



## NorthStar Group Services, Inc.

2760 South Falkenburg Road, Riverview, FL 33578

Phone: 203.222.0584 | Fax: 212.951.8975

[www.NorthStar.com](http://www.NorthStar.com)

**Gregory G. DiCarlo**

Vice President and General Counsel

[gdicarlo@NorthStar.com](mailto:gdicarlo@NorthStar.com)

**March 31, 2023**

Commissioner Vermont Department of Public  
Service 112 State Street-Drawer 20  
Montpelier, VT 05620-2601  
Sent via e-mail to [June.Tierney@vermont.gov](mailto:June.Tierney@vermont.gov)

Director for Public Advocacy  
Vermont Department of Public  
Service 112 State Street - Drawer 20  
Montpelier, VT 05620  
Sent via e-mail to [Eric.Guzman@vermont.gov](mailto:Eric.Guzman@vermont.gov)  
Sent via e-mail to [James.Porter@vermont.gov](mailto:James.Porter@vermont.gov)

Re: Report Pursuant to MOU Section 2(h)

Dear Commissioner Tierney:

Enclosed please find NorthStar Vermont Yankee, LLC's report submitted in accordance with Section 2(h) of the Memorandum of Understanding for Docket No. 8880 dated March 2, 2018 ("MOU"). Please note that NorthStar has copied the relevant MOU provisions and provides its response in underline.

Very truly yours,

**Gregory G. DiCarlo**

Vice President and General Counsel

Attachments

### MOU Section 2(h)

On or before March 31 of each calendar year following the close of the Proposed Transaction, NorthStar shall provide to DPS, ANR, VDH, and AGO an annual public certification that includes the following:

- (1) A detailed description of all work completed as of that date pursuant to corrective action plans approved by ANR pursuant to Subchapter 5 of the IRule.

Answer: There are six corrective action plans approved by ANR to date, with additional corrective action plans to be submitted where access is presently limited or restricted by existing structures and determined necessary from post-demolition surveys.

- (2) A detailed description and schedule of remaining corrective actions and site restoration work.

As noted on the 2018 Annual Report for Site Restoration and Characterization work following the formal sale closing, NorthStar formally submitted the following documents to ANR electronically;

1. Limited Non-Radiological Site Sampling Plan, Rev F
2. Appendix A: Below-Grade Structure Survey Work Plan
3. Appendix B: Borrow Materials Import Plan
4. Appendix C: Groundwater Monitoring Plan
5. Appendix D: Concrete Reuse Plan
6. Quality Assurance Project Plan, Rev E

Following a February 28, 2019 meeting between VT ANR and its contractor, ATC, to review the details of the restoration and characterization plans prepared in 2018, and a follow-on site tour conducted on March 15, 2019, VT ANR provided comments and approved concurrent activities for NorthStar to finalize the plans and also execute the field activities in anticipation of comments and requirements in order to get to a Final Site report that would result in closure of Areas of Concern or Corrective Actions as necessary.

Below are the work tasks and noted documents that were completed that resulted on the submission of the noted documents above being able to be submitted to VT ANR:

- Updated Draft Characterization Phase 1 Report
- Voluntary Removal Plan, Rev 0
- Voluntary Removal Plan, Rev 1
- Legal Support/Permit Support
- Building Material Characterization WP, Rev 0
- Building Material Characterization WP, Rev 1
- Building Material Characterization WP, Rev 2
- Final Draft Characterization Phase 1 Report
- Phase 2 Sampling Plan Data Quality Objectives (DQOs)

- Phase 2 Sampling Plan Rough Draft
- Phase 2 Sampling Plan First Draft
- Phase 2 Waste Area Group (WAG) Identification Plan Outline
- Phase 2 WAG Identification Plan Rough Draft
- Phase 2 WAG Identification Plan First Draft
- Phase 2 Update of Voluntary Removal Plan (D2) - Initial
- Phase 2 Update of Voluntary Removal Plan (D2) -Final
- Phase 3 Draft Remedial Action Scope and Schedule
- Phase 3 Provide Rough Draft RAWP
- Phase 3 Interim Draft RAWP - D1
- Phase 3 Final Draft RAWP - D2
- Phase 3 Review Data from Sampling for Waste Profiles
- Limited Characterization Sampling: Preparation
- Limited Characterization Sampling: Sampling Labor
- Limited Characterization Sampling: Analytical
- Limited Characterization Sampling: Data Report
- Site Investigation - Site Sampling WP, Rev D
- Site Investigation - Corrective Action Plans (drafts)

