NorthStar VTY Decommissioning NorthStar

NDCAP Update 12/11/2023

Vermont Yankee Nuclear Power Station

Basis.	21	New just storage wauft	41.	intercept valvo	61.	Receiving
			42	Moisture separator	62.	Elevator
Main steem lines					63	Tarbine by
Recirculation pump	- 23,					Rad weste
Inhoard main steam lepisition valve	24	Steam dryer				
	- 25	Steem separator			60.	Condensa
	26		45.	Emergency diesel generators	66.	Centriluge
A DITITION OF A DIST			47.	Overhead crane	67.	Gask fillin
					68.	Spent rusi
Dryen/separator storage pool			40.		60	Waste sky
Reactor building cooling water heat exchangers			49.		-	Traveling
Bearier building cooling water pump	- 30	Recirculation water outlet			10.	
	31	Uninterruptible power supply	51.	High pressure heaters		Sample ta
	99		52	Main stop valve	72	Surge terri
	- 12		53	Turbina lub oil slorage tank	73	Discharge
					74	Low press
Recirculation motor generator set	- 34					Intalos stra
Fuel pool (spent tuel storage)	- 35	Recirculation inters				
	38	Manifold				
	37	Feedwater injet	57.	House heating boiler		West cool
	10		58	Clearwell	78.	East cool
			50		79	Spray por
Primary containment well						Werehout
Refueling bridge	40	High pressure furbine	90	Caused sounds rank		
	Torus Main steam lines Recirculation pump Inboard main steam leolation valve Outboard main steam leolation valve Downcomers Shield plag Dryer/wysanice storage pool Reactor building cooling water heat exchangers Reactor building cooling water heat exchangers Reactor water cleanup mate achanger Reactor water cleanup mate Recirculation motor generator set Recirculation contor units Standby gao treatment Standby gao treatment Prinary containment wall Refueling tridge	Initial steam lines 22 Recirculation pump 23 Inboard main steam liscilion valve 24 Outboard main steam liscilion valve 25 Downcomers 26 Shield plag 27 Practice building cooling water heat exchangers 26 Pactor building cooling water heat exchangers 26 Planctor building cooling water heat exchanger 21 Planctor building cooling water heat exchanger 32 Vital AC motor generator set 34 Pacirculation motor generator set 34 Puel pool (spent hai storage) 35 Standby gas tradiment 36 Phinary controlitement wall 39	Main steam lines 22. Overhead craise Recirculation pump 23. Biological shield will Inboard main steam lisibilities 23. Biological shield will Inboard main steam lisibilities 24. Sileam dryer Outboard main steam lisibilities 25. Sileam dryer Downcomers 26. Feel assemblies Shield ylay 27. Reacfor vessel Dryen/sepenitor storage pool 20. Vessel head Reactor building cooling water heat exchangers 20. Wessel head Pleactor building cooling water heat exchangers 20. Wessel head Pleactor building cooling water builting point 20. Recirculation water outlet Pleactor building cooling water bare 21. Uninterruptible power supply Reactor builting cooling water bare 23. Wing header Pleactor struct cleanup partice set 33. Ring header Vala /C motor generator set 34. RHR service water pump Fuel pool (speet hai storage) 35. Main totanistorm heits Speet hair took 36. Manitold Hydraulit control units 37. Predwater intel Standby gas treatment wall 38. Low pressore harbitrie	Torus 11 Provided Craits 42. Nain steam lines 22. Overheed craits 42. Recirculation pump 23. Biological shield well 43. Inboard main steam lookiton valve 25. Steam dryer 44. Outboerd main steam lookiton valve 25. Steam dryer 44. Downcomers 28. Fuel assemblies 45. Downcomers 28. Fuel assemblies 45. Sheld plug 27. Reactor valing cooling water heat exchangers 21. Main steam outlet 48. Reactor building cooling water heat exchangers 21. Main steam outlet 49. Peactor building cooling water heat exchangers 21. Uninterruptible power supply 50. Reactor satter cleanup heat exchanger 21. Uninterruptible power supply 51. Recirculation motor generator set 33. Ring heador 53. Recirculation motor generator set 34. RHR service water pump 54. Fuel pool (speet fuel standage) 35. Recirculation helets 55. <	Nami steam lines 22. Overhead crame 42. Main condensers Recirculation pump 23. Biological shield well 43. Main condensers Inboard main steam lisibilion valve 25. Steam dryer 44. Cooling water recirculation Outboard main steam lisibilion valve 25. Steam dryer 45. Turbine of tank Downcomers 26. Fuel assembles 45. Turbine of tank Downcomers 27. Reschor wessel 47. Overhead crame Shield plag 27. Reschor wessel 47. Overhead crame Paector valer cleanup pump 28. Verse head 48. Freedwater pump Paector valer cleanup pump 29. Main steam outliet 49. Freedwater pump Paector valer cleanup pump 29. Main transformer 50. Control moon Rescinculation motor generator set 34. RiR head pump 50. Main transformer Valia // Conder generator set 34. RiR hervice water pump 50. Scatter builifing cooling water heaters </td <td>Torus 21. New hall society event 42. Microsoft event 43. Statum structure 44. Microsoft event 64. Cooling water rescription 64. Cooling water rescription 64. Turbine oil tank 65. Octowers 65. Statum structure 65. Fuel assemblies 45. Turbine oil tank 65. Octowers 66. Octowers 67. Overhead crane 67. Overhead</td>	Torus 21. New hall society event 42. Microsoft event 43. Statum structure 44. Microsoft event 64. Cooling water rescription 64. Cooling water rescription 64. Turbine oil tank 65. Octowers 65. Statum structure 65. Fuel assemblies 45. Turbine oil tank 65. Octowers 66. Octowers 67. Overhead crane 67. Overhead

