

Yankee



Yankee Rowe

Decommissioning Project
Status, Goals and Challenges

Richard M. Kacich, President

October 28, 2003

5
2004-0057

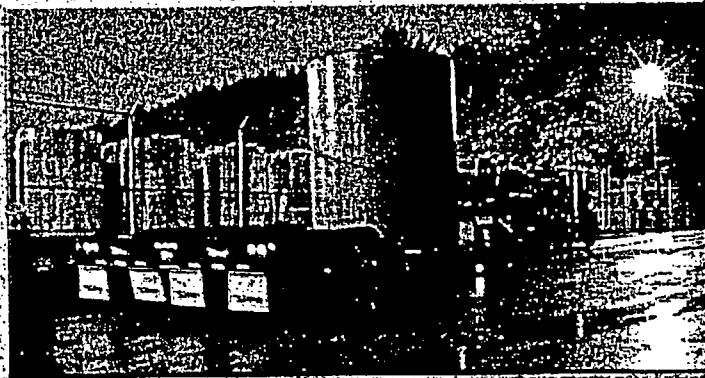
14-2

*Recent successes and strategic direction
have set the stage for positive outcomes*

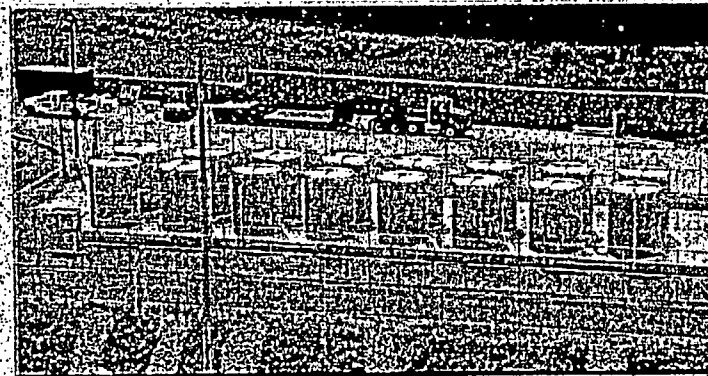
- Completion of fuel transfer enables the resumption of demolition and disposal
- A focus on safety remains the key to Yankee's success
- Management is aggressively pursuing identified challenges
- Recent FERC settlement provides adequate funding



Fuel Transfer Successfully Completed June 21, 2003

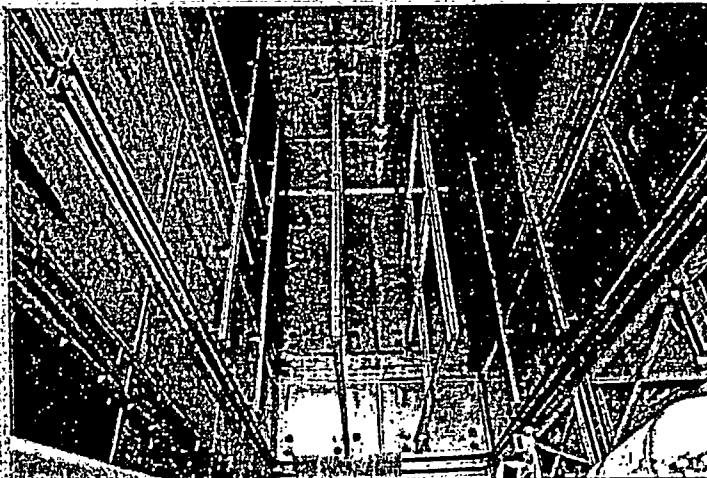


The final fuel cask was delivered to the ISFSI pad on 5/31/03

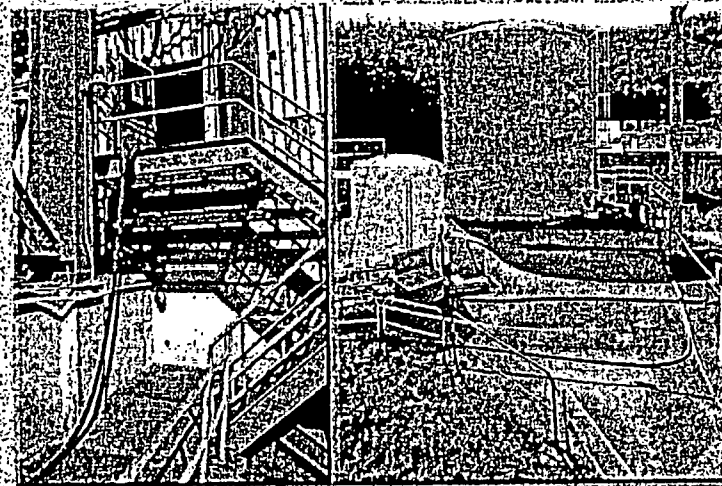


The 16th and final storage cask, loaded with GTCC material, was delivered to the ISFSI pad on 6/21/03 marking the completion of the Fuel Transfer Project

