

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Petition of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc., for a certificate of public good, pursuant to 30 V.S.A. § 248 and 10 V.S.A. § 6522, authorizing the construction of a second independent spent fuel storage installation storage pad and related improvements, including installation of a new diesel generator with an electrical rating of approximately 200 kW, at the Vermont Yankee Nuclear Power Station in the Town of Vernon, Vermont

March 15, 2016  
Docket No. 8300

**NEW ENGLAND COALITION'S**

**BRIEF, REQUESTED FINDINGS AND PROPOSED ORDER**

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**I. Memorandum**

New England Coalition contends that, consistent with the legal requirements of 30 V.S.A. §248 and evidence adduced at hearing in this matter, the Public Service Board must find the facts listed herein and issue an order based upon them:

1. No party can say with certainty how long the proposed second spent fuel storage pad will remain in use, when fuel will be removed, or when the Independent Spent Fuel Storage Site will be decommissioned and returned to Greenfield state.

Federal agencies and research institutions are openly contemplating the ramifications of onsite nuclear waste fuel storage in terms of centuries. A federal appeals court has ordered the U.S Nuclear Regulatory Commission to assess safety performance in a scenario in which fuel never has a place to go.

The US Department of Energy has represented to Entergy that it will begin moving fuel offsite by 2023 and remove the last fuel assembly from Vermont Yankee by 2052. Even so, when asked in Technical Hearings on February 23, 2016 when fuel would be removed from the site, Entergy's lead witness, Michael Towmey replied, " I don't know."

The Board should consider whether, from the perspective of potential site reuse, orderly development and planning, and public perception or the viewer's coloration of aesthetics, uncertainty is better or worse than an unpalatable certainty, say that the fuel will be removed four generations of Vermonters hence, nominally in 2300.<sup>1</sup>

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<sup>1</sup> The Board may note that the US District Court in *Maine Yankee Atomic Power Co v. Bonsey*, 107 F. Supp. 2d (D.Me.2000), said,

Kerr-McGee Chemical Corp. v. City of West Chicago, 914 F.2d at 827 ("The City does indeed have the power to say 'no' to aspects of the project" that fail to comply with the City's regulations, "if they do not directly involve radiation hazards (including those

2. Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc., ("petitioners"), have not presented testimony or other evidence regarding impacts of the proposed project sufficient to allow the Board to make findings required by 30 V.S.A 248 (b) <sup>2</sup> Such testimony as the Petitioners did present, notably that of witnesses George Thomas and Harry Dodson is tainted and unreliable for purposes of fact finding because of bias, error, self-contradictions and gross omissions.<sup>3</sup>. Plainly, the petitioners did not provide information that is both sufficient and sufficiently reliable so as to support positive findings on 30 V.S.R. 248 and/or Quechee Test criteria.

The testimony of Harry Dodson leaves little to nothing upon which the Board may rely for positive findings on aesthetics.

George Thomas's testimony opens the subject of considering an alternative storage system with potentially less negative impact on the applicable Section 248(b) criteria, but the testimony provides scant information about the alternative or the processes and rationale for its de-selection.

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'inextricably intermixed' with non-radiation hazards) and are not selected for scrutiny by the City merely to delay or frustrate the project as a whole."). (A normal and customary performance bond requirement, designed to ensure completion of site grading, landscaping, drainage, etc., would probably be permissible, for example.)  
[Emphasis added]

<sup>2</sup> (b) Before the public service board issues a certificate of public good as required under subsection (a) of this section, it shall find that the purchase, investment or construction:

(1) with respect to an in-state facility, will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality.

(5) with respect to an in-state facility, will not have an undue adverse effect on esthetics, historic sites, air and water purity, the natural environment and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. §§ 1424a(d) and 6086(a)(1) through (8) and (9)(K);

<sup>3</sup> Please see, New England Coalition's Motion to Admit New Evidence (03/12/2016) generally and the following sections of this pleading: The 100U Cask System Alternative, and Aesthetics, in which NEC proposes facts related to the Thomas and Dodson testimony.

