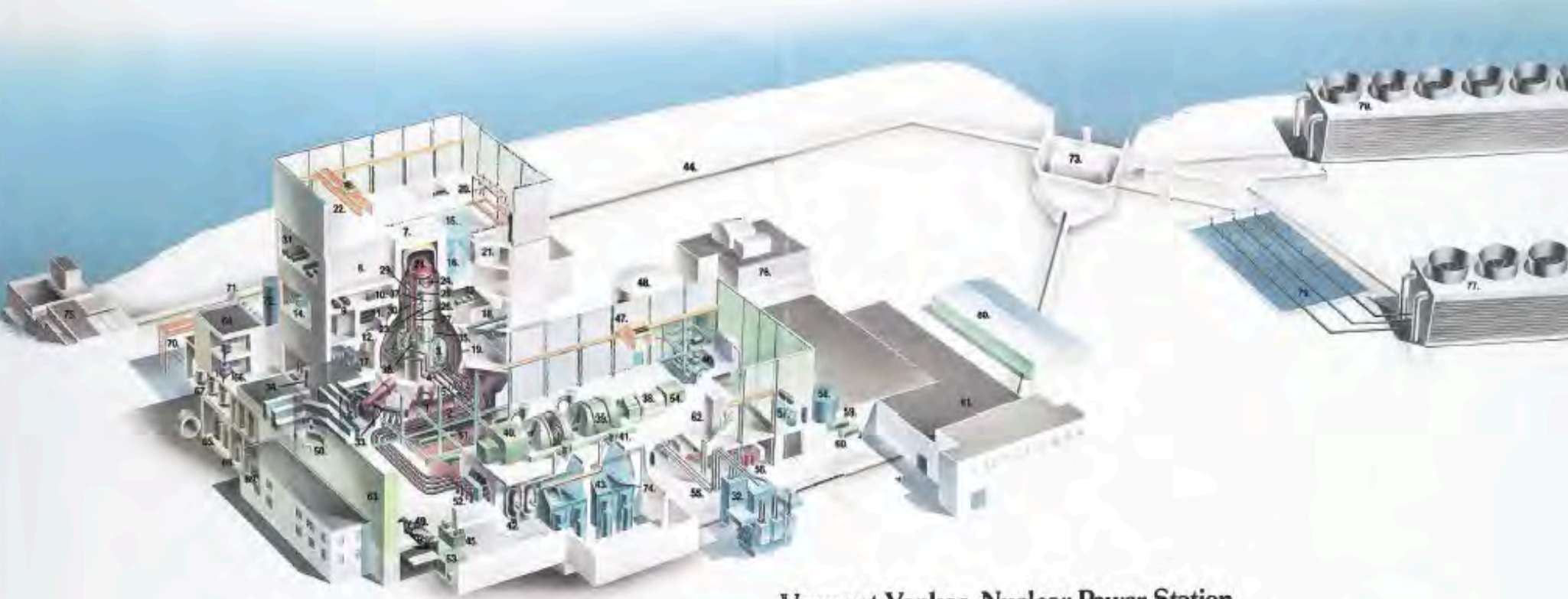


# NorthStar VTY Decommissioning



Vermont Yankee Nuclear Power Station

NDCAP Update 09/23/2024

- |   |                                  |                                  |                                      |
|---|----------------------------------|----------------------------------|--------------------------------------|
| 1. Torus  | 21. New fuel storage vault       | 41. Intercept valve              | 61. Receiving and stores             |
| 2. Main steam lines                               | 22. Overhead crane               | 42. Moisture separator           | 62. Elevator                         |
| 3. Recirculation pump                             | 23. Biological shield wall       | 43. Main condensers              | 63. Turbine building                 |
| 4. Inboard main steam isolation valve             | 24. Steam dryer                  | 44. Cooling water recirculation  | 64. Rad waste building               |
| 5. Outboard main steam isolation valve            | 25. Steam separator              | 45. Turbine oil tank             | 65. Condensate phase separator tanks |
| 6. Downcomers                                     | 26. Fuel assemblies              | 46. Emergency diesel generators  | 66. Centrifuge                       |
| 7. Shield plug                                    | 27. Reactor vessel               | 47. Overhead crane               | 67. Cask filling area                |
| 8. Dryer/separator storage pool                   | 28. Vessel head                  | 48. Condensate storage tank      | 68. Spent resin tank                 |
| 9. Reactor building cooling water heat exchangers | 29. Main steam outlet            | 49. Feedwater pump               | 69. Waste sludge tank                |
| 10. Reactor building cooling water pump           | 30. Recirculation water outlet   | 50. Control room                 | 70. Traveling hoist                  |
| 11. Reactor water cleanup heat exchanger          | 31. Uninterruptible power supply | 51. High pressure heaters        | 71. Sample tanks                     |
| 12. Reactor water cleanup pump                    | 32. Main transformer             | 52. Main stop valve              | 72. Surge tank                       |
| 13. Vital AC motor generator set                  | 33. Ring header                  | 53. Turbine lub oil storage tank | 73. Discharge structure              |
| 14. Recirculation motor generator set             | 34. RHR service water pump       | 54. Excitation cubicle           | 74. Low pressure heaters             |
| 15. Fuel pool (spent fuel storage)                | 35. Recirculation inlets         | 55. Main generator leads         | 75. Intake structure                 |
| 16. Spent fuel rack                               | 36. Manifold                     | 56. Make-up demineralizers       | 76. Advanced oil-gas building        |
| 17. Hydraulic control units                       | 37. Feedwater inlet              | 57. House heating boiler         | 77. West cooling tower               |
| 18. Standby gas treatment                         | 38. Generator                    | 58. Clearwell                    | 78. East cooling tower               |
| 19. Primary containment wall                      | 39. Low pressure turbine         | 59. Acid storage tank            | 79. Spray pond                       |
| 20. Refueling bridge                              | 40. High pressure turbine        | 60. Caustic storage tank         | 80. Warehouse                        |

