA's under Section 54.21(c)(1) with either (1) a demonstration that the TLAA is valid or can be projected for the period of extended operation (an action that "has been

taken”), or (2) describing a program it “will” implement during the period of extended operation to ensure that effects of aging “will be” adequately managed.<sup>4</sup>

- B. The NRC Staff’s interpretation of its regulations abridges NEC’s hearing rights in violation of the Atomic Energy Act, 42 U.S.C. § 2239(a)(1)(A).

Section 189(a) of the Atomic Energy Act (AEA) requires the NRC to grant a hearing at the request of an interested person on any material issue relevant to the licensing decision; the NRC may not exclude a material public-safety related issue from consideration by the Atomic Safety and Licensing Board. *See, Union of Concerned Scientists v. United States Nuclear Regulatory Commission*, 735 F.2d 1437 (C.A.D.C. 1984). As discussed in Part IA, above, if a license renewal applicant chooses to satisfy its obligation to “evaluate” a TLAA through a demonstration that the TLAA is valid or can be projected to the end of the period of extended operations, this demonstration is material to the NRC’s licensing decision. 10 CFR §§ 54.21(c)(1) and 54.29. The NRC Staff’s interpretation of § 54.21(c), therefore, would abridge hearing rights mandated by the AEA because it would defeat the ability of any license renewal intervenor to litigate an applicant’s TLAA methodology by allowing applicants to defer any TLAA demonstrations until after the close of ASLB proceedings.<sup>5</sup>

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<sup>4</sup> This language should not be construed in manner that would render it inconsistent with the plain language of Section 54.21, discussed above. *See, Louisiana Public Service Com’n v. F.C.C.*, 476 U.S. 355, 370 (1986) (“[W]e are guided by the familiar rule of construction that, where possible, provisions of a statute should be read so as not to create a conflict.”).

<sup>5</sup> In this proceeding, the NRC Staff’s interpretation of § 54.21(c) might allow Entergy to complete its TLAA (CUFen) analyses for the core spray and reactor recirculation outlet nozzles after the license is issued, pursuant to a license condition. It might also allow Entergy to satisfy any of NEC’s concerns regarding the CUFen methodology through a licensing commitment to continued “refinement” of its analyses after the license is issued. It might allow Entergy or another applicant to rely on an aging management program in its license renewal application, but then complete analysis to validate or project a TLAA after the license is granted and suspend its aging management program. It might even be the NRC Staff’s position that a commitment to refinement of a TLAA to validate or project this analysis could constitute the entirety of an applicant’s “aging management plan” under Section 54.21(c)(1)(iii). This is unclear.

NEC further observes that intervenors have no recourse in enforcement petitions under 10 CFR § 2.206 if an applicant violates a “licensing commitment” to complete or correct analyses to project a TLAA because the NRC does not consider commitments legally binding or enforceable.<sup>6</sup>

C. The NRC Staff’s interpretation of its regulations is inconsistent with NRC precedent defining the appropriate use of “conditions subsequent” to satisfy licensing requirements.

Longstanding NRC precedent provides that “minor matters” may be left to the NRC Staff for post-hearing resolution “where hearings would not be helpful and the Board can make the findings requisite to the issuance of the license.” *In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1)*, ALAB-788, 20 NRC 1102, 1159 (1984). The Staff’s post-hearing role should be “ministerial,” and should not involve “overly complex” or “discretionary” judgments on legal or factual issues. *In the Matter of Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation)*, CLI-00-13, 52 N.R.C. 23, 34 (2000); *See also, In the Matter of Southern California Edison Company, et. al. (San Onofre Nuclear Generating Station, Units 2 and 3)*, LBP-82-39, 15 N.R.C. 1163, 1216, 1217 (1982) (NRC Staff could properly determine whether public information should be printed in Spanish and confirm the delivery of emergency equipment, but further hearings were required concerning the adequacy of medical services to be made available to the public).

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<sup>6</sup> *See, In the Matter of FirstEnergy Nuclear Operating Company (Davis-Besse Nuclear Power Station, Unit 1)*, DD-04-01, Director’s Decision Under 10 CFR 2.206 (April 22, 2004) at 27 (“Petitioner’s request for enforcement based solely on failure of the licensee to complete commitments represents a misinterpretation of the agency’s enforcement policies regarding commitments. As stated earlier, reasonable assurance of adequate protection of public health and safety is, as a general matter, defined by the Commission’s health and safety regulations themselves. In most cases, the agency cannot take formal enforcement actions solely on the basis of whether licensees fulfill commitments, as failure to meet a commitment in itself does not constitute a violation of a legally binding requirement.”).

