Petition of Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc., for a certificate of public good 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 200kW, at the Vermont Yankee Nuclear Power Station in the Town of Vernon, Vermont

Summary: Mr. Campany presents the Windham Regional Commission’s conclusions regarding the need for the proposed second independent spent fuel storage installation pad and concerns about the location of the proposed pad and the applicant’s spent fuel pick up assumptions.
Q. Please state your name and occupation.

A. My name is Chris Campany and I am the Executive Director of the Windham Regional Commission (the WRC). The WRC is participating in this docket pro se, and I am serving as the WRC’s own counsel.

Q. Please describe your educational background and experience.

A. I have a Bachelor of Arts in Political Science and a Master of Public Policy and Administration from Mississippi State University, and a Master of Landscape Architecture from Louisiana State University. I have worked for and served as Executive Director of the WRC for five years. Prior to joining the WRC, I was an Assistant Professor of Landscape Architecture and Graduate Program Coordinator at Mississippi State University; Deputy Director of Planning and Zoning, and Zoning Officer, for Calvert County, Maryland; Deputy Commissioner of Planning for Orange County, New York; Federal Policy Coordinator for the National Campaign for Sustainable Agriculture; founder and Executive Director of the Baton Rouge Economic and Agricultural Development Alliance in Louisiana; and a Program Analyst and Presidential Management Intern with the U.S. Environmental Protection Agency in Washington, DC. I am a Certified Planner through the American Institute of Certified Planners.
Q. Have you testified before the Board before?
A. No, I have not.

INTRODUCTION AND SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony.
A. My testimony provides the WRC’s position on the need for the second independent spent fuel storage installation (ISFSI) pad, our concerns about the petitioner’s spent fuel pick up assumptions and how they relate to our concerns about the proposed location of the 2nd ISFSI, and how incorrect pick up assumptions and ISFSI siting choices could result in significant additional decommissioning costs and depletion of the decommissioning trust fund which would further delay, or at worst preclude, decommissioning. It is and has been our position that delays in decommissioning interfere with the orderly development of the region.

Q. Are you the only witness for the Windham Regional Commission?
A. Yes.

Q. What is the Windham Regional Commission’s overall conclusion regarding whether or not the facility should be granted a Certificate of Public Good under 30 V.S.A. § 248?
A. It is the position of the WRC that spent fuel should be shifted from wet to dry storage as soon as possible. However, it is premature for the WRC to reach its final conclusion on this proposed project as we hope additional information might be provided by the petitioner and other parties in this docket as to whether or not the proposed location of the 2nd ISFSI could result in delayed decommissioning and increased decommissioning costs. Underlying this concern is the petitioner’s unsupported assumption that spent fuel will be picked up and removed from the site prior to decommissioning. It is our position that improper siting of the 2nd ISFSI which results in increased decommissioning costs and a delay in decommissioning will unduly interfere with the orderly development of the region per Section 248(b)(1).

Q. What is the WRC’s specific conclusion as to whether or not the proposed facility complies with Section 248(b)(1)?

A. Unless additional testimony is provided that the petitioner’s spent fuel pick up assumptions are both reasonable and valid, including that there is little reasonable risk that the proposed site of the 2nd ISFSI will result in increased decommissioning costs and delayed decommissioning, it is our position that alternative sites should be identified and assessed or, alternatively, the petitioner must guarantee that the spent fuel will be removed in a timely manner such that decommissioning will not be delayed and that the costs associated with doing so will not be taken from funding intended for decommissioning and/or site restoration. Under Section 248(b)(1) the Board is to find the facility will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the regional planning commission.
II. SECTION 248(b) CRITERIA

On which Section 248(b) criteria will you be submitting recommendations?

I will be submitting recommendations on criterion 30 V.S.A. § 248(b)(1): whether a facility will unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the regional planning commission.

