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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001
March 22, 2001

MEMORANDUM TO: Joseph Shea, Senior Regional Coordinator
Regional Operations Staff
Office of the Executive Director for Operations

FROM: Stephen Dembek, Chief, Section 2 *Stephen Dembek*
Project Directorate IV and Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: CONNECTICUT YANKEE ATOMIC POWER COMPANY AND YANKEE
ATOMIC ELECTRIC COMPANY OFFICIALS VISIT ON MARCH 27,
2001, WITH COMMISSIONERS DICUS, McGAFFIGAN, MERRIFIELD,
EXECUTIVE DIRECTOR FOR OPERATIONS, DIRECTOR OF THE
OFFICE OF NUCLEAR REACTOR REGULATION, AND DIRECTOR OF
THE OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

Attached is a briefing package in support of the visit by representatives of Connecticut Yankee Atomic Power Company (Haddam Neck Nuclear Power Station) and Yankee Atomic Electric Company (Yankee Nuclear Power Station): Russell A. Mellor, CEO and President; Kenneth J. Heider, Vice President - Operations and Decommissioning, and Gerry Van Noordennen, Manager of Regulatory Affairs. They will meet with Commissioners Dicus, McGaffigan, and Merrifield, as well as the EDO and other NRC management on March 27, 2001. This information has been coordinated with Region I and the Office of Nuclear Material Safety and Safeguards.

If you require any additional information, please contact Joe Donoghue, 415-1131.

Briefing Package w/attachments

cc w/atts: S. Collins/J. Johnson
B. Sheron
M. Virgilio/M. Federline
J. Zwolinski/S. Black
G. Pangburn, RI
R. Bellamy, RI

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DROP-IN VISIT BRIEFING PAPER

FOR CONNECTICUT YANKEE ATOMIC POWER COMPANY AND
YANKEE ATOMIC ELECTRIC COMPANY

**HADDAM NECK
FACILITY DATA**

| | |
|----------------------|---|
| Utility: | Connecticut Yankee Atomic Power Company (CY) |
| Location: | Haddam, Connecticut (on the Connecticut River, about 30 miles south of Hartford) |
| County: | Middlesex |
| Docket No. | 50-213 |
| License No. | DPR-61 |
| Full Power License | December 1974 |
| Commercial Operation | January 1968 |
| OL Expiration Date | Decommissioning, Certification of Permanent Cessation of Operations, December 5, 1996 |

PLANT CHARACTERISTICS

| | |
|------------------|---|
| Reactor Type | 4 Loop Pressurized Water Reactor |
| Containment Type | Large Dry - Reenforced concrete cylinder w/ steel liner |
| Power level | Permanently shutdown (formerly 1825 Mw thermal) |
| NSSS | Westinghouse |

CURRENT ISSUES

Decommissioning Activities

Significant dismantlement and decontamination of the facility by Bechtel (Decommissioning Operations Contractor since April 2, 1999) continues with work both inside containment and the primary auxiliary building. Reactor segmentation is complete with cutting system demobilization ongoing. Preparations underway to transfer greater-than-class-C waste to the spent fuel pool. This will involve dive activity beginning in April 2001 to open the transfer tube and then to isolate the spent fuel pool. Transfer of two lower assemblies of the steam generators to barge for transport to a disposal facility planned for early April, with remaining two steam generator lower assemblies planned for early May. Shipment of the pressurizer and removal of the reactor vessel from containment and shipment planned for later this year.

License Termination Plan Review and Hearings

The NRC staff has completed a detailed technical review of the License Termination Plan (LTP) submitted by the licensee. Extensive requests for additional information (RAIs) have been issued, and the staff has held public meetings with CY to discuss the RAI issues.

The LTP is being challenged by hearing requests from the Connecticut Dept. of Public Utility Controls and by the Citizens Awareness Network. A pre-hearing conference is scheduled for April 24, 2001, in the vicinity of the facility. Both parties have submitted their contentions.