Other evidence suggests that the Petitioner's have so far expended little effort and that they plan to expend little effort to address potential negative impacts of the proposed project in the future. No consideration of alternative cask storage systems appears, for example, in the Petitioner's SAFSTOR Alternative Decommissioning Cost Estimate E11-1685-001, Rev.6, Appendix C, provided by the Petitioner to the Board in response to a February 23, 2016 bench request. There appears no line item for alternatives or mitigation strategies.

The petitioners have presented no evidence that they have consulted with informed stakeholders regarding how the petitioners might best address Section 248(b) criteria. NEC has underscored informed in the preceding sentence to distinguish the present condition wherein , for example, identified stakeholders, such as the Town of Vernon, are not informed regarding availability and details of alternative potentially more benign and possibly less expensive cask systems. Surely, such information could influence which cask system stakeholders, their children, and their children's children would find less visually jarring and obtrusive. The Board should find that aesthetic and site reuse impacts can affect more than adjoining or even New Hampshire shore property owners. People enjoying the river, hiking riverside trails, working at the VELCO site within 100 yards of the casks are all affected and the Board should in its pursuit of public good take regard of their perceptions and defend their interests. The Board would not be alone in valuing recreational uses, a Federal Court, for example, has found that birdwatching over a decommissioning Navy base , from beyond a site boundary fence, to be sufficient interest to establish standing for purposes of intervention. *Cantrell v. City of Long Beach*, 241 F.3d 674; 2001 U.S. App. LEXIS 1538; 51 ERC (BNA) 1993; 2001 Cal.

3. Use of the 100U in-the-ground cask system should not be dismissed with an off-the-cuff perfunctory assessment of its relative costs, ease and speed of construction, fuel

emplacement and its relatively inconspicuous profile when compared to above ground storage.

When NEC first brought the 100U to the attention of the Board in 2006, the design had yet to be licensed and deployed. In 2008, it was installed at Humbolt Bay Nuclear Power Station and is presently being installed at Calloway NPP and San Onofre NPP. These current projects are only partially buried (about ten feet) below-grade with berming and engineered-fill added to reach the full height of the casks.

Petitioner's witness, Mr. Dodson claims that there is a 20 foot drop off between the western site boundary and the proposed ISFSI location. It seems reasonable that if a partially below-grade ISFSI were located there then it would, terra-formed mound and all exhibit only one-half the profile of the currently proposed project and planted to sod would blend much more readily with natural surroundings.<sup>4</sup>

It has been said that the Vermont Yankee site may be too small to host a 100U site, but according to Holtec statements under oath before the U.S. Nuclear Regulatory Commission, that is a misreading of the space requirements.

The site preparation of a 64 unit array is expected to take approximately six months to a year, with activity occurring generally during daylight hours. pg. 10

A 64 unit array would require a 6.72 m (22 ft) deep excavation of an area measuring approximately 45.8 m x 45.8 m (150 ft x 150 ft); a total of about 14,844 m<sup>3</sup> (18,000 yd<sup>3</sup>). This material would be excavated using standard earthmoving and digging equipment and placed onsite in a spoils storage area. This material stockpiled to a height of 6.1 m (20 ft) with 3:1 slopes would occupy an area of about 76.4 m x 76.4 m (250 ft x 250 ft) or 0.57 ha (1.4 ac). Depending on the engineering properties of soils at a given site, some of it might be used as backfill during installation of the VVMs. Alternatively, it could be used for a surrounding berm or for final site contouring. Concrete

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<sup>4</sup> Please see, NEC Motion to Admit New Evidence , Attachments One, Two, and Three, submitted. 03/11/2016

for the foundation pad and surface support pad would be obtained from offsite sources. The finished in-ground VVM array, with dimensions of approximately 44 m x 44 m (144 ft x 144 ft) is designed to accommodate 64 storage casks.

At sites with a shallow water table, dewatering of the area to be excavated would be required to allow for construction and installation of the concrete support foundation, VVM cylinders and placement of engineered backfill. As sites with high water tables are usually located in areas with high levels of precipitation and recharge, groundwater would be expected to return to its previous levels within several months to a year following the cessation of dewatering activities. Pg. 11

Environmental Assessment for the Holtec International HI-STORM 100U  
Underground Cask System.