NorthStar Nuclear Decommissioning Company, LLC



# Simple Priorities



**SAFETY with all we do: Target Zero (  Accidents)**

Radiological, Environmental, Industrial, Nuclear

**Do it right. Do it safe.**



# Project Schedule – Overview (Re-Cap)

	2020	2021	2022	2023	2024	2025	2026	2027 thru 2051	2052	
								Partial Site Release		License Termination (ISFSI) Target 12.31.52)
<b>Spent Fuel Management</b>	█	█	█	█	█	█	█	█	Final Site Restoration & License Termination	
<b>Site Restoration &amp; Final Site Survey</b>	█	█	█	█	█	█	█	█		
<b>Large Component Removal</b>	█	█	█							
Reactor Vessel & Internals	█	█	█							
Condenser		█	█							
Large Pumps & Motors (Circ H2O, Recirc, etc)		█								
Main, Start-Up & Aux Transformers			█							
<b>Decontamination &amp; Demolition</b>										
<b>Asbestos&amp; Lead Paint Removal</b>	█	█	█	█	█	█				
Security Structures and Equipment	█	█	█	█	█	█				
Turbine Warehouse	█	█	█							
Aog	█									
Rotors and Storage Structures		█								
Stack		█	█							
Intake		█	█	█	█					
Reactor Building			█	█	█	█	█			
Admin Building				█						
Control Building				█						
Rad Waste					█	█	█			
Discharge					█	█				
Service Building					█					



# SFP Media Blasting



# SFP Media Blasting





# Final Cleaning of SFP after Media Blasting





# Dryer Separator Pit Media Blasting Preparation





# Dryer Separator Pit Media Blasting





# Containment to Rx Vessel Bellows Removal



# Drywell Cleaning and Decontamination





# Containment to Rx Vessel Bellows Segmentation





# Packaging Bellows Segments





# Drywell Piping & Component Removal





# Rigging Recirc Pump out of Drywell





# Packaging Rx Recirc Piping for Shipment





# TORUS Area Cleaning and Decon





# Rx 280' (First Floor Level) Component Removal





# AOC 5 Backfill Complete

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# AOC 7A Excavation Backfill





# Excavation of Piping from Spray Pond

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# Spray Pond Piping Removal





# Spray Pond Piping Excavation Backfill





# Preparing Access to Discharge Structure Base





# Discharge Structure Cofferdam Construction

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# Non-Rad Site Characterization/Remediation

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## What else is happening?

- I-Rule Site Investigation completion criteria met. All AOC & site investigation activities complete.
- No new areas of impact identified.
- Additional Groundwater Monitoring Wells installed with ANR's input to improve monitoring/data capture.
- Post Decommissioning Groundwater Monitoring Program per MOU still under development with ANR input.
- Continued collaboration through regular meetings with VT ANR, DEC to maintain alignment.



# Final Status Survey & Environmental Monitoring Activities

Collecting Soil Samples



Drilling Monitoring Well



Drilling Monitoring Well



Grading & Surveying of Soil Staging Area





# Preparing RWCU Heat Exchangers for Shipping





# Preparing to Ship a 14-170 Shielded Cask by Truck





# Waste Loading & Transportation





## Shipping and Material Volumes

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Currently shipping about 3-4 rail cars per week  
(Total shipments to date: 920)

- Total YTD Shipments (as of 9/16/24): 151
- Total Volume 2,523,947 ft<sup>3</sup> (93,480 yd<sup>3</sup>)
- Total Weight 115,357,536 lbs. (57,679 tons)
- Total Activity 35,701 curies



# Questions?

Target Zero (🚫 Accidents) Do It Right. Do It Safe.

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