Partial Site Release Plans

Negotiations with AES Corporation are underway to use part of the site for a natural gas fired electric plant. CY plans to release its parking lot area for unrestricted use to build the natural gas plant, but has not yet submitted a request to the NRC to release the property. Construction planned to begin in 2002. Such a release from a reactor site is not provided for in the regulations. The NRC staff issued a Regulatory Issue Summary (RIS) in October 2000 giving the NRC staff's plans for handling partial site release requests until the related rulemaking is completed. The NRC staff expects that the approval process will involve onsite confirmatory surveys by Region I and the State of Connecticut.

Spent Fuel

CY informed the NRC that they intend to site an independent spent fuel storage installation (ISFSI) under the general licensing provisions of Part 72. NMSS is reviewing amendments to the NAC Multi-Purpose Canister (MPC) and the NAC Storage Transport Cask (STC), NRC certified designs. The amendments would accommodate the CY contents. Typically, an amendment to a Certificate of Compliance, including the required rulemaking, takes between 18 and 24 months. Connecticut Yankee and Yankee Atomic are aware of the typical schedule.

Zoning Lawsuit

The location of the ISFSI chosen by CY (within a mile of the reactor site) is currently zoned as residential land. The local zoning board has denied the CY requested zoning variance. CY has sued the Town of Haddam in federal court. The lawsuit is pending. Significant public interest exists concerning the planned ISFSI site. NRC letter to Rep. Gejdenson in September 2000 requested NRC participation at a town meeting held on September 18, 2000. NRC staff presented information on dry cask storage before an estimated 350 people.

Offsite Recovery Efforts

Local residents have cases pending against the licensee regarding contaminated material that was released and subsequently used by residents (i.e. soil, blocks). The licensee evaluated 143 offsite properties since 1996, closing 5 packages to date. In 2001, the licensee expects to close most of the packages by reviewing survey data, quality assurance requirements, and dose assessments. Licensee will send letters to property owners after reviewing the completed packages.

DISCUSSION TOPICS

The licensee plans to discuss at least the following topics during meetings with the Commissioners:

1. Decommissioning Status - See Current Issues
2. Dual Regulation of Radiological Remediation Standards - CY Experience
The licensee would like to discuss the NRC and Environmental Protection Agency (EPA) roles in these areas:
 - Groundwater: EPA drinking water limits
 - RCRA (Resource Conservation and Recovery Act) EPA corrective action program authority extends to entire site for radiological and non-radiological standards

3. Risk Informing Decommissioning Regulations - Licensee supports progress in this area for facilities that will shutdown in the future. NRC staff will follow Commission guidance based on the policy options paper that is due in May 2001.
4. Partial Site Release Process - See Current Issues
5. Material Release Standard Development - Licensee would like to explore available alternatives and to discuss the status of NRC rulemaking options. NRC staff effort on clearance issues is pending guidance based on the National Academy of Sciences report expected in 2002. NRC staff will continue to use Regulatory Guide 1.86.
6. Public Involvement in Decommissioning - Licensee supports a local citizen's group, the Community Decommissioning Advisory Committee (CDAC), a state legislative CT Nuclear Energy Advisory Committee (NEAC), maintains a website, and publishes a daily newsletter (CY Today) to keep the public informed of decommissioning activities. CY also sponsors an annual tour day for the community. Approximately 30 people visited the site during the recent community day. Generally, the NRC has attended the CDAC meeting quarterly and the NEAC meetings annually.

The licensee plans to discuss the following additional topics in meetings with NRC staff:

7. State Radiological Remediation Standards - State of Connecticut is developing radiological release criteria. To date, they have been using the existing NRC guidance to develop their criteria. Expect draft to be issued this year.
8. Process Improvements for Dry Cask Storage Certification - Licensee would like to discuss the status of the related Nuclear Energy Institute (NEI) petition for rulemaking. The NEI petition to streamline the 10 CFR Part 72, Certificate of Compliance approval process was noticed in June 2000. The NRC staff is awaiting the Office of General Counsel (OGC) legal analysis.
9. Risk Assessment for Dry Cask Storage - Licensee would like to know if NEI Decommissioning Working Group will have the opportunity to comment on the draft.
10. Clarification of Greater Than Class C (GTCC) Waste as High Level Waste - Rulemaking is being finalized to incorporate GTCC under the provisions of 10 CFR Part 72. OGC to resolve the remaining legal issues.
11. Spent Fuel Pool Risk Study - Licensee will emphasize points raised in March 13, 2001, letter from R. A. Mellor to Chairman Meserve. Main concerns are the possible adverse impact on public perception resulting from the report and the licensee's desire to expedite evaluations of existing exemptions.
12. Regulatory Guidance Update for License Termination Plans - Licensee would like to discuss planned NRC Regulatory Issue Summary to provide related lessons learned from recent LTPs.