Upon receiving comments from VT ANR on the Work Plans, NorthStar conducted supplemental field sampling to generate an updated Site Investigation Report that would depict non-radiological conditions at Vermont Yankee. These Site Investigation tasks included the following activities:

- Site Investigation – Vermont ANR Meetings
- Site Investigation Data Gap Report and Investigation
- Site Investigation - Site Investigation Schedule generation
- Site Investigation - Training
- Site Investigation - Site Investigation Field Sampling for Supplemental Data Gaps
- Site Investigation - SI Report with Validation, Rev 0 and 1
- Site Investigation - Non-Radiological Groundwater Sampling WP (1Q 2019), Rev A and B
- Site Investigation - Qtrly Non-Radiological Sampling & Reporting (2Q, 3Q, and 4Q 2019)
- 2019 Annual Groundwater Monitoring Report (2020)
- Site Investigation - Non-Radiological Groundwater Sampling WP (1Q 2020)
- Site Investigation - Qtrly Non-Radiological Sampling & Reporting (2Q, 3Q, and 4Q 2020)
- 2020 Annual Groundwater Monitoring Report (2021)
- Additional VT ANR Meetings (Restoration and Characterization)

- Additional Site Investigation Data Collection for the updated Site Investigation Report
- Vermont ANR and Subcontractor Coordination during Supplemental Data Field Sampling
- Additional Vermont ANR Meetings (Restoration and Characterization reporting)
- Updated Site Investigation Report (draft 4Q 2019)
- Draft Risk Evaluation Report
- Draft Post Demolition Survey and Sampling Plan

NorthStar conducted a Baseline Radiological Surface Scan Survey of Lands during 2019 of the facility property with the results producing a high-quality, spatially robust, and accurately geo-referenced spectral gamma scan data set that is representative of the radiological conditions in surface and near-surface soils at the Vermont Yankee site.

The tasks and work items noted above supported generation of data that was incorporated into the final Updated Site Investigation Report that was submitted to Vermont ANR on January 31, 2020. Following this submission, Corrective Action Plans for areas of concerns were addressed. With the 2021 approval of the Risk Evaluation Report, AOCs were indicated to have no unacceptable risk and therefore no further actions were warranted. As well, with the approval of the Individual Construction Permit remedial actions for AOCs were able to be addressed, conducted and completed in 2022.

Summary support to the project in 2020 also included the following characterization activities and tasks:

- Final Updated Site Investigation Report
- NDCAP Support on progress of Characterization and Site Restoration plans
- General Environmental and Permit Support
  - Potable Water Construction and Modification Permits
  - Individual Construction Permit Application
- Building Characterization Support
  - Building Characterization – Vermont ANR Meeting
  - Building Characterization - Revised Building Characterization WP
  - Building Characterization - Building Characterization Field Sampling
  - Building Characterization - Update Building Materials Sampling Report
  - Building Characterization - Sub-grade Structures WP, Rev A and B
  - Building Characterization - Building Characterization Reports including Sub-grade Structures (per Building), Rev A and B
  - Building Characterization - Building Materials Data Gap WP, Rev A and B
  - Building Characterization Materials - Concrete Management & Disposal Plan
  - Additional Building Characterization Sampling and Vermont ANR Certification
  - Cable Characterization (PCBs and ACM)
- Various Agency and Subcontractor Coordination
- Environmental and Waste Characterization Support for Non-Radiological aspects
- Dewatering

- Discharge Permit Amendment Request and Waste Disposal Support
- Dewatering Support, Groundwater Modeling and Dewatering Well Installation, Design and ongoing Support
- Residual Permit and Septic Field Sampling Requirements
- Public Potable Water Supply Permit application and issuance.
- Submitted and received approvals for Corrective Action Plans for AOC 3, 7b, and 8b

Support to the project conducted in 2021 included the following characterization activities and tasks;

