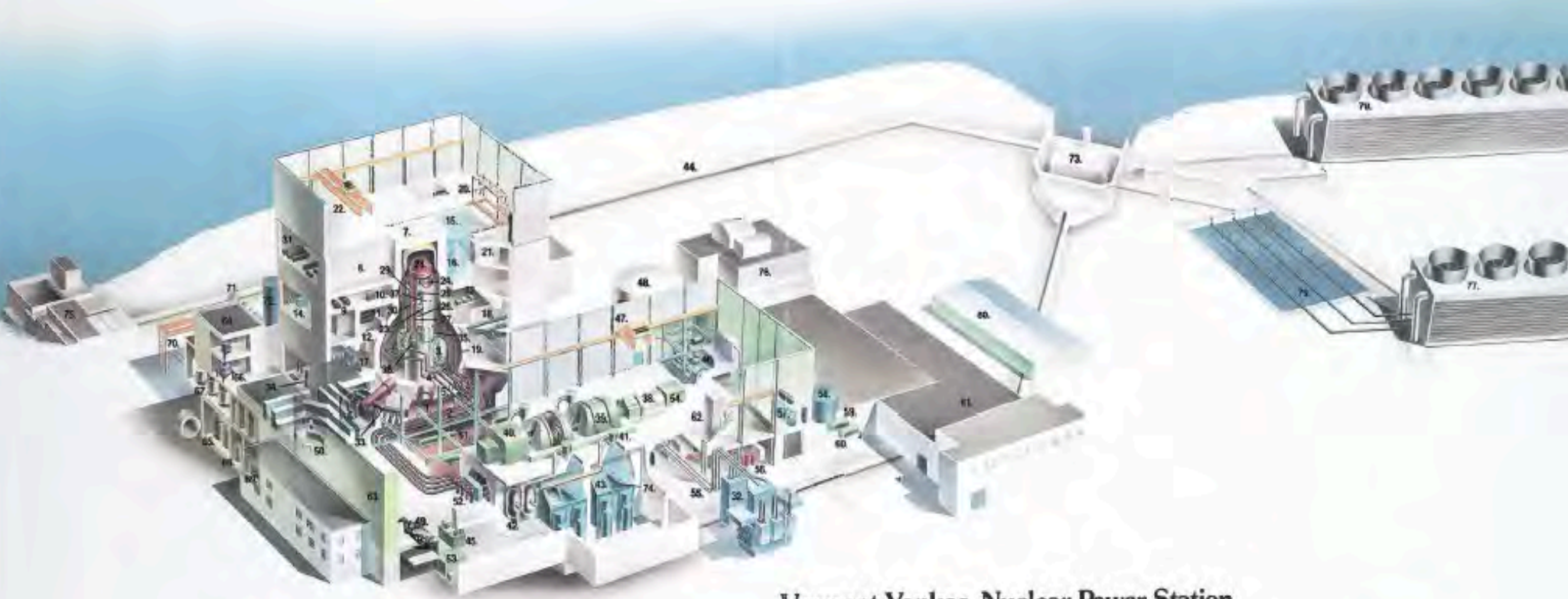


NorthStar VTY Decommissioning



Vermont Yankee Nuclear Power Station

NDCAP Update 06/14/2021

- | | | | |
|---|----------------------------------|-----------------------------------|--------------------------------------|
| 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 lube 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.



Performance Update

- SAFETY: **Acceptable**

Zero NorthStar OSHA Recordable Lost Time Accidents to date, with over 750,000+ person hours worked on site since sale on January 11th 2019.

- REGULATORY: **GOOD**

NRC: Zero Cited and Non-Cited Violations for all of 2019, 2020, and 2021 to date.

- PRODUCTION: **Acceptable**

Overall project schedule on track. Reactor removal project remains behind, but still not a significant impact. Bulk Decom work and Site Characterization continues advancing ahead of initial projections.

