In the Matter of:
Entergy Nuclear Operations, Inc., Vermont Yankee Nuclear Power Station September 4, 2014 License Amendment Request

STATE OF VERMONT’S
PETITION FOR LEAVE TO INTERVENE AND HEARING REQUEST

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INTRODUCTION

Through various related filings and other public statements, Entergy Nuclear Operations, Inc. (“Entergy”), has made clear that it intends to withdraw money from its Nuclear Decommissioning Trust (“NDT”) Fund to pay for spent fuel management and other non-decommissioning expenses at the Vermont Yankee Nuclear Power Station (“Vermont Yankee”). To do so, Entergy must, at a minimum: amend its Operating License; obtain an exemption from NRC Regulations specifically intended to prevent improper uses of the NDT Fund; amend its NDT Fund Master Trust Agreement (“MTA”); and amend the NRC Order which, in 2002, authorized its acquisition of Vermont Yankee. What is at stake in these several efforts by Entergy is the potential for a failure to thoroughly and safely decommission Vermont Yankee in an environmentally benign manner such that the site can be released for “unrestricted use.” 10 C.F.R. § 50.2.

Assuring adequate funds for a reactor owner to meet its decommissioning obligations is part of the bedrock on which NRC has built its judgment of reasonable assurance of adequate protection for the public health and safety and protection of the environment. Entergy’s September 4, 2014 License Amendment Request (“LAR” or “proposed amendment”) (ADAMS Accession No. ML14254A405) directly threatens NRC’s ability to assure adequate funds for decommissioning Vermont Yankee.

Although the LAR at issue here appears to be a simple request to relieve Entergy of the obligation to provide 30 days advance notice to NRC before it withdraws funds from the NDT Fund, it is directly related to Entergy’s pending exemption request to use the NDT Fund for spent fuel management expenses. In addition, the LAR must be viewed in connection with the
financial predictions underlying Entergy’s Post Shutdown Decommissioning Activities Report ("PSDAR").

The NRC cannot allow Entergy to divert NDT funds to irradiated fuel management, with or without 30 days notice, for a number of reasons, including that Entergy cannot meet all of the requirements of 10 C.F.R. § 50.82(a)(8)(i). If Entergy is unable to meet those regulatory standards, there is no point in the request to be allowed to divert funds or to be relieved of the regulatory obligation to provide notice before withdrawing funds. Vermont has provided extensive comments that identify fundamental flaws in Entergy’s attempt to demonstrate that the NDT has excess funds and those comments are incorporated and attached to this Petition. The State’s March 6, 2015 Comments on the PSDAR are attached hereto as Exhibit 1.

**STANDING**

The State of Vermont ("State"), its citizens, and its ratepayers have a direct interest in ensuring proper use of the NDT Fund for decommissioning the Vermont Yankee plant in Vernon, Vermont. The State opposes Entergy’s September 4, 2014 LAR because, among other things, it would: (1) eliminate the 30-day notice requirement for withdrawals from the NDT Fund; (2) prevent the State of Vermont and interested citizens from commenting on and, when appropriate, opposing unauthorized withdrawals from the NDT Fund; and (3) impair the ability of the NRC to prohibit potentially improper withdrawals. Further, the LAR is directly related to an exemption request that Entergy filed after the LAR, and, because the two requests are clearly linked, the State should have an opportunity for a hearing on both the LAR and the directly related exemption request. Because the underpinning for the request and the sole need for the proposed amendment, is Entergy’s assertion that there are excess funds in the NDT, Vermont also opposes the proposed amendment because it is based on the faulty premise that Entergy has
met its burden to prove that there are excess funds in the NDT. The State also opposes the LAR because it is not supported by an environmental report from Entergy and has not undergone the required environmental review and, despite Entergy’s claim to the contrary, the LAR is not categorically excluded from that review. Finally, Vermont opposes Entergy’s request because it comes 12 years too late and is thus untimely.

Vermont’s standing to raise issues related to Entergy’s plans for decommissioning has been affirmed by the Atomic Safety and Licensing Boards in previous proceedings. See In the Matter of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station) Docket No. 50-271-LA, Memorandum and Order (Ruling on Request for Hearing and Petition to Intervene) at 7 (Jan. 28, 2015) (ADAMS ML15028A521).

CONTENTION I

ENTERGY’S LAR INVOLVES A POTENTIAL SIGNIFICANT SAFETY AND ENVIRONMENTAL HAZARD, FAILS TO DEMONSTRATE THAT IT IS IN COMPLIANCE WITH 10 C.F.R. §§ 50.75(h)(1)(iv) AND 50.82(8)(I)(B) AND (C), AND FAILS TO DEMONSTRATE THAT THERE WILL BE REASONABLE ASSURANCE OF ADEQUATE PROTECTION FOR THE PUBLIC HEALTH AND SAFETY AS REQUIRED BY SECTION 182(a) OF THE ATOMIC ENERGY ACT (42 U.S.C. § 2232(a)) IF THE PROPOSED AMENDMENT IS APPROVED.

BASES

1. In light of stated indications by Entergy that it intends to try to use the NDT Fund for expenses that are not allowed under applicable NRC regulations, it would be arbitrary and an abuse of discretion for the NRC to eliminate the existing 30 day notice requirement for NDT Fund withdrawals. The importance of the 30-day notice requirement is, if anything, heightened by Entergy’s recent statements about use of the NDT Fund. Improper use of the NDT Fund
places Vermonter and neighboring citizens at risk that the site will not be fully radiologically decontaminated. Entergy’s LAR, if granted, would directly impair the NRC’s ability to ensure compliance with its regulations, and thus place the public at risk that Entergy will deplete the NDT Fund before it has met its obligation to safely decommission the site.

2. Entergy’s cited authority of 10 C.F.R. § 50.75(h)(4) does not apply because the proposed amendment does not merely eliminate a requirement in the license that Entergy comply with the MTA (as the regulation contemplated as the basis for the generic finding), but also proposes to eliminate an existing condition of a 30 day notice before withdrawal of funds. That provision is needed to allow time for Vermont, the public, and NRC to analyze whether the intended withdrawal from the NDT Fund is for authorized purposes.

3. The proposed amendment, in the context of Entergy’s other filings and public statements, ignores the binding MTA, which includes the obligation to use NDT funds only for radiological decommissioning activities until all decommissioning is complete. The MTA is attached hereto as Exhibit 2.

4. The proposed amendment, in the context of Entergy’s other filings and public statements, ignores the obligation in Vermont Public Service Board (“PSB”) Orders to seek that Board’s approval before using the NDT funds in ways that are not allowed under the binding MTA.

5. NRC is obligated to assure that Entergy act in compliance with its legitimate obligations under state law, including the MTA and PSB Orders.

6. The proposed amendment would allow Entergy to gain unlimited access to the NDT Fund without giving notice to any parties of its intended withdrawals.
7. Entergy’s estimate of the costs of irradiated fuel management are based on indefensible and undefended assumptions, including that the Department of Energy (“DOE”) will begin to take irradiated fuel from Vermont Yankee by 2026, that all irradiated fuel will be eliminated from the Vermont Yankee site by 2052, and that there will not be a need to have a dry transfer storage facility constructed at the site to move irradiated fuel to new dry casks in the future. Entergy has failed to demonstrate that there will be sufficient funds for decommissioning if these costs exceed Entergy’s projections, and Entergy is allowed to pay for these costs out of the NDT Fund before completing the legally required radiological decommissioning activities.

8. Entergy has not demonstrated that it can meet the requirements of 10 C.F.R. §§ 50.82(8)(i)(B) and (C) – assuming either the NDT Fund remains untouched for irradiated fuel management or Entergy’s proposed withdrawals occur – because it has failed to account for “unforeseen conditions or expenses.” It has also failed to demonstrate that the proposed withdrawals would not “inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust needed to ensure the availability of funds to ultimately release the site and terminate the license.” Thus, even if Entergy were allowed to rely on 10 C.F.R. § 50.75(h), it could not avoid the 30 day notice requirement because it has not shown that it is in compliance with 10 C.F.R. §§ 50.82(8)(i)(B) and (C).

9. The 30 day notice provision provides an essential, as well as legally required, opportunity for NRC, the State, and the public to prevent depletion of the NDT Fund to the point where it is no longer able to meet the needs of a legally required decommissioning. It was established by NRC for just such a purpose.

10. Even if Entergy were allowed to withdraw money from the NDT Fund for decommissioning purposes without the required 30 day notice, the reasoning behind the current
version of § 50.75(h), allowing NDT withdrawals once the criteria of 10 C.F.R. § 50.82(8)(i) are met, is inapplicable to withdrawals for irradiated fuel management. Unlike decommissioning, Entergy has not demonstrated that withdrawals of funds for irradiated fuel management would leave the NDT Fund in compliance with § 50.82(8)(i). Such withdrawals are for a purpose neither contemplated nor authorized by § 50.75(h)(1)(iv).

