

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket/Report No.: 50-443/92-05

License No.: NPF-86

Licensee: Public Service Company of New Hampshire,
New Hampshire Yankee (NHY) Division

Facility: Seabrook Station, Seabrook, New Hampshire

Dates: March 3 - April 6, 1992

Inspectors: N. Dudley, Senior Resident Inspector, Operations
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Approved By:



William J. Lazarus, Chief, Reactor Projects Section 3B

5/5/92

Date

OVERVIEW

The Operations Department safely operated the reactor plant. Operator response to and diagnosis of minor plant transients was excellent. The failure to document Station Manager's approval for changes to shift schedules resulted in violation of overtime guidelines.

Radiological controls were effective in ensuring a safe work environment. The Fitness-for-Duty program was effectively implemented. Maintenance and surveillance activities were well controlled, clearly documented, and effectively coordinated.

Self assessment reviews identified potential problems with the material used in butterfly valve replacement pins and with the inservice test method used for measuring valve stroke times. A request for interim relief of the inservice test program valve cycling requirement for the reactor vessel head vent was submitted.

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DETAILS

1.0 SUMMARY OF ACTIVITIES

1.1 NRC Activities

Two resident inspectors were assigned. Backshift inspections were conducted on 3/4, 3/6, 3/12, and 3/17. Deep backshift inspections were conducted on 3/7, 3/8, 3/23, 3/24, 3/25, 3/26.

On March 4-6, the Project Manager from the Office of Nuclear Reactor Regulations visited the Station and held discussions with the station staff.

On March 10-13, a region-based inspector conducted a review of auxiliary operators who inaccurately logged their activities. The Region I, Division of Reactor Projects Branch Chief for Seabrook attended the exit meeting held on March 13. The results of the review were documented in NRC Inspection Report No.50-443/92-08.

On March 18, the Region I, Division of Reactor Projects Section Chief for Seabrook toured the facility.

On March 19, the Region I, Regional Administrator and the Division of Reactor Projects Branch Chief for Seabrook toured the facility and held discussions with Senior Managers of New Hampshire Yankee. The detailed agenda is provided as Attachment 1.

1.2 Plant Activities

The plant was operated at 100% power throughout the report period.

On March 18, a combined functional emergency response drill was conducted. The drill provided the first opportunity for both the State of New Hampshire and the Commonwealth of Massachusetts to perform the emergency planning functions in coordination with New Hampshire Yankee.

2.0 OPERATIONS

2.1 Plant Tours

The inspectors conducted daily control room tours, observed shift turnovers, and attended plan-of-the-day meetings. The inspectors reviewed plant staffing, safety tagging orders, safety system valve lineups, and compliance with Technical Specification requirements. Routine tours were conducted of safety related equipment, the turbine building, the waste handling building, the circulating water building, and the pipe chases.

The inspector page checked the Technical Specifications volumes used by the Shift Superintendent and the Unit Shift Supervisor. The eight approved amendments to the Technical Specifications were properly entered in both volumes. The inspector concluded that the Technical Specifications used in the Main Control Room were properly maintained.

The inspector observed backshift turnovers for shift superintendents and for control room shift briefings. Mechanical, electrical, instrument and control, health physics, fire fighters and operations personnel were present. An alert auxiliary operator (AO) did not complete a tagging order of guard house ventilation due to ambiguity in the tagging request compared with labels in the field. The AO notified the Work Control Supervisor and returned the tags until the discrepancy was resolved.

The inspector verified the accuracy of verbal communication through three consecutive shift turnovers. The inspector noted that the information transferred regarding equipment failures and surveillance results was accurate and complete.

2.2 Observation of Activities

On March 5, a chemistry technician reported an increase in sodium and chloride levels in the steam generators. The source of the incursion was never determined. Later the same day, oxygen and cation conductivity levels in the feedwater system increased. The Control Room Operator (CRO) noted a slight decrease in condenser vacuum. After further investigation and diagnosis, an auxiliary operator determined that the water seal on a condenser air removal pump was lost and resulted in increased air inleakage to the condenser. The air removal pump seal water tank was filled and feedwater chemistry values returned to normal. The inspector observed portions of the investigation conducted from the Main Control Room and held discussions with the CRO. The inspector determined that appropriate followup actions were taken in response to off normal chemistry indications.

On March 11, a feedwater Lithium Injection Flow Test, ES1852.091 was conducted to determine the condition of the feedwater flow detector nozzles by accurately measuring feedwater flow. Lithium was injected upstream of each feedwater flow detector, while the feedwater regulating valve was placed in manual, and samples were taken downstream of the detector. The samples were analyzed offsite and calculations were conducted to establish the accurate mass flow rate. The Reactor Engineering Department planned to use the results of the test to allow the plant to operate closer to design output.

The inspector reviewed the procedure, and observed portions of the test from the injection point, sampling point, and the Main Control Room. The procedure was revised the day of the test due to a leaking feedwater drain valve, which had not been noted during the initial walkdown for the procedure. The test was coordinated by a Technical Support system engineer, conducted by contractors, and supported by an Auxiliary Operator. A Quality Control (QC) Inspector observed the conduct of the test. The Auxiliary Operator was cautious when opening feedwater valves and wore appropriate safety equipment. Participants

maintained constant communications with the Main Control Room by using headphones. The inspector concluded the test was well planned, effectively coordinated, and performed with minimal impact on plant operations.

On March 15, a runback signal was momentarily generated during surveillance testing of the Generator Stator Cooling Water Pumps. The Shift Superintendent notified the Technical Support system engineer. The cause of the runback signal could not be identified and a special test procedure was developed and approved by the Station Operations Review Committee to monitor the control system signals during the next monthly surveillance test.

On March 15, the extraction steam supply valve to the 23A feedwater heater automatically closed. The Main Control Room Operators responded to the closure by stabilizing the feedwater heater trains and opening the extraction steam valve. The cause of the valve closure was determined to be loose wiring to a high level limit switch. The wire was tightened and additional monitoring was planned during the next surveillance test.

2.3 Engineered Safety Feature System Walkdown

The inspector conducted a walkdown of the Service Water system using the checklist from EGG-EA-7194, Rev. 1 "Probability Risk Assessment Applications Program for Specific Units at Seabrook Station, Draft Report." The inspector verified proper alignments in accordance with the modified service water system walkdown checklist. Station procedure ES1852.210, "Service Water System Performance Monitoring," provided detailed requirements for the service water system and major service water components. The inspector discussed performance of the service water system and the service water building air handling systems with technical support engineers.

The inspector verified that active and passive components of the service water and ventilation systems were being monitored, tested, calibrated, and lubricated on a periodic basis. The licensee maintained a detailed record of the internal observations of the concrete lined service water piping, with notations of changes observed since prior inspections. Erosion/corrosion of the service water pumps was monitored by the licensee and inspections planned for upcoming outages were identified.

The inspector accompanied the technical support system engineer on a tour to highlight ventilation components. The system engineer demonstrated good knowledge of fire and exhaust damper locations, ventilation system design, maintenance, testing, and technical specifications. The inspector reviewed surveillance procedure OS1423.19, "Service Water Pumphouse Ventilation," which was completed satisfactorily in January 1992.

NRC Inspection Report No.50-443/88-15, included a discussion of the Service Water Pumphouse Heating and Ventilation System due to the installation of a modification which caused the Unit 2 air handling system to become inoperable. Items identified for additional review were: 1) configuration control of Unit 2 equipment and 2) the safety review of

changes to the Service Water building ventilation system. With respect to Item 1), NHY Form 31312M, "Independent Reviewer Evaluation," was revised to include a specific step to ensure that Unit 2 interfaces were addressed. With respect to item 2), the inspector reviewed the Updated Final Safety Analysis Report (UFSAR) for the service water pumphouse air handling system and the associated physical and instrumentation drawings. The service water air handling figure in the UFSAR identified the Unit 2 components. The UFSAR notes that the pump room area is ventilated by two exhaust fans. In UFSAR Section 9.4.13.2, "System Description," the wording implies that the Unit 2 Service Water Pumphouse fans and dampers are functional. The licensee committed to revise station print 1-SWA-B20372 Air Handling System for the Service Water Pumphouse and UFSAR Section 9.4.13.2 to reflect the installed status of the Unit 2 fans and dampers. Calculation 6.01.51.04, Revision 4, considered the elimination of Unit 2 ventilation equipment. The calculation results demonstrated sufficient cooling capacity existed with the installed ventilation equipment.