- Addressed comments and submitted the final Risk Evaluation Report (and received ANR Approval)
- Addressed comment and submitted the final Post Demolition Survey and Sampling Plan (and received ANR approval)
- 2020 Annual Groundwater Monitoring Report (2021)
- Site Investigation - Quarterly Non-Radiological Sampling (1Q, 2Q, 3Q, and 4Q 2021)
- Abandonment of Monitoring Wells no longer in the Groundwater Monitoring Program
- NDCAP Support on progress of Characterization and Site Restoration plans
- General Environmental and Permit Support
  - NPDES Monthly and Annual Reporting
  - Residual Permit Reporting
  - MSGP Monthly and Permit Reporting
  - Potable Water Construction and Modification Permits
  - Individual Construction Permit Application Amendments
  - Wastewater Permit Application
  - Preparation of the Stream Alteration Permit for ANR and USACE (for submittal in Q1 2022)

With the issuance of the Individual Construction Permit No.3653-INDC.1 in October 2021, the following remedial activities were completed:

- Completed three Corrective Actions (soil removal) with final reports submitted in Q1 2022 and approved subsequently as noted;
  - AOC 7b – stained soils (small area near the Shipping & Receiving)
  - AOC 8b – stained soils by East Cooling Tower Transformer pad (small area near Cooling Tower 1)
  - AOC 15 – Cooling Towers (soil pile removed)
- Building Survey for Cooling Towers 1 and 2
- Post Demolition Survey of Cooling Tower 1, following the removal of the foundation/slab

Support to the project conducted in 2022 included the following characterization activities and tasks;

- Completed the Post Demolition Survey and Sampling for the following structures:
  - AOC 13 – West Cooling Tower

- Spray Pond
- Interim Off Gas Line
- Area A6 - Chemistry Laboratory Piping
- Submitted and revised two Corrective Action Plans per ANR comments and obtained ANR written approvals for:
  - AOC 5 – Turbine Building CAP
  - AOC 7a - Fuel Storage Tanks, FOST CAP
- Corrective Action Reports for the following areas:
  - AOC 7b – stained area by Shipping & Receiving AST. Completion report submitted. ANR approval received.
  - AOC 8b – impacted soils East Cooling Tower. Completion Report submitted. ANR approval received.
- Completed two quarters of groundwater monitoring and published the Annual Groundwater Report.
- Permit compliance. In addition to maintaining monthly and quarterly sampling per standing permits the following applications were submitted and permits renewed or closed out:
  - Submitted Stream Alteration Permit to ANR
  - Submitted General Permit Application to USACE
  - Renewed ISFSI Permit
  - Renewed NPDES Permit
  - Solid Waste (Residuals) Permit closed out
  - Obtained exemption for shipping lead mixed wastes
- Generation of Construction Drawings in support of Stream Alteration and USACE General Permit.
- Preparation for subgrade MOU Documentation.
- Building Characterization and Cable Characterization Sampling.
- Development of Radiological Groundwater Monitoring Program.

(3) The amount of funds estimated to be required to complete site restoration.

\$11,937 million as estimated will be required to complete the site restoration.

Following is the updated Table of Areas of Concerns, circa March 2023:

Area of Concern	Investigation of Accessible Areas Complete?	Remediation Needed?	Corrective Action Plan (CAP) Status	Remaining Data Gaps	Crosswalk to Decommissioning Work Breakdown Structure (WBS)
AOC 1 - 345 kV Switchyard	Yes	No <sup>1</sup>	N/A	VELCO has a 99-year lease: soils within the yard will require characterization when lease expires on 17 May 2108.	
AOC 2 - 115 kV Switchyard	Yes	No <sup>1</sup>	N/A	VELCO has a 99-year lease: soils within the yard will require characterization when lease expires on 17 May 2108.	
AOC 3 - South Warehouse	Yes	Yes <sup>2</sup>	CAP issued, ANR Approval Received June 2020. Demolition of slab and subgrade with post-demolition survey pending.	Limited shallow soil removal required, followed by confirmatory soil sampling, under the ANR-Approved Corrective Action Plan (CAP).	
AOC 4 - Former North Warehouse	Yes	No	N/A	N/A	

