

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION

William M. Dean, Director

In the Matter of	)	
	)	
Entergy Nuclear Operations, Inc.	)	
	)	
	)	
James A. FitzPatrick Nuclear Power Plant	)	Docket No. 50-333
Entergy Nuclear FitzPatrick, LLC	)	
	)	License No. DPR-59
	)	
Pilgrim Nuclear Power Station	)	Docket No. 50-293
Entergy Nuclear Generation Company	)	
	)	License No. DPR-35
	)	
Vermont Yankee Nuclear Power Station	)	Docket No. 50-271
Entergy Nuclear Vermont Yankee, LLC	)	
	)	License No. DPR-28

PROPOSED DIRECTOR'S DECISION UNDER 10 CFR 2.206

I. INTRODUCTION

By electronic transmission dated March 18, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13079A022), as supplemented on April 23, May 7, June 28, July 22, October 16, November 13, November 27, and December 2, 2013, October 20, 2014, and January 27, 2015 (ADAMS Accession Nos. ML13133A161, ML13135A001, ML13184A109, ML13205A251, ML13294A400, ML13335A002, ML14016A361, ML15027A458, ML15027A462, and ML15039A011, respectively), Mr. Timothy Judson, President of Citizens Awareness Network, filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206, on behalf of the Alliance for a Green Economy, Citizens Awareness Network, Pilgrim Watch, and Vermont Citizens Action Network (hereafter,

referred to as “the petitioners”). The petition and supplements are available at the U.S. Nuclear Regulatory Commission (NRC or the Commission) Public Document Room (PDR), located at One White Flint North, Public File Area O1F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available documents created or received at the NRC are accessible electronically through ADAMS in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. Persons without access to ADAMS or have problems in accessing the documents located in ADAMS should contact the NRC’s PDR reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

The petitioners requested that the NRC take enforcement action to: (1) suspend operations at James A. FitzPatrick Nuclear Power Plant (FitzPatrick) and Vermont Yankee Nuclear Power Station (Vermont Yankee); (2) investigate whether Entergy Nuclear Operations, Inc. (ENO, the licensee<sup>1</sup>) possesses sufficient funds to cease operations and decommission FitzPatrick and Vermont Yankee, per 10 CFR 50.75, “Reporting and recordkeeping for decommissioning planning;” and (3) investigate ENO’s current financial qualifications per 10 CFR 50.33(f)(5) to determine whether the licensee remains qualified to continue operating Pilgrim Nuclear Power Station (Pilgrim). The petitioners assert that ENO no longer meets the financial qualifications requirements to possess the licenses and operate FitzPatrick, Pilgrim, and Vermont Yankee in accordance with 10 CFR 50.33(f)(2) and 10 CFR 50.80(b)(1)(i).

The petitioners met with the Office of Nuclear Reactor Regulation Petition Review Board (PRB) on May 7, 2013, to clarify the basis for the petition. The transcript of this meeting (ADAMS Accession No. ML13135A001) was treated as a supplement to the petition.

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<sup>1</sup> The licensee is the licensed operator of FitzPatrick, Pilgrim, and Vermont Yankee. FitzPatrick is owned by Entergy Nuclear FitzPatrick, LLC (ENF). Pilgrim is owned by Entergy Nuclear Generation Company (Entergy Nuclear). Vermont Yankee is owned by Entergy Nuclear Vermont Yankee, LLC (ENVY). Entergy Nuclear, ENF, and ENVY are licensee/owners. Entergy Corporation is the parent company of all the licensees.

In its August 7, 2013 (ADAMS Accession No. ML13154A313), acknowledgement letter, the NRC staff informed the petitioners that their request for immediate actions to suspend operations at FitzPatrick and Vermont Yankee was denied.

The NRC employs multiple engineered barriers and multiple levels of reactor oversight that are in NRC regulations to provide reasonable assurance of adequate protection of public and health and safety and the environment. Emergent safety concerns are promptly identified and assessed through the NRC's Reactor Oversight Process (ROP). The ROP requires that licensees take prompt corrective action to resolve identified safety concerns. In addition, permanent onsite resident inspectors monitor the day-to-day operations at the plants, which provide an additional assurance of safe operation.

The NRC staff also informed the petitioners of the PRB's final recommendation to accept the petition for review, based on the fact that it met the criteria in Management Directive 8.11, Section III.C, "Criteria for Reviewing Petitions Under 10 CFR 2.206."