<http://pbadupws.nrc.gov/docs/ML0910/ML091060766.pdf>

We must keep in mind that 22 feet of excavation is required only if we do not consider partial below-grade insertion and building up of soil and fill to cover the projecting portions of the casks.<sup>5</sup> In any case, HOLTEC addresses Petitioner witness Thomas's concern with shallow water tables at Vermont Yankee.

4. The Board should require the Petitioners to undertake and complete a competent and professional study in concert with informed stakeholders into what alternatives (including the 100U) and mitigating actions might best serve to address potential negative impacts of the proposed project on the local environment, the reuse of the Vermont Yankee property, regional planning and development, and aesthetics.

This study must be undertaken and completed to answer the serious questions raised about the visibility and aesthetic impacts the proposed Independent Spent Fuel Storage Project and the value of readily available alternative cask storage systems. The Board should require that the Petitioners present a plan for such a study, open to comment by the parties and by the public.

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<sup>5</sup> Please see, NEC Motion to Admit New Evidence Attachments One-Three

Stakeholders and the parties to this proceeding should have input into the decision-making process concerning appropriate methodology for the study; parties should also have an opportunity to engage in an examination of the results of the study using a brief period of discovery (one round) upon the person(s) and an opportunity to present other expert testimony, followed by a one day hearing and a single round of briefing.

NEC is not suggesting long delay, as stated in the Technical Hearings, six months or less should suffice. The pace of performance of identifying stakeholders, planning the study, performing the study and presenting it to the Board and the parties would be for the Petitioners to establish. The Board must weigh this alternative way of seeking reconciliation with community values, plans, goals, and aesthetics.

"In a § 248 proceeding, the Board 'is engaged in a legislative, policy-making process.' " *In re Twenty-Four Vt. Utils.*, 159 Vt. 339, 357, 618 A.2d 1295, 1306 (1992) (quoting *Auclair v. Vt. Elec. Power Co.*, 133 Vt. 22, 26, 329 A.2d 641, 644 (1974)). The Board must employ "its discretion to weigh alternatives presented to it, utilizing its particular expertise and informed judgment." *Id.*

895 A.2d 226 (Vt. 2006) 179 Vt. 370 *In re Petitions of Vermont Electric Power Company, Inc. And Green Mountain Power Corporation*. Supreme Court of Vermont March 10, 2006

With sensitive siting and design even the most scenic landscapes may be developed and still retain much of their intrinsic character. Aesthetic considerations are recognized as a legitimate public concern under Criterion 8 of Act 250 (See "Quechee Decision"). Failure to legitimize aesthetic values through site-sensitive development could damage the region's sense of place as well as hamper the regional tourism economy.

Aesthetic Analysis Report November 19, 2013 - Addison Rutland Natural Gas Project Phase 2  
Addison County & Franklin County, Vermont – T.J.Boyle Associates

The Board should be fully satisfied with the results of the study before any work is permitted to take place on the proposed second high-level waste storage site at Vermont Yankee.

New England Coalition incorporates herein by reference (and republishes thereby as its own) to the extent not inconsistent with New England Coalition's filing herein, the law, facts, proposed findings and order as filed by Windham Regional Commission.

In the following section, concluding, ultimate facts are displayed in bold and precede the underlined paragraph/section upon which they are predicated.

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## **II. REQUESTED FINDINGS OF FACT**

### **1. The Expert Opinion of Raymond Shadis is Adequately Qualified to Support the Facts as Presented by New England Coalition.**

1.1 New England Coalition's expert, Raymond Shadis has had more than twenty-years of employment as a technical advisor and nuclear information analyst with New England Coalition. This position requires continuing analysis of regulatory and industry documents focused on nuclear technology and regulation, in particular with respect to nuclear steam electric facilities.

1.2 He has served on numerous nuclear and nuclear technical committees for federal nuclear regulators and the nuclear industry.