The inspector concluded that the service water and service water air handling systems were being monitored and maintained in accordance with program guidelines. Technical support system engineers were aware of all completed and planned activities that affect components in their representative systems.

2.4 Management of Overtime

During review of operator overtime, the Operations Department identified that shift workers were not meeting the requirements of the guidelines provided in the Station Management Manual (SSMM), Chapter 2, Section 6.0, which requires written authorization from the Station Manager for working more than 24 hours in a 48 hour period. Since September 1991, some shift workers completed an eight hour shift at 11:00 p.m. Friday and began two days of twelve hour shifts on Saturday at 7:00 a.m. As a result of the short shift rotation, these shift workers exceeded the 24 hours in a 48 hour period guideline beginning at 11:00 a.m. on Sunday. Operations management was aware of the short shift rotation, but did not recognize the need for Station Manager's approval. The use of the short shift rotation on weekends was suspended.

Technical Specification 6.2.2.e requires that administrative procedures limit working hours of staff who perform safety-related functions. Chapter 2 of the SSMM defines guidelines for the use of overtime and requires written authorization from the Station Manager to exceed the guidelines. Auxiliary Operators and Main Control Room Operators exceeded the guidelines without authorization from the Station Manager on a routine basis since September 1991. The violation was self-identified and of minimal safety significance, but was a recurrence of a previous violation documented in NRC Inspection Report No.50-443/92-32. The failure to document approval for exceeding overtime guidelines is an apparent violation. (NV4 91-32-01)

3.0 RADIOLOGICAL CONTROLS

The inspector reviewed the postings at the Health Physics Control Point, toured the radiologically controlled areas, and verified the status of radiation and contamination controls. Areas toured included the fuel storage building, the waste disposal building, the primary auxiliary building, and the turbine building. The inspector accompanied the Health Physics technician during performance of remote instrument source checks and air sampling. The inspector observed the collection, counting, and analysis of an air sample. Smears were taken of selected valves and instrument lines for the Refueling Water Storage Tank level. The smears were analyzed and no leakage was detected. Smears of radiologically controlled area walkways revealed no contamination. The inspector observed the surveillance of locked high radiation doors. The inspector concluded that radiological controls were effective in ensuring a safe working environment.

4.0 MAINTENANCE/SURVEILLANCE

4.1 Maintenance

On March 23, during performance of surveillance procedure OX1410.02 "Monthly Rod Operability Check," Control Bank A group 2 would not respond to an insertion demand. The fault was isolated to a logic control card in the slave cyclor which provided signals for the movable coils. The card was removed and bench tested. Two chips on the card were determined to have failed. A new card was bench tested, installed in the slave cyclor, and the surveillance procedure was completed.

The inspector observed portions of the troubleshooting efforts from the Main Control Room and the local rod drive control cabinets, and reviewed the completed work request 92W001337. A Technical Support engineer and the I&C manager were involved in developing and evaluating the troubleshooting efforts. The inspector concluded that the corrective maintenance activity was well controlled, clearly documented, and effectively coordinated.

4.2 Surveillance

The inspector observed performance of procedure OS0443.36, "Weekly Fire Pump House Valve Alignment." The fire fighter performing the surveillance was knowledgeable of the water supplies, fuel supplies, valve configuration, system flowpaths, and pump start logic. The valves were found and left in the required configuration.

The inspector observed locally the performance of the Diesel Generator B monthly surveillance test. Excellent coordination between operations, maintenance, and technical support personnel was noted. The auxiliary operator identified minor oil leaks to the system engineer. The inspector noted that leakage became negligible after the machine was in service for a period of time. The system engineer gathered vibration data and worked with a

mechanic to obtain pressure, temperature and position readings for each cylinder in accordance with work request 92WOO1336. The data will be used in the assessment of the scope of diesel generator maintenance during the second refueling outage. The Unit Shift Supervisor was cognizant of the cylinder data obtained by work request 92WOO1336 and the preliminary assessment of the data. Based on the elevated pressure on two cylinders the Technical Support Department plans to use a boroscope to inspect the cylinder sleeves for indications of scoring prior to the next monthly surveillance test.

The auxiliary operator performed OX1426.15, "Diesel Generator Auxiliary Coolant System Test" and OX1426.19, "Aligning Diesel Generator B Controls for Auto Start," following the monthly diesel surveillance. The discharge pressure indicator on the auxiliary coolant pump did not respond as expected during the test. The auxiliary operator notified the control room personnel and corrective action was initiated. Good housekeeping practices were noted during the diesel surveillance.

5.0 SECURITY

5.1 Plant Tours

The inspector toured the protected area boundary, noted that compensatory measures were in place, observed guards on patrol, and witnessed portions of skills training. During a backshift inspection, the inspector accompanied a security guard during an early morning patrol of the protected area. Radio communication was maintained with the Central Alarm Station. Lighting was adequate for the areas patrolled. No inadequacies were identified.

5.2 Fitness-For-Duty Program

A contractor, entering the protected area as a visitor, was identified by a security guard as having alcohol on his breath. The subsequent for cause breathalyzer test indicated a blood alcohol content above program limits. The individual was given a ride to a hotel room, site access was removed for a 5 year period, and the employer was notified. The individual had received Fitness-For-Duty training five days earlier and had performed no safety related work.

A second individual tested positive for marijuana as a part of a weekly followup testing program. The individual was terminated and the work he performed since his previous negative drug test was reviewed. The individual's work involved safety related equipment, but was performed in conjunction with a second qualified individual. No adverse effect on safety equipment was identified.

The inspector concluded that the Fitness-For-Duty program was effectively implemented.

6.0 EMERGENCY PREPAREDNESS

On March 10, a backhoe damaged the normal electrical supply cables and phone lines to the Emergency Operations Facility (EOF) located at Newington Station. The EOF was powered by an uninterruptible power supply and batteries until the emergency diesel was started. A

check of the telephones determined that the Nuclear Alert System (NAS) communications capabilities between the Main Control Room and the EOF was inoperable. Communications were verified on one of the 196 operable phone lines in the EOF and a one hour non-emergency report was made in accordance with 10CFR50.72(b)(1).

Temporary power lines were established to the EOF on March 11 and permanent power was restored on March 14. Repairs to the NAS were completed on March 11 and the system was declared operable. The inspector observed the response of the Main Control Room operators and reviewed the logs and event notification worksheets. The inspector noted prompt response to the loss of power to the EOF, determined that the capability of the EOF to function during an event was never significantly degraded, and concluded that required notifications were completed in a timely manner.

7.0 ENGINEERING/TECHNICAL SUPPORT

7.1 Cryofit Fittings

The failure of a "Cryofit" fitting resulted in an unplanned reactor shutdown on July 25, 1991. An evaluation of the New Hampshire Yankee Cryofit Coupling Verification Program was documented in NRC Inspection Report No. 50-443/91-29.

The inspector reviewed the licensee's final metallurgical report covering the failure of several "Cryofit" fittings used in the pressurizer gas space sampling line. The fittings failed in a circumferential manner. These fittings were fabricated from a unique nickel titanium alloy, (Tinel) furnished by Raychem. The alloy has a shape memory, i.e., after the material is formed at a low temperature with liquid nitrogen, it returns to its original shape when warmed as it experiences a phase change. In the case of the Seabrook fittings, the material was initially expanded as a sleeve and when connected to the smaller diameter tube and warmed to ambient temperature, the Tinel sleeve would contract to provide a tight fit between the mating pieces. Failure of the fittings was attributed to brittleness caused by a combination of relatively high concentrations of hydrogen (1-4%) and high temperature (>575°F). Brittleness was confirmed in the laboratory by a combination of burst tests, metallographic examination, and bend testing.

