

Vermont State Offices and the Vermont Yankee Decommissioning

Prepared for the
Vermont Nuclear Decommissioning Citizens Advisory Panel
January 31, 2019

Agenda

- ▶ Discussion of orders issued by the Nuclear Regulatory Commission and Vermont Public Utility Commission
- ▶ Roles of State Offices in Overseeing the Ongoing Decommissioning
 - ▶ Department of Public Service
 - ▶ Attorney General's Office
 - ▶ Agency of Natural Resources
 - ▶ Department of Health

Overview of Decisions Governing Vermont Yankee Transfer

Review: The Memorandum of Understanding

- ▶ On March 2, 2018, a memorandum of understanding was signed among NorthStar, Entergy, the state offices, and a number of intervenors
- ▶ This MOU secured financial assurances of \$250 million (in addition to the nuclear decommissioning and spent fuel trusts)
- ▶ The MOU also established certain oversight roles for the state agencies and reporting requirements for NorthStar
- ▶ The signing parties requested that the Nuclear Regulatory Commission and the Vermont Public Utility Commission approve the transfer of the Vermont Yankee facility from Entergy to NorthStar
- ▶ Though independent regulatory commissions, the PUC decided to wait to issue its order until the NRC order issued

Orders by the Nuclear Regulatory Commission

- ▶ The NRC issued two orders on October 11, 2018, the primary one which authorized the license transfer
 - The other order allows NorthStar to use no more than \$20 million at a time from the nuclear decommissioning trust fund to pay the costs for safely storing and transporting spent nuclear fuel
- ▶ In issuing the License Transfer Order, the NRC concluded that NorthStar had the financial and technical qualifications for decommissioning and spent fuel management, such that there is reasonable assurance the activities NorthStar will undertake pursuant to the NRC license can be conducted without endangering the health and safety of the public

Orders by the Nuclear Regulatory Commission (cont'd)

- ▶ The NRC stress-tested this transaction, asking multiple times for additional information and conducting its own cash flow analysis
- ▶ The NRC's order did not significantly modify the MOU. Its additional requirements were:
 - ▶ Satisfactory documentary evidence that NorthStar obtained the appropriate amount of insurance required for a licensee
 - ▶ that NorthStar not take actions with respect to the \$140 million support agreement without the NRC's prior, written consent
 - ▶ that NorthStar obtain a performance bond if it does not settle with the Department of Energy before January 1, 2022 an issue relating to DOE reimbursements for spent fuel management expenses
- ▶ The NRC orders did not address the state offices' roles from the MOU or during decommissioning

Order by the Vermont Public Utility Commission

- ▶ The PUC reviewed whether the proposed transfer **will promote the public good and the general good of the State of Vermont**
- ▶ On December 6, the Vermont Public Utility Commission approved the NorthStar/Entergy request to transfer the Certificate of Public Good for the Vermont Yankee plant to NorthStar
- ▶ The only added condition was for the Department to review and confirm its satisfaction with certain insurance and escrow documents, which it did prior to the January 11, 2019 closing
- ▶ The Commission's review was comprehensive, and included nearly 10 pages addressing the concerns of the only party—the Conservation Law Foundation—to not sign the MOU

Important Considerations for the PUC

- ▶ The additional financial assurances, and other risk mitigation measures, in the MOU were “of critical importance”
 - ▶ \$140 million support agreement
 - ▶ An SRT balance of \$60 million
 - ▶ The escrow account with an initial \$30 million in funding, and additional \$25 million added later
 - ▶ Pollution Legal Liability Insurance for \$30 million
 - ▶ The Orano Guaranty of \$25 Million
 - ▶ Contingent escrow contribution from Round 3 DOE Recovery
 - ▶ \$25 million contingent letter of credit

Important Considerations for the PUC

- ▶ The technical and managerial competence of NorthStar, and a conclusion that NorthStar will be a “fair partner” to the State
 - ▶ Findings of Fact Nos. 124-25 relate to NDCAP, finding that NorthStar has committed to collaborate with stakeholders to establish a public engagement process regarding the decommissioning and restoration, and that NorthStar will continue to work with local citizens and the government throughout the project
- ▶ Accelerating the time when the Yankee site can be returned to productive use:
 - ▶ “As the parties to the MOU point out, our consideration must also include the status quo, which also involves substantial uncertainties and risks. Under Entergy's current schedule for delayed decommissioning and site restoration, **these uncertainties and risks would fall on a future generation that realized no benefits from electricity generated by Vermont Yankee.**”