Q. Does the facility satisfy the requirements of this criterion?

A. No. As the petitioner has stated, the proposed site for the 2nd ISFSI could result in delayed decommissioning and increased decommissioning costs. It is the position of the WRC that the Vermont Yankee site should be decommissioned and returned to greenfield status for reuse without delay. The cause for this delay could be twofold. First, the location of the 1st ISFSI and proposed 2nd ISFSI will interfere with the physical decommissioning of the plant. Second, the petitioner has agreed to commence the decommissioning of the site once the decommissioning trust is sufficient to do so. If decommissioning becomes dependent upon the need to again move the spent fuel and the petitioner is again allowed to use funds from the decommissioning trust to perform this action, it would be reasonable to assume that decommissioning would again be delayed until such time as the decommissioning trust has again been restored to a level of funding that would allow decommissioning to commence. Repeatedly drawing down the decommissioning trust fund...
to pay what were foreseen, foreseeable and avoidable expenses, and thereby delaying the
decommissioning, should not occur.

Q. What has the petitioner said about the impact of spent fuel remaining on the site during
decommissioning, and how this might affect decommissioning costs?

A. In the first set of discovery requests, the Public Service Department asked the
following in Q.DPS:EN.1-22 (p. 28):

Reference Entergy VY Site Assessment Study (Oct. 2014). Page 23 of the
Site Assessment Study states:

At the time decontamination and dismantlement are scheduled to start,
ENVY assumes all spent fuel will have been removed from the site and
therefore will not affect the decommissioning activities. If DOE’s removal
of spent fuel is delayed beyond the assumed completion date or the
decontamination and dismantlement activities are accelerated and start
before the removal of the fuel, the presence of the fuel may inhibit
demolition or restrict the methodologies available for demolishing the
Reactor Building and/or structures adjacent to the stored spent fuel.

Please detail and describe any and all possible impacts the presence of the Project,
loaded with dry casks, may have on decommissioning activities at nearby
structures. Please produce any and all documents, manuals, notes, reports,
correspondence, and/or data related to or used to support this description.
In the petitioners response to Q.DPS:EN.1-22, Senior Project Manager George Thomas stated the following (p. 28):

“Without waiving its objections, as stated in Entergy VY’s October 2014 Site Assessment Study (p. 58), “[t]he removal of all spent nuclear fuel makes the performance of major decommissioning activities substantially less complicated and materially reduces overall security issues on the site.”

(http://vydecommissioning.com/wp-content/uploads/2014/10/Final-VYSAS.pdf). Accordingly, “[t]he three [higher] cost estimates for immediate DECON, which assume completion of major decommissioning activities with fuel on the site (but do not account for the added complexity of having fuel movement campaigns in parallel with dismantling and decontamination work), are more appropriate estimates for this purpose [estimating the cost of dismantling and decontamination while fuel remains on the site]” (id.). Entergy VY has not undertaken an analysis of how spent nuclear fuel remaining on the site would affect specific dismantlement and decontamination activities beyond these general observations and the solicitation of the DECON cost estimates. To at least some extent, however, the impact on dismantlement and decontamination activities if spent nuclear fuel remains on site already exists as a result of the existing ISFSI and may not be materially different with the addition of the Project.

Q. What are your concerns about the petitioner’s position on alternative sites for the 2nd ISFSI?
A. We explored this in some detail in our August 13, 2014 filing with the Board titled **WINDHAM REGIONAL COMMISSION COMMENTS RE: ENTERGY VY PETITION FOR A CERTIFICATE OF PUBLIC GOOD FOR A SECOND SPENT FUEL STORAGE FACILITY**. I will quote from that filing here (pp. 6-7).