On the basis of a comprehensive inspection plan and laboratory testing of sleeves selected from over 3000 originally installed fittings in various parts of the plant, the licensee replaced 388 "Cryofit" fittings in the sample and instrumentation lines within the containment. The metallurgical report indicated that only those Tinel fittings subject to both gaseous hydrogen and temperature exceeding 575°F were subject to embrittlement. The Tinel fittings subject to these conditions in operation were all replaced. The replacement material was the Swagelock welded or conventional compression type 304 stainless steel fitting.

The licensee will continue to monitor the remaining Cryofit fittings for signs of degradation.

7.2 Service Water Valve Disc Pins

Inventory Department personnel conducted an in-house audit of previous receipt inspections which identified potential problems with the acceptance of 3/4" Monel bar stock. Quality Assurance Engineering and the Material Requirements Department determined that the supplied Monel bar stock was in the unaged, unhardened condition. The valve shaft to disc pins manufactured from the Monel for use in Service Water butterfly valves had yield and tensile strengths below those of the pins supplied by Fisher, the manufacturer of the butterfly valves.

The inspector reviewed the preliminary Station Information Report and held discussions with Technical Support engineers. The yield and tensile strengths of the unhardened Monel pins were determined to be above the calculated stresses on the valve shaft produced by the maximum torque provided by the actuator. No actions were planned for replacing the installed Monel pins. However, hardened bar stock which meet the specifications of the manufacturer's original material was ordered. The inspector concluded that the evaluation and followup actions were appropriate.

7.3 Inoperability of Reactor Head Vent

On March 25, Technical Support and Engineering personnel recognized that inservice testing of the stroke times for several containment isolation valves and the reactor vessel head vent had been performed incorrectly. The closed stroke times had been measured from the switch position to the illumination of the green board indication. However, the engineers identified that the green board indication was a "valve not fully open" indication which was illuminated by the same limit switch that actuated the "open" red board indication. The stroke times of the affected containment penetration valves were measured from the switch position to the "valve closed" white light indications on the UL panel which were illuminated by a valve closed limit switch.

The head vent valve closing stroke time could not be accurately measured since the closed limit switch on the valve has not been wired to provide indication. Since the inservice stroke time was indeterminate, the requirements of Technical Specification 4.0.5, which requires all inservice tests be performed, was not met. The head vent valve was declared inoperable and Technical Specification 3.4.11, "Reactor Coolant System Vents," was entered. The action statement requires that valve operability be restored within 30 days or that the reactor be shutdown.

The inspector held discussions with the Technical Support engineer and reviewed the head vent indication schematic diagram. The two second valve stroke time is not a safety related value used in accident analysis. The reactor vessel head vent valve is required to open in an accident scenario requiring depressurization of the reactor vessel. The head vent valve was demonstrated to open during valve stroke tests. New Hampshire Yankee submitted an

engineering analysis to the NRC to support an interim relief request for the inservice test stroke time. NHY planned to install a valve closed indication in the Main Control Room during the second refueling outage.

The inspector concluded that there was no immediate safety concern, but the determination of the operability of the head vent valve remains unresolved pending the NRC's review of the interim relief request. (UNR 92-05-02)

8.0 SAFETY ASSESSMENT/QUALITY VERIFICATION

8.1 Auxiliary Operator Log Discrepancies

On March 1, during conduct of a quarterly performance check of an Auxiliary Operator's (AO) roving rounds, the Shift Superintendent determined that an area logged as being satisfactory was never entered. The AO admitted logging an inspection which he had not performed and was suspended. The Independent Review Team began a review of the accuracy of AO logs, that eventually encompassed logs dating back to March 1990, the month that the full power license was issued. Many log entries were determined to be inaccurate, and disciplinary action was taken. Four AOs left the company and nine AOs were suspended and placed on six month probation. The nine suspended AOs were decertified as auxiliary operators and the three AOs who held operator licenses had those licenses terminated. Other short term corrective actions taken by New Hampshire Yankee were documented in NRC Inspection Report No. 50-443/92-08.

Inspectors accompanied AOs on their tours for several shifts immediately following notification of the extent of the erroneous log entries. Inspectors also accompanied AOs on their tours at various times throughout the inspection period. The inspectors determined that the AOs were technically competent and knowledgeable of the requirements for conducting a complete tour and accurately logging required information.

The inspector held daily discussions with the Station Manager, Assistant Operations Manager, or the IRT leader on the status of the investigation and the corrective action programs. The inspector reviewed NHY's letter (NYN-92036) issued March 27, 1992, which provided a status of the ongoing assessment of the circumstances involving AO performance concerns.

The inspector attended one of the six training sessions for the Operations and Training Departments conducted by the Executive Director of Nuclear Production and the Station Manager. The training session covered the background of the event, the status of the IRT investigation, and management expectations for the accuracy of recordkeeping and for the integrity of all workers. A copy of the February 18, 1992 Federal Register dealing with enforcement actions against non-licensed individuals was provided to each attendee and was explained. The inspector determined that Senior Management clearly stated their expectations for, and the consequences of, falsifying facility records.

The inspector attended one of several training sessions for station personnel conducted by the Station Manager. The training session covered the importance of the AO problem, the NRC new enforcement policy on performance of duty, and the Station Manager's expectations. The presentation was positive and clearly defined the importance of plant records and the consequences of falsifying documents.

The IRT completed the record review portion of its investigation and identified six separate occasions, since the issuance of the full power operating license, on which Technical Specification surveillances were reported to the Main Control Room by an AO as completed, but were not conducted.

The IRT reviewed records from other station departments for indications of similar inaccuracies with no adverse findings. The tapes from the Morse Watchman used by fire watches were read at the end of each shift. The proper completion of security rounds were programmatically verified. Maintenance work and the associated documentation were verified and checked by at least two people as part of program requirements. A sample of routine chemistry and health physics tasks that required entry into vital areas were checked against the security computer log with no discrepancies. The final results and recommendations of the IRT were being developed.

The inspector discussed the remedial training program with Operations and Training Managers and reviewed the program. The remedial training program was developed by the Operations Department in conjunction with the Training Department. The remedial program consisted of classroom training and self study of watch standing principles, followed by a structured on-the-job training program. Recertification requires approvals by the Shift Superintendent, Operations Manager, Station Manager, Executive Director of Nuclear Operations, and the President and Chief Executive Officer. The inspector concluded that the training program was well defined.

8.2 Non-Conservative Technical Specification Value - LER 92-002 (Closed)

On February 12, 1992, New Hampshire Yankee (NHY) reported the existence of a non-conservative value in Technical Specification 4.5.2.h.3 for residual heat removal (RHR) pump flow rate. The issue was discussed in NRC Inspection Report No.50-443/92-03. The inspector reviewed the Licensee Event Report and the associated Station Information Report No. 92-002.

New Hampshire Yankee determined the primary cause to be personnel error in the Technical Specification certification process. A secondary cause was determined to be the lack of recognition that a vendor letter recommending a change to a Technical Specification should be reported in a timely manner. In the review and certification process, a table of the Technical Specification values was compiled by Yankee Atomic Electric Company (YAEC) in 1986 and reviewed by NHY, Westinghouse, United Engineers and Constructors (UE&C) and

YAEC. The incorrect RHR flow value was on the table but was not identified. YAEC conducted an audit of approximately 10% of the Westinghouse calculations that formed the basis for the Technical Specification values. The audit did not include the RHR flow value.

A Technical Specification change request was initiated to correct the RHR flow value. A review of the Technical Specification values supplied by Westinghouse, which were not reviewed in the 1986 YAEC audit, was initiated. A comprehensive review of station procedures was initiated to identify and revise any procedure utilizing the incorrect RHR flow value. Finally, procedure revisions were planned to require an expeditious evaluation of information that calls into question the adequacy of Technical Specification values. The procedure revisions were intended to ensure that any question concerning Technical Specification values are promptly evaluated.

The inspector determined that the LER contained complete and accurate information. This item is closed.

9.0 MEETINGS

The scope and findings of the inspection were discussed periodically throughout the inspection period. An oral summary of the inspection findings was provided to the Station Manager and his staff at the conclusion of the inspection period.