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)
Spent Fuel Management	█	█	█	█	█	█	█	█	Final Site Restoration & License Termination	
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										
Asbestos& Lead Paint Removal	█	█	█	█	█	█				
Security Structures and Equipment	█	█	█	█	█	█				
Turbine Warehouse	█	█	█							
Aog	█									
Rotors and Storage Structures		█								
Stack		█	█							
Intake		█	█	█	█					
Reactor Building			█	█	█	█	█			
Admin Building				█						
Control Building				█						
Rad Waste					█	█	█			
Discharge					█	█				
Service Building					█					

Reactor Vessel Segmentation Update

- Reactor Head **DONE**
- Steam Dryer **DONE**
- Steam Separator **DONE**
- Shroud Head **DONE**
- Feedwater Sparger **DONE**
- Top Guide (Upper Grid) **DONE**
- Guide Tubes **DONE**
- Core Plate **DONE**
- Shroud Cylinder **DONE**

Support systems activities and maintenance on-going as required. Water chemistry remains acceptable. All equipment remains operational.



Shroud Repair Segmentation and Packaging nearing completion

Preparations commenced for:

1. Removal of Jet Pumps
2. Cutting of Nozzles
- 3 Reactor Vessel Segmentation

RV Closure Head

Steam Dryer

Steam Separator

Upper Core Grid

Guide Tubes

Core Plate Assembly

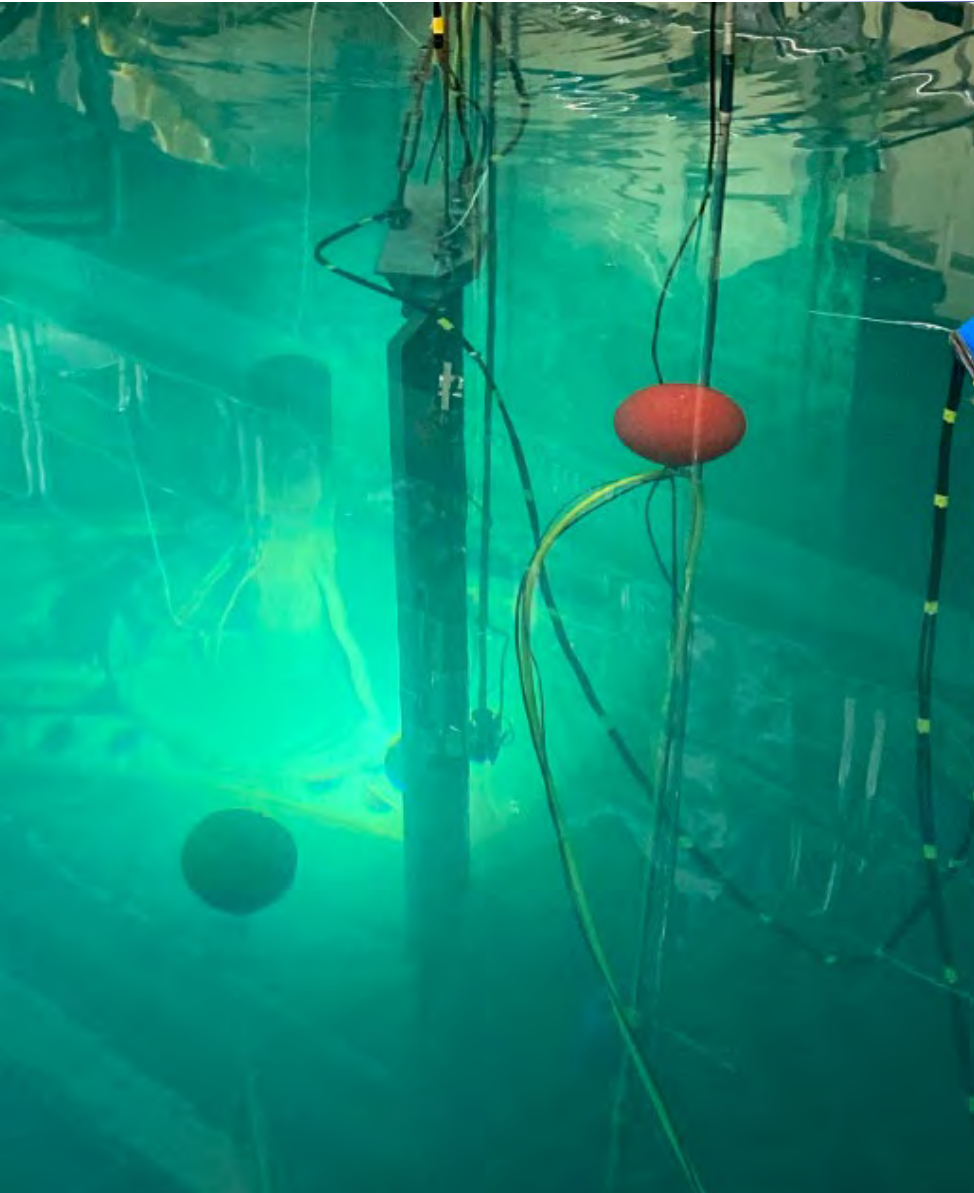