In its prefile notification Entergy VY provided a quick summary of alternatives considered including leaving the fuel in the elevated spent fuel pool, using underground casks, and building a second ISFSI that would be far removed from the existing ISFSI (while apparently continuing to use the first ISFSI).\(^1\)

WRC sought additional information about all alternatives considered, including the construction and ongoing cost of each, and the affect each alternative would have on the cost, complexity, and timing of decommissioning and subsequent reuse of the site.\(^2\)

The prefiled testimony of Entergy VY witness George Thomas provided additional information about the alternatives Entergy VY did consider, and correctly noted that “when the Board approved the existing ISFSI, Entergy VY indicated that an additional storage pad would be needed after the VY Station ceased operation.”\(^3\)

While the proposed location for the second ISFSI might be the best option, Entergy VY has not fully considered all reasonable alternatives, nor has it provided sufficient information to conclude that the proposed option is actually

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\(^1\) Petition, 6/30/14, prefiled testimony of George Thomas, page 19, line 20, Answer 30

\(^2\) Petition, 6/30/14, EN-TMT-3, WRC Comment Memo dated June 13, 2014, item 1

\(^3\) Petition, 6/30/14, prefiled testimony of George Thomas, page 20, line 7
the best available option. Specifically, we believe it is in the best interest of the region and the state to know how the proximity of the existing and proposed ISFSI storage pads will affect the demolition associated with the eventual plant decommissioning.

WRC agrees with Entergy VY that “keeping the spent fuel in the spent fuel pool is not a substitute for constructing a Second ISFSI storage pad because the VY Station cannot be fully decommissioned until all spent fuel has been removed from the spent fuel pool.” And we recognize that supporting two separate spent fuel storage pads at different points on the site might be prohibitively expensive and could restrict reuse of the property. However, Entergy VY did not adequately consider consolidated storage of all the spent fuel elsewhere on the site, nor has Entergy VY adequately considered or made a reasonable effort to remove the spent fuel from the VY site.

Q. In the petitioners response to Q.DPS:EN.1-22, George Thomas stated the following: “To at least some extent, however, the impact on dismantlement and decontamination activities if spent nuclear fuel remains on site already exists as a result of the existing ISFSI and may not be materially different with the addition of the Project.” What is your position on the relationship of the existing ISFSI to the proposed site of the 2nd ISFSI, and the relationship of both to the decommissioning process and decommissioning costs?

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4 Petition, 6/30/14, prefiled testimony of George Thomas, page 20, line 13
A. It is important to remember that the relationship between ISFSI location and
decommissioning has been discussed before the Board in prior dockets. We recounted
this history in our August 13, 2014 filing with the Board titled WINDHAM
REGIONAL COMMISSION COMMENTS RE: ENTERGY VY PETITION FOR
A CERTIFICATE OF PUBLIC GOOD FOR A SECOND SPENT FUEL
STORAGE FACILITY. I will quote from that filing here (pp. 7-9):

When Entergy VY sought approval for the existing ISFSI in docket 7082
the company asserted that upon closure a second larger ISFSI would be
constructed to hold all the fuel and would be located away from the reactor
complex (unless DOE was in the process of accepting spent nuclear fuel) because
the placement of spent fuel close to the power block would inhibit eventual
decommissioning or otherwise make decommissioning more expensive or
difficult. It was on this basis that the Board approved the first ISFSI. Although
Entergy VY has previously acknowledged its plan to consolidate all the spent fuel
on a single ISFSI far removed from the reactor complex, the company does not

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5 Docket 7082 Board Order, April 26, 2006, page 25 ("Certainly, other possible locations exist within the Vermont Yankee site that could accommodate a storage facility. Entergy VY will eventually need to construct a larger storage facility in such a location"); Docket 7082 Board Order, April 26, 2006, page 78, finding 230 ("When Vermont Yankee shuts down in 2012 or at some later date, Entergy VY will need to construct a separate dry fuel storage pad that may need to hold from 60 to 80 casks depending on the DOE schedule for spent nuclear fuel removal"); Spent Fuel Management Plan, June 2006, page 3, section 3.1 ("The SNF stored in casks on the existing pad as well as the SNF remaining in the spent-fuel pool will be transferred to the new ISFSI."); Spent Fuel Management Plan, November 2008, page 4, section 3.1; Decommissioning Cost Analysis, January 2007, section 2 page 4 of 12, bullet 1 ("Construct the "North 40" ISFSI (Scenarios 1,3,4,5,7,8). Relocate the spent fuel storage pool assemblies and the fuel in the PA ISFIS so that decommissioning (or safe storage preparations) can proceed on the power block structures."); Decommissioning Cost Analysis, January 2007, section 3, page 8 of 35 ("New ISFSI constructed in the "North 40" to support decommissioning operations. Fuel relocated from the PA ISFIS to "North 40" ISFSI at shutdown"); Decommissioning Cost Analysis, January 2007, Section 4, page 2 of 5, bullet 2 ("In Scenario 2, fuel remains in storage on the PA pad during building demolition. As such, the duration for the demolition period is extended, as compared to the other scenarios. The longer schedule allows for additional safeguards to be put in
appear to offer an evaluation of this well established alternative in its current Petition.6