NHY Meeting With NRC Region I
March 19, 1992

— AGENDA —

- Introduction *Ted Feigenbaum*
- Emergency Planning and Massachusetts Transition *George Gram*
- Operations *Bruce Drawbridge*
 - First Cycle Overview
 - RF01
 - Self-assessment initiatives
 - Planned plant improvements
- Condensate and Feedwater Stabilization Program *Gary Kline*
- Maintenance Improvement Program *Dick Cooney*
- Engineering and Technical Support *R. Jeb DeLoach*
- Five Year Plan *Ted Feigenbaum*
- Auxiliary Operator Update *Bruce Drawbridge*

CD. 197027

NHY Meeting With NRC Region I
March 19, 1992

INTRODUCTION

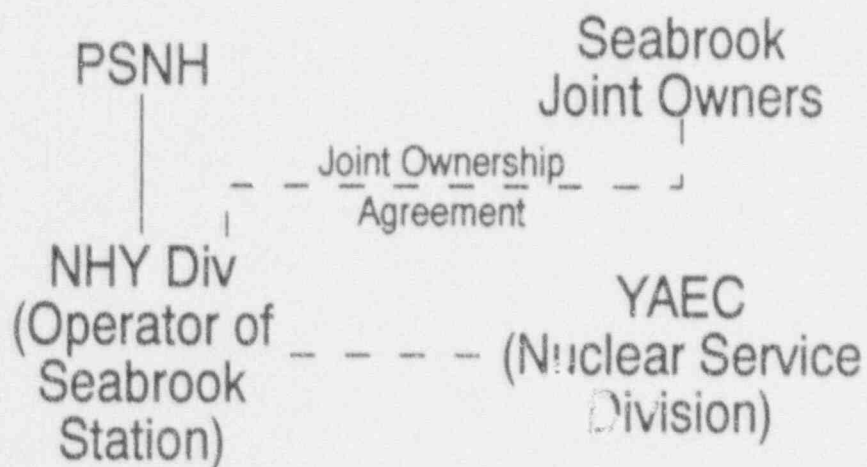
Ted Feigenbaum

STATUS OF NAEC/NAESCO

- FERC -- Complete with January 29 decision
- SEC -- Approval of Step 2 financing for NAEC expected early April
-- Approval of organization of NAESCO expected by end of March
- CONN DPUC -- "Second Look" hearings held 2/24 - 25
-- Final approval of merger expected by March 31
- NHPUC -- "Second Look" proceedings terminated without hearings
- NRC -- SECY paper from NRC Staff to Commission expected soon

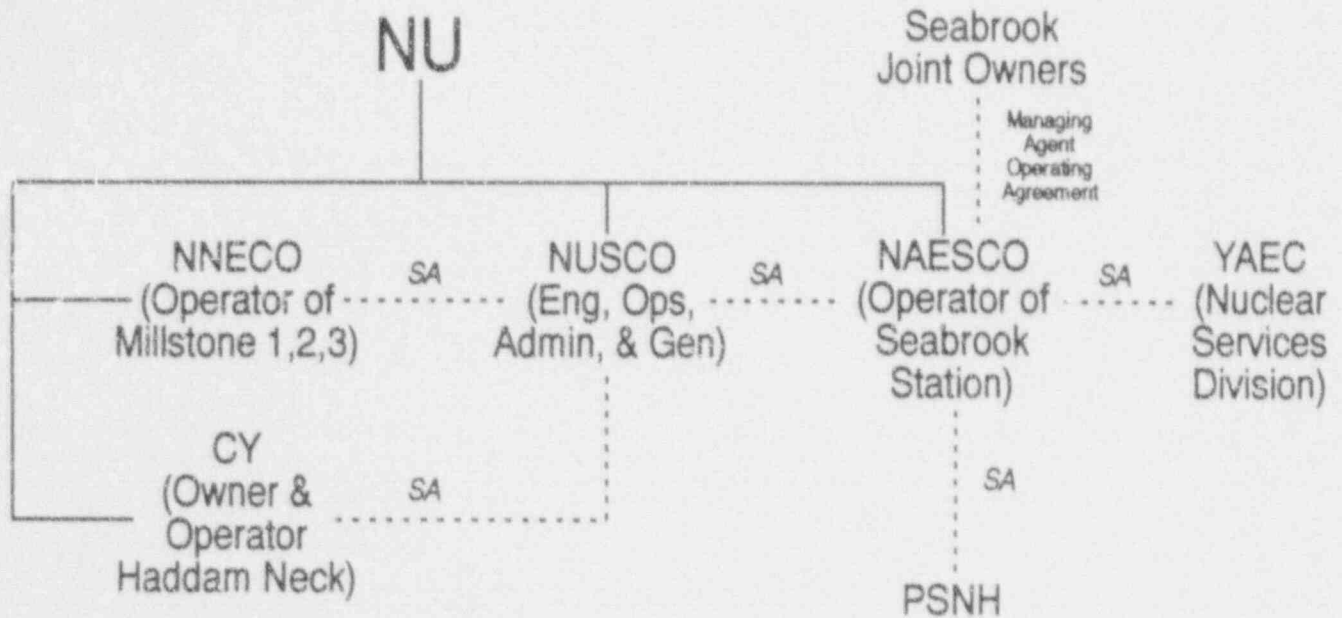
CORPORATE INTERRELATIONSHIPS

(Before Managing Agent Transfer)



CORPORATE INTERRELATIONSHIPS

(After Managing Agent Transfer)



SA - Service Agreement

COMMUNICATIONS

- PUC
 - Resident Engineer
 - Routine Briefings of PUC Staff
 - Outage Reports

- Local and State Officials
 - Reporting of Non-emergency Items
 - Notification Matrix

FIGURE 3
NON-EMERGENCY ITEMS

- * All shutdowns -- planned and unplanned
- * Power level reductions greater than 20 percent
- * All unusual activity visible to the public which has the potential to cause concern -- such as planned and unplanned releases of steam from the plant
- * All unusual and loud noises -- both from the plant, as well as noises from such sources as the response to the plant site of an emergency vehicle from a local community
- * Inadvertent activation of an offsite siren
- * Non-Seabrook siren activation incorrectly attributed to Seabrook
- * Drills and exercises
- * Serious industrial accident involving a worker needing hospitalization
- * Demonstrations and protests at the plant boundary or onsite
- * Outside events that could be attributed to Seabrook operations -- such as a fire in a building on Route 1 near the plant
- * Spill of hazardous material which requires activation of the Spill Event Response Team
- * Any other item that management deems newsworthy
- * Radioactive releases exceeding Technical Specification limits
- * Overexposed worker
- * Non-routine security incidents
- * Delays in restarting plant -- delay in outage completion
- * Loss of all offsite power to the plant putt. NHY in a Technical Specification action statement which may require a plant shutdown
- * Fitness-for-duty violations involving a control room operator or a senior NHY official
- * Any activation of emergency core cooling system
- * Fluid leaks/releases inside/outside the station that put NHY in a Technical Specification action statement which may require a plant shutdown

FIGURE 2
NOTIFICATION MATRIX

<u>OPERATIONS</u>	<u>STATION MANAGER</u>	<u>NHY PRESIDENT</u>	<u>EMERGENCY NEWS MANAGER</u>	<u>COMMUNITY RELATIONS REPRESENTATIVE</u>	<u>EMERGENCY PREPAREDNESS REPRESENTATIVE</u>
NHY STATION MANAGER	NHY PRESIDENT	JOINT OWNERS	COMMUNITY RELATIONS REP	EMERGENCY PREPAREDNESS REP	(E) NHOEM DUTY OFFICER
NRC RESIDENT	NHY EXECUTIVE DIRECTOR NUCLEAR PRODUCTION		(E) ROCKINGHAM COUNTY DISPATCH	SEABROOK SELECTMAN	(E) MA EMA DUTY OFFICER
NHY EMERGENCY NEWS MANAGER			(E) SALISBURY PD	NHY EMERGENCY PREPAREDNESS REPRESENTATIVE	(E) HEMA DUTY OFFICER
			(E) SEABROOK PD		
			(E) HAMPTON FALLS	HAMPTON TOWN MANAGER	
			(E) HAMPTON PD	SALISBURY TOWN MANAGER	
			(E) SEABROOK EMD	HAMPTON FALLS TOWN ADMINISTRATOR	
			(E) STATE PUBLIC INFORMATION OFFICER(S)	(E) SAU #21 SUPERINTENDENT	
			NHPUC	HAMPTON BEACH CHAMBER (SEASONAL)	
			GOVERNMENT AFFAIRS		
			NHY LICENSING		
			MEDIA		

NOTE: (E) indicates notifications made for Emergency Classification Levels (ECLs). See Figure 4. Other notifications will be made as time permits.