Spent Fuel Pool Drain Down



Spent Fuel Pool drain down enabled by timely NPDES permit



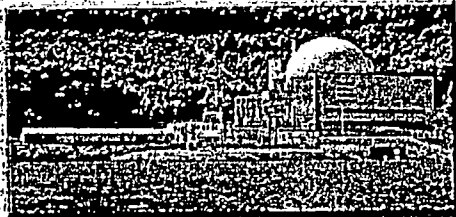
Fuel Pool drain down line to Storage Tank

FUEL TRANSFER AND SPF DRAIN DOWN

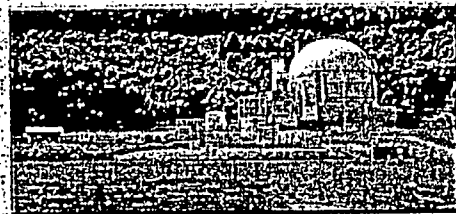
- **Safe Fuel and GTCC Transfer to the ISFSI Enabled Decommissioning/Demolition Resumption**
- **Extensive Stakeholder Interaction Facilitated a Timely NPDES Permit**
- **SFP Drain Down was Uneventfully Completed Despite Significant Radiological Challenges**
- **Applying Lessons Learned From CY, MY and Big Rock Point Enhanced Outcomes**



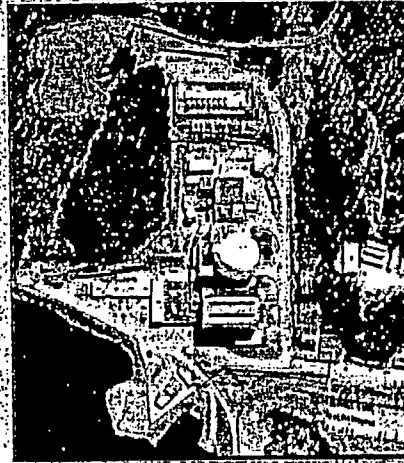
2003 Site Demolition Achieves Incentive Plan Goal