13. Litigation Update - Licensee will discuss the Department of Energy lawsuit, zoning lawsuit with Haddam, LTP hearings, and offsite recovery efforts.

Other Topics of Interest

Escalated Enforcement, Non-Green Findings and Non-Green Performance Indicators

There have been no escalated enforcement, pending escalated enforcement or cited violations within the last two years. Performance indicators are not assigned to decommissioning facilities. A few non-cited violations and minor violations related to radiological procedure compliance were issued (e.g., adequacy of surveys and control of high radiation areas).

Open Investigations, Allegations

None

2.206 Petitions

Citizens Awareness Network submitted a petition in September 2000, related to the licensee's practice of laundering training anti-contamination clothing at a public laundry facility. The petitioners contended that the licensee may have laundered radioactively contaminated clothing. In response to the petition, NRC staff inspected the licensee's practices, finding that training clothing at the licensee's facility was not contaminated and that effective controls were in place to prevent training clothing contamination. The Director's Decision following the new process for responses to Section 2.206 petitions (including providing drafts of the decision to petitioners and the licensee) was issued on March 20, 2001.

Selected News Articles

The following news articles are included in Attachment 4:

The Hartford Courant, November 21, 2000, "Nuclear Reactor's Disposal Protested"
Members of the Citizens Awareness Network protested the licensee's plans to remove contaminated plant components to the Barnwell, South Carolina disposal facility.

The Day, December 6, 2000, "Haddam officials try to figure out what to do about nuclear waste"

Reported rejection by the Planning & Zoning Commission for the Town of Haddam of the licensee's request to create a special zone for the storage of nuclear waste. The zone would accommodate the planned independent spent fuel storage installation (ISFSI).

The Day.com, December 22, 2000, "Utility Takes Fuel-Rod-Storage Case to Court"

The licensee announced that it would seek Federal court approval to build the planned ISFSI. Move taken after town zoning board rejected a zoning change request.

The Hartford Courant, February 11, 2001, "Nuke Cleanup Plan Flawed, NRC Says"

Quoted the February 1, 2001, NRC Request for Additional Information (RAI) on the License Termination Plan (LTP). The RAI was detailed and stated that significant information was necessary to supplement the LTP to allow NRC review.

Significant Reportable Events

None.

Reactor Oversight Program Information

Decommissioning reactors are not evaluated within the reactor oversight program. The following summary is provided in lieu of conventional reactor oversight information.

RECENT LICENSEE PERFORMANCE

The management of routine decommissioning activities is satisfactory. However, there had been recurring problems with controlling access to radiation/high radiation areas. The licensee often stopped work to evaluate causes and to re-train workers to address the performance concerns. Another area of concern is that occupational dose estimates for decontamination and dismantlement work have been exceeded by a significant margin. Reactor vessel segmentation required significant licensee and decommissioning operations contractor management involvement. Dose totals for the segmentation project are now estimated to be about 160 person-rem (from an original ALARA goal of 25 person-rem) with total decommissioning project doses at about 510 person-rem.

The licensee continues to have a low threshold for adverse condition reporting. In addition, the licensee has completed approximately 500 risk-based self assessments. Improvement areas noted were strategic planning, radiation dose reduction, detailed work planning and environmental program.

NRC Inspection report issued in January 2001 found no violations of NRC requirements. Current quarterly inspection has found no violations of NRC requirements.