NHY Meeting With NRC Region I
March 19, 1992

**EMERGENCY PLANNING
and
MASSACHUSETTS TRANSITION**

George Gram

DRILL/EXERCISE - 1992

- Offsite — March 18
- Onsite/Offsite — May 6
- Exercise — June 4
- Hospitals Offsite — August
- HP & Medical Onsite — December

COMMUNITIES

Amesbury

Newburyport

Merrimac

Newbury

Salisbury

West Newbury

Tewksbury

Wellesley

All NH EPZ Towns also now Participating

SIREN POLES

Transition Plans from VANS

- Newburyport - Installed & Tested
- Salisbury - Installed & Tested
- Amesbury - Installed & Tested
- Merrimac - Zoning Permits Issued,
Installation Imminent
- Newbury - Awaiting Proper Permitting
- West Newbury - Pole Locations Approved

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OPERATIONS

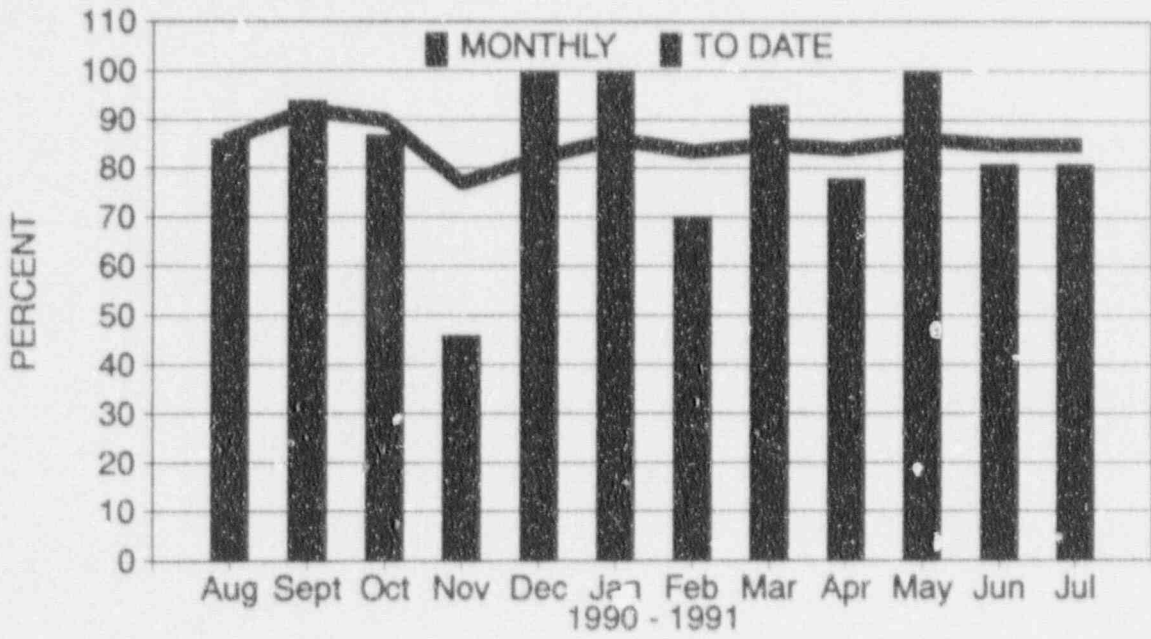
Bruce Drawbridge

FIRST OPERATING CYCLE

- PERFORMANCE

- 84.8% CAPACITY FACTOR (EXCLUDING REFUELING OUTAGE)
- 68.2% CAPACITY FACTOR (INCLUDING REFUELING OUTAGE)
- NET GENERATION 8,998,574 MWhr
- FIVE UNPLANNED REACTOR TRIPS

Seabrook Station CAPACITY FACTOR



FIRST REFUELING OUTAGE SUMMARY

- UNIT OFF LINE/BREAKER OPEN JULY 25, 1991
- BREAKER CLOSED OCTOBER 16, 1991
- PLANNED OUTAGE DURATION 67 DAYS
- ACTUAL OUTAGE DURATION 83.3 DAYS
- INDUSTRY AVERAGE 89.9 DAYS
(1ST REFUEL WESTINGHOUSE > 1000MWe)
- DAYS ON LINE SINCE OUTAGE 152 DAYS
(AS OF 3/18/92)

OUTAGE ACCOMPLISHMENTS

- ELEVEN MAJOR PROJECTS
- 88 DESIGN CHANGES AND MINOR MODIFICATIONS
- 4,190 CORRECTIVE & PREVENTIVE MAINTENANCE ACTIVITIES
- EMERGENT WORK INCREASED OUTAGE SCOPE BY 27%

MAJOR OUTAGE ACCOMPLISHMENTS
(NON DESIGN CHANGE RELATED)

- REACTOR REFUELING
- PRIMARY COMPONENT COOLING WATER HEAT EXCHANGER RETUBINGS
- TURBINE OVERHAUL AND MAIN GENERATOR REWIND
- MAINTENANCE OVERHAUL OF BOTH EMERGENCY DIESEL GENERATORS
- EDDY CURRENT TESTING OF FOUR (4) STEAM GENERATORS
- IN SERVICE INSPECTION OF PIPING SYSTEM WELDS, SUPPORTS AND SNUBBERS
- STEAM GENERATOR SLUDGE LANCE & FOSAR
- REBUILDING CIRCULATING WATER PUMPS (2 OF 3)
- REWINDING BOTH HEATER DRAIN PUMP MOTORS
- TYPE B&C LEAK RATE TESTING
- 4KV BUS 5 AND 13KV BUS 1 MAINTENANCE
- MAIN STEAM SAFETY VALVE REFURBISHMENT AND OVERHAULS TESTING (5)
- REACTOR COOLANT PUMP SEAL REPLACEMENT (3 OF 4)
- MOTOR OPERATED VALVE MAINTENANCE AND DIAGNOSTICS
- ATMOSPHERIC STEAM DUMP SEAT LEAK REPAIRS (4)
- EDDY CURRENT TESTING OF MAJOR BALANCE OF PLANT HEAT EXCHANGERS
- CRYOFIT TUBE COUPLING REPLACEMENT PROGRAM
- FW VENTURI CLEANING
- SERVICE WATER INTERNAL INSPECTION (B)
- REBUILDING SERVICE WATER PUMPS (2 OF 6)
- 4190 CORRECTIVE MAINTENANCE/PREVENTIVE MAINTENANCE WORK ACTIVITIES

MAJOR DESIGN CHANGES

- MID LOOP INSTRUMENTATION MODIFICATIONS
- REPLACEMENT OF THE 345KV GAS INSULATED BUS DUCT (SF6)
- MSIV ACTUATOR MODIFICATIONS/REPLACEMENT
- FW HEATER RELIEF VALVE REROUTING
- EFW STEAM SUPPLY VALVE REPLACEMENTS
- FW CHECK VALVE BOLT PATTERN MODIFICATION
- FEED REG. VALVE INTERNALS MODIFICATIONS
- S/G MOISTURE CARRYOVER TRIP MODIFICATIONS
- MSR DRAIN TANK & LEVEL TREE MODIFICATIONS
- INSTALLATION OF CAVITY DRAIN LINE FILTERS
- INSTALLATION OF REFUELING CAVITY LIGHTING
- FW/HD PRESSURE CONTROL MODIFICATIONS
- EHC CONTROL VALVE BIASING MODIFICATIONS
- TURBINE SUPPORT STEEL MODIFICATIONS