By letter dated June 2, 2014 (ADAMS Accession No. ML13357A024), the NRC staff issued a request for voluntary information in accordance with Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions." The request for voluntary information requested that ENO provide information related to the November 7, 2013, 10-Q quarterly report filed with the U.S. Securities and Exchange Commission (SEC) regarding FitzPatrick and Pilgrim revenues. By letter dated July 24, 2014 (ADAMS Accession No. ML14212A050), ENO provided a response and the information was considered by the PRB in its evaluation of the petition.

## II. DISCUSSION

### Regulatory Background

Section 182.a. of the Atomic Energy Act of 1954, as amended, provides that: "Each application for a license... shall specifically state such information as the Commission, by rule or

regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant ... as the Commission may deem appropriate for the license.” The NRC's regulations at 10 CFR 50.33(f) govern financial qualifications reviews of license applications for the construction or operation of nuclear power plants. The NRC staff reviews the financial qualifications for each applicant for construction permits, operating licenses,<sup>2</sup> and license transfers. An applicant must demonstrate to the Commission its financial qualifications are sufficient to carry out the activities for which the permit or license is sought.

The regulations at 50.33(f)(2) require the *operating license applicant* to submit information that demonstrates that the applicant possesses, or has reasonable assurance of obtaining, the funds necessary to cover estimated operating costs for the period of the license. The applicant must submit estimates for total annual operating costs for each of the first five years of operation of their facilities, and also provide the source(s) of funds to cover operating costs. The NRC staff follows the process described in Revision 1 of NUREG-1577, “Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommission Funding Assurance,” to perform its financial qualification review.

The NRC does not systematically review the financial qualifications of its licensees once it has issued an operating license, other than during the review for license transfer amendments. Transfers of licenses are governed by 10 CFR 50.80. However, 10 CFR 50.33(f)(5) allows the NRC to “request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status of funds... This may include information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility” when the NRC staff deems a request appropriate.

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<sup>2</sup> An electric utility applicant for a license to operate a utilization facility of the type described in 10 CFR § 50.21(b) or § 50.22 is exempt from a financial qualifications review.

The NRC reviews the financial qualifications and methods of providing decommissioning funding assurance required of power reactor license applicants and licensees.

Decommissioning a facility or site safely removes it from service and reduces residual radioactivity to a level that permits (1) the release of the property for unrestricted use and termination of the license; or (2) the release of the property under restricted conditions and termination of the license. The costs of spent fuel management, site restoration, and other costs not related to decommissioning are not included in the financial assurance for decommissioning for nuclear reactors.

Decommissioning funding assurance for nuclear power plants is governed by 10 CFR 50.33(k), 10 CFR 50.75, and 10 CFR 50.82, "Termination of license," in a three-stage process. First, 10 CFR 50.33(k) requires licensees to submit, with each application for a production or utilization facility, a report, as described in 10 CFR 50.75, including a certification, specifying how financial assurance for decommissioning will be provided. Second, 10 CFR 50.75(c)(2) requires licensees to adjust annually the amount of decommissioning funding assurance, using an amount equal to or greater than the formula amount in 10 CFR 50.75(c). The regulations at 10 CFR 50.75(f)(1) require the status of decommissioning funds to be reported to the NRC at least once every two years. Third, 10 CFR 50.75(f) also requires that two years prior to permanent cessation of operations, a licensee must submit a preliminary decommissioning cost estimate that includes, *inter alia*, a plan for adjusting decommissioning funds to demonstrate that funds will be available when needed to cover decommissioning costs. The regulation at 10 CFR 50.82(a)(4)(i) requires a licensee to submit a post-shutdown decommissioning activities report (PSDAR) before or within two years following permanent cessation of operations. The report:

...must contain a description of the planned decommissioning activities along with a schedule for their accomplishment, a discussion that provides the reasons

for concluding that the environmental impacts associated with site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements, and a site-specific DCE [decommissioning cost estimate], including the projected cost of managing irradiated fuel.

The NRC staff analyzes biennial decommissioning funding reports to determine that sufficient funding for radiological decommissioning of a facility will be available at the time of permanent termination of operations. On a case-by-case basis, the NRC takes appropriate actions to address decommissioning funding shortfalls. These staff actions include discussions with a licensee to develop a plan of action to resolve a decommissioning funding shortfall. Because a shortfall in decommissioning funding does not affect safe operations of a nuclear plant, the NRC provides a licensee time to resolve a shortfall. However, adequate decommissioning funding is important to ensure a plant is decommissioned safely and without the expenditure of public funds. Therefore, the NRC monitors the status of decommissioning funds.