YANKEE NUCLEAR POWER STATION (YANKEE ROWE) FACILITY DATA

Utility: Yankee Atomic Electric Company
Location: Rowe, Massachusetts (on the Deerfield River, about 21 miles north-east of Pittsfield, Massachusetts and 3/4 of a mile from the Vermont - Massachusetts border)
County: Franklin
Docket No. 50-029
License No. DPR-3
Full Power License December 24, 1963
Commercial Operation January 1961
OL Expiration Date Decommissioning, Certification of Permanent Cessation of Operations, February 27, 1992

PLANT CHARACTERISTICS

Reactor Type 167 Mw(e) Pressurized Water Reactor
Containment Type: Steel Sphere - Uninsulated
Power Level Permanently shutdown (Formally 600 MWt)
NSSS Westinghouse

CURRENT ISSUES

Decommissioning Activities

The DECON decommissioning plan was approved in February 1995 and the plant is undergoing dismantlement under 10 CFR 50.59. The steam generators were shipped to Barnwell. The reactor vessel was shipped in April 1997 to Barnwell by truck and rail, in one piece with no internals, and arrived in May 1997. The licensee has removed all of the primary system, secondary side components and switch yard from the site. As of April 2000, the majority of systems and components not required to support the storage of spent fuel have been dismantled and removed. The containment and other major structures remain. The spent fuel pool building is the only remaining "vital" area and has the appropriate safety related programs, such as safeguards, in place. The spent fuel pool has been segregated from the remaining decontamination and dismantlement activities by providing it with independent and redundant electrical and cooling systems, and multiple sources of cooling water. The licensee has determined that a decommissioning operation contract is not economically feasible, and is continuing to manage the project.

License Termination Plan

A License Termination Plan (LTP) was submitted on May 15, 1997. Local citizens' groups had filed petitions for leave to intervene on the LTP. However, on May 26, 1999, the licensee filed a motion to the Commission and Atomic Safety and Licensing Board (ASLB) to withdraw the

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license termination plan amendment request and for termination of the hearing. The licensee intends to revise its survey methodology from the NUREG-5849 methodology to MARSSIM and submit a new LTP in the future, but no schedule has been set.

Independent Spent Fuel Storage Installation (ISFSI) Status

The licensee has elected to construct an on-site ISFSI under a general license and began construction in late 2000. The fuel handling crane capacity has been increased and the crane made single-failure proof so that combined use storage/shipping casks could be safely handled. Construction of the ISFSI is near completion and the licensee has provided formal 90 day notification of their intent to begin loading spent fuel into a storage cask under the general license. The licensee currently estimates the earliest date to load spent fuel to be on or about June 15, 2001. The licensee is using the NAC-Multi-Purpose Cannister (MPC) dry cask storage system in accordance with NRC Certificate of Compliance No. 1025.

REACTOR OVERSIGHT PROGRAM INFORMATION

Decommissioning reactors are not evaluated within the reactor oversight program. The following summary is provided in lieu of conventional reactor oversight information.