NorthStar Nuclear Decommissioning Company, LLC

and size

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Simple Priorities



NorthStar

Radiological, Environmental, Industrial, Nuclear

Do it right. Do it safe.





Project Schedule – Overview (Re-Cap)

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



Performance Update

• SAFETY: Acceptable

Zero NorthStar OSHA Recordable Lost Time Accidents to date, with over 1,800,000 person hours worked on site since January 11th 2019.

• REGULATORY: GOOD

Zero NRC Cited Violations for all of 2019, 2020, 2021, 2022, and 2023 to date.

• PRODUCTION: Acceptable

Overall project schedule remains well on track. Bulk Decom work and Site Characterization continues advancing ahead of initial projections.



Turbine Building Demo



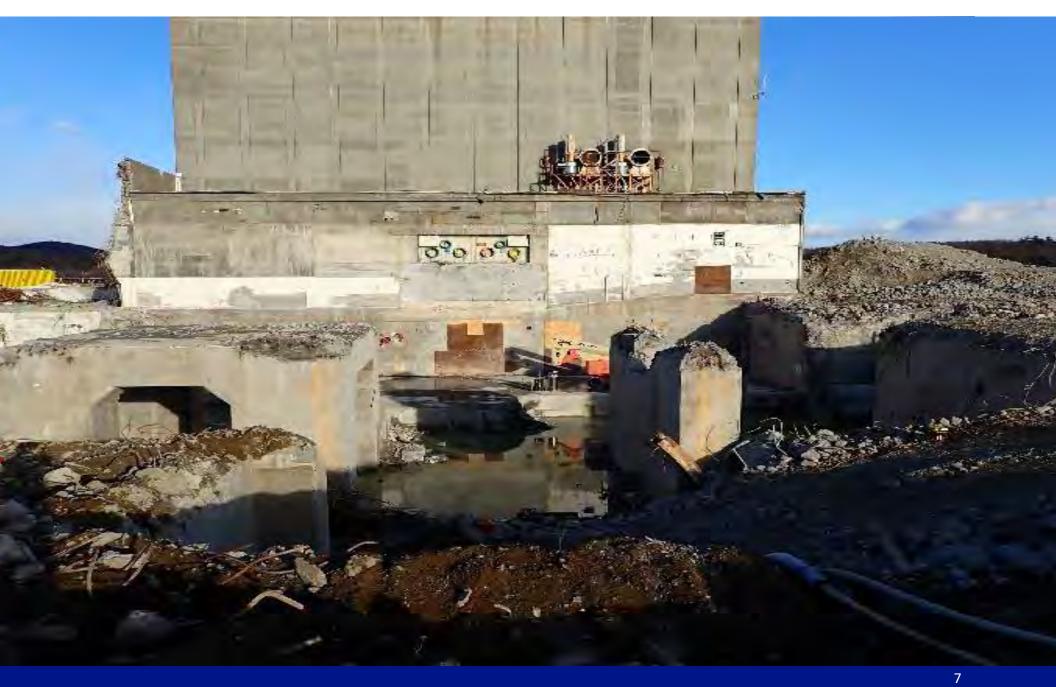


Turbine Building concrete structure Demo





Turbine Building concrete structure Demo



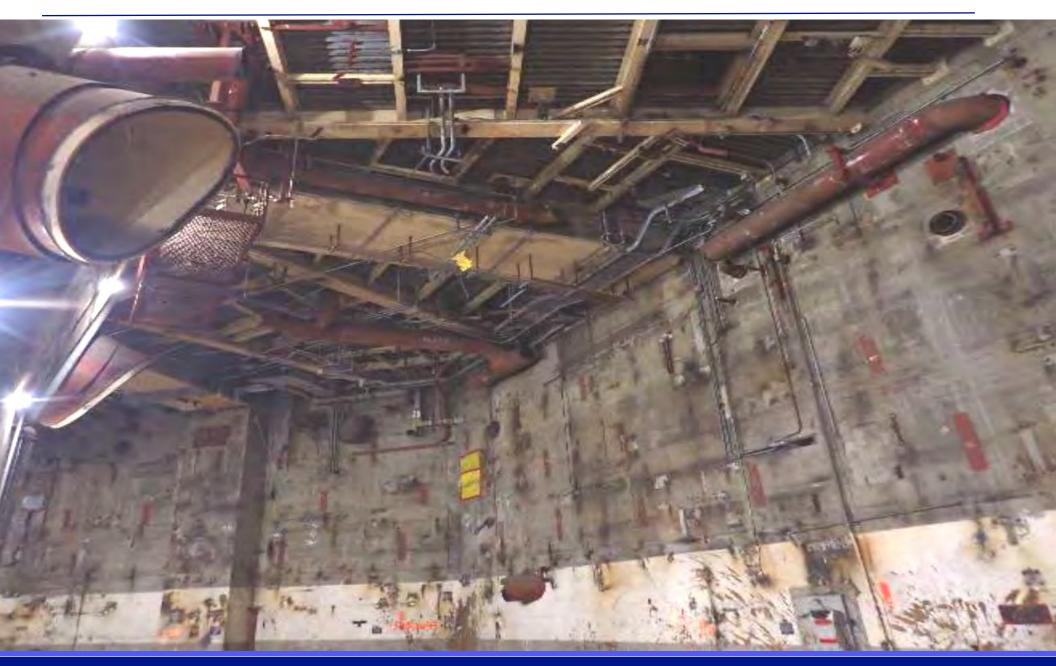