11. The provision requiring a 30 day notice prior to any withdrawal from the NDT Fund until such time as the licensee has demonstrated compliance with the provisions of § 50.82(8)(i) serves an important safety function by safeguarding the NDT Fund from depletion to the point where the facility cannot be decommissioned in a safe and environmentally acceptable manner.

12. Even if Entergy were allowed to divert funds from the NDT Fund for irradiated fuel management, there is evidence of Entergy seeking to use the NDT Fund for expenses that are not permitted, enhancing the need for a 30 day notification before withdrawal to prevent unallowed uses of NDT funds.

13. Although Entergy’s LAR appears to be an isolated request for elimination of the 30 day notice requirement, it is inextricably intertwined with other pending applications and filings by Entergy. The interrelated filings include: (a) the PSDAR, from which its financial calculations form the basis for Entergy’s assertion that the excess funds from the NDT to spend on irradiated fuel management will exist; (b) the request for exemptions from certain regulatory requirements to allow for the use the alleged excess funds toward irradiated fuel management—requests that are directly related to the pending LAR; (c) Entergy’s assertion that it complies with the requirements of 10 C.F.R. §§ 50.82(8)(i)(B) and (C), which is essential to the assertion that it is excused from the 30 day notice requirement for NDT fund withdrawals; and (d)
Entergy’s claim that it is now allowed, 12 years after adoption of the relevant NRC Regulation, to be excused from its obligations to comply with the MTA and its operating license.

14. The Bases for Contention III, infra, are incorporated by reference here as if fully set forth in detail.

SUPPORTING EVIDENCE

The following represents some of the evidence that supports this Contention. It includes declarations of experts and analyses prepared by Vermont and its experts in other proceedings. All comments are attached and are deemed repeated verbatim at this point as supporting evidence.

1. NRC emphasized the safety function of the decommissioning license conditions imposed on Entergy when, in 2002, it received its license to operate Vermont Yankee. “The NRC has determined that the requirements to provide assurance of decommissioning funding and provision of an adequate amount of decommissioning funding are necessary to ensure the adequate protection of public health and safety.” Safety Evaluation By The Office Of Nuclear Reactor Regulation Proposed Transfer Of Operating License For Vermont Yankee Nuclear Power Station From Vermont Yankee Nuclear Power Corporation To Entergy Nuclear Vermont Yankee, LLC And Entergy Nuclear Operations, Inc., And Conforming Amendment Docket No. 50-271 (May 17, 2002)(“2002 Safety Eval.”) at 7.

2. The obligation to provide at least 30 days notice before any withdrawal from the NDT Fund was a part of every relevant document signed by Entergy or issued at Entergy’s request and thus was a condition that Entergy had to meet in order to obtain permission to purchase and operate Vermont Yankee:
- “The decommissioning trust agreement must provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee until the trustee has first given the NRC 30 days prior written notice of payment. The decommissioning trust agreement shall further contain a provision that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the Director of the Office of Nuclear Reactor Regulation.” 2002 Safety Eval. at 8-9;

- “The decommissioning trust agreement must provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee until the trustee has first given the NRC 30 days prior written notice of payment. The decommissioning trust agreement shall further contain a provision that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the Director of the Office of Nuclear Reactor Regulation.” NRC Order Approving Transfer Of License And Conforming Amendment (May 17, 2002) at 5;

- “The decommissioning trust agreement must provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee until the trustee has first given the NRC 30 days prior written notice of payment. The decommissioning trust agreement shall further contain a provision that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the Director of the Office of Nuclear Reactor Regulation.” Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations,
Inc. (Vermont Yankee Nuclear Power Station), Docket No. 50-271, Facility Operating License No. DPR-28, Condition 3(J)(a)(iii) at 8.

3. Any distribution from the NDT Fund for other than decommissioning purposes before decommissioning is complete would constitute a violation of the terms of the MTA, and thus could only be made by an amendment to the MTA. Entergy has not sought the required approvals for such an amendment.

4. License Condition 3(J)(a)(iii) requires notification for each withdrawal and an opportunity for the NRC to prohibit potentially improper withdrawals. Section 50.75(h)(1)(iv), however, eliminates that notification for decommissioning expenses when Entergy has entered the decommissioning phase and meets the requirements of § 50.82(a)(8): “After decommissioning has begun and withdrawals from the decommissioning fund are made under § 50.82(a)(8), no further notification need be made to the NRC.” 10 C.F.R. § 50.75(h)(1)(iv) (emphasis added). Thus, the 30-day notice requirement in License Condition 3(J)(a)(iii) will not be replaced with any regulatory requirement of notice for withdrawals for irradiated fuel expenses, let alone an equivalent one, if the LAR is granted.

5. As the State noted in its March 6, 2015 comments on the PSDAR (attached hereto and incorporated in their entirety), Entergy’s Decommissioning Cost Estimate includes a number of items that the State believes fail to meet the NRC’s definition of decommissioning, such as:

   a. The $5 million payment (lines 1a.2.22 & 1b.2.22) that Entergy is making to the State as part of a Settlement Agreement (Attachment 2 of the Vermont Yankee PSDAR);
   b. Emergency preparedness costs (e.g., line 1a.2.23);
   c. Shipments of non-radiological asbestos waste (e.g., line 1a.2.27);
   d. Insurance (e.g., line 1a.4.1);
e. Property taxes (e.g., line 1a.4.2); and

f. Replacement of structures during SAFSTOR (e.g., line 2b.1.4).

Exhibit 1 (State’s March 6, 2015 Comments on PSDAR) at 37.

6. The State’s March 6, 2015 comments explain in detail why NRC regulations do not allow use of an NDT Fund for the above expenses, since expenses such as insurance do not reduce radiological contamination at the site. Exhibit 2 at 25-27; see also, e.g., Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power Reactors, NUREG-1713, Final Report, at 4, § (B)(3) (2004) (to meet the NRC’s definition of “decommissioning” and thus be a proper withdrawal from the NDT Fund, the activity must “reduce residual radioactivity”).

7. As the State also noted in its March 6, 2015 PSDAR comments, Entergy has recently asserted a right to use NDT Funds not only for emergency preparedness expenses (which in itself are not an allowed use), but also for legal fees associated with those expenses:

Expenses for emergency preparedness do not reduce radiological contamination at the site and are thus not proper uses of the NDT Fund. Entergy would therefore need an exemption (which has neither been requested nor granted) before it could withdraw NDT Funds for emergency preparedness expenses. Nevertheless, in addition to listing emergency planning as a license termination expense in Appendix C of its Decommissioning Cost Estimate, an Entergy spokesperson recently stated that Entergy intends to use NDT Funds not only for emergency preparedness measures, but also for “any legal costs” resulting from the State’s challenges to Entergy’s planned reductions in emergency preparedness. VTDigger.org, State Appeals Decision on Vermont Yankee Monitoring, http://vtdigger.org/2015/02/26/state-appeals-decision-on-vermont-yankee-emergency-monitoring/ (emphasis added). According to the Entergy spokesperson, these legal costs are “‘part of our decommission costs,’ he said. ‘This is money that’s going to be coming from [the] trust fund.’” Entergy’s reasoning was that “[b]ecause the plant is no longer generating revenue, [the Entergy spokesperson] said any legal costs the company incurs will come out of the decommissioning trust fund.” Id. The NRC cannot allow that to happen.

Exhibit 2 (State’s March 6, 2015 Comments on PSDAR) at 37 n.9.
8. Just as applicable statutes and regulations place important limitations on what disbursements are allowable from the NDT Fund, the Master Trust Agreement—which Entergy signed when it purchased Vermont Yankee—also places limitations on NDT Fund disbursements. Exhibit 2 (Master Trust Agreement). The Master Trust Agreement imposes legal restrictions on when and for what purposes Entergy can withdraw money from the NDT Fund. Such restrictions are not surprising given that Vermont ratepayers contributed the majority of the principal funds that currently exist in the NDT Fund—Entergy has never contributed any money to that Fund. Rather, Entergy inherited the NDT Fund—subject to numerous conditions in the Master Trust Agreement—as part of its purchase of the plant in 2002, and Entergy has never made a payment to the NDT Fund.

9. The Vermont Legislature has directed the Vermont Department of Public Service to advocate for prudent use of the ratepayer contributions that created the NDT Fund. See Vt. Stat. Ann. tit. 30, § 2(d). The State has a significant interest in ensuring that this money is spent consistent with NRC regulations and the terms of the Master Trust Agreement. The NRC should apply extra scrutiny to disbursements from the Vermont Yankee NDT to ensure that Vermont ratepayer money is spent prudently and appropriately.