RECENT LICENSEE PERFORMANCE

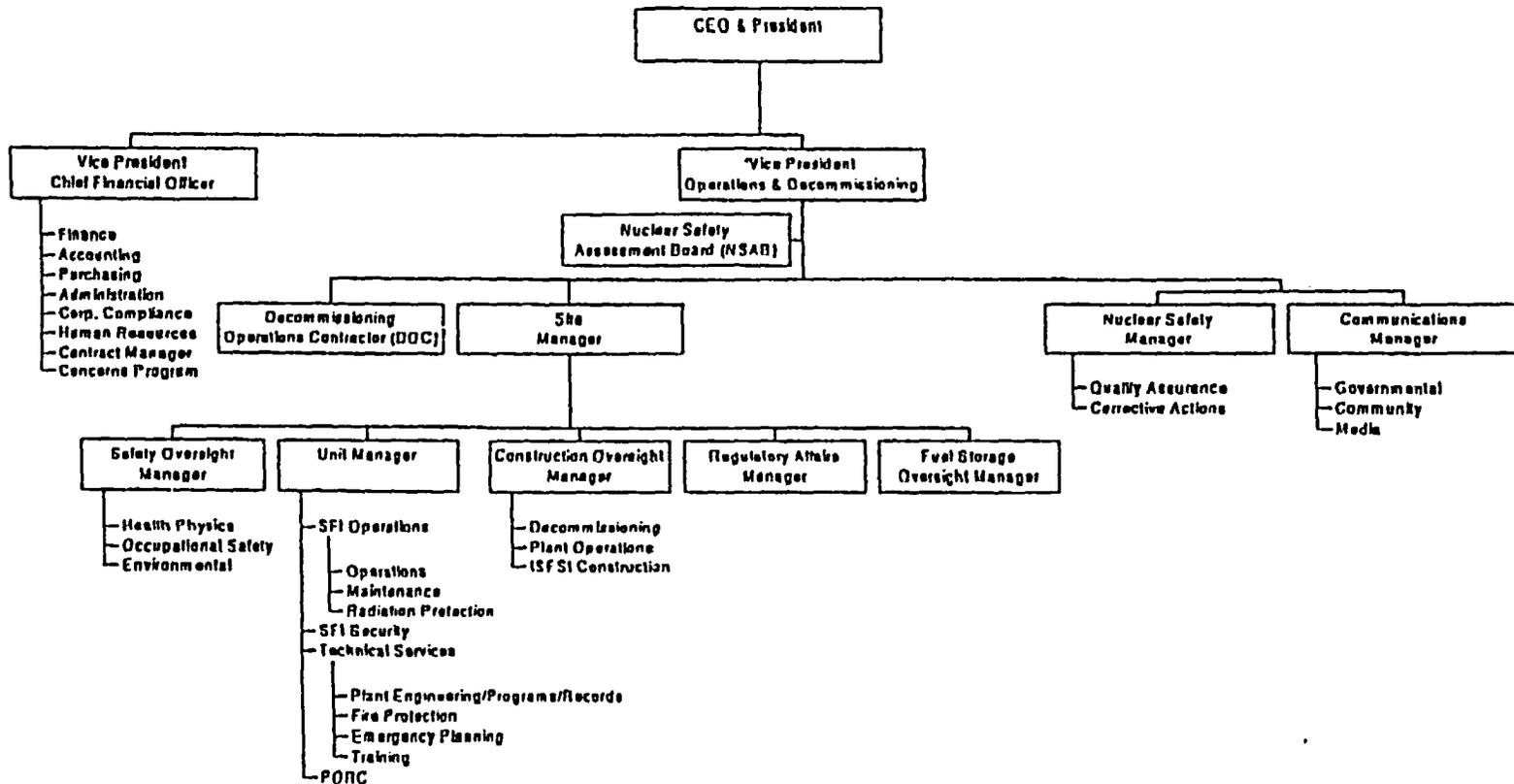
The management of routine decommissioning activities is satisfactory with decommissioning efforts proceeding in a safe and effective manner. Dry cask storage system components have been fabricated and installed in accordance with applicable requirements. Controls to limit exposures of workers to internal and external sources of radiation have been good. The licensee's programs for radioactive waste management and transportation have been implemented in a safe and effective manner.

NRC Inspection report issued in February 2001 found no violations of NRC requirements.

- Attachments:
1. Licensee Organization Charts
 2. Resumes
 3. Schedule
 4. News Articles