Shroud Cylinder

Jet Pump Assemblies

RV Nozzles

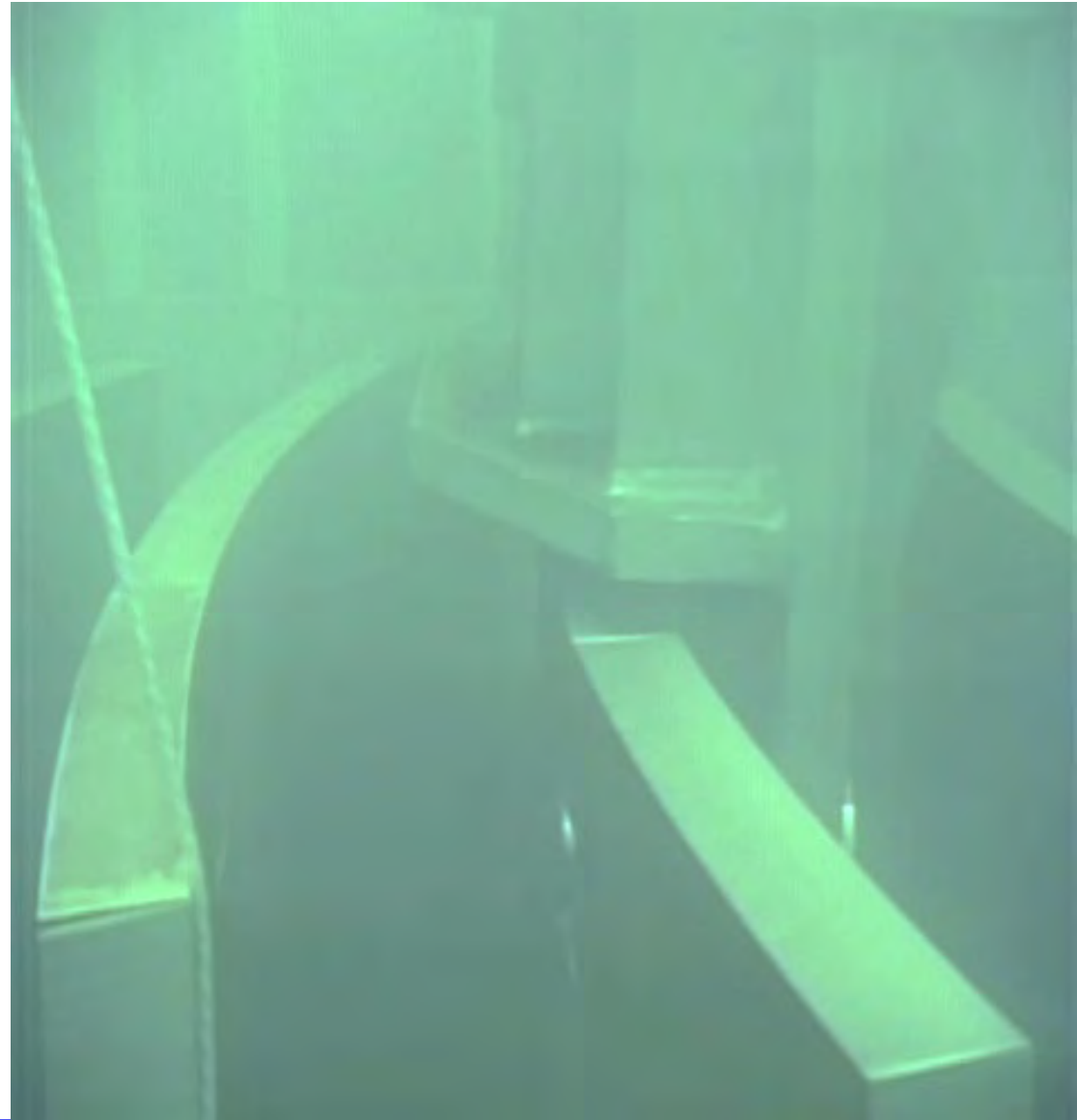
Reactor Vessel

Core Shroud Segmentation / Underwater Operations



Shroud Segment (more than 13ft tall)

Placing last Shroud Segment into storage rack



Rector Vessel Segmentation Support Operations



Loading spent filters into a basket under water



Installing collection barrel in the Filter System

Turbine Building Demo (HVAC Rooms) equipment removal



Ventilation Ducting, Fans, Plenums, Motors and associated equipment removed.

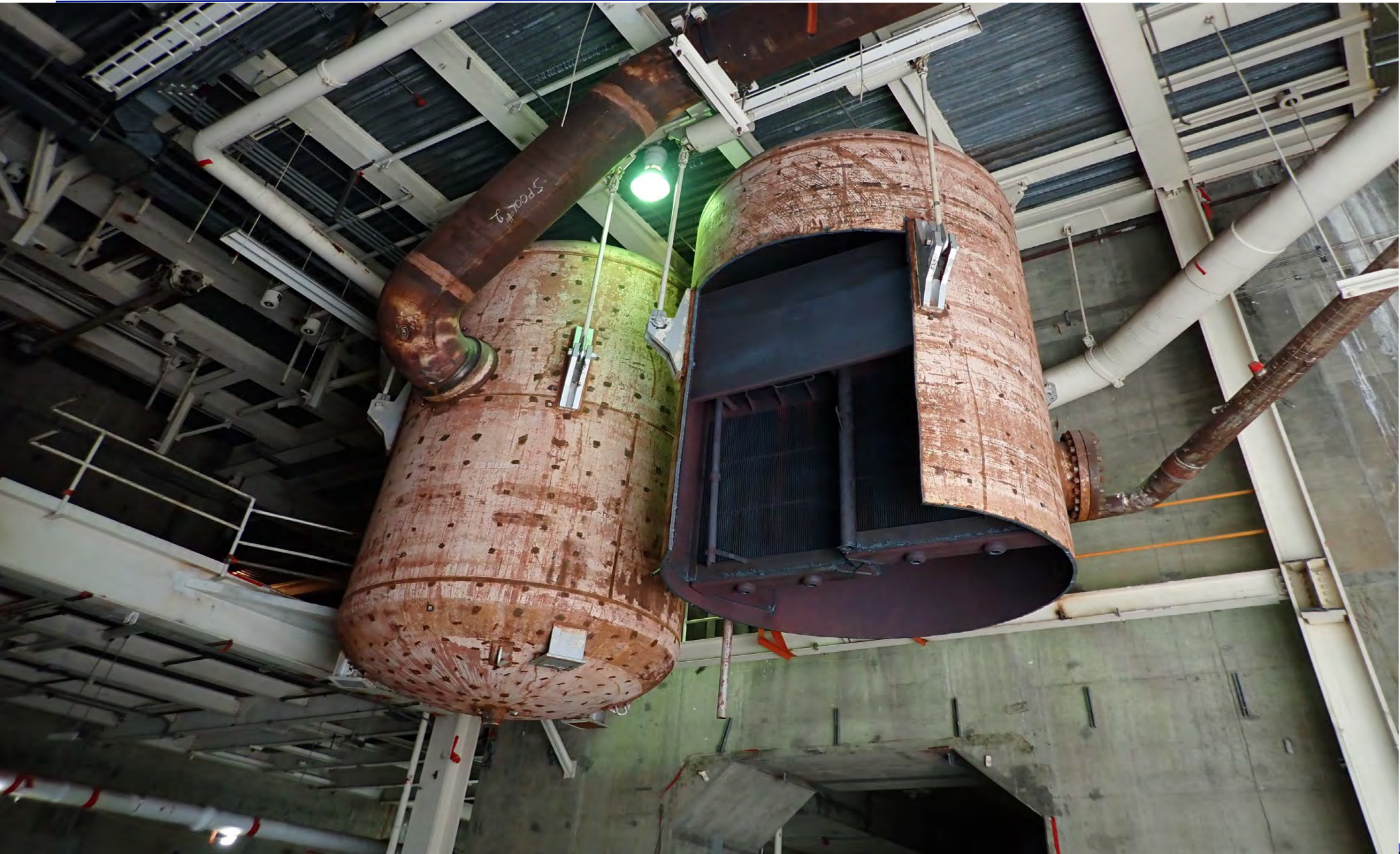
Temporary ventilation system installed to maintain habitability.