In docket 7440 WRC raised questions about where a new consolidated ISFSI would be located, and expressed concerns that the location Entergy VY previously identified for this use as the “North 40” had recently been sold for use as a VELCO switchyard, and storing fuel elsewhere on site might prevent redevelopment or increase costs. Entergy VY asserted that a new ISFSI sufficient to accommodate all the spent fuel from operations through 2032 could probably still be built in the “North 40,” and that other locations existed on the site for the single consolidated ISFSI, including the current site of the cooling towers. 7

Throughout the docket 7440 process Entergy VY did not suggest it would leave any fuel on the original pad (unless DOE was in the process of accepting spent

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6 The prefiled testimony of George Thomas appears to consider a second pad outside the existing protected area while also continuing to operate the existing pad. See prefiled testimony, page 22, line 4, item 3, which discusses moving the fuel “between” ISFSI’s, rather than simply from the old ISFSI to the new ISFSI.

nuclear fuel from the Station), and made clear that a second larger pad would
need to be constructed far from the main reactor complex to accommodate all the
spent fuel. WRC does not have the complete docket 7082 record, but we do not
believe the possibility of two separate pads being used simultaneously was
seriously considered in docket 7082.

WRC remains concerned that a pair of spent fuel storage pads adjacent to
the power block structures will either delay the point at which the Station can be
decommissioned and the site restored, or could increase the costs of
decommissioning. Entergy VY apparently intends to pay these costs from the
Decommissioning Trust Fund and the Site Restoration Fund and then hope for
reimbursement from DOE, which is not assured. Likewise we are concerned that
spent fuel located in the center of the site could have profound impacts upon
redevelopment after the reactor complex has been decommissioned and restored.
Michael Twomey testified that the second ISFSI will facilitate potential reuse of
the site, yet given its placement, exactly the opposite may be true.

Entergy VY witness George Thomas offers a number of financial reasons
why a separate ISFSI should not now be located outside the Protected Area (PA),
mostly related to the costs of a second pad positioned distant from the existing
pad. However, it was Entergy VY that established the first pad in its current
location while also assuring the Board and intervenors in docket 7082 that all fuel

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8 Docket 7862, Reply Brief of WRC, 10/25/13, page 10, second paragraph, please see discussion of DOE
reimbursements roughly 13% less than original damage awards.
9 Petition, 6/30/14, prefiled testimony of Michael Twomey, page 5, line 6
10 Petition, 6/30/14, prefiled testimony of George Thomas, page 21, line 19
would be removed from the protected area to a distant consolidated pad following shutdown.

Entergy VY elected to build an undersized pad within the protected area to reduce its operating costs relative to a pad located elsewhere on the site, while deferring costs for a second consolidated pad to the post-operations period such that those costs would likely be assigned to the Decommissioning Trust Fund. And Entergy VY elected to sell property in the area known as the “North 40” to VELCO for a switchyard, raising capital for itself, but potentially rendering that area unsuitable for a consolidated ISFSI. In essence, Entergy VY has used discretion to serve its own interests at the expense of regional and state interests by shifting significant current expenses into the future when those expenses will likely fall on the Decommissioning Trust Fund. The Board should address the financial implications of this discretionary decision making to protect the regional and state interests and to assure the adequacy of the Decommissioning Trust Fund.