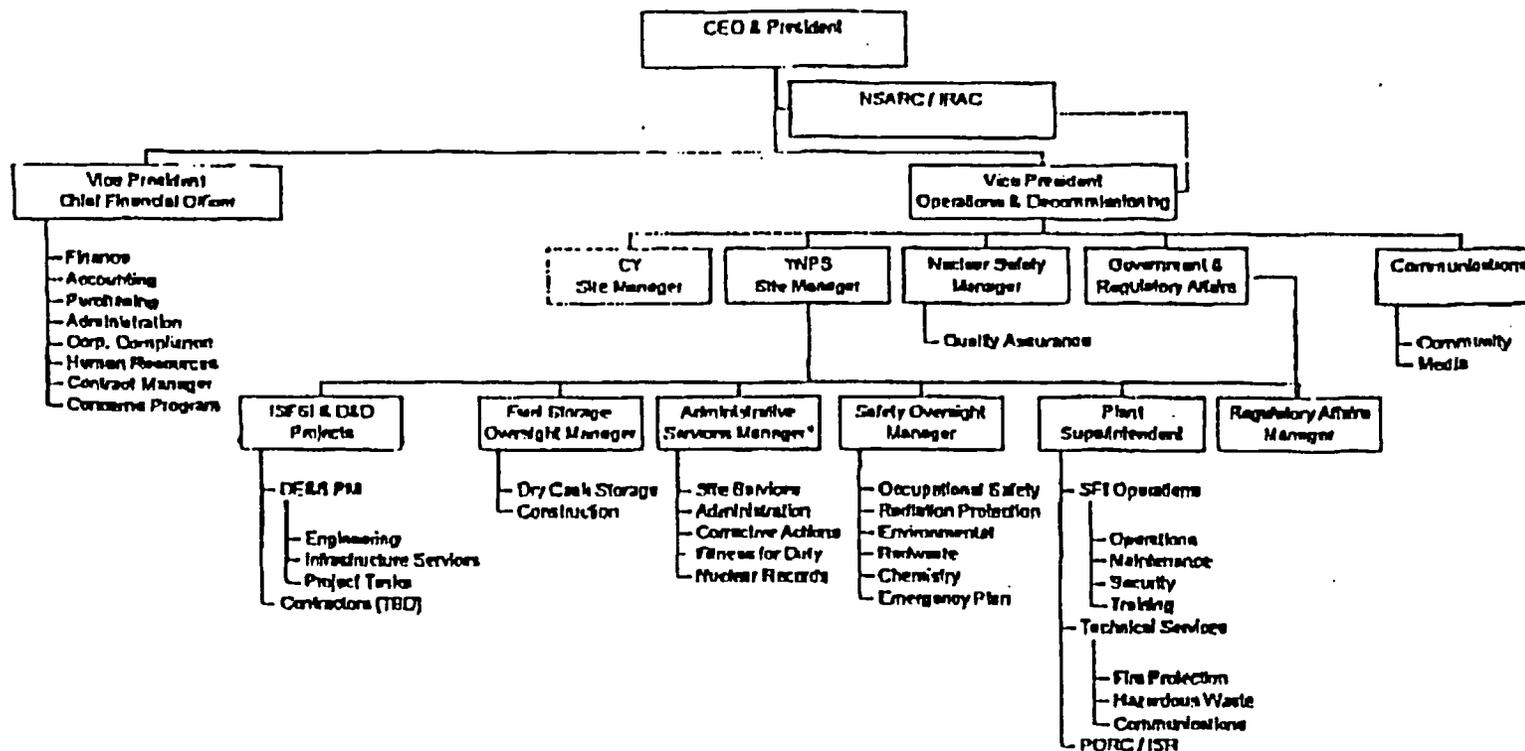
**LICENSEE ORGANIZATION
CHARTS**

CY OPERATIONS & DOC OVERSIGHT



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YANKEE OPERATIONS & OVERSIGHT



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*Matrix responsibilities to VP/CFO

Effective 07/31/2000

RESUMES

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Russell A. Mellor

President and CEO

Connecticut Yankee Atomic Power Company and Yankee Atomic Electric Company

Russell Mellor has 29 years experience in the nuclear power industry. His experience covers extensive management of decommissioning activities, as well as extensive management of engineering, licensing and technical staff in support of an operating reactor.

He is the President and CEO for Connecticut Yankee Atomic Power Company and Yankee Atomic Electric Company since May 2000. As Vice President of Site Operations and Decommissioning at Connecticut Yankee from March 1997 and at the Yankee Nuclear Power Station (YNPS) since January 2000, he assured that the operational and decommissioning scope, budget and schedule requirements were met consistent with the safe storage of spent fuel and safe decommissioning of the sites.

As Manager of Operations and Decommissioning of the YNPS from December 1994, he was responsible for the coordination and supervision of all engineering, operations, licensing, budgeting, planning, and site dismantling and spent fuel storage activities.

As the YNPS Project Manager for more than four years, he was responsible for the coordination and supervision of engineering, licensing, and administration of the Nuclear Services Division scope of activities for the Yankee plant.