1.3 In 2000-2001, he served on the U.S. Nuclear Regulatory Commission's Initial Implementation Evaluation Panel for the Reactor Oversight Process (then replacing the Systematic Assessment of Licensee Performance). This was a Federal advisory Committees Act Panel, for which a participatory prerequisite is recognized expertise.

1.4 Mr. Shadis has been admitted as a witness by the Vermont Public Service Board in Dockets 6545, 7082, 7195, 7440, 7600, 7862, and 8300.

### **2. The date for decommissioning the proposed project is uncertain as it is controlled by the U.S. Department of Energy's removal of the last fuel bundle.**

. The ISFSI itself cannot be decommissioned until the last fuel assembly is removed from the site. Shadis, Testimony P-9- 08/19/2015

Trans. Page 21 Lines 17-25. Q....let's go to the fuel. When is that fuel going to go away? A. I don't know. Q. Can you take a broad -- kind of broad span of possibilities? A. Well we've made the assumption for purposes of the decommissioning cost estimate, I

believe, that the DOE would pick up in 2026 and be done by 2052 I believe is the assumption that we've used. Q. And you have to be done decommissioning the entire site by when?

Trans. Page 22 Lines 1-5 A. Well under the current PSDAR that we've submitted and NRC guidance and perhaps regulations I believe we need to be completed by 2074, 60 years after the cessation of operations which was on December 29, 2014.

**3. The petitioners foresee that removal of the spent fuel could take many years past plant deconstruction and decommissioning.**

[T. Michael Twomey writes] 1 6 Exhibit D [of the agreement] excludes spent fuel management from the "Completion of Decommissioning" because the distribution of any excess trust funds would otherwise be delayed until the U.S. Department of Energy ("DOE") had removed all the spent fuel from the site, which could be decades after ENVY completes the radiological decommissioning of the remainder of the site. NEC-Cross-4 Letter from Entergy dated 2/9/15 to DPS and Vt AG re: Pre Notice of Disbursement from Decommissioning Trust.

Entergy's own documents foresee scenarios in which the last nuclear fuel assembly is not removed before the license termination deadline, as in the following example:

*Vermont Yankee Nuclear Power Station* *Document E11-1 643-001, Rev. 1*  
*Decommissioning Cost Analysis* *Page xii of xix*

Six scenarios were identified for evaluation. As shown below, the six scenarios evaluate a combination of shutdown dates, decommissioning alternative (prompt or deferred), and expectations of the DOE's performance in transferring spent fuel from the site (Entergy VY vs. Vermont Department of Public Service).

Scenario	Shutdown	Option	1st Spent Fuel	Last Spent Fuel

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[Emphasis added]

The more conservative scenario in the above table (1) Allows 24 years for three or more rounds of DOE fuel pick up, which I think considering the 2004 Acceptance Priority Ranking and Acceptance Schedule ( DOE/RW – 0567) is about right. The first fuel pickup date of 2021 in the first scenario is utterly unrealistic considering it is but 6 years away and the fuel must have an up and operating host site to which to be transported.

Shadis Prefiled Testimony at P.7 08/19/20215

**6. It is possible that storage of fuel at Vermont Yankee could become a multi-generational issue of concern.**

Trans. P. 80 Lines 3-13, WRC Cross/T. Michael Twomey Q. Are you familiar with the Nuclear Regulatory Commission's Waste Confidence Rule issued in September 5 2014? A. Only generally. Q. Are you aware as to whether or not the Nuclear Regulatory Commission contemplates a scenario whereby spent fuel would remain on the site indefinitely? A. I have heard descriptions. 500 years sticks in my mind as one of the scenarios that was discussed in that Waste Confidence Rule, but I don't have more specific familiarity with it.

(3) There seems to be a silent or soft-spoken consensus among the federal courts and agencies and the national laboratories that used nuclear fuel will not be leaving plant sites in quantity until at least the 22nd century. NRC's Long Term Storage Rule, written under remand from the Federal Courts, responsive to the court's order contemplates what will happen if no final repository is built. At least the federal court finds this a plausible scenario.