A license condition or commitment must not affect “an improper delegation of decisional responsibility over adversary issues from the Board to the staff.” *In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1)*, 20 NRC at 1160. Fundamentally:

[T]he mechanism of post-hearing resolution must not be employed to obviate the basic findings prerequisite to an operating license – including a reasonable assurance that the facility can be operated without endangering the health and safety of the public. In short, the ‘post-hearing’ approach should be employed sparingly and only in clear cases. In doubtful cases, the matter should be resolved in an adversary framework prior to issuance of license, reopening the record if necessary.

*In the Matter of Consolidated Edison Company of New York, Inc. (Indian Point Station, Unit No. 2)*, CLI-74-23, 7 A.E.C. 947, 950-52 (1974).

Under the NRC Staff’s interpretation of § 54.21(c), completion or correction of an applicant’s analyses demonstrating that a TLAA is valid through the period of extended operations or has been projected to the end of this period can be required as a condition subsequent to the license. The NRC Staff’s post-ASLB hearing review of the applicant’s methodology could not be considered “minor” or “ministerial,” and certainly would involve the determination of complex issues and the exercise of significant discretion.

The validity of an applicant’s TLAA methodology is a complex issue material to the licensing decision and the NRC’s prerequisite finding that there is reasonable assurance the facility can be operated without endangering public health and safety. It therefore should be reviewed on the record before the ASLB.

**II. Issue 1B:** Is it legally permissible under 10 C.F.R. § 54.29 to issue a license renewal even though certain of the TLAA’s have not been performed?

As discussed in Part I, above, 10 CFR § 54.21(c) requires that a license renewal application must contain an “evaluation” of TLAA’s, and that evaluation may constitute either (1) a demonstration that the TLAA analyses are valid for the period of extended operation; (2) a demonstration that the TLAA analyses have been projected to the end of the period of extended

operation; or (3) a demonstration that the effects of aging will be adequately managed (ie, an aging management plan). Under 10 C.F.R. § 54.29, the NRC may not approve a license renewal until it finds that the applicant's TLAA "evaluations" provide reasonable assurance of public health and safety.

An applicant may choose to rely on an aging management plan pursuant to Section 54.21(c)(1)(iii), rather than demonstrating the validity or projection of a TLAA under Sections 54.21(c)(1)(i) or 54.21(c)(1)(ii). In this instance, the NRC may approve a license renewal although TLAA demonstrations have not been performed. An applicant should not be permitted, however, to rely on an aging management program in its license renewal application, but later perform a TLAA demonstration and suspend the aging management program. This practice would clearly improperly circumvent intervenors' hearing rights regarding the TLAA methodology.

**III. Issue 2:** Does a renewal application that contains a short written description of an aging management program that lacks content or details but instead states that it is "comparable to" and "based on" the relevant sections of NUREG-1801 or EPRI NSAC-202L, "demonstrate that the effects of aging will be adequately managed" as required by 10 C.F.R. §§ 54.21(a)(3) and 54.21(c)(1)(iii)?

A. References to NRC Staff or industry guidance do not describe a license renewal applicant's aging management plans in sufficient detail.

The description of an aging management program contained in a license renewal application must be sufficiently specific to permit an interested person and/or intervenor to understand and rigorously evaluate the content and likely effectiveness of that program. Statements that a program will be "based on" NRC or industry guidance documents that themselves provide only general instructions are not sufficient. NRC precedent requires much more detail than this:

Accordingly, Part 54 requires renewal applicants to demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation. *See generally* 10 C.F.R. § 54.21(a). This

is a detailed assessment, conducted at “a component and structure level,” rather than at a more generalized “system level.” *60 Fed. Reg. at 22,462.* License renewal applicants must demonstrate that all “important systems, structures, and components will continue to perform their intended function in the period of extended operation.” *Id. at 22,463.* Applicants must identify any additional actions, i.e., maintenance, replacement of parts, etc., that will need to be taken to manage adequately the detrimental effects of aging. *Id.* Adverse aging effects generally are gradual and thus can be detected by programs that ensure sufficient inspections and testing. *Id. at 22,475.*