#### Evaluation of ENO's Decommissioning Funding Status Reports

The most recent decommissioning funding status reports for FitzPatrick, Pilgrim, and Vermont Yankee were submitted by March 31, 2013. The NRC staff analyzed these reports and concluded that all three facilities met the minimum financial assurance requirements 10 CFR 50.75(c)—no decommissioning fund shortfalls were reported. SECY-13-0105 (ADAMS Accession Nos. ML13266A084 and ML13266A089) provides a summary of the staff's analysis of all decommissioning funds, including the FitzPatrick, Pilgrim, and Vermont Yankee funds.

#### Evaluation of ENO's Financial Qualifications

By letter dated June 2, 2014, (ADAMS Accession No. ML13357A024), the PRB sent a request for voluntary information to ENO on its current financial status. The NRC staff asked ENO to (1) provide updated cost and revenue projections and cashflow statements for FitzPatrick and Pilgrim, (2) confirm that certain contingency commitments were still in effect for

FitzPatrick and Pilgrim, (3) update its response to an earlier request for additional information concerning impairment for Vermont Yankee disclosed in a November 2012 10Q SEC filing, and (4) provide the current operating agreements and/or intra-corporate arrangements among and between FitzPatrick, Pilgrim, Vermont Yankee and ENO related to financing the operating and maintenance costs for NRC licensed activities (ADAMS Accession No. ML072220219)<sup>3</sup>.

By letter dated July 24, 2014 (ADAMS Accession No. ML14212A050), ENO asserted that it believes the 2.206 petition does not provide a basis for an inquiry into cost and revenue projections and cash flow statements for FitzPatrick and Pilgrim. The licensee, however, explained that the revenues for FitzPatrick and Pilgrim reported to the SEC, as “Entergy Wholesale Commodities” in the Entergy Corporation’s 10-K filings, demonstrate positive revenues and net income for wholesale electricity since Entergy Corporation began reporting on wholesale electricity costs.

The licensee also indicated that corporate revenues from other ENO sources are available, if needed, to cover operational expenses at FitzPatrick and Pilgrim. In addition, ENO indicated that ENF and Entergy Nuclear have credit support agreements or parent guarantees in place to provide adequate funds for operations at both FitzPatrick and Pilgrim, as discussed below. The licensee stated that “[ENF and Entergy Nuclear] have never needed to draw, nor actually drawn, upon the funds provided by these agreements.

The licensee confirmed that FitzPatrick’s License Condition 2.G is in effect and is guaranteed by Entergy Global, LLC (formerly Entergy Global Investments, Inc.) and Entergy International Ltd., LLC. FitzPatrick’s License Condition 2.G provides

ENF and ENO shall take no action to cause Entergy Global Investments, Inc. or Entergy International Ltd. LLC, or their parent companies, to void, cancel, or modify the \$70 million contingency commitment to provide funding for the facility as represented in the application for approval of the transfer of the facility license

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<sup>3</sup> ENO referred to these agreements in its July 30, 2007 license transfer application.

from PASNY [Power Authority of the State of New York] to ENF and ENO, without the prior written consent of the Director, Office of Nuclear Reactor Regulation.

The licensee also confirmed that Pilgrim's License Condition J.4 is in effect and is guaranteed by Entergy International Ltd., LLC. Pilgrim's License Condition J.4 provides

"Entergy Nuclear shall have access to a contingency fund of not less than fifty million dollars (\$50m) for payment, if needed, of Pilgrim operating and maintenance expenses, the cost to transition to decommissioning status in the event of a decision to permanently shut down the unit, and decommissioning costs. Entergy Nuclear will take all necessary steps to ensure that access to these funds will remain available until the full amount has been exhausted for the purposes described above. Entergy Nuclear shall inform the Director, Office of Nuclear Regulation, in writing, at such time that it utilizes any of these contingency funds."

After evaluating this additional information provided by ENO, the NRC staff continues to believe that ENO has access to funding to operate FitzPatrick and Pilgrim safely.

#### Addressing Other Issues Raised by the Petitioners

FitzPatrick Unplanned Power Changes – The NRC staff has not identified any operational issues at FitzPatrick that raise questions of the ability of the plant to operate safely. Unplanned power changes caused by main condenser tube leaks were reported by ENO in January 2013. The NRC staff analyzed the main condenser tube leakage issues and the resulting power changes at Fitzpatrick and found no safety concerns. The licensee has replaced the circulating water tubes with titanium tubes in the main condenser. The NRC staff evaluated the plant modification and no findings were identified, as noted in the NRC Integrated Inspection Report 05000333/2014005, dated February 6, 2015 (ADAMS Accession No. ML15037A280). Moreover, this plant modification represents a significant capital project, which further demonstrates ENO's capability and willingness to maintain safe operations at FitzPatrick.