Area of Concern	Investigation of Accessible Areas Complete?	Remediation Needed?	Corrective Action Plan (CAP) Status	Remaining Data Gaps	Crosswalk to Decommissioning Work Breakdown Structure (WBS)
AOC 5 - Turbine Building	Yes	No <sup>2</sup>	<p>CAP for Fuel Impacted soils at the TB submitted in 2022 and approved by VT ANR Dec 2022. Remedial action pending,</p> <p>Area A6 Chem Lab Drain Line Post-demolition survey completed in 2022. Results indicated no Corrective Action required. Report submitted to VT ANR for concurrence.</p> <p>C100 for sumps and trenches evaluation post decontamination – applicability of CAP pending but not anticipated</p>	Soils under foundations to be evaluated after the removal of building slabs and applicable subgrade structures, including the chemistry laboratory and associated piping.	<p>1.04.11 Area A6 - Chemistry Lab Drain Line</p> <p>1..04.27 Area C100 - Turbine Building Clean Up Sump/Trenches</p>
AOC 6 - Rad Waste Storage Building	Yes	No <sup>2</sup>	Pending subgrade work and post-demolition survey – CAP pending if applicable	<p>Soils to be evaluated following slab or adjacent pavement removal.</p> <p>Work to be completed under the ANR approved Post Demo Survey Plan</p>	<p>1.04.06 Area A5 - Northeast Side of Radwaste Building</p> <p>1.04.17 Areas C86 &amp; 87 - Sandblast Debris East of Radwaste Building</p>



Area of Concern	Investigation of Accessible Areas Complete?	Remediation Needed?	Corrective Action Plan (CAP) Status	Remaining Data Gaps	Crosswalk to Decommissioning Work Breakdown Structure (WBS)
AOC 7 - Fuel Storage Tanks	Yes	Yes	<p>7a – FOST Corrective Action Plan submitted in 2022 and approved by VT ANR November 2022 – remedial action pending.</p> <p>7b – small, stained area SW of the Shipping and Receiving bldg. Corrective Action completed in Nov 2021 and stabilized in Dec 2021. Corrective Action report submitted and approved in 2022.</p> <p>For each area, fuel oil/diesel impacted (PAH) media to be excavated &amp; disposed off-site. Confirmatory sampling to follow.</p> <p>(Note – the CAP for the 12k fuel oil tank located in the SW corner of the Turbine Building included other COCs due to the proximity to other sources and was included under AOC 5 (see above).)</p>	<p>7a - Impacted soil along piping associated with the 75,000-gal FOST and subsoils from former 500-gal AST located in the CAB.</p> <p>7b – completed, no further action.</p> <p>Former 12k gallon UST SW of Turbine Building (to be completed under AOC 5)</p>	
AOC 8 – Transformers	Yes	Yes	<p>8a - Pending removal of the Transformer Pads and post-demolition survey. CAP pending if applicable.</p> <p>8b - Corrective Action completed in Nov and stabilized in Dec 2021. Corrective Action Report submitted and approved associated with the cooling towers.</p>	<p>8a - Area directly under ABB/Main transformer (soils within the secondary containment, as transformer pads extend to depths greater than 4 feet).</p> <p>8b - A small area of shallow soil adjacent to the East Cooling Tower Transformer pad. Remediation Complete, final report submitted in Q1 2022. ANR Approval Received.</p>	
AOC 9 Intake and Discharge Systems	Yes	No	N/A	N/A	