10. Vermont ratepayers have an existing 55% interest in any leftover funds. That direct interest is noted in several provisions of the Master Trust Agreement, including Exhibits D and E. The 55% interest is also required under various Vermont Public Service Board Orders and Certificates of Public Good that remain in effect today. When Entergy sought to purchase the Vermont Yankee plant in 2002, the Vermont Public Service Board approved that sale only upon a number of conditions, including the return of any excess NDT funds to ratepayers: “Upon completion of the decommissioning of Vermont Yankee, any property remaining in [Entergy’s]

11. As the Vermont Public Service Board noted in a related ruling, “the disposition of any potential future excess decommissioning funds has expressly been an issue throughout this proceeding” and was “fully litigated” as part of the proceeding that approved Entergy’s purchase of Vermont Yankee. Order re: Motions to Alter or Amend, Enter Final Judgment, and Stay Pending Appeal, Docket No. 6545 (July 30, 2002), at 6 n.17, available at http://www.state.vt.us/psb/6545.htm.

12. The Vermont Public Service Board rejected a proposal that would have denied Vermont ratepayers their full 55% interest in leftover NDT Funds, finding that such a proposal was inconsistent with ratepayer expectations under provisions of the previous decommissioning trust that had been in place since 1988. Final Order, Docket No. 6545, at 36-38. The Vermont Public Service Board concluded that “these funds were collected from ratepayers for a specific purpose and, if not needed for that purpose, should be returned” to ratepayers. Id. at 152.
Given their 55% interest in any leftover funds, Vermont ratepayers have a direct interest in ensuring that every disbursement from the NDT Fund complies with applicable statutes, regulations, and the Master Trust Agreement. Vermont ratepayers are directly harmed by any money that the Bank of New York Mellon improperly disburses.

13. The Master Trust Agreement places numerous restrictions on any use of the NDT Fund. Most importantly, the Master Trust Agreement:

(a) requires that all radiological decontamination and decommissioning be complete before any money from the NDT Fund can be used for irradiated fuel management or site restoration; and

(b) once radiological decontamination and decommissioning is complete, allows withdrawals only for spent fuel management costs that were not recovered from the Department of Energy.

The “exclusive purpose” of the Master Trust Agreement is “to accumulate and hold funds for the contemplated Decommissioning of the Station and to use such funds, in the first instance, for expenses related to the Decommissioning of the Station as defined by the NRC in its Regulations and issuances, and as provided in the licenses issued by the NRC for the Station and any amendments thereto.” Master Trust Agreement § 2.01.

14. As discussed above, NRC regulations clearly define decommissioning as activities that reduce radiological contamination, and explicitly exclude expenses such as irradiated fuel management and site restoration. The Master Trust Agreement’s “exclusive purpose” is to follow these NRC regulations by ensuring that NDT expenses are used in the first instance to reduce radiological contamination. Thus, the Master Trust Agreement requires that all
radiological decontamination and decommissioning be complete before any money from the NDT Fund can be used for irradiated fuel management or site restoration.

15. Other sections of the Master Trust Agreement similarly prohibit NDT Fund disbursements for anything other than radiological decontamination and decommissioning until those activities are complete. In particular, the Master Trust Agreement, in several sections, specifically sets up a sequencing of disbursements that requires all radiological decontamination and decommissioning activities to be “completed” before any other disbursements are allowed. Master Trust Agreement § 4.01.

16. Section 4.01 of the Master Trust Agreement, like the applicable NRC regulations discussed above, limits disbursements from the NDT Fund to “paying costs, liabilities and expenses of Decommissioning or, if so specified, administrative expenses.” The Master Trust Agreement defines “Decommissioning” as “the removal of the Station from service and disposal of its components in accordance with Applicable Law.” Master Trust Agreement § 1.01(j). Only “[o]nce Decommissioning is completed” can the Bank release NDT Funds to Entergy for uncovered “Spent Fuel Costs and Site Restoration Costs.” Id. § 4.01.¹

17. This sequencing is explained further by Exhibit D of the Master Trust Agreement. Exhibit D—labeled “Decommissioning Requirements”—explicitly defines the “Completion of Decommissioning” as “plant dismantlement and decontamination to NRC standards plus the

¹ Although Entergy has noted that section 4.01 refers to spent fuel and site restoration costs “to the extent not included in Decommissioning,” that parenthetical statement does not mean that the Master Trust Agreement’s definition of “Decommissioning” includes all such costs. First, the language “to the extent not included” implies that there are spent fuel costs that are not included in “Decommissioning.” Further, as noted in detail below, the definition of “Decommissioning” in the Master Trust Agreement states that it includes “non-DOE spent fuel storage” expenses incurred during “pre-shutdown activities.” Master Trust Agreement § 1.01(j). Those limitations cannot be reconciled with Entergy’s apparent position that “Decommissioning” includes all costs of spent fuel management during the post-closure period.
completion of additional activities agreed to or imposed in the course of [the sale docket] before the Vermont Public Service Commission or pursuant to any subsequent law or proceeding, but excluding spent fuel management and any site restoration.” Master Trust Agreement Ex. D (emphasis added).

18. In other words, irradiated fuel management and site restoration expenses could be recovered from the NDT Fund only if these activities occurred after the completion of radiological decommissioning.

19. The NDT Fund can only be used to cover expenses that the DOE does not have to pay. The Master Trust Agreement was signed in 2002—four years after DOE breached its contractual obligation to remove spent nuclear fuel from nuclear sites such as Vermont Yankee. It was clear then that Entergy would have the ability to sue DOE for irradiated fuel management expenses. As Entergy has successfully argued in the U.S. Court of Appeals for the Federal Circuit, the Purchase and Sale Agreement for Vermont Yankee explicitly transferred to Entergy all rights in lawsuits against DOE to recover these expenses. In fact, Entergy has since recovered tens of millions of dollars from DOE for irradiated fuel management expenses that would not have occurred had DOE removed the fuel in 1998.

20. The continuation of these lawsuits was anticipated by the Master Trust Agreement. The MTA set up a process to ensure that Entergy did not twice recover irradiated fuel management expenses by using NDT Funds for expenses that it would later recover from DOE through litigation, or be allowed to “borrow” money from the NDT until such time as it recovered that money from DOE. In particular, the MTA’s definition of “Decommissioning” states that it includes “non-DOE spent fuel storage.” Master Trust Agreement § 1.01(j).
21. Similarly, Exhibit D of the Master Trust Agreement sets up the following provision to address the “return of excess funds” from the NDT—a provision that clearly requires Entergy to obtain all possible relief from DOE before it attempts to use NDT Funds for irradiated fuel management expenses:

Return of Excess Funds in accordance with the second following paragraph, shall occur following the earliest of (i) the date Completion of Decommissioning has occurred and the Company has satisfied all of its responsibilities for spent fuel management and site restoration or (ii) the date on which Completion of Decommissioning occurs and any of the following occur: (x) settlement between the Company and the US Department of Energy (“DOE”) with respect to spent fuel management responsibilities for the Station, (y) final resolution of litigation by the Company against DOE with respect to spent fuel management responsibilities for the Station, or (z) satisfactory performance by DOE of its spent fuel responsibility with respect to the Station.

Master Trust Agreement Ex. D. Exhibit D then notes that “excess funds” excludes costs “not otherwise payable by the federal government in accordance with (x), (y) or (z) above.” (Emphasis added). It is significant the language is in terms of the ability of the money to be recovered from DOE and does not focus on whether it has been paid, indicating that the decision to allow funds to be disbursed from the NDT Fund for irradiated fuel management is not to occur until after final resolution of all claims by Entergy against DOE.

22. Section 5.02 of the Master Trust Agreement similarly notes that it is “upon termination of this Master Trust or such Funds, [that] the Trustee shall distribute all funds necessary for Spent Fuel Costs and Site Restoration Costs to the Company.” That is because, as NRC regulations require, the NDT Fund must cover all necessary radiological decontamination and decommissioning expenses before any disbursements can be made to cover other expenses such as irradiated fuel management and site restoration. That sequencing is the only way to
ensure, as the NRC must do, that Entergy maintains sufficient funds to radiologically decontaminate the site.

23. Entergy’s failure to secure sufficient funds to fully decommission Vermont Yankee will potentially leave significant radiation hazards at the site, and expose the public to dangerous and unnecessary radiation exposures. Such exposure would, among other things, prevent the site and surrounding property from being used for their best and highest use, causing economic damage to Vermont residents and potentially reducing the tax base for local and state government.

24. Attached are declarations from Dr. William Irwin of the Vermont Department of Health and Anthony R. Leshinskie of the Vermont Department of Public Service that provide additional support for this Contention and the factual statements which support it.

CONTENTION II

ENTERGY’S PROPOSED AMENDMENT IS UNTIMELY.