Site prior to demolition



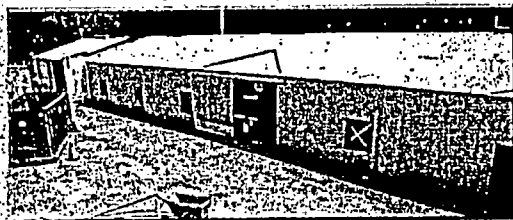
Site as it will appear in December 2003



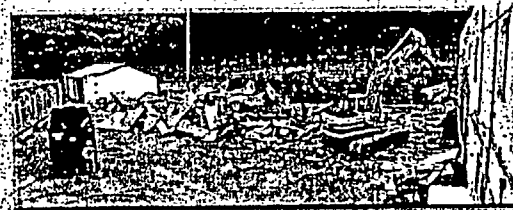
Aerial view of site prior to demolition



Aerial view of site as it will appear in December 2003

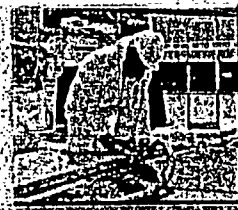


Warehouse - August 11, 2003

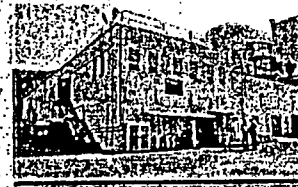


Warehouse demolition complete
August 13, 2003

Demolition Activities



Asbestos removal -
Warehouse slab



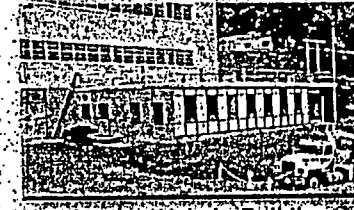
Service Building Annex
August 25, 2003



Service Building Annex
demolition complete
September 3, 2003



Service Building Annex
asbestos abatement



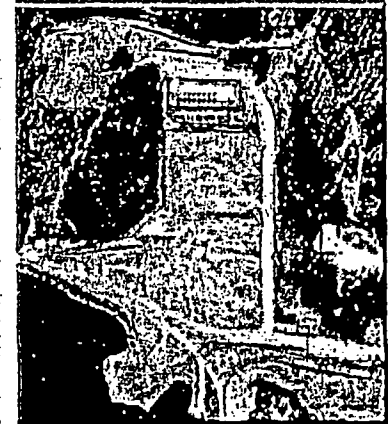
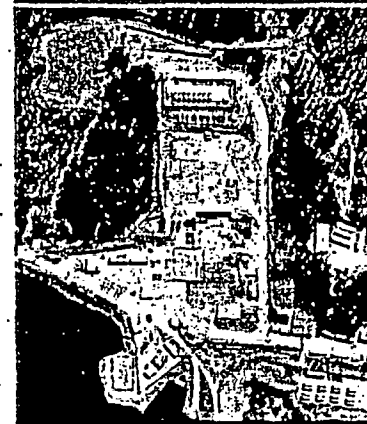
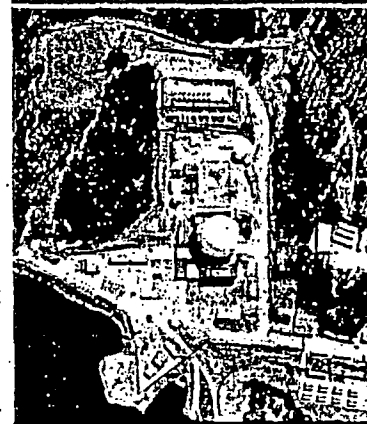
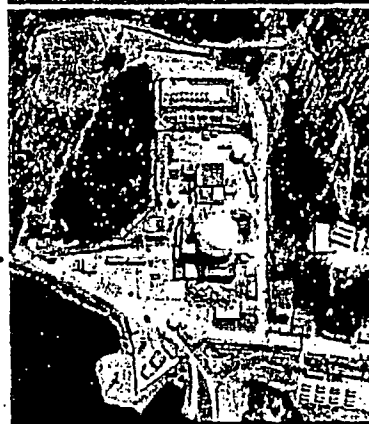
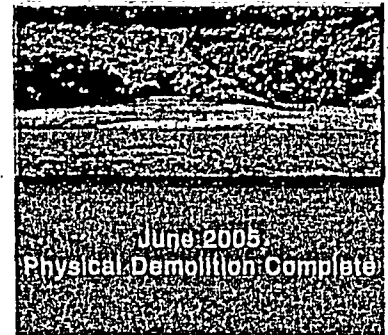
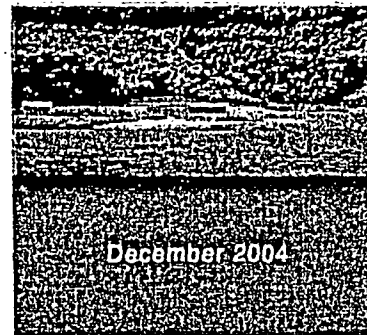
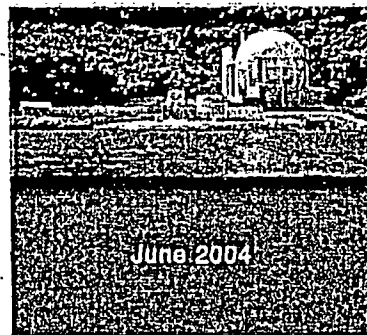
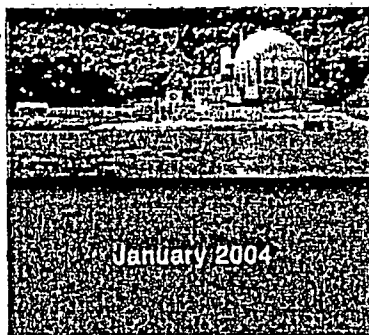
Turbine and Admin Building
abatement preparation for
demolition

2003 SITE DEMOLITION INCENTIVE PLAN GOAL

- **Managing Available Real Estate Remains a Continuing Challenge**
- **Time for Planning Dwarfs Time Required for Physical Demolition**
- **Photos Visually Depict 2003 Incentive Plan Goal Schedule**
- **Structures to be Demolished in 2003 Include: Warehouse, Service Building Annex, Service Building, and Turbine Building**