Q. Has the petitioner had time to consider and evaluate alternative sites?

A. Yes. As is noted above, when Entergy VY sought approval for the existing ISFSI in docket 7082 the company asserted that upon closure a second larger ISFSI would be constructed to hold all the fuel and would be located away from the reactor complex (unless DOE was in the process of accepting spent nuclear fuel) because the placement of spent fuel close to the power block would inhibit eventual decommissioning or otherwise
make decommissioning more expensive or difficult. Nine years later we find ourselves reviewing a petition that does what the petitioner had previously said should not be done; specifically siting a 2nd ISFSI close to the power block in a manner that would inhibit eventual decommissioning or otherwise make decommissioning more expensive or difficult. The decision on the part of the petitioner to not seriously evaluate alternative sites away from the reactor complex will now necessitate a delay in transferring the fuel from wet to dry storage and additional site alternative and design costs should the Board so order that alternative sites be explored.

Q. Has the Board raised concerns about the timing of petitioner applications for an ISFSI in the past?

A. Yes. The situation which the petitioner has created for itself, and now for the State of Vermont, is very reminiscent of the circumstances in 2005. We expressed our concerns in our August 13, 2014 filing with the Board titled WINDHAM REGIONAL COMMISSION COMMENTS RE: ENTERGY VY PETITION FOR A CERTIFICATE OF PUBLIC GOOD FOR A SECOND SPENT FUEL STORAGE FACILITY. I will quote from that filing here (pp. 17 & 18):

Entergy VY filed its Petition on June 30, 2014. On July 15, 2014 the Board issued a docket number and Notice of Hearing in which it scheduled a Prehearing Conference for July 30, 2014. On July 25, 2014 Entergy VY filed a letter requesting that the Board defer the Prehearing Conference and further proceedings until the October 2014 timeframe so that engineering studies and a
site assessment study can be completed. The Board responded on the same day by
cancelling the original Prehearing Conference and rescheduling it for October 29,
2014.

WRC stands by our original request that the approval process for a second
ISFSI be transparent and swift, a position Entergy VY quoted favorably in
testimony filed with its Petition.\textsuperscript{11} We are disappointed that the necessary
engineering and site assessment studies have not yet been completed, and are
especially disappointed given that Entergy VY has been aware of the need for a
second ISFSI since at least 2005. The second ISFSI is necessary so that fuel can
be moved from the elevated spent fuel pool to casks, and in its Petition Entergy
VY advised the Board that “construction is expected to begin in mid-July 2015
and be completed by July 31, 2017.”\textsuperscript{12} It is not clear how the requested delay will
affect the planned construction schedule.

When Entergy VY filed its docket 7082 Petition for the original ISFSI in
2005 it timed the filing in such a way that the Board was limited in its ability to
require potential alternatives. The Board was troubled by the close timing of the
docket 7082 Petition and need for an accelerated process, and made its concerns
clear in unambiguous language within the docket 7082 Order:

\textit{The timing of Entergy VY’s proposal raises some concern. Because the
Project is the only facility that could be successfully constructed before

\textsuperscript{11} Petition, 6/30/14, prefiled testimony of Harry Dodson, page 25, line 16 (quoting WRC prefile comment letter
dated 6/30/14 and filed as Entergy VY exhibit EN-TMT-3)
\textsuperscript{12} Petition, 6/30/14, prefiled testimony of Michael Twomey, page 5, line 16 ; testimony of George Thomas, page 19, line 17
Entergy VY exhausts capacity in the spent fuel pool, if we had found that
one of the alternatives was preferable, timing alone might have rendered
that alternative infeasible unless the Board was willing to risk the
potential loss of the economic benefits of Vermont Yankee. As we do not
find that the alternatives are clearly preferred, this potential dilemma is
not before us. However, in the future, Entergy VY must file its requests for
approval under Section 248 sufficiently far in advance to ensure an
opportunity for meaningful consideration and implementation of
alternatives.\textsuperscript{13} (Emphasis added)

WRC has long advocated for expedited movement of spent fuel from wet
storage to dry storage, and is concerned that the latest delay requested by Entergy
VY could pressure the Board to provide a CPG without sufficient time to consider
and implement an alternative, or might prevent Entergy VY from initiating
construction in the 2015 summer season as planned (assuming a CPG is granted).
This is exactly the position in which the Board was placed in docket 7082.