BASSES

1. Entergy seeks to be relieved from a licensing condition imposed by an NRC Order issued on May 17, 2002. To justify this modification of the May 17, 2002 Order, it seeks to rely upon an amendment to 10 C.F.R. § 50.75(h) adopted on December 24, 2002. 67 Fed. Reg. 78322, Decommission Trust Provisions. That amendment noted that “the NRC’s position is that licensees will have the option of maintaining their existing license conditions or submitting to the new requirements.” Id. at 78335. Entergy elected the option of maintaining existing license conditions, as contemplated by its MTA and PSB Orders. Now, over 12 years after it was on notice that it could attempt to seek to be relieved of the Order that imposed the license conditions on it and after the State and its citizens relied on Entergy’s election to continue the licensing
conditions, Entergy seeks to amend the Order. Its request is late and prejudicial to Vermont, which has relied on the license condition, including the requirement for 30 days notice before any withdrawal from the NDT Fund, to protect its interests and to assure that it would have an opportunity to step in and protest improper withdrawals from the NDT Fund before they occur.

2. NRC regulations specify that a petition to reconsider a final decision, like the decision issued on May 17, 2002, approving the license transfer to Entergy and imposing the NDT related license conditions, must be made within 10 days of the final decision. 10 C.F.R. § 2.245 (previously 10 C.F.R. § 2.771). However, since Entergy could not know of the changes to 10 C.F.R. § 50.75(h) until their final adoption on December 24, 2002, it could presumably seek relief from § 2.245 or its predecessor by relying on the factors in 10 C.F.R. § 2.309(c)(1). These factors are: “(i) The information upon which the filing is based was not previously available; (ii) The information upon which the filing is based is materially different from information previously available; and (iii) The filing has been submitted in a timely fashion based on the availability of the subsequent information.” 10 C.F.R. § 2.309(1). However, none of those factors appears to be present here, and Entergy has at no time attempted to make any showing of a justification for its failure to take timely action once it became aware of its right to seek to amend its license to remove the NDT related conditions.

**SUPPORTING EVIDENCE**

1. The regulations cited in the bases.

2. The terms and conditions of the license and the MTA identified in the supporting evidence of Contention I which support the view that the NDT conditions in the license were an integral part of the consideration offered by Entergy to obtain approval of its proposed purchase and operation of Vermont Yankee, that Vermont relied upon that consideration and included it in
numerous legally binding documents, that it served to protect an interest that Vermont considered—and still considers—critical to protect its citizens, and that NRC believed maintaining the integrity of the NDT was essential to provide adequate protection for the public health and safety.

3. *In re Entergy Nuclear Vermont Yankee L.L.C. & Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), 2005 NRC LEXIS 11, at 3-4 (Feb. 16, 2005) (agreeing with Entergy’s argument that the failure of another party to file a motion soon after the event that formed the basis for the motion made the motion untimely).

4. The regulatory amendment Entergy relies upon made clear that an application for an LAR to substitute license conditions with the provisions of § 50.75(h) should have been made at the time the regulation was adopted. In the statement of considerations supporting the regulatory amendment, NRC noted:

> NEI stated that the rule language does not reflect the intent of the Commission that individual licensees should have the option of retaining their existing license conditions. The NRC agrees with the comment and amends the rule by adding the following as a new section, 10 CFR 50.75(h)(5), to become effective on December 24, 2003:

> The provisions of paragraphs (h)(1) through (h)(3) do not apply to any licensee that as of December 24, 2003, was subject to existing license conditions relating to the terms and conditions of decommissioning trust agreements, so long as the licensee does not elect to amend those license conditions. If a licensee with existing license conditions relating to decommissioning trust agreements elects to amend the conditions, the license amendment shall be in accordance with the provisions of paragraph (h) of this section.

68 Fed. Reg. 65386, 65387 (November 20, 2003). The Commission clearly did not contemplate that a licensee could initially choose not to elect to eliminate the license conditions, spend 12 years avoiding the restrictions imposed by 10 C.F.R. § 50.75(h), and then switch over to those
regulatory provisions at the very moment they became more lenient than the license conditions. Entergy is estopped from now embracing the provisions of § 50.75(h), after having enjoyed the benefits of not being subject to § 50.75(h) for over 12 years, simply because now, for the first time, the relevant licensing conditions are more onerous than § 50.75(h).

CONTENTION III

ENTERGY’S PROPOSED AMENDMENT MUST BE CONSIDERED IN CONJUNCTION WITH A DIRECTLY RELATED EXEMPTION REQUEST BECAUSE IF THE EXEMPTION REQUEST IS GRANTED THERE WILL NOT BE REASONABLE ASSURANCE OF ADEQUATE PROTECTION OF THE PUBLIC HEALTH AND SAFETY AS REQUIRED BY SECTION 182(a) OF THE ATOMIC ENERGY ACT (42 U.S.C. § 2232(a)).

BASES

1. Entergy’s LAR application is inextricably intertwined with its request for an exemption from NRC Regulations related to management of the NDT Fund.

2. Substantial portions of the LAR are meaningless unless the exemption request is granted since one of the purposes of the LAR is to excuse Entergy from notification requirements associated with withdrawals from the NDT Fund for non-decommissioning purposes. Without an exemption, NRC regulations prohibit use of the NDT Fund for any purposes other than decommissioning.

3. On several occasions the Commission has ruled that where an exemption request and license amendment application are connected, as they are here, a valid contention regarding the exemption request shall be admitted as a contention in the license amendment proceeding.

4. The exemption request seeks to allow Entergy to remove funds from the NDT Fund for non-decommissioning purposes and Entergy has failed to demonstrate that the funds in the
NDT Fund are sufficient to meet decommissioning obligations, much less that there is an excess of funds that can be used for irradiated fuel management.

5. Entergy has failed to demonstrate that its analysis of the expected cost of irradiated fuel management is realistic and that the money it seeks to withdraw from the NDT Fund for irradiated fuel management will be sufficient to meet its irradiated fuel costs because, among other things, it has not provided a realistic assessment of how long irradiated fuel will remain at the Vermont Yankee site or when DOE will take title to and either begin or complete transfer of irradiated fuel from the Vermont Yankee site.

6. Entergy must first prove that it meets the requirements of 10 C.F.R. § 50.82(a)(8)(i)(B) in order for it to withdraw any money from the NDT Fund beyond initial planning costs, whether the withdrawal is for decommissioning or other purposes. But Entergy has failed to meet those requirements because it has not provided any assessment, much less a technically competent and appropriately conservative assessment, of unforeseen conditions and expenses that may arise during SAFSTOR. For example, it has not considered a design basis earthquake, a terrorist attack, an accident during the transfer of spent fuel from the spent fuel pool to dry cask storage, or severe flooding of the site—any one of which could cause Entergy to incur substantial additional expenses. Those expenses could include more workers to effectuate stabilization and clean up, more widespread radiation contamination at the site caused by any of these events, more complexity in effectuating decommissioning if major components of the facility are heavily damaged by any of these events, and more costs in maintaining the site during the remainder of SAFSTOR if the structural integrity of important structures have been compromised by any of these events.
7. In addition to failing to account for unforeseen expenses related to decommissioning, Entergy has failed to provide a proper assessment of expenses that came to light after Entergy submitted its PSDAR. One clear omission from the PSDAR is the recent discovery of strontium-90 in locations where that contaminant had not previously been discovered. See Vermont Department of Health Communications Office, Strontium-90 Detected in Ground Water Monitoring Wells at Vermont Yankee (Feb. 9, 2015), http://healthvermont.gov/news/2015/020915_vy_strontium90.aspx. The Department of Health also found cesium-137, strontium-90, and other long half-life radioactive materials in soil samples taken in 2010. See http://healthvermont.gov/enviro/rad/yankee/laboratory_testing.aspx. The Department of Health’s publication of results regarding strontium-90 in groundwater wells occurred after Entergy submitted its PSDAR. Entergy’s cost analysis is thus incorrect in its estimate of the amount of soil removal that will be needed surrounding the advanced off-gas (“AOG”) building. On that issue, Entergy has stated the following:

It should be noted that no additional remediation of the soil in the vicinity of the AOG building was included, based upon the earlier remediation (soil removal) performed by Entergy VY and the findings from the GZA groundwater investigation that only tritium had migrated into the groundwater. Tritium is a low-energy beta emitter with a half-life of approximately 12.3 years, decaying to non-radioactive helium. As such, any residual sub-grade tritium is not expected to require any further remediation at the time of decommissioning in order to meet site release criteria.

Decommissioning Cost Estimate, § 3, page 12 (emphasis added; footnote omitted). This is already out-of-date and incorrect in its claim that “only tritium ha[s] migrated into the groundwater” in this area. Id. The new data on strontium-90 creates doubt regarding Entergy’s claim in the PSDAR that previous excavation of the AOG leakage site eliminates the need to excavate deeper than three feet below grade. See id.; see also id. at § 3, page 13 (noting that foundations and building walls will only be removed “to a nominal depth of three feet below
grade”). Many long-lived radionuclides are likely to be found in soils and groundwater far from the small excavation made to repair the leaks that likely allowed reactor condensate to enter into the site soils for many years. In addition, these same long-lived radionuclides are likely to be found in the structures, systems, and components left during SAFSTOR and then later decontaminated and dismantled. Entergy has failed to account for these costs.