Consistent Physical Demolition Progress Achieves June 2005 Vision



JUNE 2005 DEMOLITION VISION

- Photo Series Illustrates Outcome Aligned With the FERC Settlement
- Demolition Plan Aligned to Reduce Impact of Winter Weather
- Recurring Demolition Sequence Includes: "Cold & Dark," Assess, Remediate, Demolish, Dispose
- June 2005 End State of "Physical Decommissioning" Sets the Stage for FSS and Property Transfer



*FERC settlement establishes basis for
project cost and schedule goals*

- ALL waste shipped off-site
- Physical decommissioning complete by
June 2005
- Property ready for transfer January 2006



The FERC settlement also includes requirement to engage interested parties.... ~~XXXXXXXXXXXXXXXXXXXX~~ ~~XXXXXXXXXXXXXXXXXXXX~~ Ex 5

- To cooperatively identify potentially viable alternatives for interim storage of SNF (including GTCC) outside of New England
- To identify the most viable alternative, and
- To develop an action plan to initiate the selected alternative



The cost to decommission is significant

<u>Cost Categories</u>	<u>Totals (\$ Millions)</u>
Total Decommissioning Costs	636.4
1992-2002 Decommissioning (incurred)	347.9
“To-Go” Cost Estimate (2003-2022)*	288.5
Demolition/Disposal	97.1
Radioactive Waste	20.0
Long-Term SNF Storage	129.2
Site Restoration	0.3
Final Status Survey	4.0
Contingency	37.9

*“To-Go” cost estimate is stated in year 2003 dollars



Project Challenges Necessitate Strategic Focus

Indenture Property Resolution



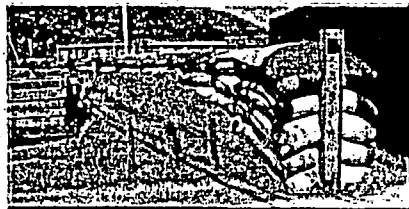
Intake Structure



Discharge Structure

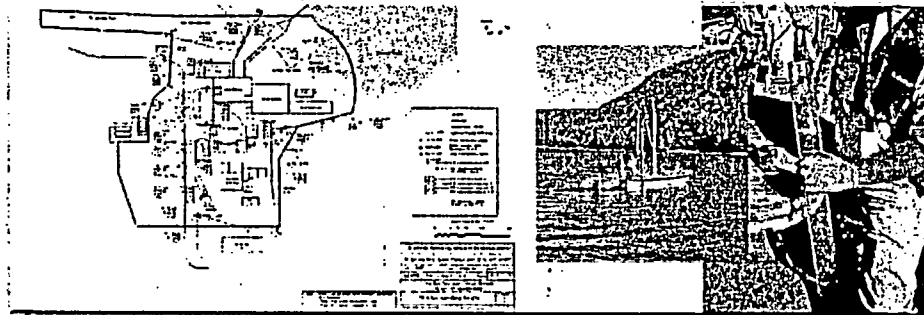


Sherman Dam



Sherman Dam Extension

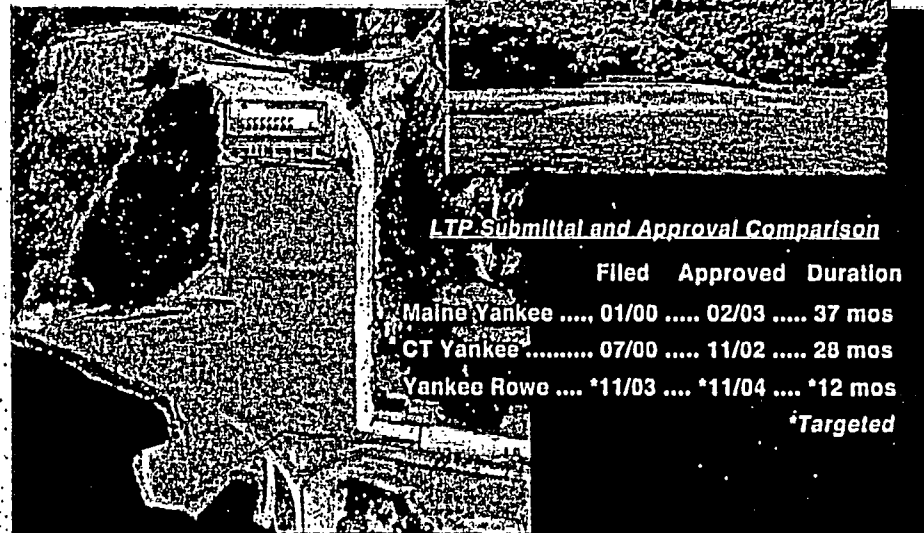
PCB Contamination



PCB soil sampling results

PCB sediment sampling

LTP Submittal and Approval



LTP Submittal and Approval Comparison

	Filed	Approved	Duration
Maine Yankee	01/00	02/03	37 mos
CT Yankee	07/00	11/02	28 mos
Yankee Rowe	*11/03	*11/04	*12 mos