*In the Matter of Florida Power and Light Company (Turkey Point Nuclear Generating Plant)*, CLI-01-17, 54 NRC 3, 8 (2001); *See also*, Nuclear Regulatory Commission, Nuclear Power Plant License Renewal; Revisions, Final Rule, 60 FR 22461-01, 22479 (May 8, 1995) (“[T]he [Integrated Plant Assessment required by 10 CFR 54.21(a)] must contain a demonstration, for each structure and component subject to an aging management review, that the effects of aging will be managed so that the intended function(s) will be maintained for the period of extended operation. This demonstration must include a description of activities, as well as any changes to the CLB and plant modifications that are relied on to demonstrate that the intended function(s) will be adequately maintained despite the effects of aging in the period of extended operation.”).

- B. An applicant’s demonstration that an aging management program conforms to NRC Staff or industry guidance is not dispositive of whether this program satisfies the “reasonable assurance” standard under NRC regulations and the Atomic Energy Act.

“Agency interpretations and policies are not ‘carved in stone’ but must rather be subject to re-evaluation of their wisdom on a continuing basis.” *Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1)*, 49 NRC 441, 460 (1999), *citing*, *Chevron USA, Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 863-64 (1984)).

The GALL report does not contain legally binding regulatory requirements. The Summary and Introduction to NUREG-1801, Vol. 1 includes the following explanation of its legal status:

Legally binding regulatory requirements are stated only in laws; NRC regulations; licenses, including technical specifications; or orders, not in NUREG series publications.

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The GALL report is a technical basis document to the SRP-LR, which provides the Staff with Guidance in reviewing a license renewal application . . . The Staff should also review information that is not addressed in the GALL report or is otherwise different from that in the GALL report.

NUREG-1801, Vol. 1, Summary, Introduction, Application of the GALL Report.

Although NUREG-1801 and other NRC guidance documents are treated as evidence of legitimate means for complying with regulatory requirements, the NRC Staff must prove the validity of its guidance if it is contested by an intervenor.

[NUREGs] do not rise to the level of regulatory requirements. Neither do they constitute the only means of meeting applicable regulatory requirements. . . . Generally speaking, . . . such guidance is treated simply as evidence of legitimate means for complying with regulatory requirements, and the staff is required to demonstrate the validity of its guidance if it is called into question during the course of litigation.

*In the Matter of Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency (Shearon Harris Nuclear Power Plant), 23 NRC 294 (1986), citing, Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), 16 NRC 1290, 1298-99 (1982) (emphasis added); See also, In the Matter of Connecticut Yankee Atomic Power Company (Haddam Neck Point), 54 NRC 177, 184 (2001), citing, Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), 28 NRC 288, 290 (1988)* (“NUREGs and similar documents are akin to ‘regulatory guides.’ That is, they provide guidance for the Staff’s review, but set neither minimum nor maximum regulatory

requirements.”); *In the Matter of Private Fuel Storage, LLC*, 57 NRC 69, 92 (2003) (“[A]n intervenor, though not allowed to challenge duly promulgated Commission regulations in the hearing process. . . is free to take issue with . . . NRC Staff guidance and thinking . . .”).

June 9, 2008

New England Coalition, Inc.

by:

\_\_\_\_\_  
Andrew Raubvogel  
Karen Tyler  
SHEMS DUNKIEL KASSEL & SAUNDERS PLLC  
For the firm

Attorneys for NEC

**NEC RESPONSE EXHIBIT 2**

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )

ENTERGY NUCLEAR VERMONT YANKEE, LLC )  
and ENTERGY NUCLEAR OPERATIONS, INC. )

(Vermont Yankee Nuclear Power Station) )

) Docket No. 50-271-LR  
) ASLBP No. 06-849-03-LR  
)  
)

**NEW ENGLAND COALITION, INC.**  
**SUPPLEMENTAL PREHEARING REPLY BRIEF**

New England Coalition, Inc. (“NEC”) submits this supplemental prehearing reply brief pursuant to the Board’s Order of June 27, 2008.<sup>1</sup>