8. In order for Entergy to withdraw any money from the NDT beyond initial planning costs, whether the withdrawal is for decommissioning or other purposes, it must first, at a minimum, prove that it meets the requirements of 10 C.F.R. § 50.82(a)(8)(i)(C). But Entergy has failed to meet those requirements because it has not provided any assessment, much less a technically competent and appropriately conservative assessment, of its ability, or willingness, to “complete funding of any shortfalls in the decommissioning trust fund needed to ultimately release the site and terminate the license.” 10 C.F.R. § 50.82(a)(8)(i)(C).

9. The adequacy of the NDT Fund is essential to assure that Vermont Yankee is safely and thoroughly decommissioned and that all practicable steps are taken to mitigate adverse environmental consequences of its decommissioning program. Failure of the fund to be adequate

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2 Entergy has publicly stated that, although it expects the NDT Fund to have enough money to decommission the plant, it will not commit to making up any shortfall and anticipates that there would be litigation between the State of Vermont and the company over any shortfall. See VTDigger.org, Entergy Makes First Withdrawal from Decommissioning Fund, http://vtdigger.org/2015/02/11/entergy-makes-first-withdrawal-decommissioning-fund/ (“If the fund comes up short, [the Entergy representative] said there would be litigation between the state and the company as to how to pay for it.”). When pressed further on the meaning of this testimony that was made to State legislators, the Entergy representative “said again . . . that he did not want Entergy committed to a promise that it would cover the cost if the project isn’t done before the 2070s and funds are still short.” Associated Press, Vermont Yankee official expects enough money to clean site (Feb. 27, 2015), available at http://www.washingtontimes.com/news/2015/feb/27/vermont-yankee-official-expects-enough-money-to-cl/.
will cause safety and environmental dangers and potential severe consequences to the health, safety, and environment of Vermont and its citizens.

10. The Bases for Contention I are incorporated here by reference and considered reproduced in their entirety at this point.

SUPPORTING EVIDENCE

The following represents some of the evidence that supports this Contention. It includes declarations of experts and analyses prepared by Vermont and its experts in other proceedings. All comments are attached and are deemed repeated verbatim at this point as supporting evidence.

In addition, all the evidence supporting Contention I is incorporated by reference and deemed repeated verbatim at this point as supporting evidence.

1. On January 6, 2015, Entergy filed an exemption request (ADAMS Accession No. ML15013A171) to allow it to access the NDT Fund for irradiated fuel management expenses and to eliminate any 30-day notice requirement to the NRC for NDT Fund withdrawals relating to irradiated fuel management. The exemption request presumes the LAR will be granted, and then asks for an exemption from the very regulations Entergy is relying on in this LAR.

2. Entergy states in the LAR that the 30-day notice provision in License Condition 3(J)(a)(iii) is “addressed in the regulations” and cites 10 C.F.R. § 50.75(h)(1)(iv) as the relevant regulatory requirement. LAR at Attachment 1, pp.3-4.

3. Leaving aside the fact that (as explained above) the 30-day notice requirement in 10 C.F.R. § 50.75(h)(1)(iv) is much more limited than License Condition 3(J)(a)(iii), the LAR cannot rely on the same regulation that it has also sought an additional exemption from in a later filing. In particular, the first page of Entergy’s January 6, 2015 exemption request notes that it
seeks, in addition to permission to use the NDT Fund for irradiated fuel management expenses, “an exemption from 10 CFR 50.75(h)(1)(iv) for the same reason, and also to allow trust fund disbursements for irradiated fuel management activities to be made without prior notice.” (emphasis added).

4. Entergy is seeking the elimination of its obligation to give notice before any NDT withdrawal for decommissioning or spent fuel management expenses in its request to be exempted from 10 CFR 50.75(h)(1)(iv).

5. There is no regulation that authorizes distributions from the NDT Fund for purposes other than decommissioning. There is not even a provision of the regulations that addresses how allegedly excess funds in the NDT Fund are to be handled other than to keep them in the NDT Fund to be sure that unforeseen conditions do not produce inadequate funds. While the Staff, and perhaps even the Commissioners, may feel some sympathy for licensees who find themselves stuck with irradiated fuel management expenses they did not contemplate, exemptions should not be used as an end-run around compliance with the regulation. If this is a recurring problem, Entergy should seek to amend the regulation, not be exempted from it.

Parties are regularly reminded in NRC decisions that if they do not like the rules, they should petition for a rule change and not use the hearing process to accomplish their goal. See, e.g., Entergy Nuclear Vermont Yankee, L.L.C. and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-10-17, at 10 n.37.

6. Because no regulation exists to allow funds to be taken from the NDT Fund for non-decommissioning purposes, there are no regulations that control how that money is be handled once it is diverted. One possible control on the use of the non-decommissioning funds diverted from the NDT is 10 C.F.R. § 50.75(h), but Entergy is seeking to be exempted from some of those
provisions, particularly the advanced notice provisions, with regard to irradiated fuel
management and decommissioning expenses.

7. Although the NRC has held that, in general, an exemption request does not create
hearing rights, the NRC has created a clear exception to this rule to allow for a hearing on
exemption requests that are “directly related” to a LAR. In the Matter of Private Fuel Storage,
LLC (“PFS”), CLI-01-12, 53 NRC 459, 476; see also, e.g., In the Matter of Honeywell
International, Inc., CLI-13-1, 77 NRC 1, 7 (“But when a licensee requests an exemption in a
related license amendment application, we consider the hearing rights of the amendment
application to encompass the exemption request as well.”). Because the LAR is directly related
to Entergy’s January 6, 2015, the State should have an opportunity for a hearing on the directly
related exemption request.

**CONTENTION IV**

THE PROPOSED AMENDMENT SHOULD BE DENIED BECAUSE
ENTERGY HAS NOT SUBMITTED AN ENVIRONMENTAL REPORT AS
REQUIRED BY 10 C.F.R. §§ 51.53(d) AND 51.61 AND IT HAS NOT
UNDERGONE THE REQUIRED NRC STAFF ENVIRONMENTAL
REVIEW PURSUANT TO 10 C.F.R. §§ 51.20, 51.70 AND 51.101 AND,
DESPITE ENTERGY’S CLAIM TO THE CONTRARY, IS NOT
CATégorICALLY EXCLUDED FROM THAT REVIEW UNDER 10
C.F.R. § 51.22(c).

**BASES**

1. The National Environmental Policy Act (“NEPA”) and applicable NRC regulations
require at least some level of environmental review before the NRC acts on matters potentially
affecting the environment. Entergy’s LAR asserts that it is categorically excluded from all
environmental review on the basis that the LAR “is confined to administrative changes for
providing consistency with existing regulations” and this “meets the eligibility criterion for
categorical exclusion set forth in 10 CFR [§] 51.22(c)(10).” LAR, Attachment 1, p.8. The LAR is not categorically excluded from environmental review under 10 C.F.R. § 51.22(c)(10).

2. Entergy has failed to identify which specific subsection of § 51.22(c)(10) it is relying on for categorical exclusion. Section 51.22(c)(10) reads in its entirety as follows:

(10) Issuance of an amendment to a permit or license issued under this chapter which—
   (i) Changes surety, insurance and/or indemnity requirements;
   (ii) Changes recordkeeping, reporting, or administrative procedures or requirements;
   (iii) Changes the licensee's or permit holder's name, phone number, business or e-mail address;
   (iv) Changes the name, position, or title of an officer of the licensee or permit holder, including but not limited to, the radiation safety officer or quality assurance manager; or
   (v) Changes the format of the license or permit or otherwise makes editorial, corrective or other minor revisions, including the updating of NRC approved references.

None of those subsections applies to Entergy’s LAR.

3. To the extent Entergy contends that it falls within subsection (ii) since Entergy describes the LAR as “confined to administrative changes,” that description is incorrect. The LAR is not a change to an administrative procedure, but rather has a direct substantive effect of eliminating the current 30-day notice requirement for withdrawals from the NDT Fund, which in turn hinders the NRC’s and the State’s ability to ensure that the NDT Fund remains adequate to cover the radiological decommissioning that is necessary to protect public health, safety, and the environment. As noted above and in greater detail in the State’s expressly incorporated March 6, 2015 PSDAR comments, the State has a number of reasons to be concerned that, without proper oversight, Entergy may deplete the NDT Fund before the site is radiologically decontaminated. If the NRC allows that to happen, it would greatly impact public health, safety, and the environment.
4. Entergy’s failure to demonstrate that it complies with the requirements of § 50.82(a)(8)(i) for either decommissioning or irradiated fuel management expenses makes the possibility of substantial environmental damage from an inadequately decommissioned site more than mere speculation and represents the kind of potential environmental risk that must be addressed—including an evaluation of potential mitigation options—before NRC can determine whether to approve the LAR or grant the exemptions.