Important Considerations for the PUC

- ▶ The State Offices' oversight roles:
 - ▶ “We emphasize the importance of the post-closing oversight activities by the relevant State agencies in mitigating risks to the State related to funding adequacy.”
- ▶ The broad support for the MOU among State offices, other parties, and the public
 - ▶ The PUC cited the brief of the Windham Regional Commission: “The WRC has long advocated for prompt decommissioning and site restoration to Vermont standards upon the cessation of operations and closure of the Vermont Yankee Nuclear Power Station. After years of analysis of information presented in this and prior dockets, it is our determination that these positions are in the best interest of the orderly development of the region.”

Roles of the State Offices in Vermont Yankee Decommissioning

General Role of Each State Office

State Office	Primary Role
Department of Public Service	Conduct project and financial oversight to confirm decommissioning is on time and on budget
Agency of Natural Resources	Lead State office to oversee the non-radiological remediation and site restoration activities
Office of the Attorney General	Provides legal advice to state entities and review documents relating to financial status
Department of Health	Lead state entity overseeing compliance with relevant health standards and exercising the State's oversight of radiological contaminants

Department of Public Service

Authority

- ▶ The Department's general authority comes from Title 30 of the Vermont Statutes Annotated (see <https://legislature.vermont.gov/statutes>), with sections 1 through 611 relating to the Department
- ▶ 30 V.S.A. § 2 identifies the Department's general powers, which include the power to initiate proceedings § 2(c) and to investigate § 2(h)
- ▶ Many of the Department's rights here derived from the MOU

Department of Public Service

Public Reporting and Engagement

- ▶ Like all public offices, the Department is subject to the Public Records Act (1 V.S.A. §§ 315-320)
 - ▶ Otherwise our affirmative public reporting requirements are legislative reports (<https://publicservice.vermont.gov/content/legislative-reports>)
 - ▶ MOU § 2.j requires NorthStar to provide any PRA exempt materials in a format “suitable for public disclosure”
- ▶ MOU § 8 obligates NorthStar to collaborate to establish an appropriate public engagement process regarding the decommissioning and restoration of the VY Station site, including exploring forming a subcommittee of the Nuclear Decommissioning Citizens Advisory Panel
- ▶ The Department is determining the types of documents it will proactively make public, and the public engagement it will facilitate

Department of Public Service

Public Reporting and Engagement

- ▶ The NDCAP statute (18 V.S.A. §§ 1700-1702) preserves an interrelationship with the Department
- ▶ Numerous opportunities already for engagement with the Department
 - The Department administers the NDCAP Meetings
 - The Department maintains the NDCAP website (<https://publicservice.vermont.gov/electric/ndcap>)
 - Consumer Affairs and Public Information Division (CAPI) accepts public comments on Vermont Yankee matters (<https://publicservice.vermont.gov/publications-resources/consumers>)
 - There is an email address: PSD.NDCAP@vermont.gov

Department of Public Service

Oversight Role

- ▶ The Department will exercise oversight to help confirm the decommissioning is on schedule and on budget
- ▶ The Department is hiring a financial analyst and a nuclear project expert to aid in exercising this oversight

Department of Public Service

Oversight Role

- ▶ The Department's regular tasks are:
 - ▶ Review summaries of monthly expenditures *
 - ▶ Review the annual public certification (due by March 31),* detailing work completed vs. remaining, and funds remaining vs. amount estimated to be required
 - ▶ Review annually the financial disclosures and reports (due by March 31), including financial statements for NorthStar as well as the NDT and SRT fund balances
 - ▶ Review any disbursements from the SRT

* Along with ANR and the AGO

Department of Public Service

Oversight Role

- ▶ PSD, ANR, and VDH have the right to access the site, and NorthStar must allow that access
- ▶ PSD, ANR, and the AGO have the right to inspect expenditures and books of NorthStar entities
- ▶ NorthStar is required to notify PSD, ANR, and the AGO within 7 days of certain adverse events, such as a draw on the support agreement
- ▶ The PUC order requires the State offices to coordinate our monitoring and oversight activities