NRC says that in the event of canister failure it will require the licensee to built transfer facilities and change out the fuel to new canisters. NRC says it can do this every one hundred years or so as long as the fuel remains in place. Testimony –Shadis PP.10-11 Answer -3, August 19, 2015

Entergy's assumption that it will complete decommissioning of the ISFSI before license termination is according to its own reports overly-optimistic and, considering externalities, just plain wrong. Id. at 12.

**5. It is reasonable to infer that storage in the 100U (underground) system would avoid risks to above-ground stored fuel that could inhibit, complicate, or slowdown decommissioning of the reactor/power generation complex.**

Trans. P.77 Line 25, P.78 Lines 1-7 [Petitioner's witness reading from Site Assessment Study- DPS Cross Exhibit 2 P.58] A. Given all of these considerations, if all the spent fuel were removed from the site by the 2040's, it is possible and perhaps even likely that major decommissioning activities could start at that time. If, however, dismantling and decontamination must occur with fuel on the site, such costs would be higher and the start date for major decommissioning activities will most likely be later

**3. Decommissioning the proposed project will mean reducing or eliminating its aesthetic impact, its effect of site reuse, and its impact on community and regional planning.**

As it stands, plant decommissioning must, by law, be complete before 2073. Any negative effects of the ISFSI on regional planning, aesthetics, site reuse, and/or the local environment will remain until the ISFSI is removed. Shadis, Testimony P-9- 08/19/2015

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**4. Determinations of the project's aesthetic impact, effect of site reuse, and its impact on community and regional planning , as well as notions of alternatives and mitigating actions are best developed in consultation with affected persons or parties.**

First, let me say why I think public participation, meaningful public participation, is important. It is important because public participation has the potential to lead to better outcomes. In nuclear regulation, public participation is encouraged by NRC and increasing public participation is one of the agency's policy goals. In matters affecting communities and the environment, the National Environmental Policy Act as interpreted by NRC, requires meaningful public consultation. Public participation serves to increase public confidence in the licensee and regulatory agencies. I believe that the Vermont Public Service Board makes a effective gesture to inclusiveness when it holds informal hearings and invites public comments that it promises to consider when reviewing petitions that it has taken up. In the case of Maine Yankee, I witnessed over a period of seven and a half years (1997-2005) the efficacy of meaningful public input.

Unlike Entergy VY, which deferred to the state in forming a decommissioning advisory panel, Maine Yankee proactively began to lay plans for a community advisory panel on decommissioning before the actual decision to decommission was even cast. The plans identified interested persons as potential participants from various sectors of the community including "anti-nuclear" safety and environmental advocates.

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**5. NRC does not regulate the licensee's selection of waste fuel storage systems**

**beyond requiring that the choice is a licensed system.**

Q. Does NRC ever dictate what kind of system you're going to use or what vendor you're going to use? A. No. Q. Do they show any preference for one or another of the licensed cask designs? A. If the cask is licensed by the NRC, the burden is on the utility, the licensee, to ensure that it, meaning the dry cask storage facility or the ISFSI, meets the NRC requirements and meets the requirements for the cask license. Q. Okay. So if I understand you, it's entirely up to the licensee as to what -- as far as NRC is concerned as to what cask design or vendor they choose? A. As long as it's licensed by the NRC. Trans. [Mr. Thomas] P.19- lines 10-25, P.20

Line 1

**6. Soil analysis, such as that performed at Vermont Yankee is required by NRC regulation as a prerequisite to siting an ISFSI. It is reasonable to infer, that the necessity of analysis for seismic stability, liquefaction and so, should have been known to Entergy before the first CPG Petition was filed.**

Trans. [Mr Thomas] P.34 Line 25 Q. You were asked about limitations of where the P. 25 1-25 ISFSI could be located and the analysis, the soil analysis, I think you called it the granular model, when did that become available between the first -- sometime after the first ISFSI was built, right? A. Well what I said is we used a more granular model as a result of improvements in computer codes and taking a large number of soil probings which made the model more granular. I don't know when it became available. I do know that because of concerns about earthquakes in various countries that the software has been improved. I don't know when it was improved. Q. That was my question. How did you become aware of that being an option to do that additional testing or when did you? A. Well we hired Sargent and

Lundy. They do this type of work on a regular basis. So they advised us that it was available.