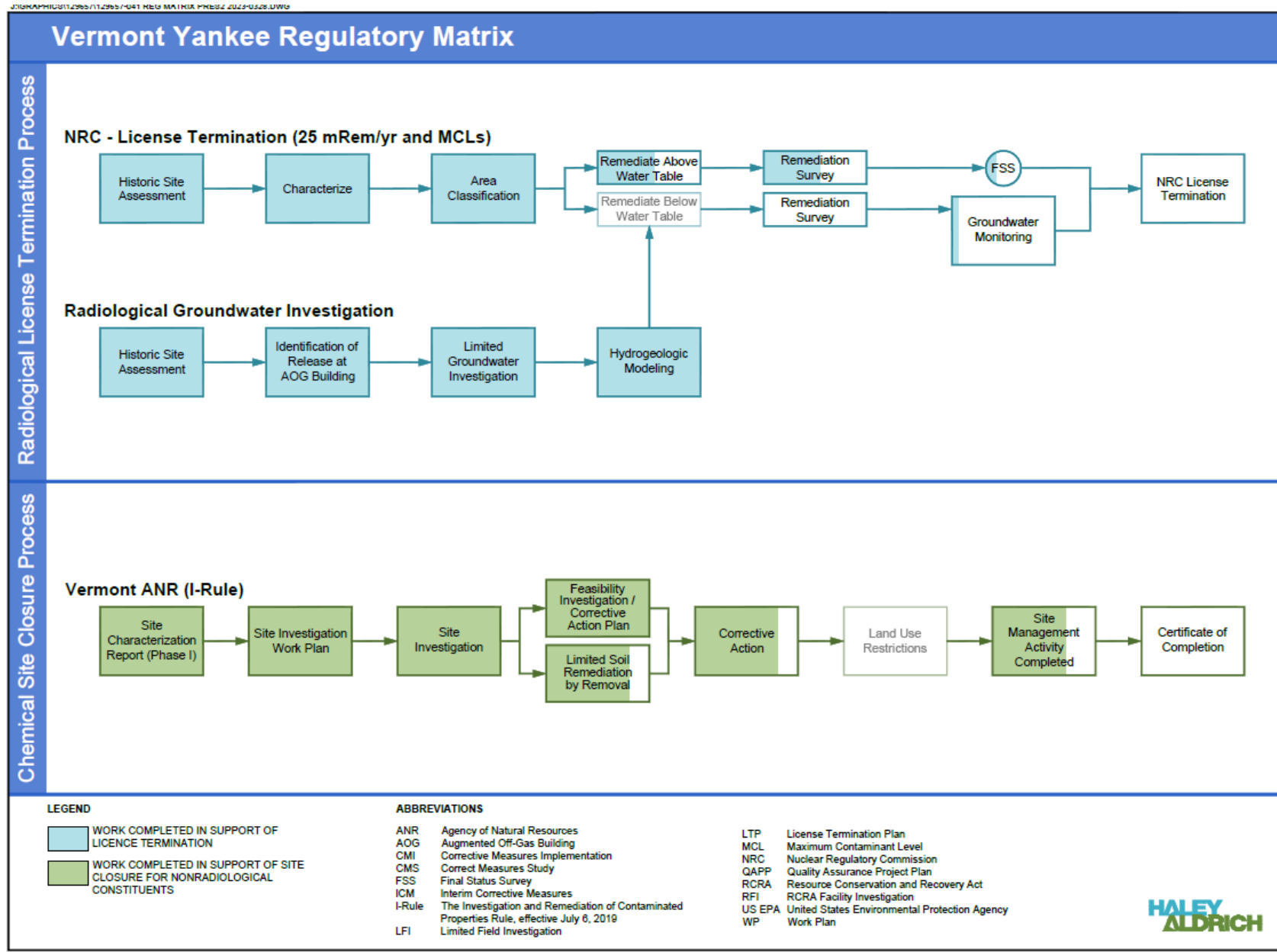
Area of Concern	Investigation of Accessible Areas Complete?	Remediation Needed?	Corrective Action Plan (CAP) Status	Remaining Data Gaps	Crosswalk to Decommissioning Work Breakdown Structure (WBS)
AOC 10 - Parking Lots	Yes	No <sup>2</sup>	Pending any subgrade work and post-demolition survey – CAP pending if applicable.	To be evaluated after pavement is removed from the Industrial Area. For areas where pavement will remain, surveys will be conducted to evaluate staining or evidence of releases, as several parking lots outside the industrial area will remain to support the ongoing activities at the VELCO Switchyards and the ISFSI.	1.04.16 Area B6 - Burn Area
AOC 11 - Haz Materials Storage Areas	Yes	No <sup>2</sup>	Pending subgrade work and post-demolition survey – CAP pending if applicable	Soils to be evaluated following warehouse slab and hazardous storage shed removal.	
AOC 12 Former Edson's Gulf Station	Yes	No	N/A	Risk Evaluation demonstrated no unacceptable risk. No remediation warranted.	
AOC 13 - Septic Systems	Yes	No	N/A	Risk Evaluation demonstrated no unacceptable risk. No remediation warranted.	1.04.10 Area B1 - Septic System Sludge  1.04.13 Area B2 - Excavated Material Pile from PA Mods  1.04.14 Area B3 - Septic System Tanks  1.04.15 Area B5 - North 40 of Owner Controlled Area
AOC 14 - Stormwater Outfalls	Yes	No	N/A	Risk Evaluation demonstrated no unacceptable risk. No remediation warranted.	1.04.03 Area A3 - North Storm Drain Outfall Riverbank  1.04.04 Area A4 - Manhole 12  1.04.05 Area A4 - South Storm Drain System