Q. What actions would you suggest the Board take in the interest of the public good?

A. As we advised in our August 13, 2014 filing, it is our recommendation that the
Board should require consideration of a single consolidated pad far removed from the
reactor complex, and if accepted as an alternative, should hold Entergy VY responsible

\textsuperscript{13} Docket 7082, Board Order, 4/26/06, page 25, footnote 30
for all costs associated with constructing this pad and moving fuel from the original pad
(rather than impose those costs on the Decommissioning Trust Fund). If the current
Entergy VY proposal is accepted then Entergy VY should be held responsible for any
costs associated with safeguards necessary through the decommissioning and site
restoration periods (rather than impose those costs upon the Decommissioning Trust
Fund), and should be required to show that the proposal will not inhibit redevelopment of
the site.

Concerning what entity or entities should be responsible for the costs associated
with this petition, we continue to assert that ENVY and ENO are joint petitioners in this
docket, as they have been in every docket since ENVY purchased the Station in 2002.
From a practical standpoint both ENVY and ENO function as one and the same with
substantial overlap of corporate directors and officers. Both ENVY and ENO are
subject to Board jurisdiction while the Station is operating, and Board jurisdiction does
not expire when the Station ceases operation. Entergy Corporation is the parent of both
ENVY and ENO and exerts direct influence through financial guarantees, direct
investment, management of budgets and local decision making, and the structure and
composition of its corporate subsidiaries. It was Entergy Corporation that interceded in
docket 6300 to block the sale of the VY Station to AmerGen in 2001 and then posted a
performance bond to purchase the Station before ENVY even existed.15

14 Docket 7862, WRC-Cross-22 and Entergy VY Reb.Redirect-Twomey-1; WRC-Cross-23 and Reb.Redirect-
Twomey-2; WRC-Cross-24 and Entergy VY corrected discovery response filed by Entergy VY on 8/16/13)

15 Docket 7862 Initial Brief of WRC, 8/16/13, page 24, finding 7 and footnote 82 citing to docket 6300 Order
dismissing petition dated 2/14/01.
WRC has made extensive prior arguments that both ENVY and ENO have jointly operated the Station for more than 12 years, and have made decisions regarding operations and spent fuel management on behalf of and with the direct oversight of Entergy Corporation.\textsuperscript{16} The primary revenue stream while the Station was operating was from the sale of electricity. ENO will have ongoing revenue even after the Vermont Yankee Station ceases producing electricity, and Entergy Corporation has extensive alternative revenue streams.

The Board should recognize ENVY and ENO as jointly and severally responsible for all spent fuel management costs, and should likewise hold Entergy Corporation, as the parent, ultimately responsible for all future spent fuel management costs that are not reimbursed by DOE. Spent fuel management costs, including the costs of capital, should not be paid from the Decommissioning Trust Fund.

We recognize that Entergy VY will likely argue that the PSB cannot compel use of funding, other than that from the Decommissioning Trust Fund, to build the second ISFSI storage pad. While we are asking the Board to compel the applicant to use alternative funding and to hold the various corporate entities jointly and severally liable, we also hope that those same corporate entities will consider the perspective and position of the host region and pursue this remedy of their own accord.

\textsuperscript{16} Docket 7440, Reply Brief of WRC, 8/7/09, page 3; docket 7862, Initial Brief of WRC, 8/16/13, page 24, section II; docket 7862, Reply Brief of WRC, 10/25/13, page 6, section II; docket 7862, Comments of WRC re Reply Briefs, page 5, section 2; docket 7862, WRC Post Hearing Brief and Proposal for decision, 2/21/14, page 3, item 2
Q. Does this conclude your testimony?

A. Yes, it does at this time.