CHAIRMAN VOLZ: And when was that? MR. THOMAS: That would have been in 2014.

CHAIRMAN VOLZ: Thank you. BY MR. TURNBULL: Q. So you contracted with them in 2014 to do the analysis of the proposed location? A. Yes. Both what's called the geotechnical

P. 26 Lines 1,2

analysis, which involves the analysis of the soil, as well as the pad design. That's correct.

[However, the Petitioners should have been long familiar with

10 C.F.R. §72.212(b)(2)(i)(B) and 72.212(b)(3). requiring that a general licensee wishing to use an NRC-approved dry-cask storage system at its site must perform written evaluations before such use, establishing that cask storage pads and areas have been designed to adequately support the static and dynamic loads of the stored casks, considering both potential amplification of earthquakes through soil-structure interaction, and soil liquefaction potential or other soil instability from vibratory ground motion. In addition, the general licensee must review the Safety Analysis Report referenced in the Certificate of Compliance and the related NRC Safety Evaluation Report before use, to determine whether the reactor site parameters, including analyses of earthquake intensity and tornado missiles, are enveloped by the cask design bases considered in these reports.

**7. Witness Thomas tacitly acknowledges that the 100U cask system, although difficult to install at Vermont Yankee, has certain advantages over the 100 above-ground system proposed for Vermont Yankee.**

Trans. Page 14 Lines 15-25 Q. And I think I need to go to your testimony. Do you have a copy of your testimony there? A. Yes, I do. Q. Let's take a look at the supplemental prefiled and we are on page 7 of 8 question 9. Question 9 refers back to your original prefiled testimony and this is an update apparently. It seems as though you are saying in this testimony

that the Vermont Yankee site is not a suitable candidate for the 100U placement; is that correct?

A. It would be difficult and difficult means would require additional costs, considerable additional costs, and a considerable increase in schedule time to construct a 100U system at  
Page 15 Lines 1-10 Vermont Yankee. There's also limited space available to do that. Q.  
When you say limited space you mean that your location -- choice of locations would be limited,  
but it's not impossible to fit a 100U system at Vermont Yankee; is that right? 7 It could be  
done if you spent enough money and took enough time. Certainly we would not be able to move  
the fuel on to the pads by 2020 as we are presently working to do.

Page 16 Lines 16-25 Q. In your estimation what are the advantages of the 100U as opposed  
to upright or HI-STORM or above ground 1HI-STORM? A. The advantages would be as  
Holtec states, which if I recall it's lower radiation levels, possibly a lower -- a lower -- they  
claim it's more -- they claim the system is more secure, and how they draw that conclusion I'm  
not sure. Q. The profile would be considerably lower, would it not? Something like 27  
inches protruding above ground?

Page 17 Lines 1-25 A. Not necessarily. If you were able to install a 100U system and put it  
all the way in the ground, it would be. This is one of the issues with Vermont Yankee. If you  
put it all the way into the ground, you would go well beyond the groundwater level which is a  
major construction issue and is -- could be a major long term operational issue Q. Did you --  
did you -- and in your conversations with Holtec did you raise that question? A. We  
discussed it. Yes. Q. And what was their response? A. They feel that their system has  
been designed to prevent the potential from groundwater and leakage. Q. I believe -- A.  
So even though it was below ground water, the bottoms of the casks of the support pad were  
below ground water, they felt it could be designed and it could be. Q. I believe one of your

concerns with an alternate or alternative, I'm not sure which way that goes, with a second choice site near to the fence line was the dose rate from the storage facility; is that correct? A. That would be one of the concerns...

Page 18 Lines 1-8 correct. Q. Would the 100U eliminate that concern? A. I don't know because we didn't look at that specifically. Q. If I understood your answer earlier, you did say that the dose rate, radiation emanations from the 100U were considerably lower than the above ground casks? A. That's what Holtec claims. That's correct

**8. Petitioners believe that DOE would not reimburse them the cost of moving fuel from the present ISFSI to a combined 100 U storage site. This belief is likely in error.**

Trans. P. 30 Lines 2-12 MR. YOUNG: Right. And one of the reasons I was curious so that if you actually did locate the ISFSI into say a single 100U in a different location, you wouldn't have to maintain two protected areas at that point. You would still only have one protected area to maintain? MR. THOMAS: Well if we were to -- yes. If we were to move the existing pad and move the fuel on it, I think that's what you're asking, but then it would be an additional cost of moving the first pad which we probably would not get compensated for by DOE.