Area of Concern	Investigation of Accessible Areas Complete?	Remediation Needed?	Corrective Action Plan (CAP) Status	Remaining Data Gaps	Crosswalk to Decommissioning Work Breakdown Structure (WBS)
AOC 15 - Cooling Tower Area	Yes	Yes	Impacted soils pile removed. Remaining are sampled to document complete removal if impacted media.  See AOC 8b for approved CAP	Impacted soils have been removed. No Further Action Required.	1.04.07 Area B2 - Area Near West Cooling Tower  1.04.12 Area B1 - Deep Basin Colling Tower Silt
AOC 16 - Railroad Lines	Yes	No	N/A	Risk Evaluation demonstrated no unacceptable risk. No remediation warranted.	
AOC 17 - Sitewide Groundwater	Yes	No <sup>3</sup>	N/A	Limited MNA if applicable, following soil remediations. Current data do not show groundwater contamination from non-radiological constituents.	

**Notes:**

1. Access was not granted to evaluate environmental conditions within or directly below the switchyards. No impacts to downgradient groundwater quality. No further action may be completed until after the VELCO lease expires on May 17, 2108.
2. For AOCs where structures still exist, or with limited access, additional surveys will be conducted in accordance with the Post Demolition Survey and Sampling Plan to document environmental conditions.
3. If groundwater remediation is warranted, a Corrective Action Plan (CAP) will be drafted and submitted for ANR review and approval in accordance with the I-Rule.

An indication of the progress thru 2022 of Site Restoration and Characterization activities in relation to the Vermont ANR (I-Rule) for the chemical site closure process is depicted on the following figure:



## CERTIFICATE OF SERVICE

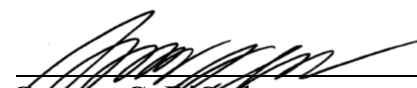
On behalf of NorthStar Vermont Yankee, LLC, I hereby certify that I have this day served NorthStar's report via e-mail to the following entities pursuant to the Docket 8880 Memorandum of Understand Sections 2(h) and 29):

June Tierney Commissioner Vermont Dept. of Public Service <a href="mailto:June.tierney@vermont.gov">June.tierney@vermont.gov</a>	James Porter Director of Public Advocacy Vermont Dept. of Public Service <a href="mailto:James.porter@vermont.gov">James.porter@vermont.gov</a> <a href="mailto:Eric.guzman@vermont.gov">Eric.guzman@vermont.gov</a>
Julie Moore Secretary Agency of Natural Resources <a href="mailto:ANR.notice@vermont.gov">ANR.notice@vermont.gov</a> <a href="mailto:jordan.gonda@vermont.gov">jordan.gonda@vermont.gov</a> <a href="mailto:Hannah.smith@vermont.gov">Hannah.smith@vermont.gov</a>	Matt Chapman General Counsel Vermont Agency of Natural Resources <a href="mailto:Matt.chapman@vermont.gov">Matt.chapman@vermont.gov</a>
Vermont Attorney General's Office <a href="mailto:Justin.kolber@vermont.gov">Justin.kolber@vermont.gov</a>	Mark Levine, MD Commissioner Vermont Department of Health <a href="mailto:Mark.levine@vermont.gov">Mark.levine@vermont.gov</a>
David Englander Senior Policy and Legal Advisor Vermont Department of Health <a href="mailto:David.english@vermont.gov">David.english@vermont.gov</a>	

DATED at Riverview, Florida, this 31st day of March 2023.

NORTHSTAR VERMONT YANKEE, LLC

By: \_\_\_\_\_

  
 Gregory G. DiCarlo

Vice President and General Counsel

NorthStar Group Services, Inc.  
 2760 South Falkenburg Road  
 Riverview, FL 33578  
 o.203.222.0584  
 f.212.951.8975