OUTAGE SCOPE GROWTH

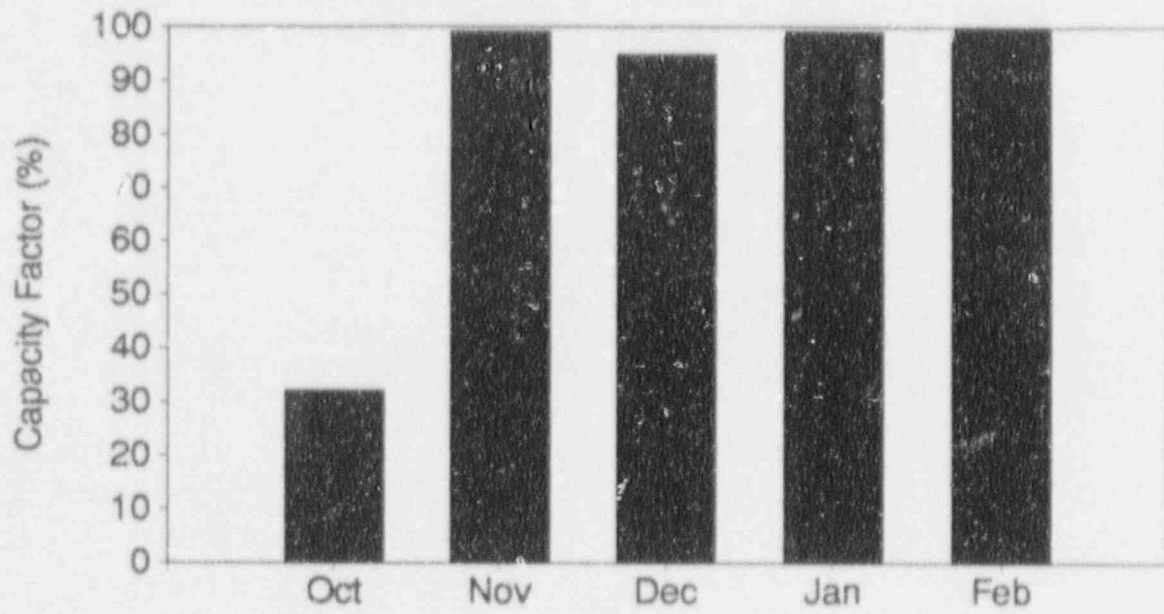
- STEAM GENERATOR AVB REGION EDDY CURRENT
- REPLACEMENT OF MAIN GENERATOR RETAINING RINGS AND REWINDING OF THE MAIN GENERATOR ROTOR
- REPLACEMENT OF (B) MN. FD. PUMP CASING O-RINGS
- REWIND OF BOTH HEATER DRAIN PUMP MOTORS
- 100% EXAMINATION OF BOTH SCCW HX'S
- REPLACEMENT OF COND. STEAM DUMP BYPASS PIPING
- OVERHAUL OF A SECOND SERVICE WATER PUMP
- REACTOR VESSEL STUD HOLE CLEANING
- CIRCULATING WATER PUMP "C" MOTOR CLEANING
- REBL'DING 2ND CIRCULATING WATER PUMP
- CRYOFIT VERIFICATION & REPLACEMENT PROGRAM
- FW/HD SYSTEM OVERPRESSURE MODIFICATION
- DEMINERALIZED WATER CONTAMINATION AND CLEANUP
- ADDITIONAL STM. GEN. FOSAR INSPECTION
- RADIOGRAPH VERIFICATION PROGRAM

SECOND OPERATING CYCLE

- PERFORMANCE

- 95.4% CAPACITY FACTOR FROM END OF REFUELING OUTAGE TO MARCH 18, 1992
- 152 CONSECUTIVE DAYS AS OF MARCH 18, 1992
- NO UNPLANNED OUTAGES OR TRIPS
- NO MAJOR EQUIPMENT PROBLEMS

Seabrook Station CAPACITY FACTOR BY MONTH



RADIATION PROTECTION

- FIRST REFUELING OUTAGE
 - COLLECTIVE DOSE - 96.324 PERSON-REM
 - DOSE GOAL - 181.2 PERSON-REM
- ALARA GOALS
 - 1992 ROUTINE OPERATION - 13.475 PERSON-REM
 - SECOND REFUELING OUTAGE - 157.3 PERSON-REM
- EXAMPLES OF ALARA INITIATIVES
 - VIDEOTAPING OF REFUELING EVOLUTIONS
 - 20 DESIGN MODIFICATIONS FOR ALARA
 - QUICK INSTALLATION S/G MAINTENANCE AND SHIELD
 - PREFABRICATED TENTS FOR S/G WORK
 - IMPROVED RELIABILITY STUD REMOVAL TOOLS
 - MOCK UP TRAINING
 - INFORMATION EXCHANGE WITH MILLSTONE 3

DEMINERALIZED WATER CONTAMINATION

- SOURCE OF CONTAMINATION
 - DEMIN WATER SUPPLY VALVE TO RAD MONITOR OPEN
 - RAD MONITOR PURGE INLET SOLENOID VALVE LIFTED
 - 1250 GAL REACTOR COOLANT INTO DEMIN SYSTEM
- IMMEDIATE ACTIONS
 - EVALUATION OF IN PLANT CONTAMINATION
 - ESTABLISHMENT OF EXTENDED RADIOLOGICALLY CONTROLLED AREA
 - EVALUATION OF ON SITE AND OFF SITE RADIOLOGICAL CONSEQUENCES
 - FLUSHING AND RECOVERY PROGRAM INITIATED
- LONG TERM CORRECTIVE ACTIONS
 - PLANT FLUSHING AND DECONTAMINATION
 - SPECTACLE FLANGES INSTALLED
 - CONFIGURATION CONTROL IMPROVEMENTS
 - PROCEDURE IMPROVEMENTS

ATTENTION TO DETAIL TASK FORCE

- TASK FORCE FORMATION
 - NHY OBSERVED APPARENT INCREASE IN HUMAN PERFORMANCE RELATED OCCURRENCES IN JUNE 1991
- ACTIVITIES
 - STUDIED NHY AND INDUSTRY DATA ON HUMAN PERFORMANCE RELATED OCCURRENCES
 - ESTABLISHED BASELINE AND DETERMINED AN INCREASING TREND IN JUNE 1991
 - IDENTIFIED FUNDAMENTAL CAUSES
 - DEVELOPED SPECIFIC RECOMMENDATIONS FOR:
 - REDUCING WORKLOAD FOR FIRST-LINE SUPERVISORS
 - ALLOWING INCREASED FIELD TIME FOR SUPERVISORS
 - IMPROVING PROCEDURES/MANUALS
 - IMPROVING COMMUNICATION
 - REDUCING SELF-IMPOSED PRESSURES
 - IMPROVING AWARENESS OF ATTENTION TO DETAIL

CONFIGURATION CONTROL TASK FORCE

- TASK FORCE ESTABLISHED IN FOURTH QUARTER 1991
- REVIEWED INDUSTRY AND NHY DATA
- COMPARED NHY AND INDUSTRY PRACTICES
- DEVELOPED RECOMMENDATIONS FOR:
 - CLEARLY DEFINING AND COMMUNICATING NHY CONFIGURATION CONTROL POLICY
 - IMPROVING PROCEDURAL CONFIGURATION CONTROL
 - DEVELOPING AND CONDUCTING CONFIGURATION CONTROL TRAINING
- RECOMMENDATIONS PRESENTED TO SENIOR NHY MANAGEMENT IN EARLY MARCH 1992

3

SECOND REFUELING OUTAGE

- IN DETAILED PLANNING STAGE
- CURRENTLY SCHEDULED TO START ON 9/19/92
- PROJECTED DURATION - APPROXIMATELY 8 WEEKS
- INITIATIVES
 - RTD BYPASS ELIMINATION
 - EMERGENCY DIESEL GENERATOR MANIFOLD
 - START OF 18 MONTH FUEL CYCLES
 - FEEDWATER/CONDENSATE SYSTEM STABILIZATION

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**CONDENSATE and FEEDWATER
STABILIZATION PROGRAM**

Gary Kline

BALANCE OF PLANT STABILIZATION EFFORTS

- Enhance equipment control for the Operations Department (control room and field operations).
- Stabilize operating parameters to reduce likelihood of a trip on minor transients.
- Reduce amount of equipment necessary to operate for maintaining stable plant parameters.
- Minimize impact on plant components in the event of major transient or trip.
- Enhance equipment reliability by improving component inservice environment.
- Upgrade technology to improve accuracy, flexibility, and fault protection.