**I. ISSUES 1A AND 1B**

In Entergy’s and the NRC Staff’s view of the License Renewal process, an applicant need never include an analysis to project a TLAA to the end of the period of extended operation in the License Renewal Application (LRA), pursuant to 10 CFR § 54.21(c)(1)(ii). The licensee may instead make a generally stated “commitment” to perform this analysis as an aging management plan pursuant to 10 CFR § 54.21(c)(1)(iii) after license renewal is approved. This commitment to project the TLAA need not specify details of the methodology the applicant will employ, and can constitute the applicant’s entire proposed “aging management plan.” There is no place for public participation or the Atomic Safety and Licensing Board in this process; the NRC Staff will perform all substantive review of the analysis that may fully constitute a licensee’s “aging management plan” after the close of any Board proceedings. Moreover, the NRC Staff does not consider “commitments” legally binding or enforceable under 10 CFR § 2.206. As the

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<sup>1</sup> Licensing Board Order (Regarding the Briefing of Certain Legal Issues) (June 27, 2008).

State of Vermont has aptly observed, the Staff does not propose to eliminate review of safety analyses; it just wants to eliminate the role of the public and the Board in that review.

The Atomic Energy Act (AEA) mandates the public participation Entergy and the NRC Staff would foreclose; the NRC may not exclude a material public-safety related issue from consideration by the Atomic Safety and Licensing Board at the request of an interested person. *See, Union of Concerned Scientists v. United States Nuclear Regulatory Commission*, 735 F.2d 1437 (D.C. Cir. 1984). Entergy's and the NRC Staff's arguments are without merit.

A. ENTERGY'S CUFEN ANALYSES ARE TO PROJECT A METAL FATIGUE TLAA TO THE END OF THE PERIOD OF EXTENDED OPERATION, PURSUANT TO 10 CFR § 54.21(c)(1)(ii).

Entergy's CUFen analyses are a TLAA demonstration meant to substitute for the management of aging due to metal fatigue through inspection, repair and replacement of components; as such, it must be included in the license renewal application (LRA) pursuant to 10 CFR 54.21(c)(1)(ii). Entergy performed the CUFen analyses to project the CUF calculations that are part of Vermont Yankee's current licensing basis (CLB) to the end of the period of extended operations. The CUFen analyses are intended to demonstrate that a metal fatigue "aging management plan" involving component inspection, repair and replacement is unnecessary. If the CUFen analyses fail to demonstrate that vulnerable Vermont Yankee components will meet acceptance criteria through the end of the renewed license term, Entergy is required to amend its LRA to specifically describe the scope, method and frequency of a proposed inspection and maintenance program. 10 CFR § 54.21(c)(1). NEC would then be entitled to review and evaluate this program pursuant to its Contention 2, now stayed by Board Order pending resolution of Contentions 2A and 2B.

Entergy contends that its CUFen analyses are not a projection of a TLAA. This is incorrect. The CUFen analyses project CUF calculations, which are a TLAA incorporated in Vermont Yankee's CLB. Entergy's LRA states the following:

Fatigue evaluations were performed in the design of the VYNPS Class 1 components designed in accordance with the requirements specified in ASME Section III. The fatigue evaluations are contained in analyses and stress reports, and because they are based on a number of transient cycles assumed for a 40-year plant life, these evaluations are considered TLAA.

LRA § 4.3-1; *See also*, Exhibit NEC-JH\_62, NRC Summary of Telephone Conference Call Held on August 20, 2007, Concerning the Vermont Yankee Nuclear Power Station License Renewal Application at Enclosure 2 ("Fatigue analyses based on a set of design transients and on the life of the plant are treated as TLAA's.").

The NRC Staff's explanation of its treatment of the CUFen reanalyses makes clear that the Staff's position elevates form over substance. It also underscores NEC's argument that the Staff's view of § 54.21(c)(1) renders § 54.21(c)(1)(ii) superfluous. The Staff claims that it did not change its interpretation of § 54.21(c)(1) between August 2007 and May 2008. Rather, Entergy changed its view of which section of § 54.21(c)(1) applies to the CUFen analyses: "Entergy temporarily indicated that it would rely on § 54.21(c)(ii), before ultimately relying upon § 54.21(c)(1)(iii)." NRC Staff's Brief in Response to Board Order at 4. The NRC's regulations should not and do not allow an applicant to alter the Staff's treatment of a safety analysis by citing to subsection (iii) instead of subsection (ii). Moreover, why would any applicant choose to include a TLAA projection in its LRA pursuant to § 54.21(c)(ii) if it can postpone NRC review of that analysis until after the close of any ASLB proceedings just by citing to § 54.21(c)(1)(iii) instead? NEC submits that the answer to this question is never. Entergy's strategy in the Indian Point license renewal proceeding, discussed in NEC's Rebuttal Statement of Position at 6, bears this out. *See*, Exhibit NEC-JH\_67. Entergy initially characterized its CUFen analysis as a TLAA

demonstration under § 54.21(c)(ii) because that is what it is – it is an analysis to project the CUF TLAA to the end of the period of extended operation.