**8.A. The Board may take notice of the following Federal Court decision awarding spent fuel costs to Entergy Vermont Yankee , including state mandated actions such as the installation of a visual barrier fence .**

The Court has categorized the disputed damages based on the various charts ENVY and Defendant provided to the Court during the opening and closing arguments.

<u>Description of Cost Claimed</u>	<u>Total Amount Granted</u>	<u>Uncontested Amount</u>	<u>\$34,</u>
<u>895, 467 The Clean Energy Development Fund</u>	<u>\$5, 625, 000</u>	<u>Visual Barrier</u>	
<u><b>\$412, 854</b> River Flood Analysis</u>	<u>\$184, 552</u>	<u>Legal and lobbying services</u>	<u>\$3,</u>
<u>385, 783 Spent Fuel Characterization</u>	<u>\$156, 000</u>	<u>Holtec Rack Work Platform</u>	
<u>\$102, 220 Procedures/Employee Training for Holtec Casks</u>	<u>\$169, 087</u>	<u>Labor</u>	
<u>Costs for Employees to Attend Training</u>	<u>\$33, 211</u>	<u>Loading Mobilization</u>	<u>\$194, 000</u>
<u>Radioactive Waste Transportation</u>	<u>\$276, 980</u>	<u>Materials Loader</u>	<u>\$1, 210, 300</u>

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Total	\$46, 645, 454	Conclusion	Based upon the foregoing, the Court finds that ENVY is entitled to recover \$46, 645, 454 due to DOE's partial breach of the Standard Contract. The Clerk shall enter final judgment against Defendant in this amount. Pursuant to RCFC 54(d), the Court awards costs to ENVY as the prevailing party against Defendant. [Emphasis added]
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Entergy Nuclear Vermont Yankee, LLC v. United States, 03-2663C, Court of Appeals of Federal Claims September 24, 2010

**9. Petitioner's aesthetics witness Dodson testifies that doubling the number of nuclear waste casks will have no additional negative impact. Mr. Dodson does not identify any negative visual impacts from existing casks nor the addition of a white generator topping a rust-colored barrier wall. Given the public consternation over waste siting and the reservation of natural vistas, Witness Dodson's analysis is simply not credible.**

On balance, the changes to the generator's location and orientation, as well as the addition of the barrier wall, will result in a negligible increase in the visibility of the generator complex from the Connecticut River and the Hinsdale, New Hampshire shoreline. Q5. What color will the barrier wall be? A5. The barrier wall will be constructed with a surface of Cor-Ten steel, which forms a stable rust-like, dark brown appearance when exposed to weather.

Supplemental Prefiled Testimony of Harry Dodson PSB Docket No. 8300 May 11, 2015  
Page 2 of 6 at line 22

The proposed 9 200 kW diesel generator enclosure will be painted white, a color also frequently used at the VY Station. The generator enclosure will not be highly visible because it will be approximately 12 feet above-grade, much lower than the casks, which will be approximately 20 feet above-grade. Additionally, the generator will be located 100 feet

further away from the river. Its proposed white color will not make it highly visible from off site.

Prefiled Testimony of Harry L. Dodson PSB Docket No. 8300 June 30, 2014 Page 14 of 27

The Project will not diminish views from the Connecticut River and the Hinsdale shoreline, nor will it immediately improve them. But as an essential component of the closure and decommissioning of the VY Station, the Project will enable the future improvement of the scenic quality of the site assuming that it is not reused for commercial or industrial purposes.