As Technical Director at the YNPS for two and half years and Assistant for one year, he was responsible for all activities of the Reactor Engineering, Chemistry, Radiation Protection and Technical Services departments. Mr. Mellor served as Chemistry Manager from September 1984 to January 1987. He has also served as the Yankee Atomic Environmental Laboratory Quality Assurance Officer and Radiation Dosimetry Officer.

Mr. Mellor graduated from the University of Massachusetts, Dartmouth where he received a BS in Chemistry in [REDACTED] and an MS in Chemistry in 1971. Mr. Mellor has developed and presented technical testimony regarding decommissioning planning and costs for FERC rate cases as well as prepared and signed technical affidavits for litigation related to the Decommissioning Plan for YNPS.

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KENNETH J. HEIDER

Vice President
Yankee Atomic Electric Company

Vice President Operations & Decommissioning
Connecticut Yankee Atomic Power Company

EXPERIENCE

Yankee Nuclear Power Station/Yankee Atomic Electric Company

- Vice President – May 2000

1997-1998

- Site Manager
- Engineering Manager
- Lead Engineer
- Reactor Engineering Manager
- Reactor Engineer/Shift Technical Advisor

Haddam Neck Nuclear Power Station/Connecticut Yankee Atomic Power Company

1998-present

- Vice President Operations & Decommissioning – May 2000
- Decommissioning Manager
- Site Manager

Duke Engineering & Services

1997-1998

- Site Manager/Yankee Nuclear Power Station
- Decommissioning Manager/Haddam Neck Nuclear Power Station

Exxon Research & Engineering Company

- Process Engineer
- Refinery Engineer

EDUCATION

- B.S., Chemical Engineering, Worcester Polytechnic Institute, 

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Gerry P. van Noordennen

Regulatory Affairs Manager
Connecticut Yankee Atomic Power Company

Gerry van Noordennen is the Regulatory Affairs Manager for Connecticut Yankee since September 1996. He manages the regulatory activities for the company for all negotiations, communications and inspections with Federal, State and Local agencies. He is the point of contact for the various agencies to negotiate commitments for future activities and provide official company positions with respect to technical information and compliance with regulations.

As the Licensing Supervisor from 1985, he was responsible for the coordination of the licensing activities for the Connecticut Yankee and Millstone Unit 3 nuclear reactors. He established on-site licensing support groups for the nuclear reactors in Connecticut.

Mr. Van Noordennen has also worked at the San Onofre, Dresden, Quad Cities and Zion nuclear power stations and was an expert witness at Illinois Public Utility Commission hearings.

Mr. Van Noordennen received a BS in Nuclear Engineering from the University of Michigan, an MS in Nuclear Engineering from Northwestern University and a JD from the John Marshall Law School.

SCHEDULE

Connecticut Atomic Power Company/Yankee Atomic Electric Company
Drop-In Visits With NRC Management

March 27, 2001

Each Meeting Will Last Approximately 30 Minutes

- 9:15 Check in at Security Desk - Two White Flint
- 9:30 John Greeves - Director of Division of Waste Management
Larry Camper - Decommissioning Projects Branch Chief
- 10:00 Martin Virgilio - Director of Nuclear Materials, Safety and Safeguards
- 10:30 William Travers - Executive Director of Operations
Samuel Collins - Director of Office of Nuclear Reactor Regulation
- 11:00 Commissioner Greta Joy Dicus
- 11:45 Lunch at NUREG Café
- 12:15 E. William Brach - Director, Spent Fuel Project Office
Wayne Hodges - Deputy Director of Technical Programs, Spent Fuel Project Office
Susan Frant - Deputy Director of Licensing, Spent Fuel Project Office.
- 1:00 Commissioner Edward McGaffigan
- 1:45 John Zwolinski - Director of Division of Licensing Project Management
- 2:15 Break
- 2:45 Commissioner Jeffrey Merrifield
- 3:30 Stuart Richards - Project Director, Project Directorate IV and Decommissioning
Steve Dembek - Section Chief, Project Directorate IV, Section 2
Joseph Donoghue - Project Manager
- 4:30 Depart from Two White Flint

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NEWS ARTICLES