B. ENTERGY'S CUFEN ANALYSES ARE NOT AN AGING MANAGEMENT PLAN SUBJECT TO 10 CFR § 54.21(c)(1)(iii).

Both Entergy and the NRC Staff contend that the CUFen analyses are a component of a Fatigue Monitoring Program (“FMP”), consistent with GALL Section X.M1. Entergy and the Staff further contend that the FMP is an “aging management plan” that satisfies the requirements of 10 CFR § 54.21(c)(1)(iii). These arguments misconstrue both the relationship of the CUFen analyses to the FMP and the meaning of § 54.21(c)(1).

The CUFen analyses are not a component of the FMP. The FMP is a program implemented during the license renewal period that tracks the number of transients for selected reactor coolant system components to confirm the validity of the CUFen TLAA analyses completed pursuant to §§ 54.21(c)(1)(ii) or 54.21(c)(1)(i). As explained in Entergy’s LRA:

The Fatigue Monitoring Program (FMP) tracks actual plant transients and evaluates these against the design transients. . . . “[T]he FMP will ensure that the number of transient cycles experienced by the plant remain within the analyzed numbers of cycles and hence, the component CUFs remain below the values calculated in the fatigue evaluations.

LRA Amendment 31, Attachment 1.

The FMP does not satisfy the requirements of 10 CFR § 54.21(c)(1)(iii). As explained in this and NEC’s prior briefing, § 54.21(c)(1)(iii) requires the applicant to “demonstrate that . . . [t]he effects of aging . . . will be adequately managed for the period of extended operation” in the event that “the applicant cannot or chooses not to justify or extend an existing time-limited aging analysis.” 10 CFR § 54.21(c)(1); Nuclear Regulatory Commission, Nuclear Power Plant License Renewal; Revisions, Final Rule, 60 FR 22461-01, 22480 (May 8, 1995). The FMP serves to confirm the justification or projection of a TLAA. The demonstration required by § 54.21(c)(1)(iii) substitutes for the validation or projection of a TLAA, and should consist of a

program of component inspection, repair and replacement that specifies scope, method and frequency.

C. NEC CONTESTS ENTERGY'S AND THE NRC STAFF'S INTERPRETATION OF NRC REGULATIONS, NOT THE REGULATIONS THEMSELVES.

Both Entergy and the NRC Staff contend that NEC's argument that § 54.21(c) requires an applicant to perform analyses to justify or project a TLAA before a license is issued is an attack on NRC regulations that contravenes 10 CFR § 2.335(a). NEC contests the interpretation of the regulations, not the regulations themselves. If the NRC's guidance concerning Fatigue Monitoring Programs published in GALL Section X.M1 can be interpreted to permit a licensee to complete a TLAA justification or projection after a renewed license is issued, then this guidance is inconsistent with the plain language, structure and intent of §§ 54.21(c) and 54.29(a) discussed in this and NEC's prior briefing. An intervenor may contest the validity of NRC guidance, including the GALL report, in a license renewal proceeding.

D. THE NRC'S REVIEW OF ENTERGY'S CUFEN CALCULATIONS FOR THE FEEDWATER NOZZLE AND RECIRCULATION NOZZLE WOULD NOT BE "MINISTERIAL."

The NRC Staff suggests that its post-licensing review of Entergy's CUFen calculations for the recirculation outlet and core spray nozzles using the same method Entergy used to calculate CUFen for the feedwater nozzle would be ministerial and therefore consistent with NRC precedent defining the proper scope of post-licensing resolution by the Staff. The Staff analogizes its review of the CUFen calculations to post-licensing review that was approved in *In the Matter of Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation)*, CLI-00-13, 52 N.R.C. 23, 34 (2000). In that case, the Commission sanctioned post-license Staff review of certain licensee contracts, provided that they conformed to an ASLB-approved form contract. The Commission stated:

To reconcile post-hearing verification of a license condition by the NRC Staff with cases like *Union of Concerned Scientists, Shoreham, and Indian Point Station*, we must insist that the condition be precisely drawn so that the verification of compliance becomes a largely ministerial rather than an adjudicatory act – that is, the Staff verification efforts should be able to verify compliance without having to make overly complex judgments on whether a particular contract provision conforms, as a legal or factual matter, to promises [the licensee] has made.