*Targeted

Site Closure

PROJECT CHALLENGES

- Additional Characterization is Required to Define Scope of Remediation
- Property Indenture Introduces Uncertainties With Shoreline Access and FERC Approvals
- Targeted LTP Schedule for NRC Approval, a Critical Path Activity, is <50% of Previous Industry Best
- LTP Reflects Lessons Learned From Other Facilities



Regulatory Permitting Process is Complex and Multifaceted

Table 1
Non-radiological Regulatory Summary

Regulatory Program	Agency	Disturbance Outside of Wetland Resource Areas	Development in Wetland Resource Areas	Shoreline Structure Removal ¹	Sediment Reproduction in Sherman Pond	Sediment Remediation in West Storm Drain	Soil and/or Groundwater Remediation	Landfill Closure	Hazardous Waste Storage Areas	Septic System Closure	Final Site Grading
Massachusetts Environmental Policy Act (201 CMR 11)	ECEA	NA	ENF and/or EIR (Wetlands)	ENF and/or EIR (Wetlands)	ENF and/or EIR (Wetlands)	ENF and/or EIR (Wetlands)		ENF and/or EIR (Wetlands)			
Wetlands Protection Act (310 CMR 10)	DEP/RWRC Commission										
Massachusetts Clean Water Act (311 CMR 9)	CEP										
Clean Water Act - Section 401 (33 CFR 320)	ACOE										
Solid Waste Regulations (310 CMR 18)	DEP										
Massachusetts Contingency Plan (310 CMR 40)	DEP										
Toxic Substances Control Act (40 CFR 761)	EPA										
Conservation of Power and Water Resources (18 CFR)	FERC		Compliance Review or FERC License Amendment	Compliance Review or FERC License Amendment	Compliance Review or FERC License Amendment						Compliance Review or FERC License Amendment
National Pollution Discharge Elimination System (NPDES) (40 CFR 122)	EPACFP										
Resource Conservation and Recovery Act/Hazardous Waste Management Act (40 CFR 261/391 CMR 20)	DEP										
Title 5 - On-site Sewage Treatment and Collection (310 CMR 15)	DEP										

¹ Activities will occur on property not owned by Yankee. Activity will require coordination with property owner (PG&E).

² Assumes no filling within wetland buffer zone.

High threshold of regulatory agency approval or permit required

More detailed information, meeting with agency required, or work scope not defined required

No action required

ACOE - Army Corps of Engineers
CAAA - Corrective Action Alternatives Analysis
CAD - Corrective Action Design

DEP - Massachusetts Department of Environmental Protection
EIR - Environmental Impact Report
ENF - Environmental Notification Form
ECEA - Executive Office of Environmental Affairs
EPA - U.S. Environmental Protection Agency
FERC - Federal Energy Regulatory Commission

IP - Individual Permit
NA - Not Applicable
NOI - Notice of Intent

RAM - Remedial Assessment Memo
RIP - Remedial Implementation Plan

Required regulatory approvals and permits

REGULATORY PERMITTING PROCESS

- Non-RCRA CAP Status Requires a Yankee-Conceived Site Closure Process
- Number and Variety of Required Permits Requires Extensive Stakeholder Interaction Campaign
- Constructive Engagement With Regulators Will Enhance Permit Timeliness
- Long Lead Time Permit Submittals Depend on Completion of Environmental Characterization
- To Date, Stakeholder Interaction and Opposition Impact has Been low



The requested LTP review interval is aggressive, but achievable

- Yankee Rowe is a comparatively clean site
- Substantial prior characterization has been performed and additional work is underway
- Process familiarity developed from past experience (CY) and industry lessons learned



NRC focus and support will enhance the quality and timeliness of results

- Decommissioning project success is important to demonstrate nuclear plant end-of-life costs are manageable and finite
- Key Yankee regulatory issues include:
 - ❖ LTP review interval
 - ❖ Emergency response requirement - State Police
 - ❖ NEIL Liability Insurance exemption

[REDACTED]

[REDACTED]

Ex. 5