FEEDWATER REGULATING VALVES

- Thorough initial setup of controllers.
 - obtained services of a Westinghouse expert
 - fine tuned gains and time constants on the simulator with Operations crews
 - bench-marked settings and valve performance with Comanche Peak
 - detailed valve testing through power ascension (bypass transfer, normal operation, and transient response)
- At 100% power, identified flow induced instability causing a low amplitude high frequency oscillation.
 - modified packing configuration
 - installed "noise reduction" valve trim package
 - modified heater drain control logic
- Other enhancements:
 - installed a newer model valve positioner
 - added test valves in pneumatic control loop to enhance calibration and testing
 - rebuilt booster relays
 - fine tuned packing adjustment
 - redesigned mounting and support of tubing and instrumentation associated with pneumatic control system
 - obtained an on site valve performance review by service representative of valve manufacturer
 - ongoing effort to perfect packing configuration

FEEDWATER HEATER AND HEATER DRAINS SYSTEM

- A pressure balancing line was installed during initial power ascension to equilibrate the heater drain tank pressure to that of the HPT cross under piping during a turbine trip.
- Check valves were added to the MSR shell-side drain lines to the heater drain tank during the same time frame as above. This addition was necessary to prevent a turbine trip on HIGH MSR shell-side water level during plant perturbations, i.e., heater drain tank pressure greater than MSR shell-side pressure.
- New trims were added to the heater drain pump discharge valves so that small changes in valve position did not translate into large changes in mass flow rates.
- Microprocessor based controls were added to the control loop for the heater drain pump discharge valves to prevent cyclic flow oscillations due to inherent system fluctuations. These fluctuations were severe enough to require three condensate pump operation during 100% power.
- Microprocessor based controls were added to the No. 21, 22 and 24 feedwater heaters to insure proper shell-side water levels were maintained. This was critical from the standpoint of both overall plant efficiencies and for the long term reliability of the feedwater heaters.
- A relief valve was added to the discharge of the heater drain pumps to preclude over-pressurization of the condensate system during a plant trip.

CONVERSION TO MICROPROCESSOR BASED CONTROLS

- Increase operational flexibility by programming multiple digitalized variables to control a process rather than relying on single parameter analog controls.
- Microprocessors have built in "fault tolerance" to prevent plant transients from single instrument failures.
- Controls are more compact.
- Digital controls are more reliable and accurate.
- Elimination of traditional instrument level trees reduce potential for oxygen inleakage and steam leaks.

FUTURE ENHANCEMENTS

Convert MSR steam supply to microprocessor control.

- Eliminate thermal cycling of MSR tube bundles and low pressure turbines.
- Operation of steam supply will be fully automatic, allowing operations personnel to concentrate on other activities during startup/shutdown evolutions.
- Can remove an MSR from service to perform maintenance with minimal effort.
- Manual operation transferred to a more convenient location and better environment.
- Reduces I&C preventive maintenance work.
- Increases overall system performance and reliability.
- Clearer interface for Operations personnel.
- Adds sensor fault tolerance capability.
- Allows for MSR on line tube leak detection.
- Allows for eventual expansion to the control room for information and control.

Expand the microprocessor control system to the 23 and 25 heaters.

Expand microprocessor control to condenser hotwells and CST.

TRIP AVOIDANCE PROGRAM

- Important to the balance of plant from a single component failure aspect, leading ultimately to a trip.
- Applies to work requests and repetitive task sheets (PM's).
- Work reviewed initially by the system engineer for the following elements:
 - Is the work being performed on equipment which could trip the plant directly?
 - Is the work being performed in the vicinity of equipment which could trip the plant?
Considerations:
 - dropped objects
 - potential for impact
 - dust generation
 - door mounting device subject to shock effects when opening/closing
 - Is the work performed on auxiliary equipment associated with equipment which could trip the plant?
Considerations:
 - malfunction of auxiliary equipment beyond setpoint limits causing loss of a primary component
 - introduction of contaminants into system
 - Is the work performed on equipment which could generate a trip signal and its redundant train or channel is not fully operational?
Considerations:
 - open work requests
 - surveillance activities
 - Can testing cause a unit trip?
Considerations:
 - test failure
 - incorrect test performance
- If trip avoidance criteria has been met, the work document is labeled "TRIP AVOIDANCE".
- Determination is made for pre-job planning in complex evolutions.

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**MAINTENANCE
IMPROVEMENT PROGRAM**

Dick Cooney

MAINTENANCE IMPROVEMENT PLAN

- I. ORGANIZATION AND ADMINISTRATION
- II. MANAGEMENT
- III. WORK CONTROL
- IV. PREVENTIVE MAINTENANCE
- V. PROCEDURES

1991

MAINTENANCE IMPROVEMENT PLAN ACCOMPLISHMENTS

I. ORGANIZATION AND ADMINISTRATION

- FORMED MAINTENANCE SUPPORT DEPARTMENT
- ESTABLISHED "MONITORING OF MAINTENANCE PERFORMANCE" PROCEDURE
- REASSIGNED NON MAINTENANCE TASKS

II. MANAGEMENT

- ISSUED CORPORATE "MAINTENANCE MISSION"
- ISSUED MAINTENANCE MANAGEMENT MANUAL
- INITIATED INVOLVEMENT IN INDUSTRY WIDE ORGANIZATIONS

III. WORK CONTROL

- ESTABLISHED EFFICIENCY IMPROVEMENTS
- CONSOLIDATED PROGRAMS
- ESTABLISHED TROUBLESHOOTING CONTROLS

IV. PREVENTIVE MAINTENANCE

- ESTABLISHED A PREDICTIVE MAINTENANCE PROGRAM
- INCREASED MANAGEMENT AWARENESS OF PREVENTIVE MAINTENANCE
- ESTABLISHED RCM AS A PART OF PREVENTIVE MAINTENANCE

V. PROCEDURES

- ESTABLISHED DEDICATED MAINTENANCE PROCEDURE WRITERS
- REVISED MAINTENANCE PROCEDURES WRITERS GUIDE

1992

MAINTENANCE IMPROVEMENT PLAN

I. ORGANIZATION AND ADMINISTRATION

- CONTINUE EFFICIENCY IMPROVEMENTS
- DECREASE THE WORKER/SUPERVISOR RATIO
- REVISE MAINTENANCE PERFORMANCE INDICATORS

II. MANAGEMENT

- CONTINUE INDUSTRY - WIDE INVOLVEMENT
- TRAIN PERSONNEL ON MAINTENANCE PROGRAMS

III. WORK CONTROL

- IMPLEMENT ATTENTION-TO-DETAIL TASK FORCE RECOMMENDATIONS
- REVISE REWORK TRACKING AND ACCOUNTABILITY

IV. PREVENTIVE MAINTENANCE

- CONTINUE INCORPORATION OF RCM
- ESTABLISH LONG TERM PM PLAN

V. PROCEDURES

- CONTINUE HUMAN PERFORMANCE ENHANCEMENTS
- ESTABLISH LONG TERM PROCEDURE PLAN

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**ENGINEERING and
TECHNICAL SUPPORT**

R. Jeb DeLoach

ENGINEERING/TECHNICAL SUPPORT ISSUES

- Erosion/Corrosion Program
- IPE/Shutdown PRA
- NPDES Permit Renewal
- Main Plant Computer Replacement
- Technical Exchange Program

EROSION/CORROSION PROGRAM

• RFO 1

- 100 points inspected (single and two phase); no repairs required
- Point selection based on industry experience and "CHEC" program analysis
- Structural evaluation as needed for thinning