Department of Public Service

Oversight Role

1	Task	Trigger	Event	Phase	Source	Status	PSD	Financial Analyst	Project Analyst	ANR
2	Review Pollution Legal Liability Insurance policy	Event	P.U.C. Order	1. Pre-Closing	MOU 2.e	Completed	Yes			
3	Review Escrow Agreement	Event	P.U.C. Order	1. Pre-Closing	P.U.C. Order	Completed	Yes			
4	Confirm Northstar financial assurances are in place at closing: NDT, SRT funds, the performance bonds of \$400 million (Attachment 1)	Event	Closing	2. Closing	MOU 2.a(1)-(3), (5)	Completed	Yes	Yes		
5	Confirm NorthStar's execution of Attachment 3 regarding \$140 million Support Agreement	Event	Closing	2. Closing	MOU 2.b	Completed	Yes	Yes		
6	Confirm NorthStar's proper establishment and initial funding of escrow account	Event	Closing	2. Closing	MOU 2.c	Completed	Yes	Yes		
7	Confirm NorthStar obtained Orano Guaranty for \$25 million	Event	Closing	2. Closing	MOU 2.d	Completed	Yes	Yes		
8	Confirm NorthStar obtained Pollution Legal Liability insurance, substantially in the form of MOU Attachment 4	Event	Closing	2. Closing	MOU 2.e	Completed	Yes	Yes		
9	Confirm Entergy assurances are in place at closing: amount to bring balance of SRT to \$60million; that Entergy contributions to SRT assets have gone into segregated sub-account of NDT	Event	Closing	2. Closing	MOU 3.a	Completed	Yes	Yes		
10	Confirm ENVY files Round 3 DOE claim	Event	30 days after the earlier of (i) date physical work related to VY dry fuel storage transfer completed and invoice paid or (ii) Closing	2. Closing	MOU 3.b	Due by 2/11/19	Yes			
11	Ensure State of Vermont is designated material beneficiary of SRT assets in segregated sub-account of NDT	Event	Closing	2. Closing	MOU 6	Awaiting confirmation	Yes	Yes		
12	Work with NorthStar to develop protocols related to non-radiological remediation and site restoration for information sharing, obtaining samples, etc.	Event	Closing	3. Short-term post-closing period	MOU 5.k					Yes
13	Collaborate with NorthStar to develop public engagement process regarding site restoration/decommissioning, including possible NDCAP subcommittee	Event	Closing	3. Short-term post-closing period	MOU 8		Yes			Yes
14	Confirm NorthStar provides \$25 million contingent letter of credit tied to start/completion date milestones (Attachment 2)	Event	Conditions in MOU § 2.a(4), footnote 3	4. Ongoing Site Restoration/Decommissioning	MOU 2.a(4)		Yes	Yes		
15	Confirm any funds withdrawn from NDT do not exceed task amount specified in version 1.0 of the pay-item disbursement schedule dated 9/8/16	Event	Withdrawal of funds from the NDT	4. Ongoing Site Restoration/Decommissioning	MOU 2.a(6)		Yes	Yes		
16	Make determination whether additional work is needed to complete site restoration so that P.U.C. can order NorthStar to provide additional funding under support agreement	Event	P.U.C. Request	4. Ongoing Site Restoration/Decommissioning	MOU 2.b(1)		Yes	Yes	Yes	Yes
17	Participate in any P.U.C. proceeding NorthStar initiates to amend, terminate, or assign the support agreement	Event	NorthStar initiates proceeding to amend, terminate, or assign Support Agreement	4. Ongoing Site Restoration/Decommissioning	MOU 2.b(2)		Yes			
18	Confirm additional funding of escrow account from NorthStar NDT withdrawals	Event	Post-closing, after NorthStar has withdrawn first \$100 MM from NDT	4. Ongoing Site Restoration/Decommissioning	MOU 2.c		Yes	Yes		
19	Approve withdrawals from Escrow Account	Event	Withdrawal of funds from escrow account	4. Ongoing Site Restoration/Decommissioning	MOU 2.c(1)		Yes	Yes	Yes	Yes
	Approve site investigation report for each operable unit to allow release of Orano	Event	Reactor vessel shipped from site and Orano paid for all	4. Ongoing Site Restoration/Decommissioning	MOU 2.d					Yes

Office of the Attorney General (AGO)