5. Entergy has sought to segment its decommissioning activities into discrete steps but these steps are interrelated and require a comprehensive environmental review. The interrelated filings include: (a) the PSDAR, from which its financial calculations form the basis for Entergy’s assertion that the excess funds from the NDT to spend on irradiated fuel management will exist; (b) the request for exemptions from certain regulatory requirements to allow for the use the alleged excess funds toward irradiated fuel management—requests that are directly related to the pending LAR; (c) Entergy’s assertion that it complies with the requirements of 10 C.F.R. §§ 50.82(8)(i)(B) and (C), which is essential to the assertion that it is excused from the 30 day notice requirement for NDT fund withdrawals; and (d) Entergy’s claim that it is now allowed, 12 years after adoption of the relevant NRC Regulation, to be excused from its obligations to comply with the MTA and its operating license. The LAR and the exemption requests involved here depend upon the reliability and technical credibility of Entergy’s financial analyses submitted as part of the PSDAR. The alleged excess funds that Entergy seeks to use for irradiated fuel management may not exist if Entergy’s analyses are flawed, as the State has shown in comments on the PSDAR which are incorporated in the following Supporting Evidence. Entergy would be unable to complete decommissioning, and the site would be left with substantial radiation hazards. For that reason, all of the decommissioning requests need to
be evaluated in a single environmental analysis and a single hearing that considers, among other things, possible alternatives to Entergy’s requests, some of which might help Entergy achieve its goal but do so without compromising public health, safety, or the environment.

**SUPPORTING EVIDENCE**

1. NEPA requires federal agencies to prepare “a detailed statement . . . on the environmental impact” of any proposed major federal action “significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(1)(C)(i); see generally 42 U.S.C. §§ 4321 et seq. At a minimum, if an agency is going to allow a licensee to engage in activities with environmental impacts without the agency first issuing a detailed environmental impact statement, the agency must do an environmental analysis and issue a “finding of no significant impact” (FONSI). 40 C.F.R. § 1501.4; id. § 1508.14.

2. The requirements of NEPA apply not only to affirmative actions by an agency (such as a licensing decision), but also to actions of a licensee that “are potentially subject to Federal control and responsibility,” id. § 1508.18, such as Entergy’s proposals to be relieved of reporting on proposed expenditures before the expenditures are made. “Actions include the circumstance where the responsible officials fail to act and that failure to act is reviewable by courts or administrative tribunals under the Administrative Procedure Act or other applicable law as agency action.” Id.

3. Under the Administrative Procedure Act, the requirements of NEPA apply equally to an agency’s actions as to an agency’s “failure to act.” 5 U.S.C. § 551(13). Thus, although Entergy seeks to eliminate NRC oversight of its expenditures of NDT funds, NRC nevertheless has duties under NEPA to review the environmental impacts that could result from the lack of NRC oversight if the LAR is granted. NEPA responsibilities are triggered by the fact that a
federal agency “has actual power to control the project.” Ross v. Fed. Highway Admin., 162 F.3d 1046, 1051 (10th Cir. 1998). Here, the LAR seeks to restrict NRC’s current authority to control use of the NDT Fund by eliminating notification to NRC and others of intended withdrawals.

4. Federal courts have already made clear that “[r]egardless of the label the [Nuclear Regulatory] Commission places on its decision,” the act of “permitting [a licensee] to decommission the facility” requires NEPA review: “An agency cannot skirt NEPA or other statutory commands by essentially exempting a licensee from regulatory compliance, and then simply labelling its decision ‘mere oversight’ rather than a major federal action. To do so is manifestly arbitrary and capricious.” Citizens Awareness Network, Inc. v. Nuclear Regulatory Comm’n, 59 F.3d 284, 293 (1st Cir. 1995). Another federal circuit court of appeals has similarly held that when a federal agency has a “mandatory obligation to review” plans, the agency’s “failure to disapprove” of those plans constitutes “major federal action” triggering NEPA review. Ramsey v. Kantor, 96 F.3d 434, 445 (9th Cir. 1996).

5. The required NEPA analysis must be comprehensive and address all “potential environmental effects” unless those effects are so unlikely as to be “remote and highly speculative.” San Luis Obispo Mothers for Peace v. Nuclear Regulatory Comm’n, 449 F.3d 1016, 1030 (9th Cir. 2006).

6. A comprehensive analysis is required here in part to avoid segmenting environmental analyses into discrete parts without ever looking at their full combined effects—an approach that NEPA does not allow. See, e.g., Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1314 (D.C. Cir. 2014) (“The justification for the rule against segmentation is obvious: it prevents agencies from dividing one project into multiple individual actions each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.”) (quotation
and alteration marks omitted)); see also, e.g., NRDC v. Callaway, 524 F.2d 79, 88 (2d Cir. 1975) (NEPA is meant to provide “a more comprehensive approach so that long term and cumulative effects of small and unrelated decisions could be recognized, evaluated and either avoided, mitigated, or accepted as the price to be paid for the major federal action under consideration” (emphasis added)). The NRC has previously underscored the value of a comprehensive NEPA analysis: “While NEPA does not require agencies to select particular options, it is intended to foster both informed decision-making and informed public participation, and thus to ensure that the agency does not act upon incomplete information, only to regret its decision after it is too late to correct.” In Re Duke Energy Corporation (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units and 2), CLI-02-17, 56 N.R.C. 1, 10 (2002).

7. All of these NEPA obligations are also imposed by NRC regulations, first on Entergy and then on NRC. See 10 C.F.R. §§ 51.20, 51.53(d), 51.61, 51.70, 51.101 and 51.103.

8. Vermont incorporates by reference its PSDAR Comments and the declarations of its experts that are appended to this Petition in further support of this contention.

9. Because Vermont Yankee is owned by a merchant generator (rather than a regulated utility), Entergy cannot go back to ratepayers if it has underestimated the costs of decommissioning, spent fuel management, or site restoration. The lack of a guaranteed ratepayer base raises numerous thus-far-unanalyzed environmental concerns, including the possibility that certain decommissioning or site restoration activities will not occur due to lack of funding.

CONCLUSION

For the reasons noted in these Comments and in the State’s expressly incorporated March 6, 2015 comments, the NRC should reject Entergy’s License Amendment Request.
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE 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-LA

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the forgoing State of Vermont’s Petition for Leave to Intervene, and Hearing Request, dated April 20, 2015, have been served upon the Electronic Information Exchange, the NRC’s E-filing System, in the above-captioned proceeding, this 20th day of April, 2015.

/Signed (electronically) by/
Aaron Kisicki
Counsel for the State of Vermont
Vermont Department of Public Service
112 State Street – Drawer 20
Montpelier, VT 05620
Tel: (802) 828-3785
aaron.kisicki@state.vt.us

Dated at Montpelier, Vermont
this 20th day of April, 2015
In the Matter of:

Entergy Nuclear Operations, Inc., Vermont Yankee Nuclear Power Station September 4, 2014 License Amendment Request

Docket No. NRC-2015-0029
Docket No. 50-271

Declaration of William Irwin, Sc.D, CHP

I declare under penalty of perjury that the foregoing is true and correct:

(1) A true and correct copy of my CV is attached to this declaration.

(2) Since December 2005, I have been an employee of the Vermont Department of Health, where I am the Radiological and Toxicological Sciences Program Chief.

(3) In my role at the Vermont Department of Health, I have managed or helped manage environmental surveillance and emergency preparedness for the Vermont Yankee Nuclear Power Station.

(4) I was involved in helping draft portions of the State of Vermont’s March 6, 2015 Comments (“State’s Comments”) on Entergy’s proposed Post Shutdown Decommissioning Activities Report (“PSDAR”).