Segregating Turbine Building Structural Steel





TORUS Basement Area Piping removal





Backfill and Final Grading of the Cooling Tower Basins





Discharge Structure Demo Preparation



Clean Fill staged for Discharge Structure backfill



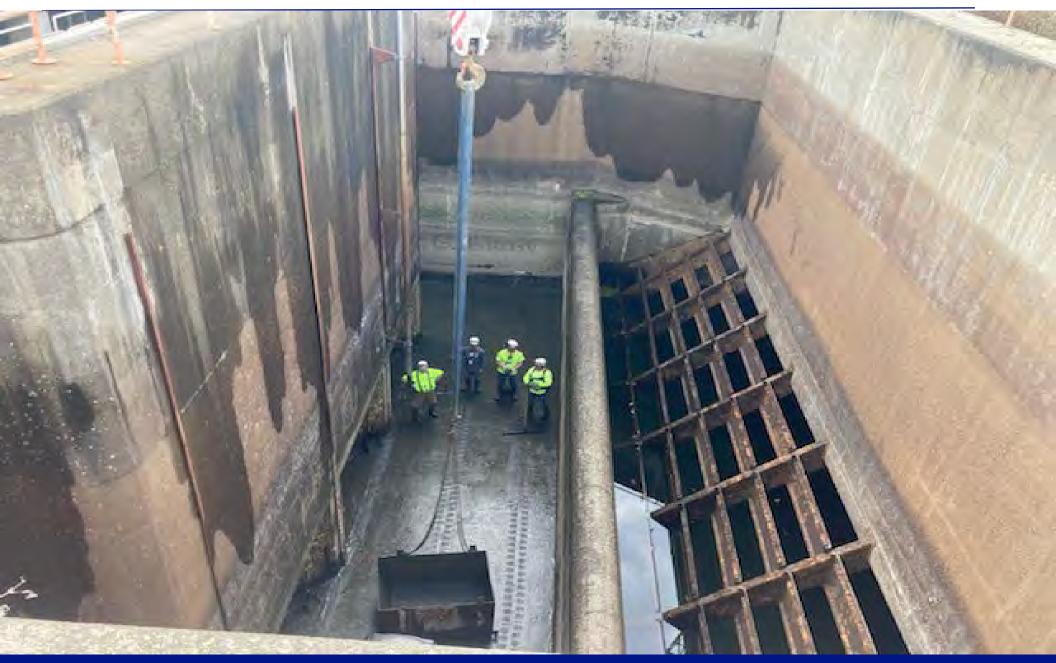
Discharge Structure Demo Preparation



Rerouting Stormwater Drain Line at North end of Discharge Structure



Discharge Structure Demo preparation





Empty and Clean Spent Fuel Pool for the last time





Fuel Pool Cooling Heat Exchangers removal preps





Wall removal to access RWCU Heat Exchangers





RWCU Heat Exchangers removal preps



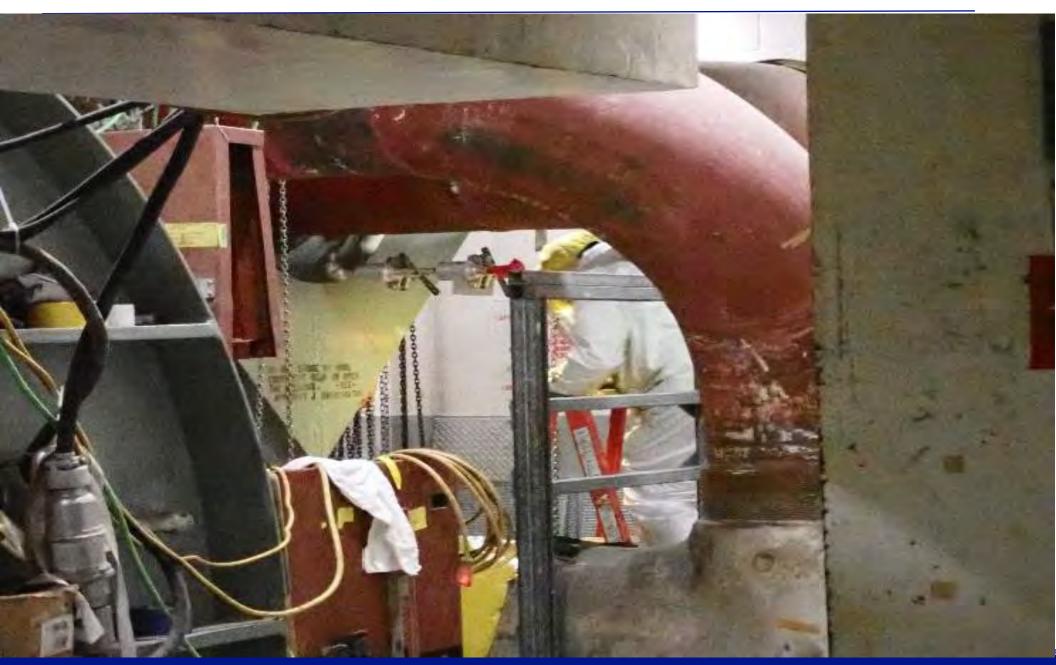


Wall removal to access Containment Ante Room





Rx Containment Piping & Equipment Demo





Rx Containment Piping & Components load out





Loading Rail Gondolas Cars with Concrete Debris

TRA?"MOBILE





Waste Loading & Transportation





Shipping and Material Volumes

Currently shipping about 4-5 rail cars per week (Total shipments to date: 767)

- Total YTD Shipments (as of 12/05/23): 230
- Total Volume 2,161,061 ft³ (80,039 yd³)
- Total Weight 92,445,587 lbs. (46,223 tons)
- Total Activity 35,654 curies



Non-Rad Site Characterization/Remediation

What else is happening?

- No new areas of impact identified.
- Split sampling continues for Post Demolition Surveys with ATC in coordination with ANR. All sample data continues to correlate well and show no impacts to soils below the buildings or structures.
- Working with ANR for concurrence with meeting I-Rule Site Investigation completion criteria.
- Post Decommissioning Groundwater Monitoring Program per MOU being developed with ANR input.
- Renewal and annual inspections of Stormwater Permits completed with minor maintenance as warranted.
- Continued collaboration through regular meetings with VT ANR, DEC to maintain alignment.

Questions?



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