\* \* \*

In short, evaluating whether contract provisions in fact function as intended is not merely a ministerial act; it calls for legal judgment. We think the Board went too far in putting evaluation of the legal effectiveness of service agreements into the hands of the NRC Staff without itself reviewing a sample service contract.

*Id.*

The Staff's analogy is inapposite. As the record in this proceeding to date demonstrates, Entergy's CUFen analyses are complex and there is room for the exercise of discretion even in the application of a preapproved methodology. The Staff's review of the CUFen calculations cannot be reasonably compared to its review of service agreements to determine whether they conform to a template contract. In addition, if Entergy finds that CUFen for the recirculation outlet or core spray nozzles exceeds the acceptance criteria, its TLAA demonstration has failed. In this case, it must revert to an aging management program consisting of inspection, repair and replacement. NEC has the right to evaluate this plan pursuant to its Contention 2. The CUFen calculations for the core spray and recirculation outlet nozzles therefore cannot take place after the close of ASLB proceedings. Entergy must complete its TLAA demonstration before the license is granted.

## II. ISSUE 2

Even if § 54.21(c) does allow an applicant to perform analyses to project a TLAA after a license is issued as an aging management plan pursuant to § 54.21(c)(1)(iii), the applicant is still required to provide enough detail about how it intends to conduct this analysis in the LRA so as

to allow the NRC Staff and intervenors to evaluate whether the analyses will provide reasonable assurance of public safety. If insufficient detail is provided, the NRC will not have enough information to find reasonable assurance of public safety and would be arbitrary and capricious in approving the license renewal. Alternatively, the NRC must postpone its substantive review of the analyses and its finding of reasonable assurance until after a license is issued, thereby illegally curtailing intervenors' rights to a hearing before the ASLB on all issues material to the licensing decision, and violating NRC precedent holding that "the mechanism of post-hearing resolution must not be employed to obviate the basic findings prerequisite to an operating license." *In the Matter of Consolidated Edison Company of New York, Inc. (Indian Point Station, Unit No. 2)*, CLI-74-23, 7 A.E.C. 947, 950-52 (1974).

An applicant could not provide sufficient information about many TLAA methodologies without actually performing the analysis and making it available for review by the NRC Staff and intervenors. This is certainly true in the case of Entergy's CUFen analyses – the record in this case to date demonstrates that the CUFen methodology is highly complex and its application allows for substantial "wobble room" on the part of the analyst. NEC could not fully evaluate Entergy's methodology without reviewing Entergy's actual analyses, as well as substantial additional information regarding inputs and assumptions.

The record in this case also demonstrates the value of public participation in the ASLB process. Since NEC filed its Contentions 2, 2A and 2B, the NRC has reexamined and changed its policies regarding at least one issue raised by NEC – the use of a simplified Green's function method to calculate CUF values. *See*, Exhibits NEC-JH\_23, NEC-JH\_24. Intervenor participation in this proceeding led the NRC to more closely scrutinize a previously approved method and reject it. Entergy's and the NRC Staff's interpretation of NRC regulations would

short circuit this valuable process and facilitate a more superficial examination of important public safety issues.

\* \* \*

In summary, 10 CFR §§ 54.21(c)(1) and 54.29(a) together require that Entergy's LRA must include either an analysis justifying or projecting its CUF TLAA, or an aging management plan involving component inspection, repair and replacement, and specifying scope, method and frequency. Entergy has chosen to perform analyses to project its CUF TLAA pursuant to § 54.21(c)(1). It must complete this analysis prior to the close of ASLB proceeding and issuance of a renewed license. It cannot complete analyses for the core spray and recirculation outlet nozzles pursuant to a license condition, or correct any flaws in its CUFen methodology pursuant to a licensing commitment. If Entergy's CUFen analyses fail to demonstrate that the components it evaluated will satisfy acceptance criteria through the end of the period of extended operation, Entergy must propose an aging management plan. NEC would then be entitled to review this plan pursuant to its Contention 2.