Pilgrim Safety Conscious Work Environment (SCWE) – In its November 13, 2013, supplement, the petitioners provided news articles reporting that the licensee planned to lay off

employees at Pilgrim. The petitioners expressed concern that the Pilgrim SCWE could be affected by a potential workforce reduction.

As part of the ROP, the NRC determines whether a substantive cross-cutting issue (Human Performance, Problem Identification and Resolution, and SCWE) exists at each operating reactor during the mid-cycle and end-of-cycle assessments. If the NRC determines that a substantive cross-cutting issue exists, an assessment letter summarizes the issue and includes the necessary actions to resolve the issue.

As part of the problem identification and resolution biennial baseline inspection, the NRC staff assesses the SCWE. In current and past inspection reports, the NRC staff found no evidence of an unacceptable SCWE at Pilgrim and no significant challenges to the free flow of information.

Vermont Yankee Shutdown – By letter dated December 19, 2014 (ADAMS Accession No. ML14357A110), the licensee submitted the Post-Shutdown Decommissioning Activities Report (PSDAR) for Vermont Yankee, in accordance with 10 CFR 50.82(a)(4)(i). The PSDAR contains (1) a description and schedule of the planned decommissioning activities, (2) a discussion on the environmental impacts of decommissioning, (3) a site-specific decommissioning cost estimate, and (4) a settlement agreement between ENO, ENVY, and the State of Vermont. Although the NRC's regulations do not require formal NRC staff approval of the PSDAR, the NRC staff is currently reviewing the PSDAR to ensure that it meets the content requirements of 10 CFR 50.82(a)(4)(i).

By letter dated January 12, 2015 (ADAMS Accession No. ML15013A426), the licensee provided certifications to the NRC that (1) power operations at Vermont Yankee were permanently ceased effective December 29, 2014, and (2) spent reactor fuel has been

permanently removed from the Vermont Yankee reactor vessel and placed in the spent fuel pool.

III. CONCLUSION

The petitioners requested an immediate suspension of operations at FitzPatrick and Vermont Yankee to protect the public health and safety. As previously stated, the NRC relies on multiple engineered barriers and multiple levels of reactor oversight that are in NRC regulations to provide reasonable assurance of adequate protection of public and health and safety and the environment. Emergent safety concerns are promptly identified and assessed through the NRC's ROP. The ROP requires that licensees take prompt corrective action to resolve identified safety concerns. In addition, permanent onsite resident inspectors monitor the day-to-day operations at the plants, which provide an additional assurance of safe operation. Therefore, the petitioners' request to shut down FitzPatrick and Vermont Yankee was denied because the facilities were found to be operating safely and additional actions are not required for the protection of public health and safety and the environment.

Also, the petitioners requested an investigation to determine whether ENO possesses sufficient funds to cease operations and decommission FitzPatrick and Vermont Yankee in accordance with 10 CFR 50.75. The NRC staff's review of the 2013 decommissioning funding status report, determined that ENO provided reasonable assurance that sufficient funding for radiological decommissioning of FitzPatrick and Vermont Yankee will be available for the decommissioning process. The licensee permanently ceased power operations at Vermont Yankee, in part, due to the fact that it was deemed uneconomic. Because the NRC staff has independently determined that both Fitzpatrick and Vermont Yankee have sufficient funding available for decommissioning, no further investigation into ENO's financial status is necessary to ensure the protection of the public health and safety and the environment.

Finally, the petitioners also requested an investigation of ENO's current financial qualifications to determine whether the licensee remains financially qualified to continue operations at Pilgrim, in accordance with 10 CFR 50.33(f)(5). As discussed above, the NRC does not routinely review the financial qualifications of power reactor licensees after the issuance of an operating license. The NRC staff conducts financial qualification reviews of license transfers to ensure that the new licensees meet NRC requirements. The regulations at 10 CFR 50.33(4) allow the NRC staff to request a licensee to submit more detailed information concerning its financial arrangements and funding. The petitioners request to examine whether ENO is financially qualified to operate Pilgrim was accepted.

The NRC staff requested and ENO provided additional financial information on the adequacy of Pilgrim's operational funding. The licensee responded that License Condition J.4 requires that \$50 million is available to maintain safe operations at Pilgrim and Entergy International Ltd. is the guarantor of this sum. The NRC staff reviewed the information provided by ENO and found that the licensee's current financial qualifications are adequate to continue safe operation at Pilgrim.

As provided in 10 CFR 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

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Dated at Rockville, Maryland, this        day of    2015.

For the Nuclear Regulatory Commission

William M. Dean, Director,  
Office of Nuclear Reactor Regulation.