Prefiled Testimony of Harry L. Dodson PSB Docket No. 8300 June 30, 2014 Page 22 of 27

A7. Yes. The Second ISFSI will be located in close proximity to the existing ISFSI that the Public Service Board authorized in Docket 7082. That existing ISFSI and the casks stored on it forms an established backdrop against which the Project must be viewed. In other words, the issue is not the impact of the Project on an otherwise open and undeveloped space, but rather its impact on an area that already has an ISFSI and casks located on it.

Prefiled Testimony of Harry L. Dodson PSB Docket No.8300 June 30, 2014

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Prefiled Testimony of Harry L. Dodson June 30, 2014 cont. Page 18 of 27 at line 2

The Project will be minimally visible except from certain portions of the Connecticut River and the Hinsdale, NH shoreline and bluffs. As a result, it will not impact the rural character of the Town.

Prefiled Testimony of Harry L. Dodson June 30, 2014 cont. page 18 out of 27 at line 8

The Project will have no physical or visual impact on the Connecticut River.

Prefiled Testimony of Harry L. Dodson  
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Q23. Do you propose any additional mitigation measures for this Project?

A23. I understand that many mitigating measures such as planting, creation of berms and screening are impossible or very restricted by security requirements. Extending the screening wall to the west would block views of the Second ISFSI storage pad but not the generator from the northeast. Given the small relative size and limited visibility of the Project from relatively narrow cones of vision to the northeast and southeast, as well as the fact that it will be seen as an integral component of the adjacent industrial, administrative and security buildings and structures, I do not believe that additional mitigation measures for the Project are necessary. Extending the existing screening wall would accomplish minimal visual mitigation while introducing a large, uniform visual element into the scene. In my opinion, the visual impacts of extending the screening wall are greater than the impacts of the proposed Project and would detract somewhat from the visual quality of the area.

Trans. Page 54 Lines 12-25 and Page 55 Line 1 Q. Okay. Could you please rank for us what 13 aspects of the casks, what aspects of the casks the image they present are best, worst aesthetically? A. Could you explain that? Q. Yeah. What's -- what's good looking about these casks? What's bad looking about them? A. I think the most apparent quality of the cask is that they are minimally visible from the Connecticut River and the New Hampshire shoreline. They are relatively small in relation to their surroundings. They fit in

with the industrial character of their surroundings. They are of a color that blends in with the existing surroundings. That would be the positive aspects. The negative aspects would be that they are a new element in the scene albeit a very small one.

### **III. Proposed Order**

New England Coalition requests, based upon the facts herein above, that the Public Service Board issue an Order in this case conditioning a Certificate of Public Good as follows: The petitioners shall cause to be undertaken a study of the project's impacts on site reuse, orderly development , regional planning, local environment, and aesthetics, with particular attention to mitigation and mitigating alternatives . The study is to be by professional measure thorough and undertaken in consultation with the affected public including advocacy stakeholders and the parties to this docket. The study shall include a detailed comparison of the currently proposed above ground storage and underground storage such as the 100 U system. The Petitioners may not begin construct of the proposed ISFSI. Parties will be accorded an opportunity to comment on the study and make recommendations regarding the Board's response to the study. All other matters in this petition are favorably decided.

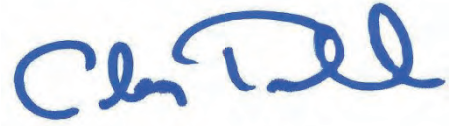
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### **CONCLUSION**

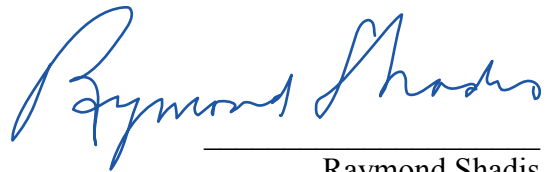
For the reasons of law and fact set forth in the foregoing, the Vermont Public Service Board should issue an Order in this case embodying the conditions proposed above.

Respectfully Submitted  
on Behalf of New England Coalition  
This 15th Day of March, 2016

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I hereby certify that I am serving this filing by hand delivery to the Vermont Public Service Board and by electronic filing and by deposit in the U. S. Mail First Class to all a parties, on this day, March 15, 2016



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Clay Turnbull, *Pro Se* Representative