- ▶ The Attorney General represents the State in all civil and criminal matters.
See Title 3, Chapter 7 of Vt. Stat. Ann.
- ▶ Up until now, the AGO has represented the State in litigation involving Vermont Yankee at the state and federal level.
 - ▶ Now, there is no current active litigation (no NRC proceeding or state proceeding)
- ▶ Without active litigation, the AGO will assist in decommissioning in 3 ways:
 1. Provide legal advice to the technical agencies (DPS/ANR/VDH)
 2. Review financial documents and assurances per the Entergy-NorthStar MOU (e.g., MOU ¶ 2: AGO receives all copies of financial materials)
 3. Ensure consistent legal and public positions (e.g., speaking as “one State voice” as appropriate)
- ▶ *More information:* <https://ago.vermont.gov/nuclear-matters/>

Agency of Natural Resources

- ▶ Oversight Authority: ANR has oversight authority over “site restoration” (site investigation and clean-up of non-radiological contamination and waste management, including solid, hazardous, and mixed wastes). Will also coordinate with VDH on some public health and safety issues, and with DPS on review of status and disbursement of funds for non-radiological site activities.

10 V.S.A. chapter 159, “I-Rule”, SWMR, RCRA

Agency of Natural Resources

▶ Relevant portions of MOU: Paragraph 5

- Site restoration standards
- Processes and timeline for comprehensive site investigation
 - Approval by ANR in consultation with Town of Vernon
 - Option for defining “operational units”
 - Groundwater quarterly sampling plan
 - Characterization of below-grade structures
 - Demolition of buildings/structures and filling of voids, use of fill materials

Agency of Natural Resources

(Relevant portions of MOU - Paragraph, cont'd)

- Development of corrective action plan(s)
- Compliance with Radiological Health Rule (VDH)
- Remediation of site to residential standards unless institutional control plan approved by ANR
- Development of site protocols re: information sharing, sampling, site visits and inspections, notifications, etc.

Agency of Natural Resources

(Relevant portions of MOU - Paragraph, cont'd)

- ▶ Financial, other reporting (Paragraphs 2(f), (g), (h)): ANR will coordinate with DPS and VDH on reviewing:
 - ▶ Annual certifications and other periodic reporting, changes in schedule of work
 - ▶ Disbursements of funds for site restoration activities, significant changes in financial status (to the extent changes affect site restoration)

Agency of Natural Resources

- ▶ Opportunities for Public Involvement:
 - ▶ Corrective Action Plan(s) - require notice and opportunity for public comment, hearing
 - ▶ Records subject to disclosure under Public Records Law
 - ▶ NDCAP and other stakeholder processes
 - ▶ ANR website - proactively provide updates and post important documents and summaries:
<https://anr.vermont.gov/Vermont%20Yankee%20Decommissioning>

Department of Health

Health's surveillance is as described in rule.

Found at:

http://www.healthvermont.gov/sites/default/files/documents/2016/12/REG_radiological-health.pdf

PART 5. CHAPTER 3

RADIOLOGICAL HEALTH

SUBCHAPTER 1. RADIATION PROTECTION

Section:

- 5-301. Purpose.
- 5-302. Scope.
- 5-303. Definitions.
- 5-304. Exemptions.
- 5-305. Standards.
- 5-306. Inspections.
- 5-307. Enforcement.
- 5-308. Registration.
- 5-309. Transportation.

SUBCHAPTER 1. RADIATION PROTECTION

Section 5-301. Purpose, Authority, Effective Date.

Purpose: This rule establishes standards for the control of ionizing radiation for the protection of occupational and public health and safety and implements the provisions of 18 V.S.A. Chapter 32. This rule regulates x-ray and other radiographic diagnostic equipment used by physicians, dentists and other health professionals, occupational sources of radiation, and the radiation exposure values at the site-boundary of the Vermont Yankee Nuclear Power Station (VYNPS).

This rule sets maximum limits in terms of the dose an individual may receive depending on the source and type of ionizing radiation. The dose limits are established both for people who work with radioactive materials or equipment and for members of the public exposed to ionizing radiation in unrestricted areas from the VYNPS. For purposes of the dose limits established in this rule for the VYNPS site-boundary, a maximum exposure value is established as a proxy to assure that no individual would be exposed to a dose in excess of the established limit.

Authority: This rule is adopted under the authority of 3 V.S.A. §§ 801(b)(11) and 3003(a) and 18 V.S.A. § 1652(c).

Effective Date: All provisions of this rule shall be effective on January 1, 2010.