(5) I attest to and affirm the factual underpinnings of those portions of the State’s Comments that speak to radiological contamination discovered at the site that will likely increase the anticipated costs of radiological decommissioning.
In addition, and without limitation on other statements I could attest to and affirm, I specifically attest to and affirm the factual underpinnings discussed in pages 9-19 of the State’s Comments, including, among other things the following:

a. The characterization of the site (radiological and non-radiological) has not yet occurred. Rather, Entergy has elected to wait decades until nearly the end of the allowed SAFSTOR period before engaging in this characterization. The decision to delay characterization calls into question all of the cost estimates that Entergy has provided in its PSDAR and related filings. Without a full site characterization, there is no way to determine what it will ultimately cost to perform radiological decommissioning, spent fuel management, and site restoration.

b. The PSDAR also does not describe the depth and breadth of the planned radiological environmental monitoring program.

c. The PSDAR also inadequately describes radiological emergency preparedness during decommissioning. The basis of emergency planning ignores hostile action based scenarios that could destroy key structures storing radioactive materials or result in a zirconium fuel cladding fire while fuel remains in the spent fuel pool.

d. Throughout the SAFSTOR years, large quantities of radioactive materials in solid and liquid form will be left in storage onsite where leaks have occurred in the past, and may occur again. In
addition to radioactive material storage, inventory management and monitoring, and response to leaks into the environment, there is a serious concern about fire protection for the structures, systems, and components containing radioactive materials in storage. Capabilities to monitor for and respond to these kinds of radiological emergencies are not adequately addressed in the PSDAR.

e. One clear omission from the PSDAR and Decommissioning Cost Estimate is the recent discovery of strontium-90 in locations where that contaminant had not previously been discovered. See Vermont Department of Health Communications Office, *Strontium-90 Detected in Ground Water Monitoring Wells at Vermont Yankee* (Feb. 9, 2015),

http://healthvermont.gov/news/2015/020915_vy_strontium90.aspx. The Department of Health also found cesium-137, strontium-90, and other long half-life radioactive materials in soil samples taken in 2010. See

http://healthvermont.gov/enviro/rad/yankee/laboratory_testing.aspx. The Department of Health’s publication of results regarding strontium-90 in groundwater wells occurred after Entergy submitted its PSDAR. At this point, we already know of at least one way in which the Decommissioning Cost Estimate is incorrect—
namely, the analysis underlying the estimated amount of soil removal that will be needed surrounding the advanced off-gas (AOG) building. On that issue, Entergy has stated the following:

It should be noted that no additional remediation of the soil in the vicinity of the AOG building was included, based upon the earlier remediation (soil removal) performed by Entergy VY and the findings from the GZA groundwater investigation that only tritium had migrated into the groundwater. Tritium is a low-energy beta emitter with a half-life of approximately 12.3 years, decaying to non-radioactive helium. As such, any residual sub-grade tritium is not expected to require any further remediation at the time of decommissioning in order to meet site release criteria.

Decommissioning Cost Estimate, § 3, page 12 (emphasis added; footnote omitted). The Decommissioning Cost Estimate is clearly out-of-date and incorrect in its claim that “only tritium ha[s] migrated into the groundwater” in this area. Id. This new data on strontium-90 creates doubt regarding Entergy’s claim in the PSDAR that previous excavation of the AOG leakage site eliminates the need to excavate deeper than three feet below grade. See id.; see also id. at § 3, page 13 (noting that foundations and building walls will only be removed “to a nominal depth of three feet below grade”). Many long-lived radionuclides are likely to be found in soils and groundwater far from the small excavation made to repair the leaks that likely allowed reactor condensate to enter into the site soils for many years. In addition, these same long-
lived radionuclides are likely to be found in the structures, systems, and components left during SAFSTOR and then later decontaminated and dismantled.

f. The presence of strontium-90 or other long-lived radionuclides could greatly increase the costs of decommissioning and site restoration.

g. Long half-life radioactive materials are expected to be found in soils at Vermont Yankee. These include 5,730-year half-life carbon-14, 100-year half-life nickel-63, 29-year half-life strontium-90, 30-year half-life cesium-137, 13.5-year half-life europium-152, and 12.3-year half-life hydrogen-3. See Abelquist, Eric W., Decommissioning Health Physics, A Handbook for MARSSIM Users (2d Ed. 2014). These radioactive materials and hard-to-detect radionuclides were found in the decommissioning of both Maine Yankee and Connecticut Yankee in addition to transuranics, radioisotopes of plutonium, curium, neptunium, and americium. See Letter from Thomas L. Williamson, Maine Yankee Director of Nuclear Safety and Regulatory Affairs to NRC (Jan. 16, 2002) (ADAMS ML020440651). Further, as the State pointed out to Entergy in the State’s December 2014 comments, carbon-14 has been a major issue in the decommissioning of other sites such as Yankee Rowe and is expected to be a concern in the decommissioning of future sites such
as San Onofre. Despite the State’s explicit request, Entergy has not yet provided any evaluations, analyses, or other bases for assuming that carbon-14 will not be of concern in decommissioning Vermont Yankee.

h. Conversations with Health Department staff in Maine and with Environmental Conservation Department staff in Connecticut indicate that decommissioning is likely to reveal unanticipated radioactive sources to be remediated. These included pockets of highly contaminated groundwater dammed up by existing structures at Maine Yankee and a 25-foot-deep 225-foot-long excavation of soil around the reactor water storage tank at Connecticut Yankee. These kinds of potential situations are not adequately accounted for in the PSDAR. The PSDAR provides no assurance that the challenges of remediating these radioactive materials are factored into the planning and funding for the decommissioning of Vermont Yankee.

i. Even if strontium-90 had not recently been discovered, the PSDAR would be deficient given other evidence that soil contamination exists—and that remediation is thus likely to be needed—more than three feet below grade. The October 2014 Site Assessment Study documents the 1991 leak in the chemistry lab drain line, the AOG reactor condensate leaks confirmed in 2009, the piping leaks
between the radioactive waste building and the AOG building discovered in 2010, and other spills and leaks of radioactive materials. The area between the Connecticut River, the intake structure, the discharge structure, and the reactor, turbine, and radioactive waste buildings may contain large volumes of contaminated soil requiring excavation to meet the derived concentration guideline levels for appropriate remediation in accordance with the Multi-Agency Radiation Survey and Site Investigation Manual. Significant leakage of reactor condensate and radioactive materials spills have occurred: in the AOG piping tunnel; in piping between the AOG building and the radioactive waste building; in and around the radioactive waste building; in the condensate storage tank courtyard; and between the Connecticut River and the reactor, radioactive waste, and AOG buildings. If Entergy fails to remediate beyond three feet below grade, contamination could reach the groundwater and river water down-gradient of these areas. The PSDAR provides no information to determine whether the human and financial resources required for all necessary soil removal and other remediation will be available at the time the remediation must occur.

j. Entergy’s Decommissioning Cost Estimate only addresses so-called contingencies that are “almost certain to occur.” Decommissioning
Cost Estimate at xii. Actual contingencies—such as the discovery of strontium-90 and other radionuclides in places not previously thought to be contaminated—have historically led to enormous escalations in decommissioning costs. For instance, at Connecticut Yankee, the discovery of strontium-90—the very same radiological contaminant that was recently discovered in the groundwater at Vermont Yankee—led to an enormous decommissioning cost escalation during the radiological decontamination and dismantlement phase that Entergy intends to postpone until the end of its SAFSTOR period. Yet Entergy categorizes all of these types of potential expenses as “financial risks” and explicitly notes that it “does not add any additional costs to the estimate for financial risk.” Decommissioning Cost Estimate § 3, page 6.

(7) In addition, and without limitation on other statements I could attest to and affirm, I specifically attest to and affirm the following factual underpinnings discussed in pages 45-46, 49, 51-53, and 57 of the State’s Comments:

a. Regardless of a plant’s size, other site-specific factors can—and do—affect the potential environmental and other impacts of decommissioning. For instance, Vermont Yankee has an operating elementary school located just 1500 feet from the reactor building. The close proximity of an operating elementary school cannot be ignored. At a minimum, this factor calls for imposing common-
sense mitigation measures that ensure that schoolchildren are not present during certain decommissioning activities, such as the transfer of spent nuclear fuel or the demolition of buildings containing radioactive or non-radiological hazardous materials like asbestos and lead.\(^1\) It is well known that young children are more vulnerable to adverse health reactions to airborne contaminants such as lead. See, e.g., Vermont Dept. of Health, \textit{Lead Poisoning and Prevention}, http://healthvermont.gov/enviro/lead/ (“Young children are at highest risk because their developing bodies absorb lead more easily. Lead dust exposure can have life-long health effects such as lowering a child’s IQ.”). Thus, in contrast to Entergy’s “bounding” claim, a decommissioning activity such as the demolition of a building that contains lead (and the lead dust created from that) might have minimal or no environmental impacts at a larger plant in an isolated area, but significant consequences at Vermont Yankee if even a small amount of lead dust travels the short distance between the plant and the nearby elementary school. Entergy’s PSDAR therefore fails to show that these environmental impacts are bounded by previous analyses.