July 15, 2008

New England Coalition, Inc.

by:

\_\_\_\_\_  
Andrew Raubvogel  
Karen Tyler  
SHEMS DUNKIEL KASSEL & SAUNDERS PLLC  
For the firm

Attorneys for NEC

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**Before the Atomic Safety and Licensing Board**

In the Matter of	)	
	)	
Entergy Nuclear Vermont Yankee, LLC	)	Docket No. 50-271-LR
and Entergy Nuclear Operations, Inc.	)	ASLBP No. 06-849-03-LR
	)	
(Vermont Yankee Nuclear Power Station)	)	

**CERTIFICATE OF SERVICE**

I, Raymond Shadis, hereby certify that copies of NEW ENGLAND COALITION'S RESPONSE TO NRC STAFF'S PETITION FOR REVIEW OF THE LICENSING BOARD'S PARTIAL INITIAL DECISION, LBP-08-25

in the above-captioned proceeding were served on the persons listed below, by U.S. Mail, first class, postage prepaid; and, where indicated by an e-mail address below, by electronic mail, on the 19th of December, 2008.

Administrative Judge  
Alex S. Karlin, Esq., Chair  
Atomic Safety and Licensing Board  
Mail Stop T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [ask2@nrc.gov](mailto:ask2@nrc.gov)

Administrative Judge  
William H. Reed  
1819 Edgewood Lane  
Charlottesville, VA 22902  
E-mail: [whrcville@embarqmail.com](mailto:whrcville@embarqmail.com)

Office of Commission Appellate Adjudication  
Mail Stop: O-16C1  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [OCAAMail@nrc.gov](mailto:OCAAMail@nrc.gov)

Administrative Judge  
Dr. Richard E. Wardwell  
Atomic Safety and Licensing Board Panel  
Mail Stop T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [rew@nrc.gov](mailto:rew@nrc.gov)

Office of the Secretary  
Attn: Rulemaking and Adjudications Staff  
Mail Stop: O-16C1  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov)

Sarah Hofmann, Esq.  
Director of Public Advocacy  
Department of Public Service  
112 State Street, Drawer 20  
Montpelier, VT 05620-2601  
E-mail: [sarah.hofmann@state.vt.us](mailto:sarah.hofmann@state.vt.us)

Lloyd B. Subin, Esq.  
Mary C. Baty, Esq.  
Susan L. Uttal, Esq.  
Jessica A. Bielecki, Esq.  
Office of the General Counsel  
Mail Stop O-15 D21  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [lbs3@nrc.gov](mailto:lbs3@nrc.gov); [mcb1@nrc.gov](mailto:mcb1@nrc.gov);  
[susan.uttal@nrc.gov](mailto:susan.uttal@nrc.gov); [jessica.bielecki@nrc.gov](mailto:jessica.bielecki@nrc.gov)

Anthony Z. Roisman, Esq.  
National Legal Scholars Law Firm

84 East Thetford Road  
Lyme, NH 03768  
E-mail: [aroisman@nationallegalscholars.com](mailto:aroisman@nationallegalscholars.com)  
Zachary Kahn  
Atomic Safety and Licensing Board Panel  
Mail Stop T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [zachary.kahn@nrc.gov](mailto:zachary.kahn@nrc.gov)

Peter C. L. Roth, Esq.  
Office of the Attorney General  
33 Capitol Street  
Concord, NH 03301  
E-mail: [Peter.roth@doj.nh.gov](mailto:Peter.roth@doj.nh.gov)

David R. Lewis, Esq.  
Matias F. Travieso-Diaz  
Pillsbury Winthrop Shaw Pittman LLP  
2300 N Street NW  
Washington, DC 20037-1128  
E-mail: [david.lewis@pillsburylaw.com](mailto:david.lewis@pillsburylaw.com)  
[matias.travieso-diaz@pillsburylaw.com](mailto:matias.travieso-diaz@pillsburylaw.com)

Matthew Brock  
Assistant Attorney General  
Environmental Protection Division  
Office of the Attorney General  
One Ashburton Place, 18<sup>th</sup> Floor  
Boston, MA 02108  
E-mail: [Matthew.Brock@state.ma.us](mailto:Matthew.Brock@state.ma.us)

by:



Raymond Shadis  
Pro se Representative  
New England Coalition  
Post Office Box 98  
Edgecomb, Maine 04556  
207-882-7801  
[shadis@prexar.com](mailto:shadis@prexar.com)