The Radiological Health Rule allows:

- ▶ Copies of all reports furnished to the NRC related to radioactive effluent discharges and gamma radiation emanations under normal and abnormal conditions;
- ▶ Opportunities at all times to inspect and evaluate sources of radiation and the premises and facilities where such sources are used or stored, making available pertinent data, records and reports.
- ▶ Access to all records pertaining to the radiological health and safety of employees, to discharges of radioactive material and gamma radiation emanations to the environment, and to any effect of the operation of the facility upon the environment.

The Radiological Health Rule Allows:

- ▶ Notice of any radiological incident and reports thereof and in the same manner as provided to the NRC.
- ▶ Unscheduled visits to the regulated facility for the purpose of obtaining samples and surveys for analysis.
- ▶ Advance notification of each scheduled calibration of effluent monitors so it can be witnessed.
- ▶ Sharing samples of environmental media for purposes of data correlation.

As with other work, Health would share our findings with the public at our website to help people understand what is going on and how it may or may not impact public health offsite.

The screenshot shows a website page with a blue sidebar on the left and a white main content area on the right. The sidebar contains a navigation menu with icons and text for various health and environmental topics. The main content area has a top navigation bar with links like 'QUICK LINKS', 'ALERTS', and 'GET HELP NOW'. Below this is a breadcrumb trail: 'HOME / HEALTH & THE ENVIRONMENT / RADIOLOGICAL HEALTH /'. The main heading is 'DECOMMISSIONING OF VERMONT YANKEE NUCLEAR POWER STATION'. The text describes the Radiological Health Program's role in evaluating and managing public health impacts. A section titled 'TRITIUM CONTAMINATION INVESTIGATIONS' explains that tritium is a radioactive form of hydrogen, a byproduct of nuclear fission, and occurs naturally in the environment. It mentions that on January 7, 2010, the Health Department was notified by the Vermont Yankee Nuclear Power Station that samples taken from a groundwater monitoring well on site at the plant contained tritium. Below this, there is a 'More Information on Tritium' section with three bullet points: 'Health Department Investigation 2010 - 2012', 'Information about Tritium' (with an external link icon), and 'Tritium: Radiological and Chemical Fact Sheet' (with an external link icon). Further down, there is a section for 'ENVIRONMENTAL SURVEILLANCE AND MONITORING REPORTS' with two sub-sections: 'Environmental Surveillance' and 'Environmental Surveillance Monitoring Reports'. The final section is 'EMERGENCY PREPAREDNESS', which states that the Health Department partners with other state agencies to ensure adequate warning and emergency response in the event of a radiological release. It lists three partners: 'Agency of Agriculture, Food and Markets', 'Agency of Natural Resources', and 'Department of Public Safety'. At the bottom right of the page, the number '30' is displayed.

HEALTH & THE ENVIRONMENT

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TOWN HEALTH OFFICERS

PLANS & REPORTS

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DECOMMISSIONING OF VERMONT YANKEE NUCLEAR POWER STATION

The Radiological Health Program evaluates and manages the actual and potential public health impacts on Vermonters from activities at the Vermont Yankee Nuclear Power Station, located in the town of Vernon in Windham County.

TRITIUM CONTAMINATION INVESTIGATIONS

Tritium is a radioactive form of hydrogen. It is a byproduct of the nuclear fission process in a nuclear reactor, and occurs naturally in the environment at very low concentrations. Most tritium in the environment is in the form of tritiated water, which easily moves about in the atmosphere, bodies of water, and in soil and rock.

On January 7, 2010, the Health Department was notified by Vermont Yankee Nuclear Power Station that samples taken from a groundwater monitoring well on site at the plant contained tritium.

More Information on Tritium

- [Health Department Investigation 2010 - 2012](#)
- [Information about Tritium](#) —Environmental Protection Agency
- [Tritium: Radiological and Chemical Fact Sheet](#)

ENVIRONMENTAL SURVEILLANCE AND MONITORING REPORTS

- > [Environmental Surveillance](#)
- > [Environmental Surveillance Monitoring Reports](#)

EMERGENCY PREPAREDNESS

The Health Department partners with the following state agencies and departments to help ensure Vermonters are provided adequate warning and emergency response in the event of a radiological release at Vermont Yankee:

- [Agency of Agriculture, Food and Markets](#)
- [Agency of Natural Resources](#)
- [Department of Public Safety](#)

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