\(^1\) Despite specific requests for such information by the Department of Health and the Agency of Natural Resources in the December 2014 comments that the State provided to Entergy, the PSDAR is silent on the presence and eventual disposition of asbestos-containing materials and lead-based paint, and Entergy has failed to provide this requested information to either the Department of Health or the Agency of Natural Resources.
b. There is known and unknown contamination at Vermont Yankee from previously identified tritium leaks and the more recently identified presence of strontium-90. Entergy has not analyzed the environmental and other effects of any delay during the SAFSTOR period in addressing such leaks, including the well-known fact that migration will increase the area that is contaminated.

c. Entergy’s PSDAR announces for the first time that an estimated 1.3 million gallons of highly radioactive water will be stored in the torus within the reactor building during decades of SAFSTOR. Given that it was not until the PSDAR that Entergy revealed plans to deal with this radioactive water in this manner, this issue raises environmental issues that are obviously not “bounded” by any previous environmental analysis. Nor has Entergy pointed to any previous analysis addressing potential environmental impacts associated with storing radioactive water in this manner. Entergy has not yet identified what instrumentation will be used to monitor torus water levels in the PSDAR or what kind of inspection regimen for possible leakage will be used until this water is properly disposed of as radioactive waste. Further, Entergy has not explained when disposal of this water will occur and how.

d. The PSDAR is also inadequate in terms of its environmental analysis related to the need for extensive groundwater monitoring.
To protect public health, safety, and the environment, Entergy must extensively monitor groundwater until decommissioning is complete and its license has been terminated. After tritium contamination was measured in groundwater at many nuclear power plants, the Nuclear Energy Institute developed the Groundwater Protection Initiative (NEI Technical Report 07-07). Throughout the different phases of decommissioning, Entergy should, at a minimum, maintain its current monitoring levels as required by NEI 07-07 at the Vermont Yankee facility until NRC license termination. This is necessary since radioactive materials will remain in storage for decades before decontamination and dismantling. It is particularly important in light of the Department of Health’s recent identification of strontium-90 in groundwater.

e. The recent discovery of strontium-90 in groundwater raises additional concerns regarding soil contamination that may enter the groundwater and move in a way that threatens public health, safety, and the environment. This includes contamination from previously mentioned long half-life radioactive materials, as well as shorter half-life materials in the soils at Vermont Yankee. For instance, cobalt-60, cesium-134, zinc-65, and manganese-54 have been all been documented in soils and as sources in previously investigated leaks at Vermont Yankee. See Site Assessment Study;

f. Despite the clear need for robust environmental monitoring until license termination, the PSDAR is mostly silent on this subject. For protection of the environment and public health, monthly sampling from all 32 groundwater monitoring wells and all three drinking water wells currently sampled at Vermont Yankee should continue through license termination, and split samples from those wells should be provided to the Vermont Department of Health for independent confirmatory analysis. In addition, Entergy should continue to perform radiological environmental monitoring of the pathways to the public, direct gamma radiation, soils, sediments, fish and other flora and fauna as conducted during operation of the facility until the large volume of radioactive materials stored onsite are removed by decontamination, dismantling, and licensed disposal. Along with those samples currently split with the Department of Health, including onsite groundwater and drinking water, sediments and fish from the Connecticut River, and direct gamma radiation measurements by dosimeter, the State of
Vermont must be provided split samples from the final status surveys that are intended to document that soil and structure remediation will allow release of the site for unrestricted use at NRC license termination. The PSDAR fails to include any such requirement and is thus deficient in this regard.

g. The PSDAR also inadequately describes what fire protection systems will be in place at Vermont Yankee. Throughout every stage of decommissioning, large quantities of radioactive material will exist within the remaining structures, systems, and components until they are decontaminated and dismantled. In the event of a fire, these materials may result in radioactive contamination of, and radiation doses to, firefighters and other first responders. Consumption by fire of radioactive materials may also result in offsite contamination. No evidence is provided in the PSDAR that local fire department personnel are fully prepared for onsite firefighting with limited support offered by reduced staff at Vermont Yankee. There is also no evidence in the PSDAR as to how offsite responders can manage offsite contamination that results from fires that consume radioactive materials stored onsite.

(8) In light of these and other concerns, there is a significant risk that the Vermont Yankee Nuclear Decommissioning Trust Fund will have a shortfall and will not be able to cover all of the costs of radiologically decontaminating the site if
the Nuclear Regulatory Commission does not closely monitor withdrawals from that fund.

Executed on April 20, 2015 in Montpelier, Vermont

/s/ William Irwin
William Irwin, Sc.D., CHP
Vermont Department of Health
Radiological and Toxicological Sciences Program Chief
108 Cherry Street
Burlington, VT 05401
Declaration of Anthony R. Leshinskie

I declare under penalty of perjury that the foregoing is true and correct:

(1) A true and correct copy of my CV is attached to this declaration.

(2) Since June 2014, I have been an employee of the Vermont Department of Public Service, where I am the State Nuclear Engineer and Decommissioning Coordinator.

(3) In my role at the Vermont Department of Public Service, I have provided technical assistance and monitoring of the Vermont Yankee Nuclear Power Station, including Entergy’s plans related to decommissioning the station.

(4) I was involved in drafting portions of the State of Vermont’s March 6, 2015 Comments (“State’s Comments”) on Entergy’s proposed Post Shutdown Decommissioning Activities Report (“PSDAR”).

(5) Without limitation as to other statements I could attest to and affirm, I specifically attest to and affirm the following factual underpinnings discussed in pages 44-45, 47-48, and 58 of the State’s Comments:
a. Entergy has provided no scientific basis for concluding that the size of a plant is the exclusive factor for determining its potential environmental and other impacts during decommissioning.

b. To the contrary, regardless of a plant’s size, other site-specific factors (such as the close proximity of an elementary school) can—and do—affect the potential environmental and other impacts of decommissioning.

c. Another factor that is clearly not bounded by previous environmental analyses is the potential for environmental impacts associated with the storage of spent nuclear fuel. Entergy’s PSDAR for Vermont Yankee raises numerous environmental, safety, and other impacts related to spent fuel storage that are not addressed by any of the environmental analyses that Entergy cites. In fact, the 2002 Decommissioning GEIS and 2007 GEIS for Vermont Yankee did not analyze any environmental, safety, or other impacts related to spent fuel storage, but rather explicitly relied on the NRC’s now-vacated Waste Confidence Decision.

d. Entergy’s PSDAR also makes reference to the NRC’s recently issued Continued Storage Rule (NUREG-2157), noting that this Rule “found that the generic environmental impacts of ongoing spent fuel storage are small.” PSDAR at 36. Entergy fails to mention that this Rule has been directly challenged by the State of
Vermont and others in a current proceeding in the U.S. Court of Appeals for the D.C. Circuit (*New York v. NRC II*). Further, Entergy’s reliance on the Continued Storage Rule requires Entergy to address the NRC’s explicit recognition in that Rule that spent fuel may be stored indefinitely at each reactor site, and the assumption that, in that scenario, each reactor operator will need a Dry Fuel Transfer Station to move spent fuel into new dry casks every 100 years. Entergy’s PSDAR is deficient because it fails to explain how it would address the contingency of indefinite onsite storage, including all safety and environmental concerns regarding transferring fuel into new dry casks every 100 years.

e. In light of the NRC’s recognition in the Continued Storage Rule of the possibility of indefinite onsite storage of spent nuclear fuel, Entergy’s PSDAR, Decommissioning Cost Estimate, and related filings are also deficient because they fail to identify any funding source for: (a) the construction of a Dry Fuel Transfer Station; (b) the purchase of 58 new casks and all other labor and material costs for transferring the fuel every 100 years; and (c) the costs of maintaining security at the site indefinitely.

f. Although the PSDAR claims that the 2002 Decommissioning GEIS “assessed the range of possible radiological accidents during decommissioning” and that “the risk at spent fuel pools is low and
well within the NRC’s Quantitative Health Objectives” (PSDAR at page 29), this ignores the wide range of hostile-action-based scenarios that were made vividly possible after the attacks of September 11, 2001. These hostile actions, according to the National Academies of Science, could lead to a zirconium fire in the spent fuel pool or severely damage the torus where more than one million gallons of radioactive water will be stored until decontamination and dismantling. See National Academies of Science, Committee on the Safety and Security of Commercial Spent Nuclear Fuel Storage Board on Radioactive Waste Management Division on Earth and Life Studies National Research Council, Safety And Security Of Commercial Spent Nuclear Fuel Storage [Public Report] (2006).

(6) I further attest to and affirm the statements made in the attached February 9, 2015 declaration that I submitted in another proceeding, including my analysis of certain credible Beyond Design Basis events. Entergy has failed to fully account for these credible events, both from an emergency planning standpoint and from a financial assurance standpoint.

(7) In light of these and other concerns, there is a significant risk that the Vermont Yankee Nuclear Decommissioning Trust Fund will have a shortfall and will not be able to cover all of the costs associated with radiological contamination of the site if the Nuclear Regulatory Commission does not closely monitor withdrawals
from that fund and if Vermont and the public are not provided with the opportunity, provided by the 30 day notice provision of the current license and the Master Trust Agreement, to bring to NRC’s attention problems with a proposed withdrawal of NDT funds.

Executed on April 20, 2015 in Montpelier, Vermont

/s/ Anthony R. Leshinskie
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