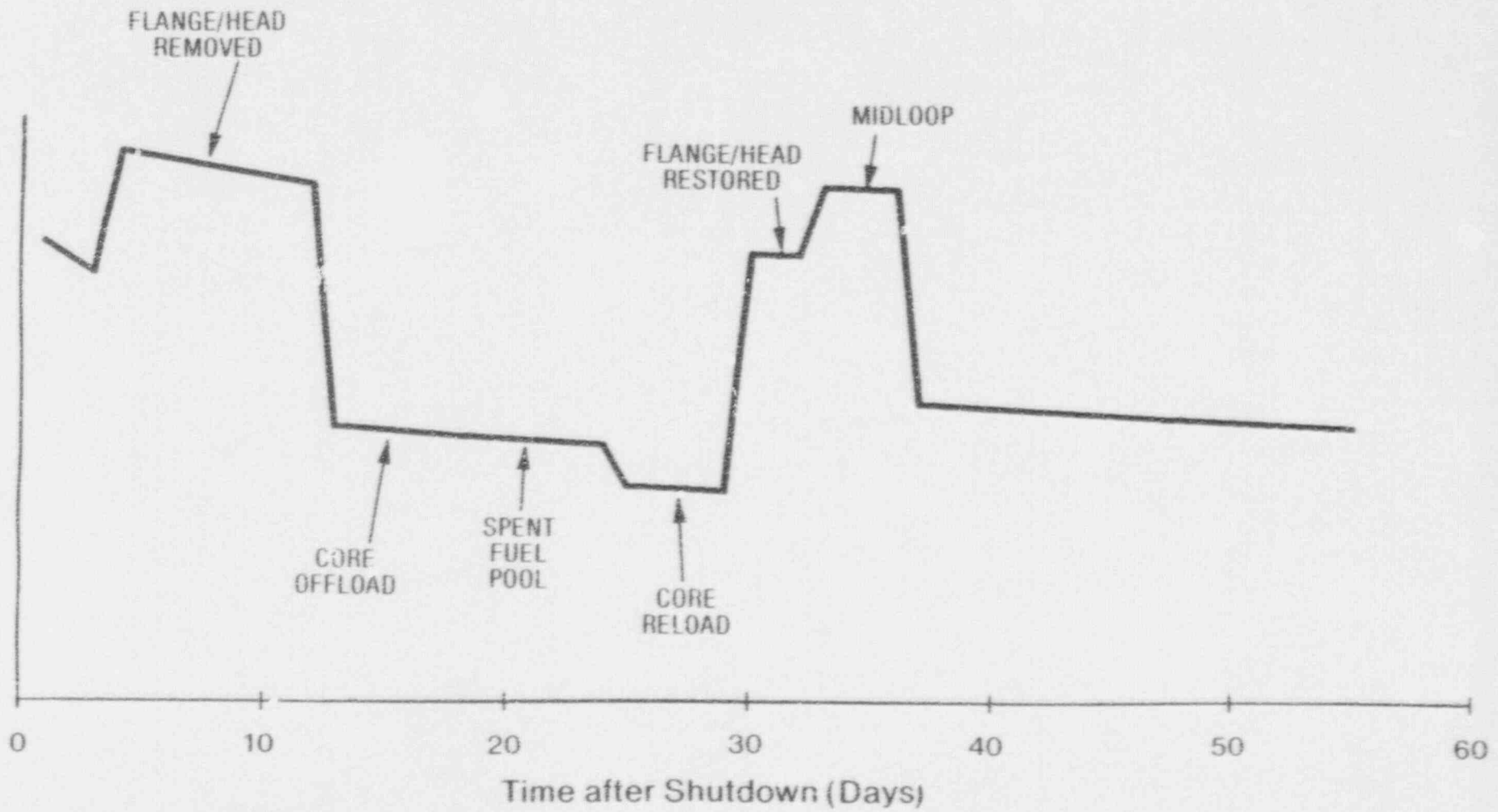
• Program Enhancements

- EPRI Guidelines and Millstone Program experience
 - Industry experience points
 - Checkmate analysis
 - Supplementary points (including small bore)
 - Final ranking and point selection for RFO 2
 - Trending of database

IPE/SHUTDOWN PRA

- IPE Evaluation received from NRC Staff
- IPEEE Fire and Seismic PRA Updates complete
- IPEEE on schedule for 10/2/92 submitted to NRC
- Outage 2 Risk Assessment in progress

RISK CURVE for OR02*



* Risk based on time to core uncover after loss of RHF

NPDES PERMIT

- Permit renewal in progress
- Changes in permit will allow improved operation
- Meeting with local and state officials to discuss

MAIN PLANT COMPUTER REPLACEMENT

- MPCs replacement scheduled for RFO#3.
- Replacement needed to address capacity, maintainability, expandability.
- Will include ERDS (Scheduler Exemption Requested)

TECHNICAL EXCHANGE

- New England Utilities Technical Exchange Program (NEUTEP)
 - New Hampshire Yankee
 - Yankee Atomic Electric Company
 - Northeast Utilities
 - Boston Edison Company
- Technical Issues
 - Configuration Management
 - Engineering Self Assessment Techniques
 - Shutdown Events

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FIVE YEAR PLAN

Ted Feigenbaum

5-YEAR BUSINESS PLAN DEVELOPMENT

- What We Do
- Where We Want To Be

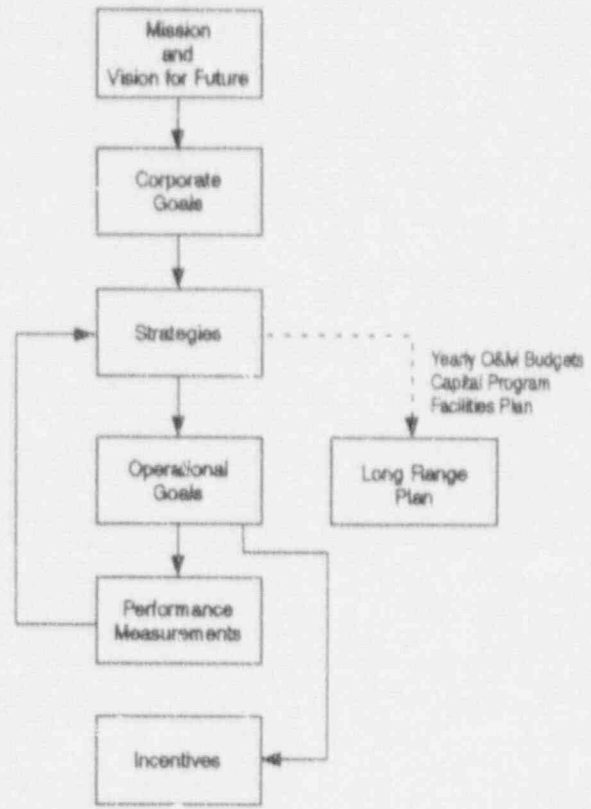
- Critical To Success Of Mission And Accomplishment Of Vision

- Support Corporate Goals
- How We Get There

- Initiatives - Not Routine Support Specific Corporate Strategy (Department Level)

- Numerical Targets
- Monitor Effectiveness
- Feedback

- Selected Operational Goals
- Additional Emphasis
- Promotes Teamwork



BUSINESS PLAN EXAMPLE

Corporate Goal:	Protect the health and safety of the public and employees
Corporate Strategy:	Implement a strong ALARA philosophy and program to minimize radiation exposure for on-site personnel
Operational Goal:	Comply with established exposure goals by group/department as published by Health Physics Department
Performance Measurement:	Comply with established exposure \leq 171 person rem for 1992 (\leq 25 person rem for non-refueling year)
1992 Incentive Goal: (One of 15)	Radiation exposures \leq 171 manrem with no single personnel whole body exposure greater than 5 rem/year

KEY AREAS FOR 1992

- Address Self-Assessment Findings
 - Auxiliary Operator Investigation
 - Maintenance Improvement Program
 - Attention to Detail Task Force
 - Configuration Control Study
- Massachusetts Emergency Preparedness Transition
- Formation of NAESCO/Increase Ties with NU
- Continue to Decrease Reliance on Outside Contractors/Retention of Experience
- Well Planned and Executed 2nd Refueling Outage
- Upgrade Business Plan and Utilize as Master Planning Tool
- Continue Implementation of 5-Year Capital Program/Facilities Plan
- Job Rotation/Career Development