Steam Jet Air Ejector Room Demolition progress



Moisture Separator Segmentation & Removal



Exposing Main Condenser Tube Bundles



Condensate Demineralizers removal



Epoxy Floor Coating Removal in Turbine Building



500,000 gal Condensate Storage Tank demo preps



Creating an access in preps for Demo



Set up for tank interior piping removal



345 KV Line and Tower Removal



Preparation of Condenser Valves for Shipment



Railcar loading for transportation to WCS in Texas



Shipping and Material Volumes

- Currently shipping about 3 rail cars per week to WCS
(55 cars shipped YTD / about 11 per month)
- Total Number of Shipments to Date: 269
- Total Volume 570,300 ft³ (21,200 cyd)
- Total Weight 28,000,000 lbs (14,000 tons)
- Total Activity 4,910 curies

Non-Rad Site Characterization/Remediation

- Progress continues with support and efforts of regulatory agencies.
- Post Building Demolition Survey and Sampling Plan has been approved.
(This provides the framework for inspecting & sampling building slabs, soils, and piping trenches as they are exposed.)
- Three Corrective Action Plans (**AOC's 3, 7, & 8**) have been through Public Notice process and are Approved.
- Two Corrective Action Plans drafted, submittal to DEP in 2022 (AOC 5 and AOC 7).
(Historical diesel leaks previously identified/actioned)

AOC 1 - 345 kV Switchyard

AOC 2 - 114 kV Switchyard

AOC 3 - South Warehouse

AOC 4 - (Former) N Warehouse

AOC 5 - Turbine Building Area

AOC 6 – Rad Waste Storage Area

AOC 7 - Fuel Storage Tanks

AOC 8 – Transformers

AOC 9 – Intake/Discharge Areas

AOC 10 – Parking Lots

AOC 11 – Hz Material Storage Areas

AOC 12 – Edson's Garage

AOC 13 – Septic & Residual Spreading Areas

AOC 14 – Storm Water Outfalls

AOC 15 – Cooling Tower Area

AOC 16 – Railroad Lines

AOC 17 – Groundwater

Non-Rad Site Characterization/Remediation

- What else is happening?
 - Risk Evaluation still under ANR review. No new Areas of impact identified. Determined remediation not needed at AOCs 12, 13, 15 and 16.
 - Annual Ground Water report completed. Based on approved plan, some reductions will occur with sampling of certain parameters and total number of monitoring wells.
 - Dewatering permit was approved by DEC 4/1/21. Dewatering has commenced at rate of about 15k GPD. (No rad/chemicals detected to date; as expected)
 - Split sampling continues with ATC in coordination with ANR. Most recent collection on 6/2/21.(To date all sample data has correlated well)
 - Continued collaboration with VT ANR, DEC via Bi-Weekly calls to maintain alignment.

Other Upcoming Activities/Demo

- CST (500,000 gal tank) and Exterior Water Make-Up Tanks Clean/Demo
- Met Towers removal/Demo
- Admin Building Demo
- Spare Turb/Gen Rotors downsize/package/ship
- Miscellaneous remaining exterior structure/components: Chem Shed, Intake and Discharge Hydraulic sheds, removal of abandoned security equipment and redundant fencing
- Planning and Preparations for going “Cold and Dark” for ultimate Demo of main power plant structures (Turbine and Reactor Buildings)

Questions?

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

